PLANNING BOARD

Tuesday, February 25, 2025 at 4:30 PM
Room 24 (Ground Level of City Hall) and Zoom

MEMBERS
Brandon Mazer, Chair
David Silk, Vice Chair
Justin Barker
Marpheen Chann
Sean Murphy
Austin Smith
Maggie Stanley

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AGENDA:

PUBLIC HEARING - 4:30 PM

1. **ROLL CALL AND DECLARATION OF QUORUM**
2. **COMMUNICATION AND REPORTS**
3. **REPORT OF ATTENDANCE AT THE MEETING HELD ON JANUARY 28, 2025**

Workshop
165 Washington Avenue: Mazer, Murphy, Silk, Smith and Stanley present. Barker and Chann absent.
716 Stevens Avenue: Chann, Mazer, Murphy, Silk, Smith, Stanley present. Mazer recused, Barker absent.

Public Hearing
1001 Westbrook Street: Mazer. Murphy, Silk, Smith, and Stanley present. Silk recused, Barker absent.

4. **REPORTS OF DECISIONS AT THE MEETING HELD ON JANUARY 28, 2025**

i. Major Site Plan; 1001 Westbrook Street; City of Portland, Applicant. Stanley motioned, and Smith seconded a motion to waive Site Plan Standard Sec. 14.6.1(B)(3)(a), which requires the construction of sidewalk and curbing along all property frontages, to not require sidewalk and curbing along the property's Jetport Boulevard and Westbrook Street frontage. Vote 4-1 (Chann opposed, Silk recused, and Barker absent). Stanley motioned, and Smith seconded a motion to waive Site Plan Standard Sec. 14.6.2(A)(1) which requires the preservation of significant natural features, to permit the filling of 11,151 square feet of wetlands. Vote 4-1 (Chann opposed, Silk recused, Barker absent). Stanley motioned, and Smith seconded a motion to waive Site Plan Standard Sec. 14.6.2(C)(3)(a), which requires two trees (or one tree and three shrubs) per five vehicle parking spaces, to permit a total of 24 trees within landscaped islands in the proposed parking lot. Vote 5-0 (Silk recused, Barker absent). Stanley motioned, and Smith seconded a motion to waive Technical Manual Standard Sec. 4.5.5 which requires that parking lot landscaped islands measure no less than 8 feet wide, to allow an island width of less than 8 feet. Vote 5-0 (Silk recused, Barker absent). Stanley motioned, and Smith seconded a motion to waive Technical Manual Standard Sec. 5.III, which requires that major site plans comply with the Maine DEP Ch. 500 Flooding Standard, to permit direct discharge of treated stormwater into the Fore River. Vote 5-0 (Silk recused, Barker absent) Stanley motioned, and Smith seconded a motion to approve the major site plan application. Vote 4-1 (Chann opposed, Silk recused, Barker absent). Stanley motioned, and Smith seconded a motion to adopt the draft approval letter as the Planning Board's decision, and to authorize the Board Chair to sign the approval letter as drafted. Vote 4-1 (Chann opposed, Silk recused, Barker absent).

5. **NEW BUSINESS**

i. Major Site Plan; 165 Washington Avenue; Redfern Properties, Applicant. The Planning Board will hold a hybrid public hearing to consider a proposal to develop a new seven-story, mixed-use development with ground-level commercial space, 326 residential units, exterior public amenity spaces, and other associated improvements at 165 Washington Avenue. The subject property totals approximately 1.45 acres and is zoned B-2b Community Business. A project and plan summary is available for viewing on the city's CSS Portal (https://css.portlandmaine.gov/) by referencing Plan Number PL-003143-2024.

ii. Major Site Plan; 125 Thompson's Point Road; CPI Management, LLC and Forefront Partners I, LP, Co-Applicants. The Planning Board will hold a hybrid public hearing to consider a

proposal to develop a new six-story, 255-unit residential building with attached six-story structured parking for 463 vehicles and other associated improvements at 125 Thompson's Point Road. This development was contemplated in the Thompson's Point Master Development Plan. The subject property totals 4.67 acres and is zoned B-5 Urban Commercial. A project and plan summary is available for viewing on the city's CSS Portal (https://css.portlandmaine.gov/) by referencing Plan Number PL-003090-2024.

iii. Institutional Overlay Zone; 716 Stevens Avenue; University of New England, Applicant. The Planning Board will hold a hybrid public hearing to consider a new institutional overlay zone and zoning map amendment for the University of New England's Portland Campus, rezoning the property entirely to B-2 Community Business. The subject property totals approximately 75 acres, and is located within the R-3 and R-5 Residential zones, the I-L and I-H Industrial zones, and the B-2 Community Business zone. A project and plan summary is available for viewing on the city's CSS Portal (https://css.portlandmaine.gov/) by referencing Plan Number ZN-003059-2024.

165 Washington Avenue
Major Site Plan Application
PL-003143-2024
Redfern Properties LLC, Applicant

Submitted to:	Portland Planning Board	**Prepared By:**	Taylor Colbeth
Public Hearing Date:	February 25, 2025	**Date:**	February 21, 2025

I. INTRODUCTION

Redfern Properties LLC and Acorn Engineering have submitted a Major Site Plan application for the construction of a seven-story, mixed-use development containing 325 dwelling units, including 82 workforce housing units on site, 1,800 square feet of ground-level retail space, and 11 parking spaces at 165 Washington Avenue, within the B-2b Community Business zone.

This application is being referred to the Planning Board for compliance with the City of Portland's Land Use Code Site Plan Standards, Section 13.6.

The Planning and Urban Development Department mailed 191 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the February 13 and February 14, 2025 edition of the Portland Press Herald.

Applicant: Redfern Properties
Applicant Representatives: Acorn Engineering



Figure 1. An aerial view of the existing site

II. PROJECT DATA

Review	*Applicable Standards*
Site Plan	Section 13.6
Inclusionary Zoning	Section 17.2.3
B-2b Design Review Standards	City of Portland Design Manual (d)

Project Data	
Existing Zoning	B-2b Community Business
Property Size	63,375 SF
Existing Use	Vacant Building (Former Burner Supply warehouse) Surface Parking
Proposed Development Program	Multi-family Residential with Retail

Waver Requests	Applicable Standards
1. Driveway Spacing	**Technical Manual Section 1.5.1.C** *100 feet along arterial and collector streets with posted speeds of 35 mph or less* Applicant is requesting a driveway spacing of 11.43 feet from the nearest abutting driveway.
2. Drive Aisle Width	**Technical Manual Section 1.10.7** *The minimum two-way drive aisle width is 24 feet for standard, right-angle parking, and is otherwise dependent on parking space orientation, as illustrated in Figure I-16A.* Applicant is requesting a drive aisle width of 22.22 feet.

III. PLANNING BOARD WORKSHOP SUMMARY

The Planning Board held an initial workshop on this project on January 28, 2025, where the Board focused primarily on:

1. Renderings.

   Board members asked the applicant to provide renderings of the proposed development from the Washington Avenue sidewalk and the abutting Munjoy Heights development.

   The applicant has provided architectural renderings as seen from various vantage points along Washington Avenue (See Attachments 46-50) and from Munjoy Heights (See Attachment 51).

2. Unit Configurations and workforce housing information.

   Board members requested the application provide unit configurations and additional information on the workforce housing that the applicant states they will provide on-site.

As a response, the applicant submitted the latest architectural plan set that include unit configurations. See Attachments 26-30 for the latest architectural plan set. The applicant has indicated that they plan to provide 82 workforce housing units on-site but has not specified the location or size of those units. The City has drafted a condition of approval to have the applicant submit an updated floor plan detailing the location of the required workforce housing units.

3. Management of deliveries.

   Board members requested additional information on the management of deliveries to the site.

   In response, the applicant has updated the site plan to include three 15-minute loading and unloading parking spaces along the Washington Avenue frontage. The applicant has also indicated that there will be space on the ground floor for mail, food deliveries, and other packages to facilitate deliveries.

4. Expansion of the combined sewer system within Washington Avenue.

   Board members requested additional information on the proposed increased sewer line from 8-inches to 15-inches.

   The applicant has been in coordination with DPW to accommodate the project's nearly 45,000 gallons of proposed daily sewer flows. DPW has determined there is no separated storm drain system close enough to the site to allow the developer to connect the site's stormwater to a separated system. Due to this constraint, DPW is in support of the proposed sewer line increase. For additional information on this increase, see Attachment S1.

5. Controlled access gate.

   Board members requested additional information on the controlled access gate located at the entrance to the proposed parking spaces along Washington Avenue.

   As a response, the applicant has proposed moving the controlled access gate to the rear of the proposed parking area to mitigate impacts to traffic along Washington Avenue. The purpose of this access gate is specifically to control access to the rear of the development site by residents and members of the general public. This area houses utility infrastructure associated with the development, and will primarily be accessed for maintenance purposes.

6. Stormwater maintenance system.

   The board expressed concerns regarding the maintenance of the subsurface sandfilter located in the north courtyard of the proposed development due to its confirmed location.

As a response to this feedback, the applicant has provided additional information on the maintenance of the proposed system. The applicant has indicated that the preferred method for gaining access to the system will be by removing glass panels to the lobby area and moving construction equipment through as necessary. If this method is not feasible, the applicant has indicated that construction equipment can

be transported to the courtyard area by craning the equipment over the three-story section of the building.

IV. EXISTING CONDITIONS AND SURROUNDING AREA



Figure 2. Street View of the Existing Conditions.

The subject property is located within the East End neighborhood and is bounded by Washington Avenue, Mt. Joy Community Orchard, and residential development along the northeast and southeast property boundaries. The lot is zoned B-2b Neighborhood Business, and totals approximately 65,375 square feet (1.501 acres). The site is currently occupied by a vacant warehouse and surface parking lot, formerly the Northern Burner Supply Company. The property is largely flat along Washington Avenue as seen in Figure 2, with a steep slope from northeast to southeast along the rear property line.

The area surrounding the subject property is a mixture of residential and commercial uses, along with community open spaces, including the abutting Mt. Joy Community Orchard. The property also abuts Munjoy Heights, which consists of 29, four-story residential condominiums, and Bayview Heights, a four-story senior housing development. Washington Avenue is a priority corridor for the City and contains a variety of residential and non-residential uses including breweries, retail establishments, and restaurants.

The property is well served by public transportation, with Greater Portland METRO routes 7, 9A, 9B, and the Breez, operating along Washington Avenue. The property is also in close proximity to I-295, with on and off ramps located approximately a quarter-mile from the site.

V. PROPOSED DEVELOPMENT

The proposed development involves the construction of a seven-story mixed-use building with 325 residential units, a 1,800 square foot retail space located on the ground floor, two residential courtyards, and 11 structured parking spaces. The building steps down to three stories along the property's Washington Avenue frontage, and four stories above the parking area, at the south end of

the development site. The retail and residential spaces would have separate entrances, with both having a primary entrance along Washington Avenue.

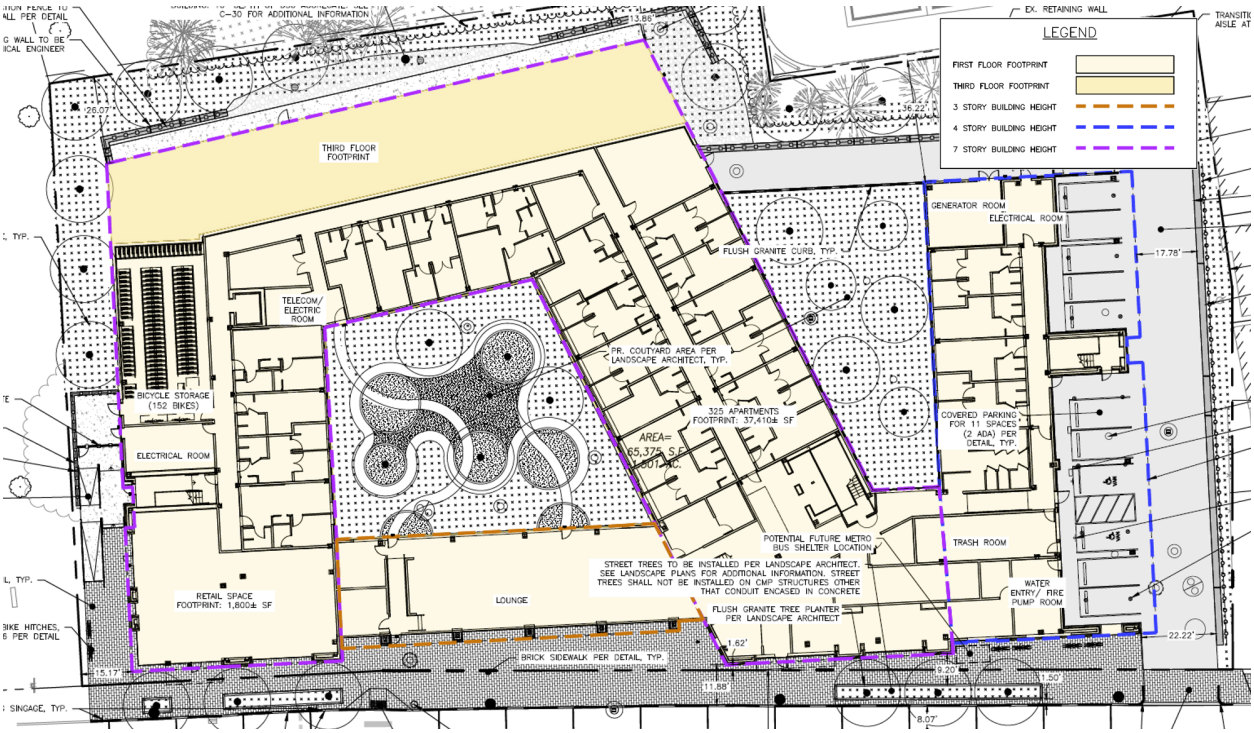


Figure 3. Building Footprint of Varying Stories

The ground floor of the building would feature a retail space, lounge, lobby, a 152-space bicycle storage room, residential units, and utility rooms. The project would include 11 off-street parking spaces, that would be located beneath a cantilevered portion of the building, and accessed via a new driveway at the southern end of the property. The second floor would feature a fitness room, lounge, residential units, and utility rooms. The remaining floors will consist entirely of residential units and utility rooms.

VI. RIGHT, TITLE, & INTEREST

The applicant has demonstrated sufficient right, title and interest to the parcel involved in this application. The subject lot was conveyed with associated rights on June 1, 2023. Conveyance of this parcel is recorded in the Cumberland County Registry of Deeds Book 31303, Page 272. Full Right, Title and Interest documentation is included as Attachment D.

VII. FINANCIAL & TECHNICAL CAPACITY

The applicant has provided a written statement detailing their track record of completing development projects within the City of Portland to demonstrate financial capacity. The applicant has noted that they will supplement this statement with a letter of good financial standing from their financial institution. The provision of this letter has been drafted as a condition of approval. Acorn Engineering is an experienced engineering firm that specializes in civil/site design, environmental services, municipal consulting, and construction administration and has demonstrated experience completing projects of similar scale throughout Portland. Full financial and technical capacity documentation is included as Attachment G.

VIII. ZONING ANALYSIS

The subject property is located within the B-2b Neighborhood Business zone. The purpose of the B-2b zone is to provide neighborhood and community retail, business, and service establishments that are built close to the street while encouraging mixed-use development in areas of moderate to high-density housing in urban neighborhoods along arterials.

Standard	Required	Proposed
Lot area (min)	None	65,375
Street frontage	None	343 ft
Build-to zone	0-10 ft	1.62 ft
Build-to Percentage	100%	100%
Building length as a percentage of street frontage (min)	60%	86.8%
Blank wall area (max)	20 ft	12 ft
Front yard maximum	10 ft	9.77 ft
Rear setback	None	13.86 ft
Yard right	None	27.17 ft
Yard left	None	15.17 ft
Structure height (max)	75 ft	67.85 ft
Maximum lot coverage	None	56.46%
Open space	None	35.96%
Impervious surface ratio (max)	None	64.04%

A. Inclusionary Zoning

As outlined in Section 17.2.3 of the City of Portland's Land Use Code, this application is subject to Inclusionary Zoning standards and is required to provide at least 25% (82) of the units as workforce housing. The applicant has indicated that they plan to provide the required 82 workforce housing units on-site within the development to meet the City's requirement. The City has drafted multiple conditions of approval associated with the project's inclusionary zoning requirements, including the provision of updated floor plans depicting the location of the proposed workforce units; and a requirement that the applicant enter into a workforce housing agreement with the City.

IX. SITE PLAN STANDARDS (Section 13.6)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's Site Plan Ordinance, Section 13.6. Staff comments are below.

1. <u>Transportation Standards (Section 13.6.1)</u>

A. Impact on surrounding street systems

The applicant has provided a traffic movement permit (TMP) completed by a licensed traffic engineer from Barton & Longuidice. The project proposes closing two existing curb cuts along Washington Avenue, and providing only one point of vehicular access to the site. The applicant is also proposing 13 new on-street parking spaces along Washington Avenue, three of which will be 15-minute spaces. It is anticipated that the 15-minute spaces will be utilized for loading and unloading activities and be used to facilitate deliveries to the site.

The City is the delegated lead agency for the TMP and a traffic scoping meeting was held on January 9, 2025, with the City's traffic reviewer and the applicant team. During the meeting, the intersection of Oxford Street and Washington Avenue was identified as a high crash location, but no action is required due to limited opportunities for mitigation improvements. There was a focus on pedestrian conditions, particularly around the condition of the sidewalk between the development site and Walnut Street.

The applicant has since submitted a full Section 7 Traffic Study, including what was prepared as part of the TMP Application. The traffic study was prepared in accordance with state regulations and includes an analysis on pre and post-development conditions related to peak hour traffic generation, vehicle queuing lengths at intersections, and an evaluation of high crash locations. The study was reviewed by the City's third-party traffic reviewer, Tom Errico, P.E. with T.Y. Lin International and was deemed complete. See Attachment T.3 for the full Traffic Study. Based upon the City's review, the City has recommended two conditions of approval associated with the TMP, which would involve reconstruction of the sidewalk along the west side of Washington Avenue, and the installation of a curb extension and rapid rectangular flashing beacon (RRFB) at the proposed crosswalk immediately in front of the proposed development.

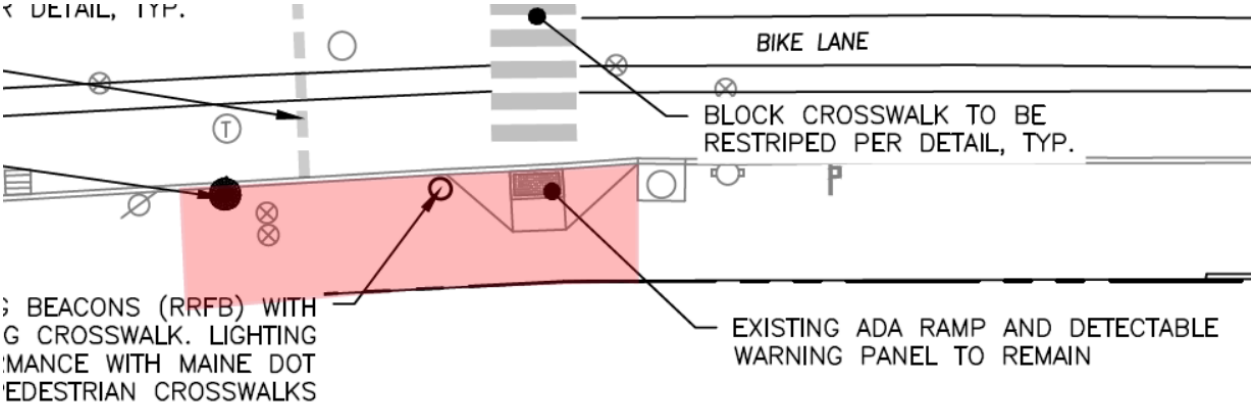


Figure 4: Requested location for sidewalk replacement and curb extension.

Staff Discussion: The applicant is proposing ten additional on-street parking spaces, which as depicted in the applicant's materials, would be unsigned and available for public use. Staff from DPW are asking that these be signed as two-hour parking, and have requested that the applicant provide updated materials to reflect this.

B. Access and circulation

All pedestrian access will be directly from the sidewalk on Washington Avenue. With the proposed closure of two curb cuts, the applicant is proposing to reconstruct the sidewalk along the property's frontage on Washington Avenue. As part of this project, the applicant is proposing to widen the sidewalk to 11.88 feet in order to improve the pedestrian experience. The applicant is also proposing two raised granite tree beds along Washington Avenue. The applicant has requested two waivers associated with the proposed parking:

Waiver Requests:

Waiver Request 1: The applicant is seeking a waiver of *Technical Manual* Section 1.5.1(C) for reduction of driveway spacing from 100-feet to 11.43 from the nearest abutting driveway. This waiver is being requested to allow for the parking area located along the southerly side of the building to be accessed from a driveway that would be 11.43 feet from the nearest abutting driveway.

Staff finds the waiver request appropriate, as it aligns with the development pattern of the surrounding area and supports an urban infill site. Driveways along Washington Street and in the surrounding context are commonly less than 100 feet. The proposed project includes 11 parking spaces designated for residents, which are considered low-turnover spaces. Based on this analysis, and the applicant's supporting materials staff recommends supporting the waiver.

Waiver Request 2: The applicant is seeking a waiver of *Technical Manual* Table 1-16A for reduction in drive aisle width for 90-degree parking from 24-feet to 22.22 feet, a 1.4-foot reduction. This waiver is being requested to allow for the parking area to have a slightly reduced drive aisle width that is more conducive to urban infill development.

Staff finds the waiver request appropriate, as it supports the development of the building and parking area in a manner suited to an urban infill site. The proposed project includes 11 parking spaces designated for residents, with low turnover. A 22.22-foot drive aisle provides sufficient width for vehicle maneuverability and aligns with typical drive aisle dimensions for constrained urban development sites.

The applicant has indicated that trash pick up will occur in the proposed parking area. The applicant has provided turning templates for trash removal vehicles entering and exiting the garage.

Staff Discussion

- The proposed solid waste backing maneuver does not comply with *Technical Manual* Section 1.5.1, Table 1-B.J. The applicant must provide for all vehicles enter and exit the site facing forward.
- The Tree Well detail notes calls out a raised curb, but the site plan calls out flush vertical granite. The applicant shall update their Tree Well detail to be consistent with the site plan.
- The applicant shall provide a Sidewalk Easement to maintain a six-foot clear width from the proposed planters.



C. Public transit access

The proposed project is located along a bus route and is located 150-feet from the nearest bus stop. However, the bus stops near the project do not provide a transit shelter. Per Standard 13.6.1(C), if a development consists of 20 or more dwelling units, the applicant shall provide a transit shelter adjacent to or within the public right-of-way along its frontage, or at a nearby high-volume transit stop without a transit shelter, when the following criteria are met:

- The development is proposed along an existing public transit route on a principal or minor arterial roadway, as shown in the Federal Street Classification Map.

- The nearest existing transit shelter is more than ¼ mile from the site, measured along right-of-way.

Staff Discussion

- Staff have been actively coordinating with the applicant and METRO to provide a transit shelter at one of the existing bus stops within close proximity to the proposed development. City staff recommends installing a transit shelter at the existing METRO bus stop north of the development site along Washington Avenue, adjacent to Mt. Joy Orchard. As a condition of approval, the applicant must finalize any necessary agreements and complete the installation before the issuance of a certificate of occupancy.

D. Parking

In accordance with Section 18.2.1 of the Land Use Code, no off-street vehicle parking is required. Per Table 18-A the multi-family dwellings may provide a maximum of 2 parking spaces per dwelling unit. The applicant is proposing 11 parking spaces (two of which are ADA) within structured parking located on the south side of the proposed development. A total of 20% of the proposed parking spaces will include Level II EV chargers or higher and 50% of the parking spaces will be will be EV ready.

Per Table 18-A multi-family dwelling are required to provide a minimum of 1 bicycle space per 2 dwelling units. The applicant is proposing a bicycle storage room with 152 spaces along with six exterior bike hitches, totaling in 164 bicycle parking spaces, which exceeds the minimum requirement of 163.

The applicant will be responsible for snow removal and has indicated that snow storage will not be located in an area that interferes with pedestrian walkways or stormwater management systems.

Staff consider this standard to be met.

E. Transportation demand management (TDM)

The applicant has provided a TDM Plan that complies with the transportation studies and plans as contained in the *Technical Manual*. The submitted TDM Plan outlines strategies to meet parking and trip reduction rates of up to 10% for residents and staff. Ridesharing and public transit will be coordinated and promoted amongst staff and residents. All new staff and resident orientation will provide information on these options, along with information related to discount programs for the public transit options available. In addition to a public transit discount program, the applicant plans to offer other incentives including effective parking “cash out” to give residents the choice to pay for a parking space off site, working with the City to incentivize bike sharing programs, and offering the best internet access currently available in this location to encourage telecommunicating as a trip reduction strategy. This TDM Plan will be monitored and adjusted as necessary by the designated TDM Coordinator.

Staff consider this standard to be met.

2. Environmental Quality Standards (Section 14.6.2)

A. Preservation of significant natural features

Per Standard 13.6.2(A), all new developments shall preserve and protect significant natural features by incorporating principles of Low-Impact Development (LID) in accordance with the LID standards of the Technical Manual. The applicant has submitted a LID scoring worksheet as part of their second submission.

Staff Discussion:

- The applicant shall provide further clarification for the following selected LID point categories: Provide 1.5 x the required water quality volume and innovative LID site design and/or stormwater improvement.

B. Site landscaping and buffers

The applicant is proposing the removal of 24 trees on-site, including two street trees along Washington Avenue. This is to be supplemented with 31 new trees, including six street trees, and various perennials to supplement the removed vegetation. Per Standard 13.6.2(B), one street tree is required for every 25-35 linear feet of frontage along a city right-of-way. Based on the 343-feet of street frontage of the proposed project, a total of 10 street trees are required. The applicant is also required to provide a minimum of one shade tree per 5,000 square feet of lot area per Standard 13.6.2(B). The applicant is required to plant 13 shade trees and has satisfied this requirement by proposing 31 deciduous trees be planted as a part of the proposed project. Site Plan Standard Sec. 13.6.2.B.4 requires that non-vehicular hardscape have a minimum Solar Reflective Index (SRI) of 33 at time of installation, and an SRI score of no less than 28 after a period of three years. The applicant has indicated that this standard will be met.

The applicant has provided a landscaping plan and tree removal plan included as Attachments 24 & 25.

Staff Discussion

- The applicant has indicated they plan to pay the fee-in-lieu for the remaining four street trees they are required to provide. Per *Technical Manual* Section 4.1.3.B, the applicant Is required to pay $400 per tree into the City's Street Tree Fund, totaling in $1,600.

C. Water quality/storm water management/erosion control

The project is required to comply with MaineDEP Chapter 500 and City of Portland Technical Manual Sections 5 and 6 regulations for stormwater management and erosion control.

- Basic Standards – The project is providing for erosion and sedimentation control measures. As noted by the City of Portland reviewers, the Applicant should review the City's recently updated Technical Manual Section 6, and account for the latest regulations for erosion and sedimentation controls.
- General/Redevelopment Standards – The project is proposing to provide for stormwater treatment using underdrained subsurface sand filters. The Applicant has done a review of the site based on redevelopment standards. The intent for treatment within the City of Portland standard is for treatment to be provided for 50% of the non-roof redeveloped area. In addition, treatment should also be considered for new impervious area. Comparing the pre- and post- development

figures, it appears that most of the treatment is being provided for redeveloped rooftop area. While it appears that an adequate total area is treated, the Applicant should provide a description of how the project meets the City's requirements on the types of areas that are treated, or provide justification for why alternate areas are treated.

- Flooding Standards – The project will be reducing stormwater flows as required by the Flooding Standards.

The applicant has addressed concerns regarding the installation and maintenance of the subsurface sandfilter located in the north courtyard. The applicant has indicated that the lobby area along the Washington Avenue frontage will be utilized to move construction equipment in and out of the courtyard area as necessary. Any equipment that is unable to be transported using the lobby area, a crane will be utilized to transport equipment over the three-story level of the building.

Staff Discussion: The City has reviewed the submitted stormwater management plan and associated materials, and have found that the application generally complies with the City's locally adopted stormwater management requirements. The City has requested that the applicant update their stormwater maintenance agreement to detail how the subsurface sand filter within the proposed courtyard will be maintained, and has also requested that the applicant provide additional information related to the proposed underdrains for the retaining wall at the rear of the property, and information regarding the proposed sewer connection from the building. Additionally, the City is requesting that the applicant submit an updated erosion and sedimentation control plan as required under Sec. 12 of the Technical Manual. These items have been drafted as conditions of approval for the Board's consideration.

3. Public Infrastructure and Community Safety Standards (Section 14.6.3)

A. Consistency with City Master Plans

The proposed project is consistent with the designated zoning, which has been found to be in conformance with the City's comprehensive plan and therefore this standard is considered met.

B. Public Safety and Fire Prevention

The proposed project has been designed to provide adequate emergency vehicle access to the site provided directly from Washington Avenue and from the drive aisle along the southeast side of the site. The proposed building will have a sprinkler system per City code.

The project would provide new site lighting and has been designed to promote natural surveillance and access control. The side yard will also feature a fence with a pedestrian gate that will help to delineate public and private spaces.

Staff consider this standard to be met.

C. Public Utilities

The proposed project does not anticipate overburdening the sewer (project proposes to upsize sewer from 8-inches to 15-inches), storm, and water utility mains within Washington Avenue.

The existing overhead wires along the project frontage will be placed underground. A proposed submersible transformer that is serviced by three-phase primary conduits from a utility pole on Washington Avenue will serve the proposed project. A secondary conduit will extend from the transformer to the building. The applicant has provided ability to serve letters from Central Maine Power (CMP) and Portland Water District (PWD) and has been working with Public Works to relocate and increase the Combined Sewer/Storm Main within Washington Avenue. Justin Pellerin- a Senior Water Engineer at DPW- has provided a letter clarifying the need for an increased sewer main as Attachment S1.

The applicant is proposing an easement to be granted to CMP for the locations of the primary transformer vaults that straddle the private property line and the city right-of-way. The developers are working with a general contractor to determine if temporary construction easements will be necessary during the construction period and will provide supplemental information when available.

Staff consider this standard to be met.

4. Site Design Standards (Section 13.6.4)

A. Massing, ventilation, and wind impact

The applicant has provided an Architectural Design Narrative completed by HOLST Architecture. The building mass has been designed to optimize natural ventilation and daylight for residents by providing two exterior courtyards and a rooftop deck located on the fourth floor, along with a step back on the fifth floor towards the south of the proposed building. The step back also helps to protect the views for the neighboring property.
Staff consider this standard to be met.

B. Shadows

The proposed building is setback 15-feet from the abutting community orchard to the north of the subject property to mitigate shadow impact for the majority of the year. The applicant has provided a shadow study in Attachments 42-45, which complies with the City's requirements, and which demonstrates that the proposed development will have an acceptable impact with respect to shadows on the adjacent public space.

Staff consider this standard to be met.

C. Snow and ice loading

The proposed building does not have any sloped roofs or awnings; this prevents the shedding of snow or ice onto adjacent properties or public ways.

Staff consider this standard to be met.

D. View corridors

This application is not within a protected view corridor, therefore this standard is not applicable.

E. Historic resources

The proposed project does not lie within a designated historic district nor have known archeological resources on the site. Therefore, this standard is not applicable.

F. Exterior lighting

The proposed project includes exterior lighting at the building entrances, along with new street lighting along Washington Avenue that, as proposed, comply with the City's Technical Manual. The applicant has also provided a photometric plan and cut sheets prepared by Reflex Lighting. A full photometric plan has been included as Attachment N.

Staff consider this standard to be met.

G. Noise and vibration

The proposed HVAC system will meet the applicable State and Federal emission requirements and will be screened and directed away from abutters.

Staff consider this standard to be met.

H. Signage and wayfinding

The applicant has noted that building signage will be limited to key areas and constructed as pedestrian scale. The applicant is still determining signage locations and designs. A separate signage permit will be submitted to the City under the separate sign application process.

Staff consider this standard to be met.

I. Zoning-related design standards

The building massing of the building has been designed to optimize natural ventilation and daylight through the inclusion of two exterior courtyards and rooftop amenity deck of the stepped back portion of the building along Washington Avenue. The building also steps down to the South to protect views for the neighboring property and steps back 15' from the adjacent community orchard to the North, mitigating impacts of shadows cast. There are substantial building overhangs and canopies located at the building entrances along Washington Avenue to offer weather protection for pedestrians. The applicant is proposing brick and fiber cement panel for the cladding materials, with most of the brick visible from Washington Avenue and fiber cement panel on the rear (east) of the building and in the residential courtyards. Granite stone veneer is proposed along the base of the building to minimize wear and tear on the façade and large, glazed openings with decorative metallic highlights are used at the street edge.

The applicant has provided a response to the first Design Memo provided by Staff in Attachment AB. The applicant has sufficiently responded to the comments previous provided by specifying façade materials and revising window alignment. See Attachments 46-51 for Renderings and Attachments 1-4 for Material Studies.

X. NEIGHBORHOOD MEETING & PUBLIC COMMENT

The applicant has held two neighborhood meetings. The first was held on December 19, 2024, at 5:30 PM. The in-person meeting was held at the East End Community Center. 20 members of the public were in attendance. Public comment centered on:

- Parking concerns
- Building design and massing

- Proximity to the Roux Institute

A full sign-in sheet and meeting minutes are included as attachments W and X.

The second neighborhood meeting was held on January 8, 2025, at 5:30 PM. The in-person meeting was held at the East End Community Center. Six members of the public were in attendance.

Public comment centered on:

- Parking concerns
- Building design and massing
- Proximity to the Roux Institute

A full sign-in sheet and meeting minutes are included as Attachments AA and BB.

XI. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning & Urban Development Department staff recommends that the Planning Board find that the Major Site Application for 165 Washington Avenue (PL-003143-2024) meets the applicable standards of Portland's Land Use Code.

XII. PROPOSED MOTIONS

A. WAIVERS

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for the public hearing held on February 25, 2025 for application PL-003143-2024 relevant to the Site Plan Standards of the Land Use Code and Portland's Technical and Design Standards, and other regulations, and testimony presented at the Planning Board public hearing:

1. Driveway Spacing

The Planning Board [**finds/does not find**] based upon the Planning Staff's review that extraordinary conditions exist or undue hardship may result from strict compliance with Technical Manual Section 1.5.1.C which states that arterial and collector streets with speeds of 35 mph or less shall have a driveway spacing of 100 feet, that substantial justice and the public interest are secured with the proposed variation in this standard, and that variation is consistent with the intent of the ordinance. The Planning Board [**waives/does not waive]** Technical Manual Section 1.5.1.C to allow a driveway spacing of 11.43 feet from the nearest abutting driveway.

2. Drive Aisle Width

The Planning Board [**finds/does not find**] based upon the Planning Staff's review that extraordinary conditions exist or undue hardship may result from strict compliance with Technical Manual Section 1.10.7 which states that the minimum two-way drive aisle width must be 24 feet for 90-degree parking, that substantial justice and the public interest are secured with the proposed variation in this standard, and that variation is consistent with the intent of the ordinance. The Planning Board [**waives/does not waive]** Technical Manual Section 1.10.7 to allow a two-way drive aisle width of 22.22 feet.

B. SITE PLAN REVIEW

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on February 25, 2025 for application # PL-003143-2024 at 165 Washington Avenue relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board [**finds/does not find**] that the plan is in conformance with the site plan standards of the land use code, subject to the following conditions of approval:

PRIOR TO APPLYING FOR A BUILDING PERMIT

1. The applicant shall update their site plan and stormwater management to address the following outstanding review comments as provided by the City's third-party stormwater reviewer. Updated plans and materials shall be reviewed and approved by the Planning Authority.
    a. The applicant shall provide additional information to clarify the intent and connection locations for the proposed retaining wall underdrains at the rear of the property.
    b. The applicant shall provide an updated profile view of Washington Avenue to confirm that the proposed drop manhole sewer connection is acceptable, and does not conflict with below-grade utilities.
2. The applicant shall provide an updated site plan with turning templates demonstrating that all vehicles entering the site can maneuver and exit the site without performing backing maneuvers onto Washington Avenue. The plan shall be reviewed and approved by the Planning Authority.
3. The applicant shall update the site plan to indicate that the 10 new on-street parking spaces on Washington Avenue will be signed as 2-hour parking. The plan shall be reviewed and approved by the Planning Authority.
4. The applicant shall provide revised tree well details that align with the flush granite curb as shown on the site plan. The plan shall be reviewed and approved by the Planning Authority.
5. The applicant shall provide further clarification for the following selected LID point categories: Provide 1.5 x the required water quality volume and innovative LID site design and/or stormwater improvement. The plan shall be reviewed and approved by the Planning Authority.
6. The applicant shall provide updated building floor plans that identify the location of the proposed workforce housing units to confirm that the proposed units comply with City's Inclusionary Zoning Ordinance. This plan shall be reviewed and approved by the Planning Authority.

PRIOR TO ISSUANCE OF A BUILDING PERMIT

7. The applicant shall provide a comprehensive erosion and sedimentation control (ESC) plan as required under Section 12 of the City's Technical Manual. This plan shall be submitted for review and approved by the Public Works Authority.
8. The applicant shall finalize and update the stormwater maintenance agreement, and as part of this agreement, shall include the Operations and Maintenance Plan for the proposed subsurface sandfilter.
9. The applicant shall provide a public access easement to the City for proposed public sidewalks that extend onto private property, and shall confirm that a minimum of six feet of clear width is provided for pedestrian activity. The draft easement shall be reviewed and approved by the Planning Authority and Corporation Counsel, before being recorded at the Cumberland County Registry of Deeds.

10. The applicant shall enter into an affordable housing agreement (AHA) with the City of Portland, and shall file this agreement as covenant to the 165 Washington Avenue property deed with the Cumberland County Registry of Deeds.

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

11. The applicant shall revise the site plan to include the required ten street trees or pay the fee-in-lieu for the remaining four street trees they are required to provide. Per Technical Manual Section 4.1.3.B, the applicant Is required to pay $400 per tree into the City's Street Tree Fund, totaling in $1,600.
12. The applicant shall coordinate with Greater Portland METRO and the Planning Authority to determine an appropriate alternative location for public transit shelter, and shall be responsible for securing access and maintenance rights as required to install a shelter in accordance with Section 1 of the Technical Manual.
13. In the event that the applicant elects to provide a fee in-lieu of providing a portion or all of the required workforce housing units, the applicant shall pay into the City's Jill C. Duson Housing Trust Fund as required under Ch. 14, Sec. 17.2.3.C.6.

XIII. TRAFFIC MOVEMENT PERMIT

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on February 25, 2025 for application PL-003143-2024 at 165 Washington Avenue relevant to the traffic movement permit regulations; and the testimony presented at the Planning Board public hearing, conclusions and recommendations contained in the Planning Board, the Planning Board **[finds/does not find]** that that the plan is in conformance with 23 M.R.S. §704-A and Chapter 305 Rules and Regulations pertaining to Traffic Movement Permits, subject to the following conditions of approval:

PRIOR TO ISSUANCE OF A BUILDING PERMIT

1. The applicant shall update their site plan to include a 5-foot curb extension and provide a Rapid Rectangular Flashing Beacon (RRFB) at the proposed crosswalk location in front of the development, and show sidewalk replacement along the west side of Washington Avenue in the vicinity of the proposed pedestrian crossing as requested by the Department of Public Works and the City's third-party traffic consultant. This plan shall be reviewed and approved by the Public Works Authority.

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

2. The applicant shall construct the five-foot curb extension, install the RRFB, and replace sidewalk along the west side of Washington Avenue to the satisfaction of the Public Works Authority.

XIV. PLANNING BOARD DECISION

On the basis of the findings, conclusions and recommendations contained in the Planning Board report for the public hearing on February 25, 2025 related to application PL-003143-2024 for 165 Washington Avenue, which is attached to the draft approval letter and incorporated therein, the Planning Board **[adopts/does not adopt]** the approval letter as drafted as the Planning Board's decision for application PL-003143-2024, and authorizes the Planning Board Chair to sign the approval letter as drafted.

ATTACHMENTS

Public Comment

PC1. Tony Cowles (Rec'd 1-29-2025)

Report Attachments

S1. Letter from Justin Pellerin (DPW)
S2. Letter from Tom Errico (Traffic Reviewer)

Drawings

1. Cover Sheet & Legend
2. General Notes
3. Survey
4. Construction Management Plan
5. Site Plan
6. Utility Plan
7. Grading and Drainage Plan
8. Site Details - 1
9. Site Details - 2
10. Utility Details - 1
11. Utility Details - 2
12. Utility Details - 3
13. Utility Details - 4
14. Drainage Details - 1
15. Drainage Details - 2
16. Erosion & Sediment Control Details & Notes
17. R-Tank Courtyard System Layout
18. R-Tank Parking Lot System Layout
19. R-Tank System Details - 1
20. R-Tank System Details - 2
21. R-Tank System Details - 3
22. R-Tank System Cover Detail
23. R-Tank System Specification
24. Landscape Plan
25. Landscape Tree Removal Plan
26. First Floor Plan
27. Second Floor Plan
28. Third Floor Plan
29. Fourth Floor Plan
30. Fifth Floor Plan
31. Roof Plan
32. Exterior Elevations - 1
33. Exterior Elevations - 2
34. Washington Avenue Profile
35. Master Profile - 1
36. Master Profile - 2
37. Stormfilter Standard Detail

38. Material Studies - 1
39. Material Studies - 2
40. Material Studies - 3
41. Material Studies - 4
42. Shadow Studies - 1
43. Shadow Studies - 2
44. Shadow Studies - 3
45. Shadow Studies - 4
46. Renderings - 1
47. Renderings - 2
48. Renderings - 3
49. Renderings – 4
50. Renderings - 5
51. Renderings - 6

Applicant Submittal

A. Cover Letter
AA. Second Sign in Sheet
AB. Comment Response Letter
AC. Autoturn
AD. LID Checklist
B. Major Site Plan Application
BB. Second Neighborhood Meeting Minutes
C. Zoning Analysis Table
CC. Notice of Public Meeting Certification
D. Right, Title, Interest
E. Easements
F. Waivers Table
G. Financial Capacity
H. Technical Capacity
I. Conformity With Land Use Ordinance
J. Stormwater Report
K. Erosion and Sedimentation Control Report
L. Fire Department Letter
M. Wastewater Capacity
N. Lighting
O. Architectural Design Narrative
P. Utility Cover
Q. Construction Management Report
R. Solid Waste Disposal
S. Parking Analysis
T.1 Traffic Movement Permit
T.2 Transportation Demand Management Plan
T.3 Traffic Impact Study
U. Neighborhood Meeting Certification Letter
V. Neighborhood letter
W. Sign-in Sheet

X. Neighborhood Meeting Minutes
Y. Second Neighborhood Meeting Certification Letter
Z. Second Neighborhood letter

Att. S1

Statement for the planning board on the proposed combined sewer upgrades.

- The applicant identified the need to relocate the City's existing 8" sanitary sewer line along the site's frontage from underneath the sidewalk to under the street in order to facilitate other required utility upgrades. As part of this alignment shift, DPW also identified the need for the applicant to increase the size of the sewer line from 8" to 15" to accommodate the project's nearly 45,000 gallons of proposed daily sewer flows and the proposed storm drain connections from the development site. This capacity upgrade is necessary to provide adequate sewer and stormwater service for this development project. This section of Washington Avenue is located in a combined sewer area. Unfortunately, no separated storm drain system is close enough to the site to allow the developer to connect the site's stormwater to a separated system. As part of recent stormwater management technical manual updates, DPW is requiring the applicant to provide on-site stormwater storage to offset the project's impact on the combined sewer system. This requirement helps ensure that development project's don't adversely affect the City's continued efforts to reduce combined sewer overflows City wide. The applicant's site design is in compliance with the minimum stormwater detention volume requirement. With the stormwater detention being provided by the project and the combined sewer upgrades being proposed, DPW can conclude there is sufficient capacity in the sewer system to accommodate storm and sewer flows for this project.

Justin Pellerin, P.E.
Senior Water Resources Engineer
Department of Public Works
jrp@portlandmaine.gov
207-874-8881



Att. S2

165 Washington Avenue - Traffic Waiver Review

External Inbox



Tom Errico 10:44 AM (0 minutes ago)

to me, Kristoffer, Jeremiah

Hi Taylor – I have reviewed the information provided by the applicant as it relates to a request for waivers from the city's Technical Standards and have the following comments.

- The project is requesting a wavier for driveway separation. Given that the proposed project driveway will serve only 11 parking spaces with low vehicle turnover, and the abutting driveway serves a low volume residential use, it is my professional opinion the two driveways will function safely. I would note that in conjunction with the project, three existing driveways will be reduced to a single driveway, which is a positive outcome from an access management perspective. Accordingly, I support the request for a waiver.
- The project will be providing a parking aisle width of 22.22 feet and thus does not meet the city standard of 24 feet. In support of the applicant's waiver request, vehicle turning templates have been provided documenting adequate maneuvering space will be provided. Based upon the turning template information and low vehicle turnover, I support the request for a waiver.

Please contact me if you have any questions.

Best regards,

Tom Errico, P.E.
NE TRAFFIC ENG. DIRECTOR
T +1 207.347.4354
M +1 207.400.0719
TYLin
12 Northbrook Drive
Building A, Suite One
Falmouth, ME 04105, United States
TYLin.com

ACORN ENGINEERING, INC.

Planning & Urban Development Department
Attn: Matthew Grooms, Development Review Manager
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

November 20, 2024

Subject: Major Site Plan Application
165 Washington Avenue, Portland, ME

Mr. Grooms:

On behalf of Redfern Properties, we are pleased to submit a Major Site Plan Application for the proposed redevelopment at 165 Washington Avenue, in Portland Maine (Chart 10, Map D, Lot 1) currently within the Neighborhood Business (B2b) Zoning District. The project proposes to redevelop the vacant lot and construct a new 7 floor multi-family apartment building with 326 dwelling units and a ground floor commercial space. The project will include additional internal residential amenity areas, two exterior courtyard amenity spaces, structured parking below the building, and various infrastructure upgrades.

We are pleased to submit an application which will increase the available housing stock consistent with the City's Comprehensive Plan, provide onsite affordable housing, implement stormwater treatment, improved sanitary sewer main capacity, drop existing overhead wires underground, improve the Washington Avenue streetscape, sidewalk reconstruction, street tree plantings and provide community space along the Washington Avenue corridor.

The project is subject to a Major Site Plan Development approval, along with the City's delegated review authority of a Maine DEP Stormwater Law and Maine DOT Traffic Movement Permit from the Planning Board. We look forward to your review of this project, if you have any questions regarding these application materials, please do not hesitate to reach out.

Sincerely,

Peter Heil, P.E.
Project Manager
Acorn Engineering, Inc.

The following documents and drawings will be uploaded onto the City's electronic submission site per the procedure outlined in the application:

Documents:

- Section A: Cover Letter
- Section B: Major Site Plan Checklist
- Section C: Zoning Assessment
- Section D: Right, Title, Interest
- Section E: Easements
- Section F: Waiver Table
- Section G: Financial Capacity
- Section H Technical Capacity
- Section I: Conformity with Land Use Ordinance
- Section J: Stormwater Management Report
- Section K: Erosion & Sedimentation Control Report
- Section L: Fire Department Letter
- Section M: Wastewater Capacity Letter
- Section N: Lighting
- Section O: Architectural Design Narrative
- Section P: Utility Cover
- Section Q: Construction Management Plan
- Section R: Solid Waste
- Section S: Parking Analysis
- Section T: Traffic
    - Traffic Movement Permit Application
    - Transportation Demand Management Plan

Drawings:

- Civil Site Plan Set dated 11/20/2024.
    - Ferguson R-Tank System Designs
- Architectural Plan Set
- Landscape Plans

Tony Cowles	Tony@cowles-studio.com
Jeff Curran	Newscapes@msn.com
Ben Lisle	Benlisle@gmail.com
Carol McCracken	Calocken@aol.com
David McFadden	Mncfadden@uchc.edu
Peter Adams	Petersaylesadams@gmail.com
Project Team Below	
Jonathan Culley	jonathan@redfernproperties.com
Haynes Johnston	haynes@redfernproperties.com
Zach Stevens, P.E. – Acorn Engineering	Zstevens@acorn-engineering.com
Pete Heil, P.E. – Acorn Engineering	Pheil@acorn-engineering.com
See attached for the handwritten sign in sheet. Names and emails were copied over to the best of our ability.	

Redfern Properties – 165 Washington Avenue, Portland
1/8/25 | 5:30 pm

Sign-in Sheet

Name (Please Print)	Email
TONY COWLES	tony@cowles-studio.com
Jeff Curran	Newscapes@msn.com
Ben Lisle	bdlisle@gmail.com
CAROL McCRICKEN	carolmccricken@aol.com
David McFADDEN	dmcfadden@uchc.edu
Peter Adams	petersaylesadams@gmail.com

ACORN ENGINEERING, INC.

Taylor Colbeth – City Planner
Department of Planning & Urban Development
City Hall, 389 Congress Street, 4th Floor
Portland, Maine 04101

February 14, 2025

Subject: Tavata – 165 Washington Avenue Redevelopment
Portland, ME
Comment Response Letter

On behalf of Redfern Properties, we are pleased to respond to the comments that we received dated January 15th, 2025 and comments received at the January 28th, 2025 initial Planning Board workshop, related to the proposed redevelopment project located at 165 Washington Avenue in Portland, ME.

Comments Related to Transportation Standards

Impact on Surrounding Street Systems

Overview *– The applicant has provided a traffic movement permit completed by a licensed traffic engineer from Barton & Longuidice. The project proposes closing two curb cuts along Washington Avenue, providing only one point of vehicular access and egress to the site through the structured parking entrance.*

Comment *– The applicant should provide information on the use/management of the on-site parking spaces. This should include providing gate operation details as part of assessing the potential for waiting entry vehicles to block the sidewalk and impact mobility and safety on Washington Avenue.*

Response – The designation for the 11 parking spaces has not been decided at this time. The proposed access gate has been moved to the rear of the drive aisle and will not negatively impact entry vehicles and adversely impact mobility and safety on Washington Avenue.

Comment *– The site plan shall be revised to show the limits of proposed utility trenching/pavement removal. Given the extensive utility work proposed within Washington Avenue, full street width curb to curb replacement of Washington or half street width curb to centerline will be necessary.*

Response – Understood. The pavement trench cut limits have been revised to show a half street width replacement as required.

Comment *– More information to come from our traffic reviewer's TMP scoping meeting with the applicant's traffic engineer.*

Response – Please refer to the attached Section 7 for additional information associated with the TMP and comments received during the scoping meeting.

Access and Circulation

Overview *– All pedestrian access will be directly from the sidewalk on Washington Avenue. With the proposed closure of two curb cuts, the applicant is proposing to redevelop the sidewalk along the property's frontage on Washington Avenue. As part of this redevelopment, the applicant is proposing to widen the sidewalk to improve the pedestrian experience. The applicant is also proposing two raised granite tree beds along Washington Ave.*

Comment *– The site plan and landscape plan shall be revised to match. The landscaped island per architect's site plan are 2-feet tall, but the details included in the plan set are the tree well with a 3-5-inch reveal. In addition, the applicant shall confirm that the location and size of the planters will not impact pedestrian operations and ADA accessibility along Washington Avenue.*

Response – The landscape islands have been revised to be located closer to the Washington Street curbline to allow uniform pedestrian access across the site. The planter edge material is proposed to have a flush curb and will set setback approx. 2' from the Washington Avenue curbline. See the revised Site Plan and Landscape Plan for additional information.

Comment *– The applicant has depicted a trash room on their site plan that enters into the structured parking. Applicant shall provide details on solid waste removal from the site and turning templates shall be provided for truck circulation entering and exiting the garage. The applicant shall also provide information on the timing and frequency of trash pick-ups.*

Response –It is our understanding bins will need to be wheeled out of the trash room to the internal driveway in coordination with truck pick up. Trash pickup timing and frequency will be coordinated by the property owner and solid waste removal company to reduce impact on tenants and prevent trash room overflow. See Section AC. Autoturn for trash truck turning movements.

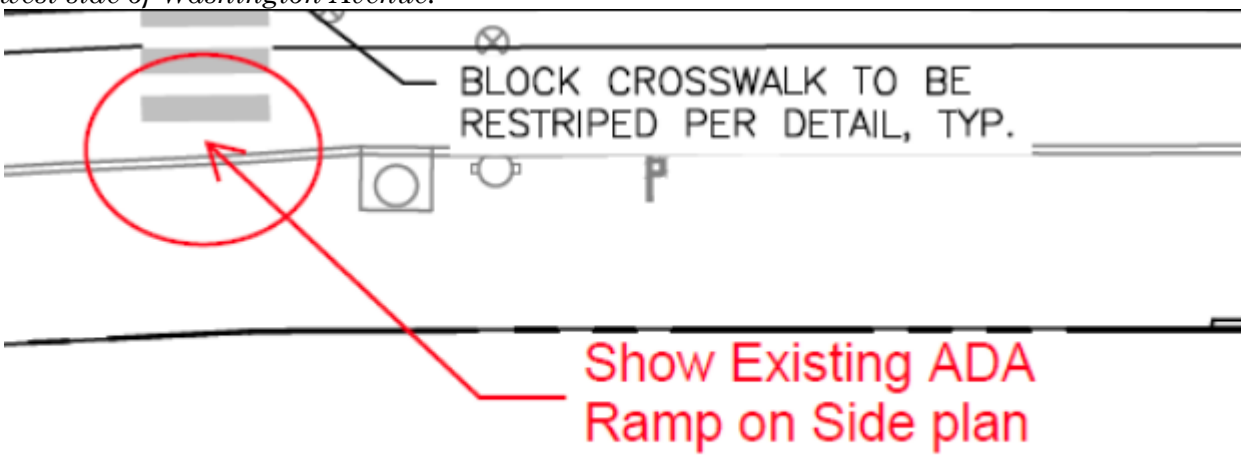
Comment *– In addition, the applicant shall provide turning templates for personal vehicles entering and exiting the garage.*

Response – See Section AC. Autoturn for pedestrian vehicle turning movements entering and exisitng the garage.

Comment *– The applicant shall provide details on how deliveries to the development will be managed.*

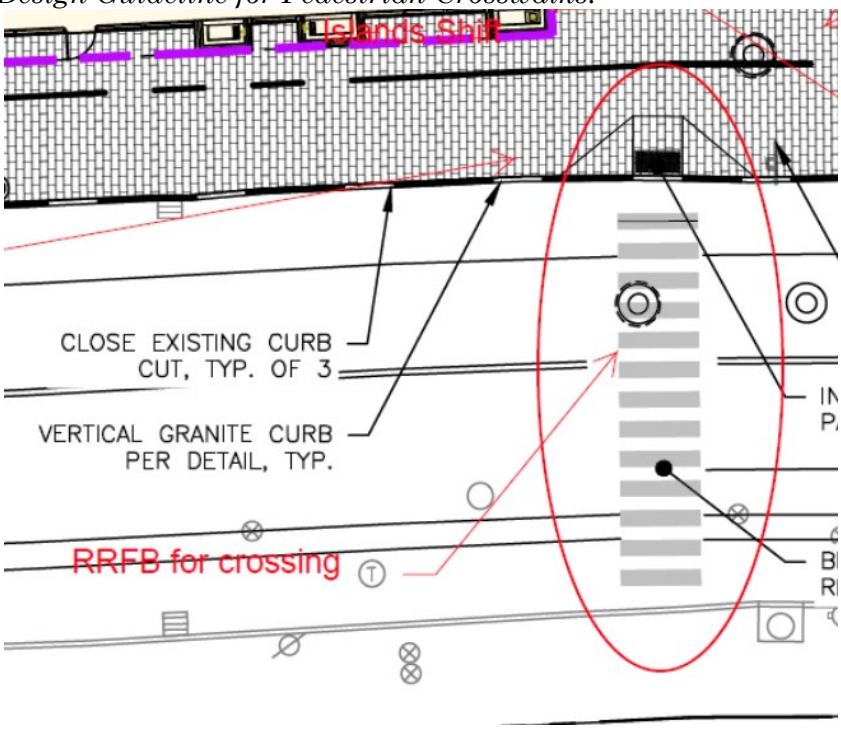
Response – The development proposes (3) 15-minute parking spaces on Washington avenue to be utilizes for delivery services. It is our understanding that there will be space on the ground floor for mail, food deliveries, and other packages to facilitate deliveries.

Comment *– The applicant shall update the site plan to show the existing ADA ramp on the west side of Washington Avenue.*



Response – The existing ADA ramp across the Street on Washington Avenue is shown on the Site Plan. See Sheet C-10 for additional information.

Comment *– The applicant shall provide RRFB for the Washington crossing, and verify that the lighting of the Washington Avenue midblock is compliant with the recently updated Maine DOT Lighting Design Guideline for Pedestrian Crosswalks.*

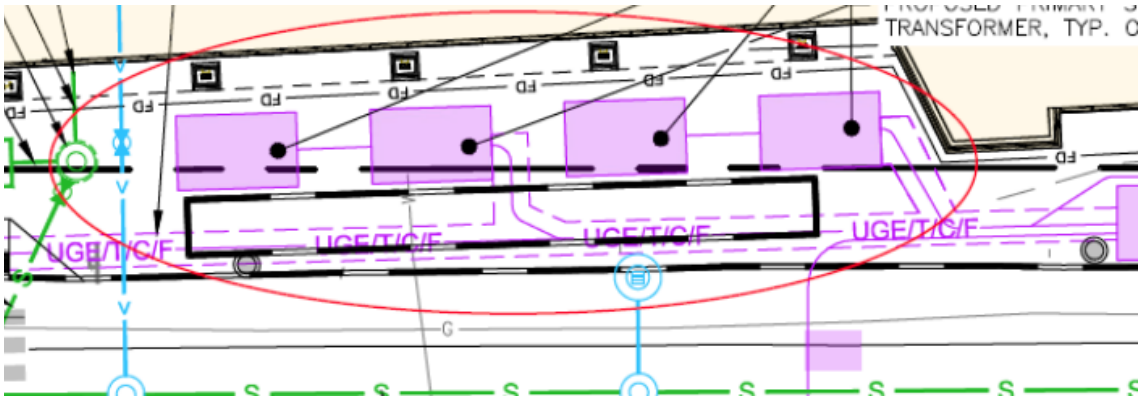


Response –Rectangular Rapid Flashing Beacons (RRFB) are proposed to be installed at the existing midblock crosswalk. Additionally, the lighting at the crosswalk will conform to the

recently updated Maine DOT Lighting Design Guideline for Pedestrian Crosswalks. See below from our lighting designer:
Note that the vertical illuminance in the crosswalk at 5' AFG is based upon the VTTI study referenced in Section 12.1 – fc level should be at least 1.0 with a 4:1 uniformity. We meet that from both the southern approach (1.99 avg, 3.98:1 uniformity) and northern approach (2.4 avg, 3.4:1 uniformity).

The horizontal illuminance references the AASHTO recommended illuminance for roadway lighting on p. 61. This states that the minimum horizontal illuminance should be minimum 1.0 fc avg (for intermediate land use//minor arterials) or 1.4 min avg (for commercial land use//minor arterials). The project proposes a 1.97 fc avg, 1.97:1 uniformity.

***Comment** – The locations of the transformers and landscaping planters should be swapped to create a consistent pedestrian corridor within the right-of-way.*

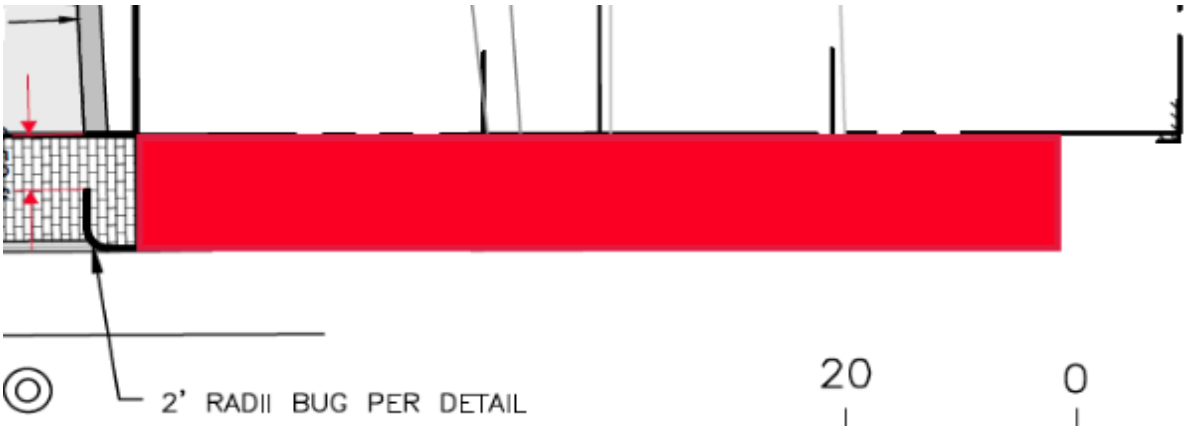


Response – The landscape island adjacent to the subsurface transformers has been eliminated to create a consistent pedestrian corridor across the project frontage. See the revised Landscape Plan and Site Plan for additional information.

***Comment** – The proposed improvements and existing conditions in the City right-of-way shall be dimensioned on the plan view sheets. For example, street, lanes, sidewalk, esplanade, driveways, and other improvements shall include measurements detailing typical widths, and widths where the typical width varies.*

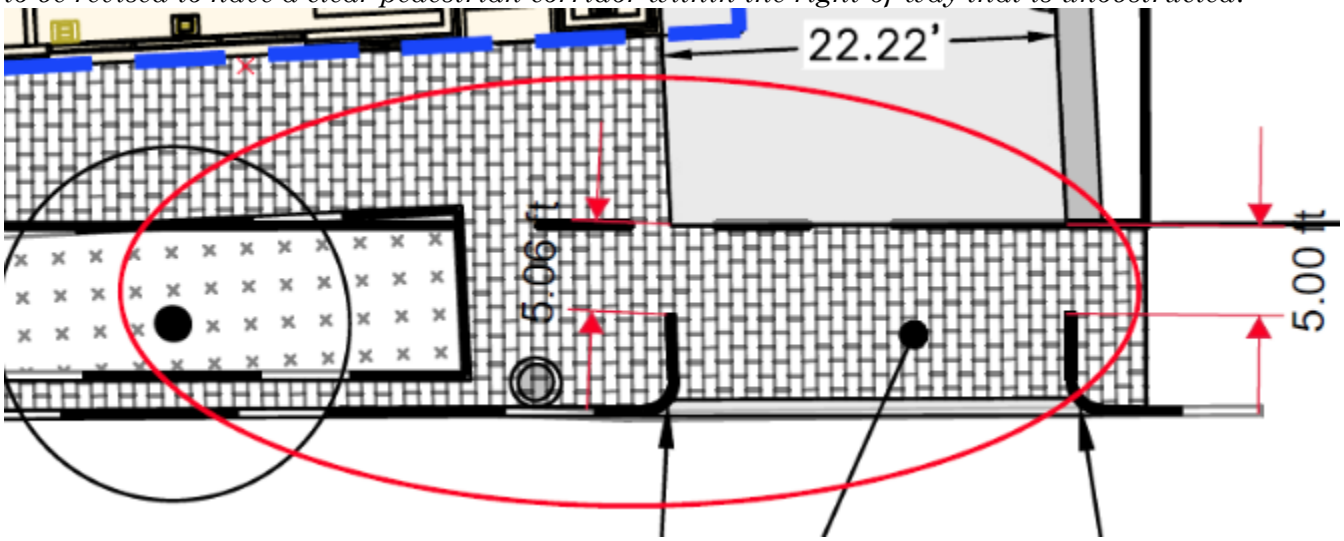
Response – Understood. Please see the Site Plan for dimensions on the proposed improvements and existing conditions in the City right of way.

***Comment** – The sidewalk replacement limit shall extend to the recently replaced ramp at Cove Street and Washington Avenue intersection.*



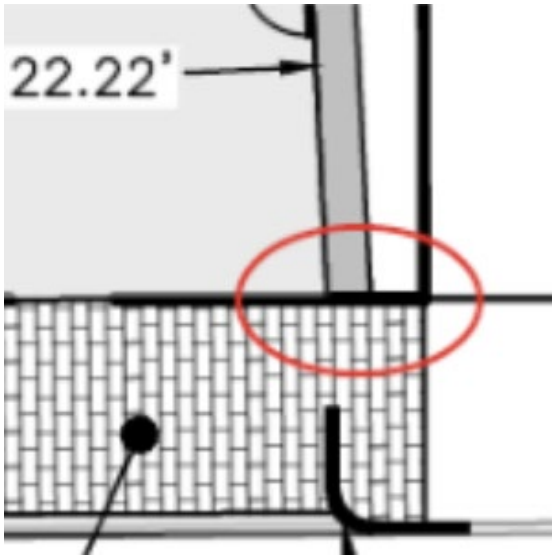
Response – The sidewalk replacement limits has been updated to extend to the top of the recently replaced ramp at Cove Street. See the Civil Plan Set for additional information.

Comment *– The sidewalk transition across the driveway apron and landscape planters need to be revised to have a clear pedestrian corridor within the right-of-way that is unobstructed.*



Response – The landscape island located near driveway apron has been revised to be located closer to the Washington Street curbline to allow unobstructed pedestrian access across the site frontage.

Comment *– No aspect (including footings) of the proposed retaining wall shall be constructed within street right-of-way.*



Response – The Retaining Wall design limit at this location has been updated to be completely outside Washington Street right-of-way. See the Civil Plan Set for updated information.

Public Transit Access

Overview *– The proposed project is located along a bus route and is located 150-feet from the nearest bus stop. However, the bus stops near the project do not provide a transit shelter. Per Standard 13.6.1(C), if a development consists of 20 or more dwelling units, the applicant shall provide a transit shelter adjacent or within the public right-of-way along its frontage, or at a nearby high-volume transit stop without a transit shelter, when the following criteria are met:*

a. The development is proposed along an existing public transit route on a principal or minor arterial roadway, as shown in the Federal Street Classification Map.

b. The nearest existing transit shelter is more than ¼ mile from the site, measured along right-of-way.

Comment *– The applicant shall review Standard 13.6.1(C) and revise plans to meet this standard.*

Response – The development team is in coordination with City Staff on determining the best location for a new Metro Bus Shelter. Our plans have been updated to include a potential future Metro Bus Shelter location on the project frontage. A meeting with City Staff and METRO is scheduled for February 18th, 2025 and can provide additional information after the METRO meeting and ahead of the final Planning Board hearing scheduled for February 25, 2025.

Parking

Overview *– The applicant is proposing 11 parking spaces (two of which are ADA) within structured parking located on the south side of the proposed development. A total of 20% of the proposed parking spaces will be Level II EV charging or higher and 50% will be will be EV ready. The applicant has requested two waivers associated with this structured parking:*

1. *A reduction of driveway spacing from 100-feet to 11.43-feet from the nearest abutting driveway.*
2. *A reduction in drive aisle width for 90-degree parking from 24-feet to 22.22-feet.*

The applicant is also proposing a bicycle storage room with 152 spaces along with six exterior bike hitches, totaling in 164 bicycle parking spaces.

The applicant will be responsible for snow removal and has dictated that snow storage will not be located in an area that interferes with pedestrian walkways or stormwater management systems.

***Comment** – Has the applicant considered swapping the sides of the building that the retail and parking are on? This would remove the need for a driveway spacing waiver and locate the retail space in an area that is closer to other commercial uses.*

Response – The applicant has considered the retail space location but ultimately believes that the western corner of the building is the preferred location due to the building acting as a gateway for vehicles entering the city from the highway. The retail space will be one of the first commercial uses seen on the left side of Washington Avenue as vehicles pass the Mt Joy Orchard. Additionally, the project is activating street frontage along Washington Avenue with a new brick sidewalk and landscaping islands which will act as a inviting connection to the other commercial uses on Washington Avenue. The driveway waiver for spacing is still being requested, and in conformance with the character of the neighborhood / street within the immediate vicinity of the project.

***Comment** – The applicant should provide information on the use/management of the on-site parking spaces. This shall include providing gate operation details as part of assessing the potential for waiting entry vehicles to block the sidewalk and impact mobility and safety on Washington Avenue.*

Response – The proposed vehicular access gate and pedestrian gates have been relocated toward the rear of both side yards to avoid potential conflicts regarding mobility impacts and safety on Washington Avenue. Use/management of the on-site parking spaces is yet to be determined.

Comments Related to Environmental Quality Standards

Preservation of Significant Natural Features

***Overview** – Per Standard 13.6.2(A), all new developments shall preserve and protect significant natural features by incorporating principles of Low-Impact Development (LID) in accordance with the LID standards of the Technical Manual.*

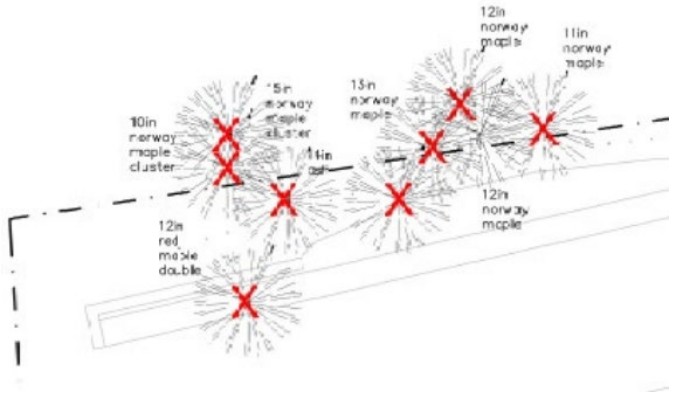
***Comment** – The applicant shall review LID requirements in Section 3 of the Technical Manual and provide a completed LID scoring worksheet as part of the next submission.*

Response – See Section AD. LID Checklist for the updated LID scoring worksheet.

Site Landscaping and Buffers

Overview *– The applicant is proposing the removal of the 37 trees on-site, including two street trees along Washington Avenue. This is to be supplemented with 31 new trees, including six street trees, and various perennials to supplement the removed vegetation. Per Standard 13.6.2(B), one street tree is required for every 25-35 linear feet of frontage along a city right-of-way. Based on the 343-feet of street frontage of the proposed project, a total of 10 street trees are required. The applicant is also required to provide a minimum of one shade tree per 5,000 square feet of lot area per Standard 13.6.2(B). The applicant is required to plant 13 shade trees and has satisfied this requirement by proposing 31 deciduous trees be planted as a part of the proposed project.*

Comment *– The applicant is proposing the removal of trees that extend beyond the retaining wall and property line on the north side of the property. The applicant shall demonstrate why and/or provide information on why these trees are proposed to be removed and if there are opportunities to preserve these existing trees.*



Response – The trees located outside the property line have been updated to remain as part of this project. It is our understanding that some of trees located within the property line will need to be removed to construct the building foundation and retaining walls. See the revised Landscape Plans for additional information.

Comment *– If the applicant is unable to provide additional street trees, the applicant shall meet the street tree requirement through an alternative as outlined in Section 4.1.3 of the Technical Manual.*

Response – The project currently proposes 6 street trees. It is our understanding the applicant will need to contribute $400 per tree to satisfy the remaining street tree requirement.

Comment *– The applicant shall provide confirmation that proposed courtyard trees receive enough solar exposure to be viable in that area.*

Response – The trees within the courtyard have been updated to an understory shade tolerant species. See the Landscape Plan for additional information.

Water Quality, Stormwater Management and Erosion Control

Overview *– The project is required to comply with MaineDEP Chapter 500 and City of Portland Technical Manual Sections 5 and 6 regulations for stormwater management and erosion control.*

- *Basic Standards – The project is providing for erosion and sedimentation control measures. As noted by the City of Portland reviewers, the Applicant should review the City's recently updated Technical Manual Section 6, and account for the latest regulations for erosion and sedimentation controls.*
- *General/Redevelopment Standards – The project is proposing to provide for stormwater treatment using underdrained subsurface sand filters. The Applicant has done a review of the site based on redevelopment standards. The intent for treatment within the City of Portland standard is for treatment to be provided for 50% of the non-roof redeveloped area. In addition, treatment should also be considered for new impervious area. Comparing the pre- and post- development figures, it appears that most of the treatment is being provided for redeveloped rooftop area. While it appears that an adequate total area is treated, the Applicant should provide a description of how the project meets the City's requirements on the types of areas that are treated, or provide justification for why alternate areas are treated.*
- *Flooding Standards – The project will be reducing stormwater flows as required by the Flooding Standards.*

Comment *– The applicant shall review MaineDEP Chapter 500 and the Technical Manual Section 5 and 6. Stormwater management plans and erosion control report and plans shall be updated accordingly.*

Response – The Erosion Control Plan has been updated accordingly. See Section K for additional information.

The proposed stormwater design has been updated to meet the city's requirements and target new impervious areas and specifically the highest pollutant ranking area onsite (Drive Aisle). The stormwater treatment has been revised from the subsurface sand filter in the internal courtyard to a StormFilter BMP located downgradient of the R-Tanks within the drive aisle. Please refer to the revised Stormwater report for additional information.

Comment *– A subsurface sandfilter has been proposed to be located in the center of the building within a plaza area. The stormwater report includes an inspection and maintenance plan which identifies specific maintenance items for the proposed system. It is not clear from the site plan and elevations provided how access will be provided for equipment to maintain the proposed system. Please provide additional confirmation that maintenance access can occur with the access points that will be available.*

Response – It is our understanding in the event that the subsurface system requirements replacement, maintenance equipment will be brought into the courtyard with the use of a crane if necessary. Routine maintenance, including vacuuming and jetting sediment/debris can occur with a hose pulled through the pedestrian doors along the 3-story bar portion of the building with direct access to the maintenance structures.

Comment *– With the subsurface sandfilter location within the plaza area, the outlet stormdrain pipe will be extended beneath a portion of the building. The Applicant should confirm that there will not be any conflict with the foundation depths at this location.*

Response – There are no anticipated conflicts with the foundation limits and the proposed stormdrain outlet under the building, as the storm drain will be a few feet lower than the typical frost depth foundation designs. If needed, the stormwater design could sleeve through the foundation footing. Acorn will continue to monitor as Structural design finalizes prior to issuing plans for construction.

Comment *– Plans have been provided to show the proposed layout of the subsurface sand filter within the courtyard space. The R-Tank plans should be coordinated with the site and grading plans which show a different layout.*

Response – The Stormwater Design has been updated to meet the latest standards in Section 5 of Portland Technical Manual. See attached for the latest Grading Plan and Stormwater Report for additional information. The R-tank design & geometry revisions are currently in coordination with Ferguson and additional information from Ferguson is forthcoming.

Comment *– The private grease trap and storm sewer manhole should be moved from the right-of-way onto private property.*

Response – The private grease trap hase been relocated inside the building and no longer shown inside the right of way. The sewer manhole has also been relocated to the private property. See Sheet C-20 for additional information.

Comments Related to Public Infrastructure + Community Safety Standards

Public Utilities

Overview *– The proposed project does not anticipate overburdening the sewer (project proposes to upsize sewer from 8-inches to 15-inches), storm, and water utility mains within Washington Avenue. The existing overhead wires along the project frontage will be placed underground. A proposed submersible transformer that is serviced by three-phase primary conduits from a utility pole on Washington Avenue will serve the proposed project. A secondary conduit will extend from the transformer to the building.*

The applicant is proposing an easement to be granted to Central Maine Power for the locations of the primary transformer vaults that straddle the private property line and the city right-of-way. The developers are working with a general contractor to determine if temporary construction easements will be necessary during the construction period and will provide supplemental information when available.

Comment *– The applicant shall provide Ability to Serve letters once they are received from the respective companies.*

Response – Ability to Serve letters from CMP and Portland Water District are attached within this submission package. The project team has been working with Public Works to relocate and increase the Combined Sewer/Storm Main within Washington Avenue and the stormwater design has been recently updated to meet the new city technical manual updates.

***Comment** – An extensive system of below-grade electrical structures is proposed within the sidewalk. City reviewers recommend that the Applicant add notation to the plans emphasizing the coordination required around installation of these structures prior to the redevelopment of the sidewalk and curbing, and construction of the tree planters, to ensure that the structures are low enough to accommodate these improvements. In addition, the applicant should confirm that there will be adequate depth beneath the tree planter areas for the installation of the proposed duct banks and other utilities.*

Response – Additional notes have been added to the plans to clarify that no tree planters shall be installed above CMP Splice Boxes and 38Y manholes. Lastly, the project team has reached out to CMP regarding the proximity of street trees and primary conduit to further coordinate feasibility and ensure the street trees can be installed over the duct bank.

***Comment** – The applicant shall provide a profile for the proposed Washington Avenue improvements.*

Response – See Sheet C-21 for the profile showing the proposed utility improvements within Washington Avenue.

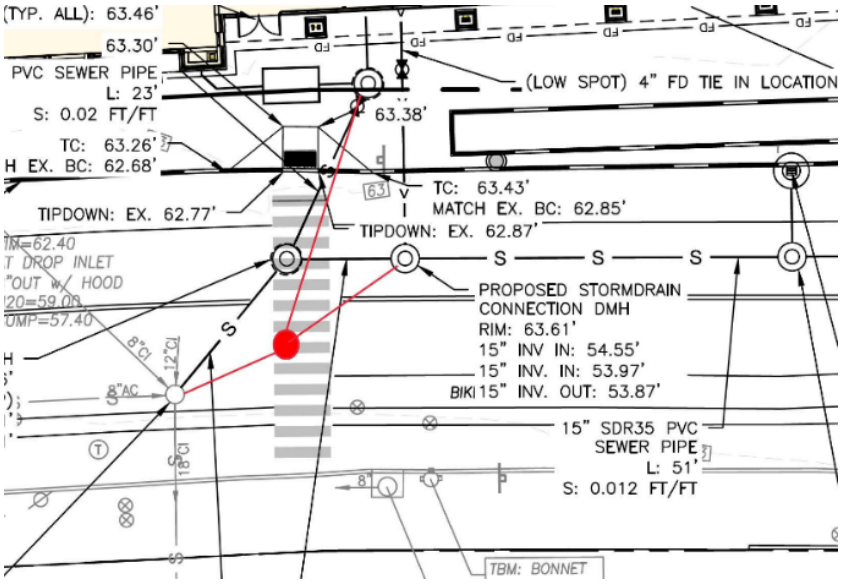
***Comment** – "SEWER" covers for the proposed storm drainage manholes at connection points into the Washington Avenue combined sewer shall be utilized.*

Response – Stormdrain connections from the site will utilize the city's precast sewer manholes with 'Sewer" covers to connect to the combined system. See Sheet C-30 for additional information.

***Comment** – The City of Portland Precast manhole detail shall be updated to match the most current Technical Manual detail. The detail shown on sheet C-44 depicts steps which are no longer City standard.*

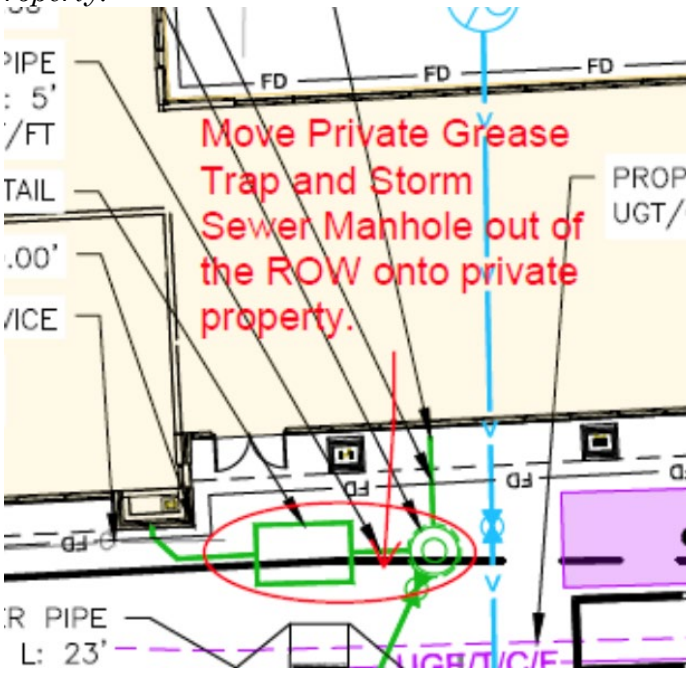
Response – The precast manhole detail has been updated to reflect Portland's most recent Technical Manual detail.

***Comment** – DPW would like the applicant to review a potential alignment shift to the way the proposed 15" sewer enters into the City's existing SMH at the Gould Street intersection. The concern is that the currently proposed pipe angle may cause structural issues with the structure when it is cored into. The alignment shift shown below would shift the proposed 15" connection further away from the existing 12" connection which is scheduled to be plugged a part of the project. Please also note that channel modifications will likely be required in the existing manhole so it can properly receive the new 15" sewer pipe.*



Response – The combined storm/sewer network has been updated to reflect the above geometry and this specific section of the sewer main has been updated to 18". A note has also been added to the plans to modify the existing manhole *channel to accommodate the 18" inlet.*

Comment *– The private grease trap and storm sewer manhole should be moved from the right-of-way onto private property.*



Response – The private sewer manhole has been relocated outside the right of way and the grease trap will be located internally within the retail space. See Sheet C-20 for additional information.

Comments Related to Site Design Standards

Shadow

Overview *– The proposed building is setback 15-feet from the abutting community orchard to the north of the subject property to mitigate shadow impact for the majority of the year. It is our understanding that the applicant has completed a shadow study as part of a different application.*

Comment *– The applicant shall submit a shadow study that uses the most recent renderings and elevations of the proposed project.*

Response – A shadow study using the most recent renderings is included in this submission. See Plans 42 through 45 Shadow Studies for additional information.

Signage and Wayfinding

Overview *– The applicant has noted that building signage will be limited to key areas and constructed as pedestrian scale but has not included a signage plan or details in their submitted materials.*

Comment *– The applicant shall provide more details on the proposed signage for the proposed project for entrances and structured parking.*

Response – It is our understanding pedestrian scale signage locations and designs are still being determined by the developers and a signage permit will be submitted to the City under the separate sign application process.

Design Standards

Overview *– The City has provided a design review memo. The proposed project is not within a historic district or associated with a historic landmark, therefore will not require Historic Preservation review.*

Comment *– See Design Review Memo.*

Response – Attached to this letter are the Reponses from Holst Architecture in regard to the comments received in the Design Memo.

Additional Planning Board Workshop and Staff Report Comment Responses

The below comments were interpreted and recorded from handwritten notes during the January 28, 2025 Planning Board workshop and addressed to provided supplemental information requested from the Board.

Comment – It would be helpful to see renderings of the building from the Washington Street Sidewalk and from Munjoy Heights.

Response – See the updated architectural renderings for additional information.

Comment – It would be helpful to see a site cross section including the new retaining walls and how it interacts with the grade of the site.

Response – See Plan Master Profile – 1 and Master Profile - 2 for additional information.

Comment – Please provide unit configurations and Inclusionary Zoning information

Response – Unit configurations have been included in the latest architectural plan set. Additionally, the project will be required to provide 82 units that meet the inclusionary zoning requirements.

Comment – The applicant will be required to provide a letter from their financial institution prior to a public hearing.

Response – The Financial Capacity letter from a financial institution will be provided prior to the public hearing.

Please let us know if you have any additional questions or comments.

Sincerely,



Pete F. Heil, P.E.
Project Manager
Acorn Engineering, Inc.

1. *Staff recommends that the building entry at the Center Bar Level 01 for the Coworking / Lounge relocate to a more centralized bay with greater sight lines from the public street:* **The door in question is not the building entrance and is only an egress door. The building entrance is located further South, along the Washington Avenue street frontage. See Level 01 Floor Plan for entry location.**

2. *Staff requests that the Applicant submit window specifications that indicate the window transparency to meet .7 or greater for staff review:* **Window transparency called out in material studies and will meet .7 VT requirement.**

3. *Staff requests more information on the proposed exterior façade materials and window specifications and will review resubmitted materials:* **Exterior façade material information provided.**

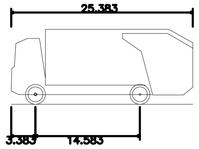
4. *Staff recommends that the building entry at the Center Bar Level 01 for the Coworking / Lounge relocate to a more centralized bay with greater sight lines from the public street:* **See previous response**

5. *Staff recommends that the applicant explore a symmetrical arrangement of windows at the upper floor of the three-story building module (center bar) facing the street that aligns with the lower level fenestration pattern. In addition, the Applicant is request to revise floor plans or window placement so that windows are fully occupied within each dwelling unit, with windows partitioned between two units not recommended:* **Windows updated for better alignment, see updated elevations and renderings. Windows are fully occupied within each dwelling unit.**

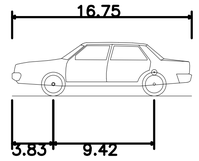
6. *Staff requests that the applicant resubmit additional information for Staff review of exterior façade materials and architectural lighting:* **See previous response**

7. *Staff requests that the applicant respond with how sufficient storage areas will be provided:* **Additional shared storage areas have been added to the plan. See areas on the updated plans provided marked Storage.**

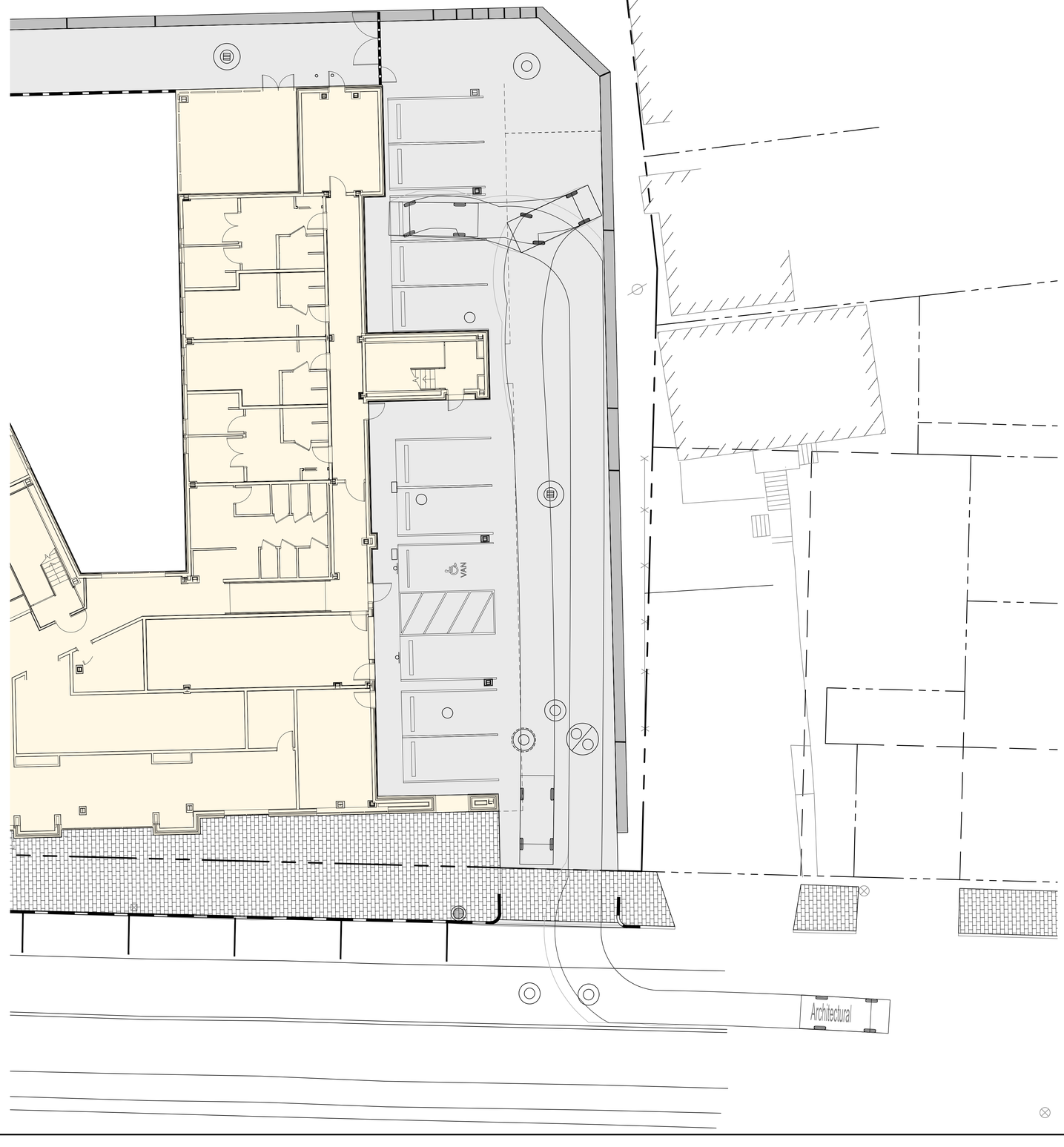
Att. AC



Hino 258ALP J + Wayne Royal GT11	Refuse Truck
Overall Length	25.383ft
Overall Width	7.975ft
Overall Body Height	10.476ft
Min Body Ground Clearance	1.306ft
Track Width	7.975ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	23.950ft



Architectural	
Overall Length	16.750ft
Overall Width	6.300ft
Overall Body Height	5.003ft
Min Body Ground Clearance	0.939ft
Track Width	6.300ft
Lock-to-lock time	5.00s
Curb to Curb Turning Radius	20.000ft



20 0 20 40

SCALE: 1" = 20'

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SITE PLAN	PFH 11/20/24

DRAWING NAME: TURNING TEMPLATE

PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE
PORTLAND, MAINE, 04101

CLIENT: REDFERN PROPERTIES
P.O. BOX 8816, PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.

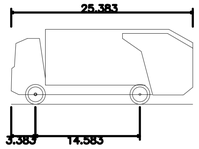
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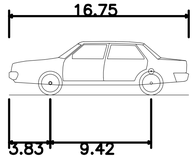
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STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

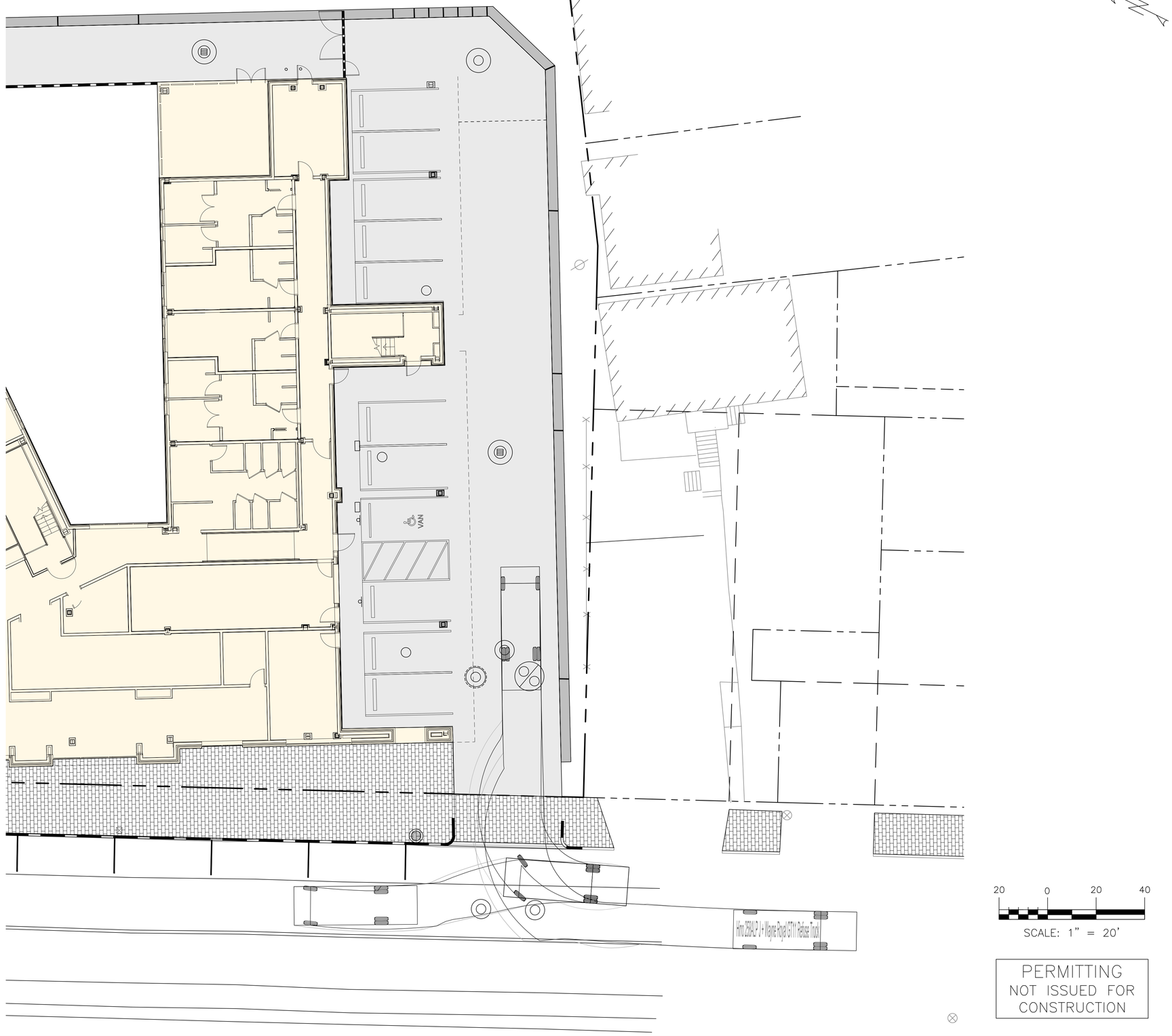
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EX



Hino 258ALP J + Wayne Royal GT11	Refuse Truck
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20 0 20 40

SCALE: 1" = 20'

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY	DATE
SITE PLAN	PFH	11/20/24

TURNING TEMPLATE

DRAWING NAME:

PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE
PORTLAND, MAINE, 04101

CLIENT: REDFERN PROPERTIES
P.O. BOX 8816, PORTLAND, MAINE 04104

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SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
EX

City of Portland ME: Low-Impact Design Requirements				
Owner / applicant name:	Redfern Properties			
Representative name:	Acorn Engineering			
Project address:	165 Washington Avenue			
Project CBL:	010 D001			
Application ID (if known):	PL-003143-2024			
	Maximum Points	**How to Apply**	**Points Awarded**	**LID Standard / Approach**
CORE METHODS: Wetlands, Streams, & Drainage				
Protect natural drainage paths	Required			
Shoreland Zoning	Required			
Meeting DEP and ACOE standards for stream crossings	Required			
Protect wetlands	**12**	Select one option	**12**	Select a site that does not have wetlands or vernal pools = 12pts
				Project maintains a 50' set-back / no-disturb buffer to all wetlands = 10pts
				Project maintains a 25' set-back / no-disturb buffer to all wetlands = 7pts
				Project does not place structures in wetlands and avoids wetlands impacts from construction and stormwater discharges = 5pts
				Project replicates impacted wetlands elsewhere on site or within watershed = 3pt
				Project pays wetlands impact fee = 0pts
Permanently protect stream (intermittent and perennial) and riparian buffers *(exclusive of approved stream crossings; must include a no-disturb zone with markers installed and deed restriction recorded at registry of deeds)*	**12**	Select one option	**12**	Select a site with no streams = 12pts
				Permanently protect all 100ft shoreline buffers = 10pts
				Permanently protect all 75ft shoreline buffers = 7pts
				Permanently protect all 50ft shoreline buffers (intermittent streams) = 6pts
				Permanently protect all 50ft shoreline buffers (required minimum for perennial streams) = 5pts
				Permanently protect all 25ft shoreline buffers (required minimum for intermittent streams) = 5pts
Stream crossings	**12**	Select one option	**12**	Select a site with no streams = 12pts
				Avoid any stream crossings = 10pts
				All stream crossings use a bridge or open bottom culvert structure sized at 1.2 times the bank full width of the stream = 10pts
				All stream crossings use Maine Stream Smart Principles to preserve natural pre-development drainage pathways = 6pts
CORE METHODS: Natural Areas & Habitat				
Preserve threatened or endangered species habitat	Required (Beginning with Habitat Maps at a minimum)			The project does not impact any threatened or endangered species idenfiied on Beginning with Habitat
Protect 30% of trees over 10" DBH	Required (Tree survey required)			The project preserves 30% of trees 10" DBH or greater
Protect intact, contiguous forests and native trees over 10" DBH	**8**	Select one option		All development and land disturbance outside of existing wooded/forested areas (no site clearing in prior 10 years) = 8pts
				Protect 50% of trees over 10" DBH = 6pts
				Protect 40% of trees over 10" DBH = 4pt

CORE METHODS: Soils & Slopes				
USDA Web Soil Survey	Required (provide details how soil limitations will be mitigated)			
Avoid steep slope disturbance	5	Select one option		Selecting a site without slopes 15% or greater = 5pts
				Maintain >20' undisturbed vegetated buffer to all slopes 15% or greater = 3pts
				Maintain 10-20' undisturbed vegetated buffer to all slopes 15% or greater = 2pts
				Maintain 1-10' undisturbed vegetated buffer to all slopes 15% or greater = 1pt
				Disturbance of any slope 15% or greater = 0pts
Protect soils	5	Select one option	5	Redevelopment sites = 5pts
				Detailed, site-specific soil survey; preparation of a Soil Management and Protection Plan; protect highly permeable soils = 5pts
Limit site disturbance and earthwork	8	Select one option		Redevelopment limits disturbance to existing footprint = 8pts
				New development disturbs less than 50% of existing undeveloped site area = 8pts
				New development disturbs less than 75% of existing undeveloped site area = 6pts
			0	New development disturbs greater than 75% of existing undeveloped site area = 0pts
Soil preparation & minimizing compaction	6	Select all options that apply	3	Till soils to a depth of at least 10" prior to revegetation = 3pts
				Organic matter amendments as needed based on soil tests = 3pts
CORE METHODS: Landscaping				
Low-Impact Landscaping	6	Select all options that apply		Redevelopment sites reduce lawn area by 50%, provided no increase in impervious area (lawn becomes landscaping) = 2pt
				New development results in >50% non-impervious developed area is landscaping = 2pt
			2	Use only native vegetation for landscaped areas = 2pts
			2	Using only locally-sourced landscape materials = 2pt
CORE METHODS: Impervious Area & SW Management				
Meeting City's stormwater management standards	Required			
Reduce impervious and increase permeable surfaces	10	Select all options that apply, up to a maximum of 10 points		50% or more of proposed hard surfaces are permeable (porous pavers, permeable concrete, porous asphalt) = 6pts
			4	Minimize parking impervious area by using only the minimum required number of parking spaces, the minimum required parking lot dimensions, maximizing compact spaces and utilizing low-turnover standard parking space width reductions = 4pt
				25% or more of proposed hard surfaces are permeable (porous pavers, permeable concrete, porous asphalt) = 3pts
			2	Minimize roadway impervious area by developing roadways and driveways at the minimum width and using minimum number of curb cuts = 2pt
			2	Reducing the number of driveways by using a shared driveway design = 2pt
			2	Providing transportation alternatives (such as bike share, car share, or similar) = 2pt
Use GI / natural stormwater treatment systems	12	Select all options that apply		Treatment requirements and conveyance achieved through vegetated systems = 6pts
			3	No more than 1-acre of drainage per treatment system = 3pts
				Increase time of concentration on site (1" 25 year storm event) = 3pts
Limit / eliminate salt use	4	Select one option		Detailed winter maintenance agreement, with annual reporting requirement, limiting chloride use (required in UIS watersheds) = 4pts

Bonus Points				
Bonus points are offered for strategies that may go above and beyond typical approaches; may offer particularly innovative site design or engineering ; or may help achieve the larger goal of low-impact development on a regional scale.	10		10	Utilizing structured parking = 10pts
	10			Utilizing a green roof for at least 50% of a newly developed or redeveloped building roof = 10pts
	10			Restoration of previously disturbed natural resources (minimum 500 square feet of restoration) = 10pts
	10			BMPs designed for known water quality impairment within watershed = 10pts
	10			Connecting to City sewer from a site >200 ft from existing City infrastructure = 10pts
	6			Detention of 1.5 times the required volume = 6pts
	6		6	Treatment for 1.5 times the required water quality volume = 6pts
	6		6	Innovative LID site design and/or stormwater improvement - 6pts
	10			Establishing a Traffic Demand Management plan for projects under 50,000ft = 10pts
	Total Possible Points **178**		**Total Points Awarded** **83**	**Minimum points required for approval of LID strategies and techniques** **80**

MAJOR SITE PLAN
GENERAL DOCUMENT AND DRAWINGS CHECKLIST

Please submit each document as a separate PDF file.
Please confirm by electronically checking the boxes in the left-hand column.

** PLEASE FILL OUT AND UPLOAD THE ZONING ASSESSMENT TABLE AND WAIVER TABLE SEPARATELY AS NOTED BELOW **

At the time of application submission, please contact the Department of Public Works regarding E-911 addressing for your project.

GENERAL APPLICATION DOCUMENTS		
Yes	NA	**Project Description** • Cover letter with detailed project description
Yes	NA	**Completed Checklist** (this document)
Yes	NA	**Evidence of Right, Title, and Interest** • Deeds, leases, or purchase and sales agreements
Yes	NA	**Evidence of State or Federal Approvals** • Permits or letters of non-jurisdiction, if applicable
Yes	NA	**Zoning Assessment** (see Zoning Assessment Table) Summary of compliance with use and dimensional standards of the land use code
Yes	NA	**Site Plan Standards Assessment** (see Section 14.6 of the land use code) • Summary of project compliance with site plan standards of the land use code
Yes	NA	**Summary of Existing and/or Proposed Easements or Covenants, applicable.** • Evidence of existing easements and any proposed easements, covenants, public or private rights-of-way
Yes	NA	**Waiver Requests** (see Waiver Table) • Written request for waiver describing request and compliance with applicable waiver standards
Yes	NA	**Financial Capability** • Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
Yes	NA	**Technical Capability** • Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

MAJOR SITE PLAN
STANDARDS AND SUBMISSION CHECKLIST

Provide assessment of compliance with standards and include supplemental documentation, as applicable.
Please submit each document as a separate PDF file.

TRANSPORTATION	
Yes NA	**Impact on Surrounding Street Systems (14-14.6.1(A))** ● Describe incremental volume of traffic impacts and mitigation measures. If needed
Yes NA	**Access and Circulation (14-14.6.1(B))** Identify and describe the following: ● Site access and internal circulation, including ADA access ● Drive-up features, if applicable ● Loading and servicing needs, routes, and geometry, providing turning templates for delivery vehicles, if applicable ● Sidewalks and condition along street frontages and internal walkways ● Engineered details for ADA ramps and public sidewalks, meeting sidewalk material policy and construction requirements (Technical Manual, Section 1)
Yes NA	**Public Transit (14-14.6.1(C)), if applicable** Identify and describe the following: ● Existing available transit service and proposed transit improvements, including design details, such as easement, pad base, and shelter
Yes NA	**Off-Street Parking (14-14.6.1(D)), if applicable** Identify and describe the following: ● Proposed vehicular and bicycle parking supply (including ADA-compliant parking) in relation to applicable parking requirements in Article 19 of the land use code ● Curb cut separation and parking layout (Technical Manual, Section 1) ● Construction details for bicycle racks ● Management plan for snow storage and removal
Yes NA	**Transportation Demand Management (TDM) (14-14.6.1(E)), if applicable** ● Provide TDM plan drafted in accordance with Technical Manual Section 1 requirements

ENVIRONMENTAL		
Yes	NA	**Preservation of Significant Natural Features (14-14.6.2(A)), if applicable** Identify and describe the following: ● High and moderate value waterfowl and wading habitat ● Aquifers (for Casco Bay Islands) ● Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) ● Proposed preservation areas and protection measures ● Documentation from environmental compliance consultants and determinations from applicable state and federal agencies
Yes	NA	**Landscape Preservation (14-14.6.2(B))** Identify and describe the following: ● Measures to preserve trees, including within required zoning setbacks (Technical Manual, Section 4) ● Measures to protect existing vegetation during construction
Yes	NA	**Site Landscaping and Buffers (14-14.6.2(C))** Identify and describe the following: ● Overall landscaping approach and consistency with standards ● The use of screening and buffering of service areas and between non-residential and residential uses ● Existing Heritage or Feature Trees on site and measures to preserve ● Compliance with street tree requirements
Yes	NA	**Water Quality, Stormwater Management, and Erosion Control (14-14.6.2(D))** Identify and describe the following: ● Erosion and sedimentation control plan and measures ● Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater law, as applicable ● Subsurface sanitary sewage disposal and groundwater protection measures

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY	
Yes NA	**Consistency with City Master Plans (14-14.6.3(A))** • Describe proposed easements, rights and improvements to connect or continue off-premises public infrastructure, as applicable
Yes NA	**Public Safety and Fire Prevention (14-14.6.3(B))** Identify and describe the following: • Compliance with Crime Prevention through Environmental Design (CPTED) requirements (Technical Manual, Section 3) • Emergency vehicle access • Consistency with public safety standards (Technical Manual, Section 3)
Yes NA	**Availability and Adequacy of Public Utilities (14-14.6.3(C)) (Technical Manual, Sections 2 & 9)** Identify and describe the following: • Electrical services, including providing underground services • Existing and proposed connections for public utilities and required public utility upgrades • Sewer line connections
SITE DESIGN	
Yes NA	**Massing, Ventilations and Wind Impact (14-14.6.4(A))** Identify and describe the following: • Wind and ventilation impacts on adjoining structures and/or adjacent public spaces, including wind study, if applicable • Bulk, location, or height impacts on adjoining structures
Yes NA	**Shadows (14-14.6.4(B)), if applicable** • Provide shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)
Yes NA	**Snow and Ice Loading (14-14.6.4(C))** • Describe building design measures to prevent snow and ice from loading or falling onto adjacent properties or public ways
Yes NA	**View Corridors (14-14.6.4(D)), if applicable** • Describe any protection of designated view corridors (Portland Design Manual, Appendix. 1)
Yes NA	**Historic Resources (14-14.6.4(E)), if applicable** Identify and describe the following: • The site's status as a designated landmark, within a historic district or historic landscape district, or within 100 feet of any designated landmark, historic district, or historic landscape district • Compliance with standards for preservation and documentation of archaeological resources

Yes NA	**Exterior Lighting (14-14.6.4(F))** ● Describe how the proposed site lighting will adhere to photometrics requirements as it relates to light trespass and full cutoff fixture design, pursuant to Technical Manual Section 12
Yes NA	**Noise and Vibration (14-14.6.4(G))** ● Provide data on noise levels for HVAC and other mechanical equipment, such as design specifications, to demonstrate consistency with state and federal noise emissions requirements as well as City code
Yes NA	**Signage and Wayfinding (14-14.6.4(H)), if applicable** ● Provide signage plan showing the location, dimensions, height and setback of all existing and proposed signs ● Provide drawings of all commercial and directional signage on site
Yes NA	**Zone-Related Design Standards (14-14.6.4(I))** ● Address any applicable design review standards by zone, including compliance with Design Manual

MAJOR SITE PLAN
DRAWINGS CHECKLIST

Please upload the following DRAWINGS with the listed details into e-Plan as separate pdfs.

All drawings must be submitted in a 24 x 36 sheet size.

BOUNDARY SURVEY (stamped by a Maine Licensed Surveyor and drawn as per Technical Manual Sec. 13)

SITE PLAN(s) (stamped by a Maine Licensed Professional Engineer) including:

All sheets – Include a title block with project title and the following information:

- Project street address
- Name and address of property owner & applicant
- Licensed design professional, incl firm that produced plans
- North arrow
- Date of preparation and revision history block
- Tax parcel (chart, block, and lot) number

Existing Conditions Plan with the following:

- Existing structures, with distance from primary building façade(s) to the property line
- Approximate location of structures on abutting properties
- All streets and intersections adjacent to the site
- Existing driveways, pedestrian ways, and bicycle infrastructure, including dimensions and materials
- Existing public transit infrastructure
- Existing vehicle & bicycle parking areas
- Existing utilities on site and within adjacent rights-of-way
- Existing grades (two-foot contours preferred)
- Location of water courses, wetlands, and vegetation, or other significant natural features
- Existing soil conditions and location of test pits and borings
- Zoning boundary lines, including overlays
- Location of all existing easements and rights-of-way

Proposed Site Plan with the following:

- Proposed structures, including distance from primary building façade(s) to property lines
- Ground floor area, and finished floor elevations for all buildings
- Any proposed geometric modifications to streets and intersections adjacent to site
- Location, dimensions and materials of all proposed driveways, vehicle, bicycle, & pedestrian access ways with corresponding curb lines
- Engineered specifications/ cross-sections for proposed driveways, sidewalks & paved areas
- Location and dimensions of proposed loading areas, including turning templates
- Proposed transit infrastructure with dimensions/ engineering specifications
- Location of vehicle and bicycle parking with dimensions and engineering specifications
- Location of all snow storage areas
- Exterior lighting (please see Technical Manual Sec. 12 for photometrics requirements)
- Location of fire hydrants

- Location of solid waste management receptacles
- Location of all proposed HVAC and mechanical equipment, including proposed screening, where applicable
- Location of proposed easements and rights-of-way, including dimensions
- Please utilize color-coding and/or hatches and shading to delineate changes between the pre and post development condition as needed

UTILITY PLAN including:

- Proposed electrical infrastructure
- Location, sizing and directional flows of all proposed sewer and stormwater infrastructure
- Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site
- Electric utility infrastructure

GRADING AND DRAINAGE PLAN including:

- Proposed grades
- Proposed stormwater management measures meeting Technical Manual (Section 5) standards
- Any proposed alteration of a watercourse or wetlands
- Any groundwater protection measures
- Proposed buffers and preservation measures for wetlands or significant natural features

LANDSCAPE PLAN including:

- Existing vegetation to be preserved and preservation measures
- Proposed landscaping, screening, and street trees, including caliper widths for trees
- Planting schedule, including street trees

ARCHITECTURAL PLANS AND RENDERINGS including:

- Exterior building elevations, color renderings, illustrations of all sides
- Axonometric and street-level views for structures greater than three stories in height
- Provide context drawings, if applicable (Design Manual, page 1)
- Floor plans

CONSTRUCTION MANAGEMENT PLAN including:

- Specifics on traffic control, sidewalk sheds, and pedestrian rerouting
- Include a drawing and written narrative

OTHER

- Details and cross-sections, as necessary

ACORN ENGINEERING, INC.

Redfern Properties – 165 Washington Avenue
Major Site Plan Application

Neighborhood Meeting Minutes

January 8th, 2025 / 5:30 pm
East End Community Center
195 North Street, Portland Maine, 04101

Project Team Attendees:

Jonathan Culley (JC): Applicant/Presenter (Redfern Properties)

Haynes Johnston (HJ): Applicant/Presenter (Redfern Properties)

Pete Heil (PH): Civil Engineer/Presenter (Acorn Engineering)

Zach Stevens (ZS): Civil Engineer/Note Taker (Acorn Engineering)

The meeting started at approximately 5:32 pm.

Presentation:

Jonathan Culley:

- Welcome to the Neighborhood Meeting
  - This is the second neighborhood meeting for this project
  - The Planning Board Workshop has been tentatively scheduled for January 28th, 2025
- Overview of Project and Renderings
- Project Overview:
  - The project is proposing a 7-story multi-family apartment building with approximately 325 rooms and a ground floor commercial space.
- Introduction to Project Team
  - Holst Architecture
  - Ryan Senatore Architecture
  - Acorn Engineering
  - Soren Deniord Landscape Architecture
  - Summit Geoengineering
  - Structural Integrity
  - TRC
  - Barton & Loguidice

    - Penobscot General Contractors
- There is an existing housing crisis in Portland, and it is projected to get worse in the upcoming years. Portland is a desirable place to live, and we are looking to help fill that need.
- Overview of building programming including elevations
    - Part of the target tenants are anticipated to include the future Roux Institute Campus students.
    - 25% of units will be deed restricted for medium income earners as required by City Code.
        - This will be the largest project in Portland to meet these demands

Peter Heil:

- Neighborhood Meeting is a city requirement for the Major Site Plan Application.
- A sign-in sheet is available for everyone which will be submitted to the City and becomes public record along with the meeting minutes.
- The Site Plan application has been submitted to the city at the end of November. We are tentatively scheduled for January 28th, 2025, planning board workshop. The agenda has not yet been released but can be found on the City's website, typically the Friday before.
- Programming overview
    - The covered parking area includes 11 spaces
    - The bike room and exterior bike racks include 164 bike spaces
    - Overview of proposed retaining walls and site grading implications
    - The building finish floor elevations will have a step to reduce excavation in the existing slope at the rear of the site
- New Utility infrastructure is proposed
    - The overhead electric will be relocated underground along the project frontage
    - Working in coordination with DPW to relocated existing sanitary sewer lines within Washington Ave.
    - New services to development, including water, sewer, storm, power, communications, and natural gas.
- Landscape Architecture – Soren Deniord is the Landscape Architect
    - Two internal courtyards will contain vegetation and will be designed by a landscape architect.
    - Street trees and programming within the right of way along Washington Avenue will be designed by the landscape architect.
- Stormwater design
    - There is an existing steep slope at the rear of the site that sends water toward the proposed building. The site will be engineered to pick up this stormwater and direct it away from the building.
    - We are proposing to maintain various vegetation to the rear of the lot and preserve trees that can be preserved.
    - New stormwater treatment subsurface BMP installed in internal courtyard to collect and treat roof runoff, with an additional stormwater detention system under the drive aisle to accommodate 100-year storm event.

- Parking
    - To provide some background, the City recode now has a maximum parking requirement. Not a minimum parking requirement. That is why we are proposing 11 parking spaces. The project is relying on multimodal transportation as part of this project. There are two bus stops currently on either side of the project frontage.

Jonathan:

- Parking is a market issue, and we recognize that. The reason this design works (with minimal parking) is because the Roux Institute, which has international students attending school for approximately 18 months, will likely not have cars. We have had preliminary conversations with Roux Development and due to the close proximity of the two projects we are designing a portion of this building with those students in mind.

Haynes:

- Overview of elevations & renderings
    - The proposed building has three portions with different heights
        - 7 story housing section
        - 4 story housing section located over the covered parking
        - 3 story central bar location – this programming is still being finalized.
    - Materials used and architectural finish overview
    - Façade
        - View into Retail Space
        - View into Central Bar area

Jonathan:

- Overview of project schedule
    - The planning board workshop, tentatively scheduled for January 28th. Please keep your eye on the planning board. agenda as this meeting is not confirmed.
    - Planning Board approval is anticipated around March 2025 and hopeful construction start in July 2025.
    - Construction will likely take two years to complete.

<u>Comments, Questions & Answers:</u>

Please note that the following questions and answers were not recorded verbatim and aim to represent and summarize the actual questions, answers, and discussion that took place at the meeting.

Neighbor: Do you think the students will want to live in this building without a car and commute back and forth from the Roux campus? Do you think they will want to ride a bicycle from 165 Washington Avenue to the Roux Campus?

Response: They come to the school for 18 months therefore having a car may not be part of their plan. Our recent projects provide apartments with minimal to no parking and the model does work. Additionally, there is a public bus that will travel back and forth from the Roux Campus.

Neighbor: Who are the 11 parking spaces for? Why did you pick number 11?

Response: We have not finalized who they are for. We picked 11 based on what can fit under the building and the site constraints.

Neighbor: Jonathan, can I put your email on a public blog?

Response: Yes

Neighbor: The 4-story section of the building is directly in front on Munjoy Heights, why?

Response: We wanted to maintain some of the Munjoy heights view lines at this location.

Neighbor: Is it a coincidence that you are building adjacent to Munjoy Heights (as you were the developer on that project as well).

Response: The Northern Burner parcel is a site we have had our eyes on for a long time.

Neighbor: I applaud you for the vision, I think parking is a challenging one. 11 parking spaces seems low, but I love the fact many of the tenants may not need cars. I am concerned tenants will be taking from the existing street parking near the project and it will have a negative impact on our neighborhood.

Response: I understand where your comment is coming from and that is a real possibility. We believe tenants are relying less and less on personal cars and relying more on public transportation. Additionally, the Roux Institute will be providing a parking garage on their campus to accommodate students with cars.

Neighbor: Did the height restrictions for this lot change recently?

Response: Yes, the city re-code was recently released, and it changed the allowable height in the B2b zone to 75' which increased our allowable building height.

Neighbor: How does the building meet the existing slope and what will the side conditions look like when constructed? I believe this is a big question our neighborhood has. I think cross sections and renderings would be helpful at these locations.

Response: Thank you, this building will maintain Jack Path to the rear and will use retaining walls to tie into existing grade. The buildings finish floor steps up as we build into the existing slope on the northeast of the lot, which helps reduce the height in the proposed retaining walls. We have cross sections we can provide.

Neighbor: What does the view of the top of the building look like from the streets uphill of North Street?

Response: The top of the building will likely be visible in the winter months when tree vegetation is sparse.

Neighbor: Can you elaborate on inclusionary zoning?

Response: Portland has an extensive inclusion zoning requirement that requires 25% percentage (82 units in our case) of units to be affordable.

Neighbor: Graduate students do not make a lot of money.

Response: Our building is an apartment that advertises to students. It will not be a dorm. Additionally, the price point for the units is set with students in mind. It should be noted that students attending the Roux Institute will need to make a minimum of $27,000 annually to obtain their student visa.

Neighbor: You will have a lot of people living here. They will have cars and families; their parking needs will encroach on our neighborhood.

Response: The Roux institute will constructing a large parking garage. We do not deny there may be a need for parking.

Neighbor: Where will the Roux Institute garage be located and where will the bike connection bridge be located?

Response: There will be a new pedestrian bridge adjacent to Tukey's Bridge and the Roux Institute garage will be located on their campus. For the students who are at the Roux Institute for 18 months and living in our building for a short time, we believe they will likely not have cars and will have to rely on public transportation. If they do have cars, the parking garage is not far away. This is a similar condition to other cities where you may need to park a few blocks away.

Neighbor: What will the traffic study have for information.

Response: We will have a traffic demand management plan that will provide monitoring including existing traffic counts and crash data at the nearby intersections. It will provide the existing public transportation bus schedules. Then it will take into account what the 325 units impact will be. We will also meet with the city to have a better understanding of if there will be any upgrades to the existing infrastructure.

Neighbor: Washington Avenue is already a heavily used corridor. Hopefully the TDM accurately represents the impacts this project will have.

Response: We believe it will.

Neighbor: Does the Roux Institute have any formal agreements with this project?

Response: Right now, we have no formal agreement. We are currently working closely with them to understand their programming and student's needs. Students have to prove they are making $27,000 annually and we want to provide a comfortable room that meets their income needs.

Neighbor: What percentage of your current tenants on other projects that don't provide off-street parking need to park their cars? People are not coming to Portland to eat because parking is hard to find.

Response: We don't have those numbers. To reiterate, the parking issue is a chance we are taking. If the model does not work, then tenants will not rent an apartment in this building.

Neighbor: Is there a possibility there could be a garage across the street from the project to help Roux Institute students.

Response: No. Roux Institute will provide a garage on their campus and a new pedestrian bridge will provide access to the Roux Institute. We are confident that this building will work and if students have a car, they can park the equivalent of a few blocks away on the Roux Institute.

Neighbor: Even in the colder months of Winter?

Response: I agree there are months where it is colder, and the traveling will be hard on tenants. It would make sense that students would be taking the bus on those days.

Neighbor: The bottom line is not all the tenants will be students, and they will have cars. As a result, they will encroach on the existing on-street parking supply.

Response: I agree this is a real possibility and I encourage anyone to bring this comment to the city. I would like to point out that this project is potentially a risk for us if this model does not work. Additionally, this project is in conformance with the current city code.

Neighbor: In a traditional model, how many parking spaces would this unit count require?

Response: In another building we have parking for about 50% of the tenants, but it is slightly different because it is a condo and not an apartment. I believe that there will be a certain number of tenants who live in this apartment that will not have cars.

Neighbor: How much would a parking garage cost?

Response: This project would simply not work out financially if we removed units and added additional parking. This project is how we create housing in the city. If we provide a bulk of parking on site, the project does not pencil out.

Neighbor: What can you do creatively with Roux and the City to potentially have a safety net for the on-street parking system?

Response: Some of the nearby businesses will be getting an additional 325 tenants and they are excited. We are building this project per the city zoning requirements. We are also concerned about parking, and we are discussing parking arraignments with Roux Institute.

Neighbor: Can the future campus provide parking for non-students?

Response: That is a good question.

Neighbor: A lot of housing is tailored to future people coming to the city. Does that correlate to alleviating the current housing crisis we already have.

Response: We cannot prevent people from coming to the city. We believe a multitude of different types of housing contribute to alleviating the housing crisis in Portland. We need more housing of all types.

Neighbor: Roux is a great positive to Portland.

Response: We agree, we are looking forward to having them.

The meeting concluded at approximately 6:35 pm.

The abovementioned material was as interpreted and recorded from handwritten notes. Please note and relay any discrepancies or disputed information in the recorded minutes to the below address so that they can be reviewed, revised, and resubmitted, as necessary.

Recorded by,



Zach Stevens, PE
Project Engineer,
Acorn Engineering, Inc.
Zstevens@acorn-engineering.com

Portland, Maine Yes. Life's good here.

Planning & Urban Development Department

ZONING ANALYSIS Relevant Zone(s) B2B - Community Business

All Projects:

	Required	Proposed
Lot Size	N/A	63,375 SF
Area Per Dwelling Unit	N/A	200.53 SF
Minimum Street Frontage	-	343 FT
Front Yard Minimum	0'	1.62 FT
Front Yard Maximum	10'	9.77 FT
Rear Yard	None	13.86 FT
Yard Right	None	27.17 FT
Yard Left	None	15.17 FT
Side Street Setback	N/A	N/A
Step Back	N/A	N/A
Maximum Lot Coverage	N/A	56.46%
Minimum Lot Coverage	N/A	56.46%
Maximum Height	75'	67.85 FT
Open Space	N/A	35.96%
Maximum Impervious Area	None	64.04%
Pavement Setback	N/A	N/A
Floor Area Ratio	N/A	N/A
Off Street Parking Spaces	None	11
Loading Bays	N/A	N/A
Other 1		
Other 2		
Other 3		

Planned Residential Unit Developments (PRUD) Requirements

	Required	Proposed
Minimum Lot Size		
Minimum Lot Area per Dwelling		
Maximum # Units per Building		
Maximum Building Length		
Maximum Accessory Building Length		
Minimum Setbacks		
Minimum Building Separation		
Minimum Open Space		

Affordable Housing Density Bonuses (if applicable)

	Bonus Increase or Decrease	Maximum Allowable With Bonus	Proposed
Density			
Height			
Setback Reduction			
Recreation Space			
Maximum Accessory Building Length			
Minimum Setbacks			
Minimum Building Separation			
Minimum Open Space			
Explanatory Text 1 (optional):			
Explanatory Text 2 (optional):			
Explanatory Text 3 (optional):			

AVERAGE GRADE: 70.65'
TOP OF BUILDING: 138.50'
BUILDING HEIGHT: 67.85'

90.49' 90.59' 90.45' 90.32' 90.19' 90.06' 90.39' 90.19' 90.19'
90.06' 90.06' 90.37' 90.69' 90.96' 90.97' 90.98'
93.50' 89.50' 84.50' 80.50' 76.50' 73.75' 73.10' 65.73' 65.71' 65.62' 63.96' 63.98' 63.91' 63.76' 63.61' 63.46' 63.46' 63.46' 63.46' 63.46' 63.46' 63.40'
64.22' 64.14' 64.05' 63.97' 63.88' 63.80' 63.71' 63.63' 63.54' 63.46'
90.20' 88.00' 86.00' 81.95' 65.71' 66.00' 66.15' 66.05' 65.55' 65.05' 65.10' 65.20' 65.30' 65.40' 65.50'
64.31' 64.31' 64.15' 64.39' 64.64' 64.76' 64.88' 65.06' 65.18'
65.29' 65.41' 65.53' 65.64' 65.76' 65.88'
66.44' 66.34' 66.24' 66.14' 66.04' 65.94' 65.84' 65.74' 65.64' 65.70' 65.60'
65.71' 65.71' 65.81' 66.01' 66.08' 66.16' 66.22' 66.12' 66.02' 65.92' 65.82' 65.75' 65.66' 65.51' 65.56' 65.71' 65.81' 65.68' 65.45' 65.86'

1.5% 1.5% 1% 1% 1.5% 1.5% 2%

BIKE LANE

SITE PLAN
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY DATE
SITE PLAN	PFH 11/20/24

DRAWING NAME: AVERAGE GRADE EXHIBIT

PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE
PORTLAND, MAINE, 04101

CLIENT: REDFERN PROPERTIES
P.O.BOX 8816, PORTLAND, MAINE 04104

ACORN ENGINEERING, INC
PO BOX 3372
PORTLAND, MAINE 04104
(207) 775–2655

FILE:	1202_CIVIL
JN:	1202
SCALE:	AS NOTED
DESIGN BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

DRAWING NO.
EX-1

Spot Grades			Average Grade
93.50	65.64	66.15	70.65
89.50	65.76	66.00	
84.50	65.88	65.71	
80.50	65.53	81.95	
76.50	65.86	86.00	
73.75	65.45	88.00	
65.73	65.68	90.20	
73.10	65.81	90.39	
65.71	65.71	90.49	
65.62	65.56	90.59	
63.96	65.51	90.45	
63.98	65.66	90.32	
63.91	65.75	90.19	
63.76	64.82	90.06	
63.61	65.92	90.19	
63.46	66.02	90.19	
63.46	66.12	90.06	
63.46	66.22	90.06	
63.46	66.16	90.37	
63.46	66.08	90.69	
63.46	66.01	90.96	
63.40	65.81	90.97	
64.22	65.71	90.98	
64.14	65.71		
64.05	66.44		
63.97	66.34		
63.88	66.24		
63.80	66.14		
63.71	66.04		
63.63	65.94		
63.54	65.85		
63.46	65.74		
64.31	65.64		
64.31	65.70		
64.15	65.60		
64.39	65.50		
64.64	65.40		
64.76	65.30		
64.88	65.20		
65.06	65.10		
65.18	65.05		
65.29	65.55		
65.41	66.05		

Att. CC

ACORN ENGINEERING, INC.

City of Portland
Planning & Urban Development Department
Attn: Taylor Colbeth
389 Congress Street
Portland, ME 04101

January 16th, 2025

Subject: 165 Washington Avenue – Notice of Public Meeting Certification

I, Pete Heil, hereby certify that a Notice of Planning Board meeting sign was posted on January 16th, 2025, prior to the January 28th, 2025 Planning Board Meeting for the proposed project PL-003143-2024 located at 165 Washington Avenue. Photo documentation of sign in-situ:



Sign location: 165 Washington Avenue
(Facing west)



Sign location: 165 Washington Avenue
(Facing east)

Note that it is the applicant's responsibility to remove the notice of public meeting sign within three days following the date of the meeting.

Sincerely,

Peter Heil, P.E.
Project Manager
Acorn Engineering, Inc.

PURCHASE AND SALE AGREEMENT

165 WASHINGTON AVENUE, PORTLAND, MAINE

THIS PURCHASE AND SALE AGREEMENT ("Contract" or "Agreement"), made and entered into as of this ~~31st day of May~~ 1st day of June, 2023 (the "Effective Date"), is by and between **RAYMOND H. WATERHOUSE and ALINA WATERHOUSE,** individuals having an address at 105 Partridge Circle, Portland, Maine 04102 (hereinafter collectively referred to as "Seller"), and **REDFERN PROPERTIES LLC,** a Maine limited liability company having an address at P.O. Box 8816, Portland, Maine 04104, or its assigns (hereinafter referred to as "Buyer").

W I T N E S S E T H

WHEREAS, Seller is the record owner of fee simple title to certain real property situated in Portland, Cumberland County, Maine known as 165 Washington Avenue, Portland, Maine, together with certain improvements constructed thereon including a commercial building, and related amenities, facilities, improvements, and appurtenances thereto; and

WHEREAS, the Seller wishes to sell and convey said real property and improvements to Buyer and Buyer wishes to purchase the same from Seller.

NOW THEREFORE, for and in consideration of the foregoing, the sums of money to be paid hereunder, the mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto covenant, stipulate and agree as follows:

1. Description of Property to be Conveyed. The property which is to be sold and conveyed by Seller and purchased and accepted by Buyer pursuant to this Contract shall consist of the following:

(a) That certain parcel of land lying and being in Portland, Maine, being the property comprised of a 1.53 +/- acre lot identified by the Portland Assessor as Map 10, Block D, Lot 1 and Map 12, Block F, Lot 2, and described in that certain deed to Seller dated September 14, 2007, and recorded in the Cumberland County Registry of Deeds at Book 25470, Page 272, but excepting premises conveyed to Redfern Munjoy, LLC, by deed recorded in Book 31302, Page 177 of said Registry, and being more particularly described in Exhibit A attached hereto and made a part hereof, including all, rights, privileges, easements, hereditaments and appurtenances thereto, and all right, title and interest of Seller in and to the land lying in the bed of any public street, road or avenue in front of or adjoining said property (hereinafter collectively referred to as the "Land");

(b) All buildings, structures, facilities, fixtures, installations and improvements of every kind and description located in, on, over and under the Land, together with the appurtenances thereto including, without limitation, paved parking areas and various drainage and utility structures and improvements (collectively, the "Improvements"); and

(c) All of Seller's right, title and interest, if any, in and to the following (to the extent assignable and to the extent in the Seller's possession or control) and without warranty or representation: (i) all assignable warranties or guaranties given or made in respect of the Improvements; and (ii) all transferable consents, authorizations, variances or waivers, licenses, permits and approvals from any governmental or quasi-governmental agency, department, board, commission, bureau or other entity or instrumentality solely in respect of the Land or the Improvements (collectively, the "Personal Property").

The Land and Improvements are sometimes referred to herein collectively as the "Real Property." The Real Property and the Personal Property are referred to herein collectively as the "Subject Property".

2. Agreement to Sell and Purchase. Seller hereby agrees to sell and convey the Subject Property to Buyer, upon the terms and subject to the conditions set forth in this Contract. Buyer hereby agrees to purchase and accept the Subject Property from Seller, upon the terms and subject to the conditions set forth in this Contract.

3. Earnest Money Deposit. Within three (3) business days after the Effective Date, Buyer shall deposit the sum of [redacted] as the earnest money deposit (which amount shall hereinafter be referred to as the "Initial Earnest Money Deposit") hereunder with The Boulos Company, whose address is One Canal Plaza, Suite 500, Portland, Maine 04101 (hereinafter referred to as the "Escrow Agent"). So much of the Initial Earnest Money Deposit and the Additional Earnest Money Deposit (as hereinafter defined) as may have from time to time been deposited with Escrow Agent hereunder, and any interest earned thereon, are collectively referred to as the "Deposit". Upon Buyer's written request, and subject to the receipt by Escrow Agent of a completed and executed IRS Form W-9 and any other forms or information reasonably requested by the Escrow Agent, the Deposit will be placed in an interest-bearing account. Any interest accrued or accruing on the Deposit shall be and become part of the Deposit. Escrow Agent shall not be responsible for the amount of interest earned on, or charges on, the Deposit. By its counter-execution of this Agreement, Escrow Agent hereby agrees to hold the Deposit in escrow, subject to disbursement in accordance with the terms and provisions of this Contract. In the event Buyer does not elect to timely terminate this Contract pursuant to the express terms herein, the Deposit shall become non-refundable and shall not be returnable to the Buyer under any circumstances except in the event Seller is not able to provide title to the Subject Property as provided in this Contract, or otherwise defaults hereunder, but such Deposit shall, however, be credited to and considered as payment of part of the total Purchase Price (as defined below) at the time of closing hereunder.

Escrow Agent, may, at its option, require the receipt, release and authorization in writing of all parties before releasing the Deposit or delivering or redelivering documents or property to any party or to third parties. In the event a controversy arises over the Deposit, Escrow Agent, at its sole discretion, may tender the funds into court for settlement, after deducting its attorney's fees, court costs, and escrow fees, if any, which have accrued, including any attorney's fees and court costs relating to the tender into court. Seller and Buyer indemnify and hold harmless Escrow Agent and its agents and representatives from all loss or damage they

may sustain in connection with Escrow Agent's performance of these instructions and do hereby jointly and severally release and waive any claims they may have against Escrow Agent, other than any claims a party may have due to the gross negligence, malfeasance or misconduct of Escrow Agent in the performance of its duties hereunder.

4. Purchase Price and Method of Payment. Subject to credits, adjustments and prorations for which provisions are hereinafter expressly made, the total purchase price to be paid by Buyer to Seller for the Subject Property (the "Purchase Price") shall be [redacted] The Purchase Price shall be paid by Buyer to Seller in the manner and at the times as follows:

(i) The Deposit, to the extent paid by Buyer to Escrow Agent hereunder, shall be credited to Seller and considered as payment of part of the Purchase Price for the Subject Property at the time and upon consummation of the closing of the sale and purchase transaction contemplated in this Contract.

(ii) The balance of the Purchase Price shall be paid to Seller by Buyer by wire transfer or other immediately available funds acceptable to Seller, at the time of closing hereunder, subject to credits, adjustments and prorations as expressly provided herein.

5. Title and Survey.

(a) Title Commitment. Buyer shall obtain from a nationally recognized title company (sometimes referred to herein as the "Title Company") a commitment for owner's title insurance for the Real Property (the "Title Commitment"). Within five (5) days after the Effective Date, Seller shall deliver to Buyer copies of surveys of the Land that Seller may have in its possession or control (collectively, the "Existing Survey"). Buyer may order an update of the Existing Survey, or if no Existing Survey exists, a new survey of the Land; provided, however, Buyer must notify Seller of any material objections to the update of the Existing Survey or the new survey prior to the expiration of the Due Diligence Termination Date (as defined below), otherwise Buyer shall be deemed to have waived any right to object to same and any such inconsistencies shall constitute Permitted Exceptions (as defined below).

(b) Buyer's Review of Title Matters. Buyer shall have until the Due Diligence Termination Date to notify Seller in writing of any objection which Buyer may have to any matters reported or shown in the Title Commitment or the exception documents ("Buyer's Objection Letter"). Any matters reported in or shown by the Title Commitment and not timely objected to by Buyer as provided above shall be deemed to be "Permitted Exceptions". On or before the fifth (5th) business day following receipt of Buyer's Objection Letter, Seller shall elect, by delivering written notice of such election to Buyer and Escrow Agent ("Seller's Response") whether or not to cause the Title Company to remove any matters objected to in Buyer's Objection Letter. If Seller fails to deliver Seller's Response within the time frame set forth above, it shall be deemed to be an election by Seller not to cause Title Company to so remove such objections. Notwithstanding the foregoing, Seller shall be obligated to cure and remove without need for a Buyer's Objection Letter all of the following

title exceptions or encumbrances, if any: (i) the liens of any mortgage; (ii) tax liens for delinquent ad valorem real estate taxes; (iii) mechanics liens, judgment liens or other monetary liens; and (iv) broker's liens ("Seller's Mandatory Cure Items"). Seller shall have until Closing to cure and remove any Seller Mandatory Cure Items. If either (a) Seller elects to cause the Title Company to so remove and, at least one (1) day prior to the Closing (the "Cure Deadline"), Seller is unable to remove any exceptions or matters objected to by Buyer; or (b) Seller elects not to cause Title Company to so remove, then Buyer must elect, by delivering written notice of such election to Seller and Escrow Agent on or before (i) the fifth (5^{th}) business day following Buyer's receipt of Seller's Response, or (ii) if no Seller's Response is received by Buyer, the fifth (5^{th}) business day following the date on which Seller shall have been deemed to have responded, as provided above, or (iii) in the event Seller elects to cause the Title Company to so remove and, prior to the Cure Deadline, Seller is unable to remove any exceptions or matters objected to by Buyer, on or before the Cure Deadline, to: (A) terminate this Agreement (in which case Escrow Agent shall return the Deposit to Buyer, and neither party shall thereafter have any rights or obligations to the others hereunder, other than pursuant to any provision hereof which expressly survives the termination of this Agreement); or (B) proceed to a timely Closing without liability to Seller whereupon such objected to exceptions or matters shall be deemed to be Permitted Exceptions. Seller shall be responsible for removing any exceptions or deficiencies to title which first arise between the date upon which Permitted Exceptions are established ("Permitted Exception Date") and Closing unless created by or with the consent of Buyer.

6. Buyer's Due Diligence.

(a) Seller Deliverables. Seller shall deliver to Buyer within five (5) days of the Effective Date the following, if any (the "Property Documents"): Seller's existing survey(s) and/or title reports with respect to the Subject Property; copies of service contracts or management agreements, any environmental reports (including Phase I or Phase II reports) in Seller's possession or control; floor plans and building specifications, insurance information (including a current certificate of insurance regarding property, casualty and general liability insurance for the Subject Property) and property tax statements for the previous two (2) years; copies of certificate(s) of occupancy and any property condition reports.

Buyer agrees to return the foregoing and all such other documents to Seller, without retaining copies, in the event the closing hereunder does not occur.

(b) Inspection Rights. At all reasonable times from and after the Effective Date, Buyer, its agents and representatives shall be entitled at Buyer's sole cost and expense to make investigations with respect to the compliance of the Real Property and the Improvements with all applicable laws, ordinances, rules and regulations; to review any documents or information Buyer has or may receive with respect to the Subject Property; to review any contracts and agreements affecting the Subject Property; to enter onto the Real Property during normal business hours to conduct such inspections and investigations of the condition of the Property as Buyer deems relevant with respect to the operating systems, structural components, and site conditions of the Real Property and Improvements, and perform Phase I and if necessary, Phase II environmental studies, which may include without limitation drilling and borings and the taking of soil samples. Buyer shall at its own expense restore the Real Property

to as close as reasonably possible to its present condition. All such inspections shall be done by qualified inspectors chosen and paid for by Buyer. Seller agrees to reasonably cooperate with Buyer in connection with Buyer's investigations, and shall grant Buyer access to the Real Property at reasonable times upon reasonable prior notice. Buyer shall indemnify, protect, defend and hold harmless Seller from all claims (including, without limitation, any claim for a mechanic's lien or materialman's lien), causes of action, costs, losses, damages and reasonable attorney's fees incurred by Seller in connection with or arising out of any inspections or investigations carried on, by or on behalf of Buyer pursuant to this Section. The foregoing indemnity shall not apply to any claims (including, without limitation, claims that the Real Property has declined in value) or liabilities to the extent the same arise out of or are incurred in connection with (i) the negligence or willful misconduct of the Seller or their agents, consultants or contractors; (ii) the discovery by Buyer or its agents, consultants or contractors of any or pre-existing conditions on the Real Property; (iii) the release (other than by Buyer, its agents, consultants, employees, contractors or representatives) or discovery by Buyer or presence of any pollutants, hazardous waste, hazardous substance or material located on or about the Real Property, except to the extent that Buyer or its agents, consultants, employees, contractors or representatives have exacerbated such condition; (iv) the results, findings, tests or analyses of Buyer's environmental or other physical investigation of the Real Property; or (v) any disclosure or notification made or given by Buyer or any its agents, consultants or contractors to any governmental agency or other party that is required by law based upon the results, findings, tests or analyses of Buyer's environmental or other physical investigation of the Real Property. The provisions of this Section shall survive the Closing or the earlier termination of this Agreement.

(c) Buyer's Termination Right. Buyer shall have the right at any time on or before ninety (90) days after the Effective Date (the "Due Diligence Termination Date") to terminate this Contract if Buyer determines for any reason that the Property Documents or all or any portion of the Subject Property is not acceptable to Buyer in its sole and absolute discretion. Notwithstanding the foregoing, if Buyer's environmental consultant determines that a Phase II report is warranted, the Due Diligence Termination Date shall be extended for up to an additional period of ninety (90) days provided Buyer gives Seller written notice of its intent to so extend prior to the initial Due Diligence Termination Date, and provided Buyer confirms that it has waived all other due diligence conditions, including title review (subject to any Buyer's Objection Letter that may have been sent). If Buyer exercises its right to extend the Due Diligence Termination Date, said extension shall last until the earlier of (i) five (5) business days after Buyer has received the final results of its Phase II testing; and (ii) ninety (90) days after the original Due Diligence Termination Date. If Buyer delivers a written notice to Seller and Escrow Agent exercising its termination right hereunder ("Buyer's Termination Notice") on or before the Due Diligence Termination Date (as it may be extended), then (a) Escrow Agent shall return the Deposit to Buyer; (b) this Contract shall automatically terminate and be of no further force or effect and neither party shall have any further rights or obligations hereunder, other than pursuant to any provision hereof which expressly survive the termination of this Contract; and (c) Buyer shall, upon Seller's request, deliver to Seller copies of all surveys, environmental and other reports undertaken by Buyer with respect to the Subject Property without any representation or warranty of any kind or nature whatsoever, express or implied, about the accuracy, reliability or usefulness of any information contained therein. If Buyer fails to deliver to Seller and Escrow Agent Buyer's Termination Notice on or before the Due Diligence Termination Date, Buyer shall be deemed to have waived its right to terminate this Contract

pursuant to this Section, and [redacted] of the Deposit shall become non-refundable to Buyer (but applicable to the Purchase Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract.

7. Approval Contingency. This Contract is contingent upon Buyer obtaining all permits and approvals from the City of Portland (the "City") for its proposed use and occupancy of the Subject Property acceptable to Buyer in its sole and absolute discretion (the "Approvals"). An Approval shall not be deemed to have been "obtained" until it has become final and non-appealable, and any periods for challenge to the same (or any conditions to its final effectiveness) shall have expired. Buyer shall use its best efforts to obtain the Approvals as expeditiously as reasonably possible. Seller shall reasonably cooperate with Buyer in connection with Buyer obtaining the Approvals and agrees to execute and deliver all documents reasonably requested by Buyer, at no cost or liability to Seller. Buyer shall have sixty (60) days from the expiration of the Due Diligence Termination Date (the "Approval Date") to obtain the Approvals. If Buyer has not received its Approvals by the Approval Date, then Buyer shall have the right to extend the Approval Date for up to six (6) additional sixty (60) day periods (each, an "Approval Extension Period"), by giving notice to Seller on or before the Approval Date, as it may be extended, on the follow terms and conditions:

(i) If Buyer exercises the first Approval Extension Period, an additional [redacted] of the Deposit (for a total of [redacted]) shall become non-refundable to Buyer (but applicable to the Purchase Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract;

(ii) If Buyer exercises the second Approval Extension Period, an additional [redacted] Dollars of the Deposit (for a total of [redacted]) shall become non-refundable to Buyer (but applicable to the Purchase Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract;

(iii) If Buyer exercises the third Approval Extension Period, an additional [redacted] Dollars of the Deposit (for a total of [redacted]) shall become non-refundable to Buyer (but applicable to the Purchase Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract;

(iv) If Buyer exercises the fourth Approval Extension Period, an additional [redacted] Dollars of the Deposit (for a total of [redacted] shall become non-refundable to Buyer (but applicable to the Purchase Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract;

(v) If Buyer exercises the fifth Approval Extension Period, Buyer shall deposit with the Escrow Agent an additional [redacted] Dollar deposit (the "Additional Earnest Money Deposit"), and the Deposit (for a total of [redacted]) shall become non-refundable to Buyer (but applicable to the Purchase

Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract;

(vi) If Buyer exercises the sixth Approval Extension Period, Buyer shall deposit with the Escrow Agent an additional [redacted] Dollar Additional Earnest Money Deposit, and the Deposit (for a total of [redacted] shall become non-refundable to Buyer (but applicable to the Purchase Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract.

Such portion of the Deposit that is non-refundable as set forth in Section 6(c) above [redacted] and in subparagraphs 7(i) through (vi) above is hereinafter referred to as the "Non-refundable Deposit". At Seller's request, which may be made at any time and from time to time, Escrow Agent shall release the Non-refundable Deposit available as of the date of Seller's request(s) to Seller to, among other things, pay carrying costs of the Real Property, such as taxes, insurance, utilities etc., provided that Seller at the time they first request a release of the Non-refundable Deposit delivers to Buyer a comfort letter or account statement from a financial institution or investment management firm reflecting that Seller maintains accounts with such financial institution or investment management firm in an amount sufficient to fund Seller's obligation to return to Buyer the Non-refundable Deposit (or so much as has been released to Seller from time to time) pursuant to the terms of this Contract. Buyer hereby authorizes Escrow Agent to release the Non-refundable Deposit to Seller from time to time provided such comfort letter or account statement has been received by Buyer.

The Additional Earnest Money Deposit shall be considered part of the Deposit for all purposes of this Contract. If Buyer does not receive the Approvals on or prior to the Approval Date, as it may be extended, or if Buyer at any time prior to the Approval Date, as it may be extended, determines in its sole and absolute discretion that the Approvals will not be suitable or satisfactory for Buyer's proposed use and occupancy of the Subject Property, then Buyer may terminate this Contract by delivering written notice to Seller and Escrow Agent ("Buyer's Approval Termination Notice") exercising its termination right hereunder on or before the Approval Date, as it may be extended, whereupon (a) Escrow Agent shall return so much of the Deposit that is refundable at that time, if any, to Buyer; (b) release so much of the Deposit that is non-refundable at that time, if any, to Seller; and (c) this Contract shall automatically terminate and be of no further force or effect and neither party shall have any further rights or obligations hereunder, other than pursuant to any provision hereof which expressly survive the termination of this Contract. If Buyer fails to deliver to Seller and Escrow Agent Buyer's Approval Termination Notice on or before the Approval Date, as it may be extended, Buyer shall be deemed to have waived its right to terminate this Contract pursuant to this Section.

8. Conveyance of Subject Property and Personal Property; Delivery Free of Tenants and Occupants. At the time of Closing hereunder, Seller shall convey its fee simple interest and estate in and title to the Subject Property by Quitclaim with Covenant Deed, free and clear of any and all liens, security interests, exceptions or encumbrances arising by or though Seller, other than Permitted Exceptions. Seller shall pay for personal property taxes through the Closing Date (as hereinafter defined). Seller agrees to terminate the tenancy and/or occupancy of the any current tenants or occupants of the Subject Property, and to deliver the Subject Property free and

clear of all personal property, inventory, equipment, free-standing shelving, tenants and occupants. If Seller is unable to provide the Subject Property to Buyer free and clear of personal property, inventory, equipment, free-standing shelving, tenants and occupants, by the Closing Date then Seller shall be deemed in default of this Contract and Buyer shall have the right to terminate this Contract whereupon notwithstanding anything in this Contract to the contrary (a) Escrow Agent shall return the entire Deposit to Buyer; and (b) this Contract shall automatically terminate and be of no further force or effect and neither party shall have any further rights or obligations hereunder, other than pursuant to any provision hereof which expressly survive the termination of this Contract.

9. Closing. The sale and purchase transaction contemplated in this Contract shall be closed, and the Purchase Price paid, on the date that is forty-five (45_days after the Approval Date (as it may be extended) (the "Closing Date"). Purchaser shall notify Seller in writing when all Approvals have been obtained. The following documents and items shall be delivered by Seller and Purchaser at Closing, as applicable:

(a) A Quitclaim Deed with Covenant from Seller in form reasonably acceptable to Seller and Buyer, together with applicable conveyance tax forms.

(b) An Owner's Affidavit executed by Seller in the form provided by the Title Company, provided such requested Affidavit does not expand the liability or representations of Seller hereunder beyond the terms of this Contract.

(c) An Affidavit stating that Seller is a Maine resident, or in the alternative, a Certificate of Exemption, Certificate of Reduction or REW-1 filing form.

(d) An Affidavit of Seller stating that Seller is not a "foreign person" as defined in Section 1445(B)(2) of the Internal Revenue Code of 1986, as amended.

(e) All transferable licenses, permits, certificates, approvals, authorizations, variances and consents held by Seller and issued by governmental and quasi-governmental bodies, officers and authorities in respect to the ownership, occupancy, use and operation of the Subject Property in the possession or control of Seller.

(f) Reserved.

(g) Keys.

(h) Appropriate evidence of authorization reasonably satisfactory to the Title Company regarding the consummation of the transaction contemplated by this Contract.

Seller shall pay the following closing costs (a) any and all costs incurred by Seller in performing its obligations under this Contract, and (b) the cost of recording the discharge of any existing mortgage on the Subject Property and any other documents required to be recorded or filed in order to transfer title as provided herein. Buyer shall pay the following closing costs (a) title search and examination charges, and the premium for the Commitment and Lender's and/or Owner's Title Insurance Policy, if any, to be issued pursuant thereto; (b) the cost of the update to the Survey or a new survey, if any; (c) the cost of the brokerage commission payable to The

Boulos Company, (d) the cost of any inspections or investigations of the Subject Property, (e) the cost of recording the Deed and any mortgages or other recorded documents relating to its purchase of the Subject Property, and (f) all costs associated with Buyer's financing of its acquisition, if applicable, it being understood and agreed that obtaining financing is not a condition to Purchaser's obligations hereunder. Seller and Buyer will each pay one-half of the transfer tax payable with respect to the Purchase Price. Each of the respective parties shall bear its own attorneys' fees.

10. Possession and Risk of Loss. Without limiting the provisions of Section 8 of this Contract, possession of the Subject Property shall be delivered by Seller to Buyer at the time of closing hereunder, free and clear of all tenants and occupants. Risk of Loss shall be on Seller until transfer of Property.

11. Prorations. Prorations shall be made as of the Closing Date as if Buyer were in title for the entire Closing Date. The following shall be prorated and adjusted between Seller and Buyer:

(a) Utilities and Operating Expenses. Water, electricity, sewer, gas, telephone and other utility charges based, to the extent practicable, on final meter readings and final invoices.

(b) Assessments. All assessments, general or special, assessed as of the date hereof shall be prorated as of the Closing Date, with Seller being responsible for any installments of assessments that are due and payable prior to the Closing Date and Buyer being responsible for any installments of assessments that are due and payable on or after the Closing Date. All such assessments assessed after the date hereof shall be the sole responsibility of Buyer.

(c) Taxes. All ad valorem real estate and personal property taxes with respect to the Real Property and the Improvements shall be prorated as of the Closing Date, based on the most currently available final tax bill and on a cash basis for the tax year in which the Closing occurs, regardless of the year for which such taxes are assessed.

(d) Other. Such other items as are customarily prorated in transactions of this nature in the county in which the Project is located shall be ratably prorated.

12. Representations, Warranties and Covenants of Seller.

12.1 Seller hereby makes the following representations and warranties to Buyer:

(a) Seller's execution and delivery and performance of this Contract by the undersigned and the performance of its obligations hereunder, including the closing of the sale and purchase transaction contemplated herein on the terms set forth herein, have been duly authorized and directed by Seller and no further consents or approvals are or shall be required as a condition precedent to the consummation and closing of the sale and purchase transaction contemplated herein except as expressly set forth in this

Contract. Seller has taken all necessary action to authorize the execution, delivery and performance of this Contract and upon the execution and delivery of any document to be delivered by Seller on or prior to the Closing, this Contract and such document shall constitute the valid and binding obligation and agreement of Seller, enforceable against Seller in accordance with its terms.

(b) The performance by the Seller of the terms, covenants and conditions contained herein will not conflict with, constitute an event of default under, any agreement or other instrument to which Seller is a party or by which its properties or assets are bound.

(c) Seller is not a party to any leases, agreements, contracts or licenses affecting the Real Property or any use of the Real Property that would not be terminable at will by Buyer without penalty from and after the Closing.

(d) Seller has not received any written notice from any governmental authority that the Real Property, or the present condition, operation or use thereof, violates any applicable laws, rules, regulations, restrictions, covenants, agreements, site plan approvals, zoning or subdivision regulations or any duly issued variances and Seller has no other actual knowledge of any such violation(s).

(e) Seller has received no written notice that there is any pending judicial, municipal or administrative proceedings affecting the Real Property or in which Seller is a party by reason of Seller's ownership of the Real Property or any portion thereof, including, without limitation, proceedings for or involving collections, condemnations, eminent domain, alleged building code, zoning or environmental violations, or personal injuries or property damage alleged to have occurred on the Real Property or by reason of the condition or use of the Real Property and Seller has no other actual knowledge of any such proceedings.

(f) Seller represents that, after the execution of this Contract and until such time as Closing occurs or the Contract expires without performance, it shall not enter into any leases, encumbrances or other arrangements pertaining to the Real Property which shall not be removed or terminated not later than the Closing.

(g) To the best of Seller's knowledge, the Real Property does not contain and has not contained, any Hazardous Substances, other than in amounts that do not violate any applicable law or regulation. "Hazardous Substances" means and refers to any "hazardous substance" as now or hereafter defined in §101(14) of CERCLA or any regulations promulgated under CERCLA; (ii) any "hazardous waste" as now or hereafter defined in the RCRA or regulations promulgated under RCRA; (iii) any substance regulated by the Toxic Substances Control Act (15 U.S.C. §2601 et seq.); (iv) gasoline, diesel fuel, or other petroleum hydrocarbons; (v) asbestos and asbestos containing materials, in any form, whether friable or non-friable; (vi) polychlorinated biphenyls; (vii) radon gas; (viii) lead paint; (ix) any additional substances or materials which are

now or hereafter classified or considered to be hazardous or toxic under local, state or federal environmental laws.

(h) Seller is the sole owner of good, fee simple, marketable and insurable title to all of the Real Property.

(i) There are no options to purchase or rights of first refusal with respect to all or any part of the Real Property and Seller has entered into no contracts for the sale, pledge, hypothecation, assignment, lease or other transfer of all or any part of the Real Property, other than the existing lease to Northern Burner Supply Co., Inc. or its successor tenant, which will be terminated prior to Closing.

(j) Seller has paid, or will pay at or prior to Closing, all taxes (including all real estate, personal property, sales and use taxes), assessments, charges, fees, levies and impositions associated with the Real Property, coming due prior to the Closing Date for periods prior to the Closing Date. Seller knows of no actual or pending imposition of any assessments for public improvements and, to the best of Seller's knowledge, no such improvements have been constructed or planned that would be paid for by means of assessments upon the Real Property.

(k) Seller has received no notice of any claims, demands, suits, or actions arising out of or relating in any way to any water damage, water intrusion, mold growth or mold infestation occurring in, on or about the Real Property.

Seller shall indemnify, defend and hold Buyer and Buyer's members, managers, partners, officers, shareholders, directors and employees harmless from all claims, demands, liabilities, costs or expenses (including, without limitation, reasonable attorneys' fees) arising from or attributable to any breach by Seller of any of its warranties or representations in this Section 12.1 or elsewhere in this Contract, and the representations and warranties set forth herein and this indemnification shall survive the Closing for a period of twelve (12) months.

12.2 Seller covenants and agrees with Buyer as follows:

(a) From the Effective Date until physical possession of the Real Property has been delivered to Buyer, Seller will keep and maintain all of the Real Property in good order and condition, will not permit any waste with respect thereto and shall operate the Real Property in accordance with its current good faith business practices, provided, however, that nothing herein shall require Seller to continue to lease the Real Property to Northern Burner Supply Co., Inc. until Closing.

(b) From the Effective Date until the Closing Date, Seller shall not enter into any new agreements affecting the Subject Property unless such agreements may be terminated not later than the Closing without penalty.

(c) Between the Effective Date and the Closing Date, Seller shall not grant or permit any new encumbrances on or about the Subject Property.

13. Representations and Warranties of Buyer. Buyer represents, covenants and warrants to and agrees with Seller that Buyer has the legal right, power and authority to enter into this Contract and to perform all of its obligations hereunder, and the execution and delivery of this Contract and the performance by Buyer of its obligations hereunder (i) have been duly authorized by all requisite limited liability company action; and (ii) will not conflict with, or result in a breach of, any of the terms, covenants and provisions of the by-laws or articles of organization of Buyer or any law or any regulation, order, judgment, writ, injunction or decree of any court or governmental authority, or any agreement or instrument to which Buyer is a party or by which it is bound. No further consents or approvals are or shall be required as a condition precedent to the consummation and Closing of the sale and purchase transaction contemplated herein except as expressly set forth in this Contract. Buyer has taken all necessary action to authorize the execution, delivery and performance of this Contract and upon the execution and delivery of any document to be delivered by Buyer on or prior to the Closing, this Contract and such document shall constitute the valid and binding obligation and agreement of Buyer, enforceable against Buyer in accordance with its terms.

14. Default

(a) Buyer Default. In the event of any material default on the part of Buyer under this Contract, the Seller shall be entitled, as its sole remedy hereunder, to either (i) retain the Deposit as consideration for its execution of this Contract and in full settlement of, and as liquidated damages for, any and all claims for damages occasioned by Buyer's default, and this Contract shall terminate, expire, cease and become null and void and, thereafter, all parties hereto shall be relieved of any and all further obligations and liabilities to each other under this Contract, other than as to those obligations which specifically survive the termination of this Contract; (ii) enforce specific performance of Buyer's obligations under this Contract.

(b) Seller Default. In the event of any default on the part of Seller under this Contract, the Buyer, as its sole remedy hereunder, may elect any of the following: (i) enforce specific performance of Seller's obligations under this Contract if the nature of Seller's default has not rendered specific performance unavailable, or (ii) if the nature of Seller's default has rendered specific performance unavailable or in Buyer's sole and absolute discretion not desirable or ineffective as a remedy, Buyer shall receive a return of the entire Deposit and Buyer may seek damages; or (iii) waive the breach, or default or other closing condition and proceed to consummate the transaction contemplated hereby without any adjustment of the Purchase Price in accordance with the provisions of this Agreement; or (iv) terminate this Contract, whereupon neither party hereto shall have any further rights or obligations hereunder (except as expressly set forth herein as surviving termination), and the Escrow Agent shall deliver the entire Deposit to Buyer, and Buyer shall recover from Seller all of Buyer's reasonable out-of-pocket expenses incurred to the date of such termination.

15. Litigation and Attorneys' Fees. In the event it shall be necessary for either party to this Contract to bring suit to enforce any provision hereof or for damages on account of any breach of this Contract, then the prevailing party in such suit shall be entitled to recover from the other party its attorney fees and costs in any such litigation and any appeals therefrom.

16. Time of Essence. It is expressly agreed by the parties hereto that time is of the essence of this Contract and in the performance of all conditions, covenants, requirements, obligations and warranties to be performed or satisfied by either party hereto. Waiver of performance or satisfaction of timely performance or satisfaction of any condition, covenant, requirement, obligation or warranty by one party shall not be deemed to be a waiver of the performance or satisfaction of any other condition, covenant, requirement, obligation or warranty unless specifically consented to in writing. Whenever a date specified herein shall fall on a Saturday, Sunday or legal holiday, the date shall be extended to the next business day.

17. Captions and Paragraph Headings. Captions and paragraph headings contained in this Contract are for convenience and reference only and in no way define, describe, extend or limit the scope or content of this Contract nor the intent of any provision hereof.

18. Notices. Any notice or other communication permitted or required to be given hereunder by one party to the other shall be in writing and shall be either (i) hand delivered, (ii) sent by Federal Express or other overnight delivery service, or (iii) sent by email, to the party entitled or required to receive the same at the address specified below or at such other address as may hereafter be designated in writing by any such party, provided that email notice is permitted as an accommodation only and must be followed immediately by other permitted delivery method hereunder.

TO SELLER:

Raymond H. and Alina Waterhouse
105 Partridge Circle
Portland, Maine 04102
Email: lori@northernburner.com

with a copy to:

Jensen, Baird, Gardner & Henry
10 Free Street
Portland, Maine 04101
Attention: Michael Quinlan
Email: mquinlan@jensenbaird.com

TO BUYER:

Redfern Properties, LLC
P.O. Box 8816
Portland, Maine 04104
Email: jonathan@redfernproperties.com

with a copy to:

Murray, Plumb & Murray
75 Pearl Street
Portland, Maine 04101
Attention: Drew A. Anderson
Email: danderson@mpmlaw.com

TO ESCROW AGENT:

The Boulos Company
One Canal Plaza, Suite 500
Portland, Maine 04101
Email: dsigfridson@boulos.com

The respective attorneys for Seller and Buyer are authorized to give notices with the same force and effect as if given by the parties.

19. Governing Law and Binding Effect. This Contract and the interpretation and enforcement of the same shall be governed by and construed in accordance with the laws of the State of Maine and shall be binding upon, inure to the benefit of, and be enforceable by the parties hereto as well as their respective successors, heirs, executors, personal representatives, agents, and assigns.

20. Integrated Contract, Waiver and Modification. This Contract represents the complete and entire understanding and agreement between and among the parties hereto with regard to all matters involved in the purchase and sale transaction contemplated in this Contract and supersedes any and all prior or contemporaneous agreements, whether written or oral. No covenants, agreements, terms, provisions, warranties, statements, representations or undertakings, whether written or oral, made or executed by any party hereto shall be binding on any party hereto, unless specifically set forth or incorporated in this Contract. This Contract may not be modified or amended, nor may any covenant, agreement, condition, requirement, provision, warranty or obligation contained herein be waived, except in writing signed by all parties, or in the event that such modification, amendment or waiver is for the benefit of one or more of the parties hereto and to the detriment of the other or others, then the same must be in writing signed by that party or those parties hereto to whose detriment such modification, amendment or waiver inures.

21. Brokerage. Seller and Buyer hereby acknowledge, represent and warrant to each other that, other than The Boulos Company, who shall be paid by Buyer at Closing pursuant to a separate agreement or agreements, no broker or finder has been employed by either Seller or Buyer in connection with the sale and purchase transaction contemplated in this Contract and that no commission, finder's fee or similar remuneration, by whatever name, is payable by Seller or Buyer or due to any broker or finder in connection with this Contract or the sale and purchase transaction contemplated herein. Seller and Buyer each, respectively, hereby agree to indemnify, defend, save and hold the other harmless from and against the payment of any commissions or fees or claims for commissions or fees as a result of any actions taken or agreements, respectively, made by them with respect to the sale and purchase transaction contemplated in this Contract. The provisions of this Paragraph shall expressly survive any closing or closings hereunder or the termination of this Contract for any reason.

22. Assignment. This Agreement is not assignable by Seller except for the purpose of a like-kind exchange. Buyer shall be entitled to assign its right, title and interest herein to any limited liability company, corporation, partnership or other entity, whether now existing or

hereafter formed, controlled by, controlling or under common control with Buyer (each an "Affiliate"), provided that Redfern Properties, LLC shall remain liable for all obligations of Buyer under this Agreement regardless of any such assignment.

23. Non-Disclosure. Subject at all time to the rights of the parties as set forth in this Contract, unless and until the transaction contemplated hereby is closed, Buyer and Seller shall make no public announcements regarding the terms of this transaction. In any event, Buyer and Seller shall hold all proprietary information obtained by them with respect to each other or the Subject Property in strict confidence and shall not disclose such information to any other person or entity except to the extent necessary to consummate the transaction contemplated hereby.

24. Condemnation. In the event the Subject Property or any material portion or portions thereof shall be taken or condemned or be the subject of a bona fide written threat of condemnation by any governmental authorities or other entity prior to the closing, then the Buyer shall have the option of either (a) terminating this Contract by giving written notice thereof to the Seller, whereupon the Earnest Money Deposit shall be immediately refunded to the Buyer, and this Contract and all rights and obligations created hereunder shall be null and void and of no further force and effect, except as otherwise specified herein, or (b) requiring the Seller to convey the remaining portion or portions of the Subject Property to the Buyer pursuant to the terms and provisions hereof and to transfer and assign to the Buyer at the closing all of the right, title and interest of the Seller in and to any award made or to be made by reason of such condemnation, less amounts expended by Seller in connection therewith prior to such time. The Seller and the Buyer hereby further agree that the Buyer shall have the right to be present in all negotiations with any governmental authorities relating to the Subject Property and to be apprised of the compensation to be paid for any portion or portions thereof condemned by such governmental authorities or other entity.

25. Casualty. Seller will promptly upon receiving actual notice of a casualty, notify Buyer of any fire or other casualty affecting the Subject Property between the date hereof and the Closing. Unless otherwise mutually agreed in writing by Buyer and Seller, as soon as reasonably possible thereafter, subject to Seller's actual receipt of the proceeds, and subject in any event to the terms of any existing mortgage on the Real Property, Seller will commence any necessary repairs as a result of such fire or other casualty, and will provide Buyer with current information concerning insurance coverage therefor (the "Casualty Notice"). Buyer will have the right to terminate this Contract by written notice to Seller within fifteen (15) days following receipt of the Casualty Notice. If Buyer so terminates this Contract then, notwithstanding any provision of this Contract to the contrary, the entire Deposit, other than the portion of the Deposit that has become non-refundable, will be returned to Buyer, and the parties will have no further obligations or liabilities hereunder, except as otherwise expressly provided herein. If Buyer elects not to terminate this Contract, the purchase contemplated herein will be consummated without reduction of the Purchase Price within the later of ten (10) days after the expiration of such fifteen (15) day period or on the Closing Date specified herein, in which event the insurance proceeds will be used for such repairs, to the extent necessary, and Seller will assign transfer and set over to Buyer all of Seller's right, title and interest in and to such insurance proceeds less any amounts actually expended by Seller towards the repair or restoration prior to the date thereof, and Buyer shall receive a credit at Closing in an amount equal to the amount of the insurance deductible under Seller's insurance policy.

26. Execution in Counterparts. This Contract may be executed in counterparts, each of which shall be deemed an original and all such counterparts together shall be deemed to constitute an original instrument. Electronic signatures shall be afforded the full force and effect of original ink signatures.

27. Exchange. At either party's request, the other party shall cooperate to structure the sale of the Subject Property as a tax-deferred exchange under Section 1031 of the Internal Revenue Code, provided that: (a) the requesting party shall reimburse the other party for all resultant additional expenses it pays or incurs, (b) the other party shall not be obligated to take title to any property other than the Subject Property for any period of time, (c) the other party shall not be obligated to execute any notes or mortgages or to incur any liabilities as a result of participating in the exchange, (d) the Closing is not delayed beyond the Closing Date, and (e) the requesting party shall indemnify, defend and hold harmless the other party against claims, costs, loss, or liability arising from or related to the exchange.

[*Signatures appear on following page.*]

IN WITNESS WHEREOF, the parties have caused these presents to be executed as of the day and year first above written.

"SELLER"

Name: Raymond H. Waterhouse

Alina Waterhouse

"BUYER"

Redfern Properties, LLC

By. _____
Name. Jonathan Culley
Its: Member

"ESCROW AGENT"

The Boulos Company

By: _____
Name: Nate Stevens
Its: Designated Broker

EXHIBIT "A"

A certain lot or parcel of land, with the building thereon, situated on the easterly side of Washington Avenue in the City of Portland, County of Cumberland and State of Maine and being further bounded and described as follows:

Beginning at an iron set in the ground on the easterly side of said Washington Avenue at land now or formerly of the City of Portland; thence running North 79° 11' 30" East by land now or formerly of said City of Portland 181.49 feet to an iron set in the ground; thence running South 15° 52' East by Poplar Street Ext. (so called) 213.20' to an iron set in the ground at land now or formerly of Dewer Rich; thence running South 74° 21' West by said Rich land 33.23 feet to an iron set in the ground, thence running South 15° 39' East by said Rich land 64.00 feet to an iron set in the ground; thence running North 74° 21' East by said Rich land 33.47 feet to an iron set in the ground on the westerly line of said Poplar Street Ext. (so called); thence running South 15° 52' East by said Poplar Street Ext. (so called) 63.00 feet to an iron set in the ground; thence running South 74° 21' West 115.91 feet to an iron set in the ground; thence running South 82° 30' West 111.71 feet to an iron set in the ground on the easterly side of said Washington Avenue; thence running North 7° 30' West by the Easterly line of said Washington Avenue 254.40 feet to an angle in the easterly line of said Washington Avenue; thence running North 10° 15' 30" West by the easterly line of said Washington Avenue 88.25 feet to an iron set in the ground at land now or formerly of the City of Portland and said point of beginning.

The triangular strip of land lying northwesterly of Lots no. 10 and 20 on the Little, Weeks & Moody Plan was conveyed by the City of Portland to Equipment Leasing Co., Inc. by deed recorded in Cumberland County Registry of Deeds in Book 2695, Page 281.

Also, excepting all those certain premises conveyed by Raymond H. Waterhouse and Alina Waterhouse to Redfern Munjoy, LLC, by deed dated January 14, 2014, recorded in Book 31302, Page 177.

E. Summary of Written Easements

Exiting Easements:

There are no existing easements shown on the plan titled Boundary & Topographic Survey dated July 25, 2023, prepared by Owen Haskell, Inc.

Proposed Easements:

An easement will be granted to Central Maine Power for the locations of the primary transformer vaults that straddle the private property line and City ROW.

The developers are currently working with a general contractor to determine if temporary construction easements may be necessary and will provide supplemental information when available.

Standard to be Waived: Cite Ordinance or Technical Manual Standard	**Cite Standard Language:** Cite specific language of applicable Ordinance or Technical Manual Standard	**Waiver Being Sought:** Describe waiver being sought. Ex. – We are requesting a two-way parking lot drive aisle width of 20' feet.	**Justification for Waiver:** Address specific waiver criteria, if applicable, and document reasons for the waiver request.
Technical Manual 1.5.1.C Driveway Spacing	Driveway Spacing - 100 feet along arterial and collector streets with posted speeds of 35 mph or less	We are requesting a driveway spacing of 11.43 feet from the nearest abutting driveway	Proposes 11 parking spaces & reducing the exist. 3 curb cuts to 1. Minor driveway standards that takes the existing pattern of driveways in the surrounding context into account and limits impact on the street seem more appropriate given street context
Technical Manual Figure 1-16A	90 Degree Parking shall have a drive aisle width of 24 feet	We are requesting a drive aisle width of 22.22 feet	The 11 covered parking spaces are low turn over and tenant will be familiar with the turning movements. We request a 22.22' wide drive aisle which is been approved on similar projects.

G. Financial Capacity

Please refer to the attached letter prepared by the Applicant providing additional information.

120 Exchange Street
Suite 330
Portland, ME 04101

Redfern PROPERTIES

Mr. Kevin Kraft
Director, Planning & Urban Development
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

October 29, 2024

Subject: Financial & Technical Capacity - 165 Washington Avenue Site Plan Application

Dear Mr. Kraft:

With respect to Redfern Properties' financial and technical capacity to successfully execute the proposed development at 165 Washington Avenue, we refer you to our long track record of completing substantial development projects in Portland over the last 15 years. In sum, we have completed over $300M in development projects, all in the City of Portland. In each case, we have met our obligations to the City and our lenders. Recent projects include:

- The Casco, 263 apartments in the Old Port District, completed 2024
- Nightingale, mixed-use project with 165 residential apartments in on the former Mercy Hospital Campus, completed 2023
- Erlang, 81 residential units in a converted historic office building in the Arts District, completed 2023
- Hiawatha, 139 apartments in Longfellow Square, completed 2017

If necessary, we can provide a letter from one of our Banks, stating that our loan accounts are in good standing, but our track record is far stronger evidence of our capacity than a non-committal letter from a Bank.

Sincerely,

Jonathan Culley
Managing Partner

H. Technical Capacity

Redfern Properties develops, owns, and operates a portfolio of properties that includes the highest quality rental apartments in Portland. Redfern Properties is committed to developing innovative residential properties and focuses on infill and other "smart-growth" development in creating unique residences and commercial spaces, while making neighborhoods and communities more vibrant and sustainable. Redfern has permitted and constructed numerous recent projects including: The Casco, Nightingale (Mercy Redevelopment), Hiawatha, and the Erlang.

Acorn Engineering specializes in providing urban redevelopment, civil/site design, environmental services, municipal consulting and construction administration. Acorn Engineering, Inc. have successfully designed and permitted more than 20 projects in Portland during the past several years, including: Munjoy Heights, East Bayside Lofts, The Hiawatha, the Erlang, The Nightingale (Mercy Redevelopment), the Casco, Winter Landing (CHOM Affordable Senior Housing), and The Equinox (CHOM Affordable Family Housing).

Soren DeNiord Design Studio (SDDS) is a professional landscape design firm located in Portland, Maine. Their portfolio includes award winning projects ranging in scale from residential to mixed use, commercial and institutional. As stewards of the environment and our clients' resources, we engage in projects with a commitment to sustainability and the intention of artfully responding to each site's unique challenges.

Holst Architecture has been a leader in creating some of the most innovative mixed-use multifamily housing projects for the last 20 years. With thoughtful design solutions, Holst has completed 34 market rate, student, affordable, or Permanent Supportive Housing projects, totaling over 3,300 units of housing. We currently have over half a dozen housing projects that are currently in design or under construction. From groundbreaking towers in downtown Portland, Oregon (937 Condominiums and more recently, Julia West House) to garden style townhomes in Eagle, Idaho (The Clara), we create multifamily housing that raises the bar.

I. Conformity with Land Use Ordinance

The following outline is made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use. Specifically, Article 13 Section 6 Site Plan Review Standards.

OVERVIEW
The proposed project has been designed to conform to City standards where possible as demonstrated in the following narrative.

(a) Transportation Standards

1. Impact on Surrounding Street Systems:

   Based on the scale of the proposed project a Traffic Movement Permit has been completed by a licensed traffic engineer. The site is located on Washington Avenue. The project is not anticipated to create any significant hazard to safety on the surrounding street network. Congestion of the intersections is not anticipated. See Section T. Traffic, which includes the Traffic Movement Permit application, detailed analysis, and additional information on the existing and proposed conditions.

2. Access and Circulation:

a. Site Access and Circulation:

This project conforms with the design standards of Section 13.6.1.B as demonstrated in the following narrative:

(i) All site access and internal circulation will be designed in accordance with the standards set forth in Section 1 of the Technical Manual.

(ii) The site does not feature any shared circulation, parking, or transportation infrastructure. There are no anticipated or proposed developments directly abutting the property are at this time.

(iii) A sidewalk exists along Washington Avenue and will provide direct pedestrian access to the site. The sidewalk will be improved and widened as part of the project.

(iv) The proposed project does not abut or include any existing or proposed publicly accessible trails or trail connections.

(v) Egress and access to the site is directly off the sidewalk on Washington Avenue. There are no anticipated conflicts with traffic flows or turning movements.

b. Curb and Sidewalks:

(i) A sidewalk with curbing exists on Washington Avenue and will be reconstructed and widened as part of the proposed project.

(ii) Any disturbance to the sidewalk to accommodate the project will be rebuilt in conformance with the City's Code of Ordinances and the applicable design standards in the City's Technical Manual.

(iii) Not applicable.

(iv) Not applicable.

3. Public Transit Access:

a. The project is located on a bus route with the closest bus stop located on Washington Avenue 150' south of the parcel.

b. Not applicable.

c. Not applicable.

4. Parking:

a. Vehicular parking:

(i) Per table 18-A: Off-street parking maximums for:
a. See Site Plan (Sheet C-10) for the Parking Summary

(ii) Proposed parking spaces are not located within the front and corner side yards of the parcel.

(iii) Parking spaces are designed to conform to the standards set forth in the City of Portland Technical Manual. A waiver is requested to reduce the drive aisle width.

b. Bicycle parking

(i) Per Table 18-A, a minimum of 163 bicycle parking spaces have been provided as part of the proposed project

(ii) N/A

c. Snow Storage:

(i) The client will be responsible for the management of snow removal from the site as necessary during larger storm events.

(ii) Snow storage shall not be located where it interferes with pedestrian walkways or stormwater management systems. Landscaping in designated snow storage areas shall be such that it can withstand the snow pile.

d. Electric Vehicle (EV) charging

(i) A minimum 20% of paring spaces will be Level 2 EV charging or higher. Additionally, 50% will be EV ready. See C-10 for additional information.

5. Transportation Demand Management (TDM):

a. As the project is a mixed-use use consisting of greater than 50,000 sf of GFA, we understand a Transportation Demand Management plan for the project will be required. The development team and traffic engineer are coordinating TDM strategies and a TDM Plan will be forwarded to the City upon completion.

b. The Transportation Demand Management plan will comply with the standards set forth in the City of Portland Technical Manual.

(b) Environmental Quality Standards

1. Preservation of Significant Natural Features:

a. There are no known Significant Natural Features present on the project site.

b. Not applicable.

c. Not applicable.

2. Site landscaping and buffers.

a. On-Site Landscaping

(i) The project proposes 10 trees within the new courtyards and 6 street trees. Plantings including perennials are forthcoming.

(ii) Due to the existing slope on the site and proposed improvements, including retaining walls and building foundations, the existing vegetation and trees are unable to be preserved. The project proposes to replace the existing removed vegetation as shown on the landscaping plans.

(iii) Not Applicable

b. Buffers and screening

(i) The proposed solid waste containers will be located within the proposed building and not viewable from public sidewalks and adjacent streets.

(ii) Not applicable.

(iii) Not applicable

(iv) Not applicable

c. Parking and vehicle display lot landscaping.

(i) Not applicable, all parking proposed is to be covered parking.

(ii) Not applicable.

(iii) Not applicable.

d. Non-vehicular hardscape

(i) All uncovered paving for non-vehicular use shall have a minimum Solar Reflective Index (SRI) of 33 initially and 28 once aged three years

e. Street trees

(i) Please refer to the landscaping plan for the project for the proposed layout of street trees.

(ii) The project proposes to remove the existing street trees due to utility installation, access and circulation conflicts. Proposed street trees will be installed along the project frontage per the landscaping standards of the Technical Manual.

(iii) It is our understanding that there are no existing heritage or feature mature trees located on the property.

3. Water Quality, Stormwater Management and Erosion Control:

a. Stormwater

(i) A proposed stormwater drainage system will collect water on site through a new storm drain network. A portion of the site will be directed to a subsurface sand filter with an R-tank detention system to meet the City's treatment requirements. Another portion of the site will be directed to a detention system to further elevate the sites storage capacity and meet the City's requirements. See the Stormwater Report for additional information.

(ii) Any stormwater that flows onto adjacent lots will not exceed the pre-development flows.

(iii) The stormwater network has been designed to decrease peak flow rates and not overburden the existing downstream capacity. The BMPs will connect to outlet control structures that slowly outlet between 24-48 hours as required.

b. A site-specific Stormwater Management Plan has been developed for the project to show compliance with Section 5 of the Technical Manual, including standards of MEDEP Chapter 500. Please refer to the Stormwater Management Report for this information.

c. The development is not anticipated to pose a contamination risk to groundwater during or after construction. The project will be serviced by a public wastewater system.

d. The existing subsurface and adjacent slope conditions are suitable to support the proposed development. The proposed development shall not adversely impact the development site or any abutting property. Refer to section K Erosion and Sedimentation Control Report for more information.

(c) Public Infrastructure and Community Safety Standards

1. Consistency with City Master Plans:

   a. The project has been designed to be consistent with the City's Zoning Ordinance and off-site infrastructure.

   b. An easement will be granted to Central Maine Power for the locations of the primary transformer vaults that straddle the private property line and City ROW. The developers are currently working with a general contractor to determine if temporary construction easements may be necessary and will provide supplemental information when available.

2. Public Safety and Fire Prevention:

   a. Public Safety Design

      (i) The site has long viewing aisles and minimal spaces obscured from view.

      (ii) Access to the site has been designed to provide adequate emergency vehicle access to the site.

      (iii) This project will provide new site lighting and will promote natural surveillance and access control. Additionally, fences will be utilized on the side yards to provide safety of tennant users and to deter potential offenders and delineate public and private spaces.

   b. Emergency Access
      (i) Access to the site has been designed to comply with the Section 3 Public Safety standards of the Technical Manual.

3. Public Utilities:

   a. Ability to Serve letters have been sent to the respective companies. Responses are forthcoming. The project does not anticipate overburdening the sewer (project proposes to upsize sewer from 8" to 15"), storm, and water utility mains within Washington Avenue.

   b. The existing overhead wires along the project frontage will be dropped underground. A proposed submersible transformer that is serviced by 3-phase primary conduits from a utility pole on Washington Avenue will serve the project. A secondary conduit will extend from the transformer to the building

   c. The building will be served by a proposed 8" sewer service connected to the redesigned 15" VC sewer main within Washington Avenue.

   d. The building will be served by a proposed 8" sewer service connected to the redesigned 15" VC sewer main within Washington Avenue.

   e. A proposed solid waste container will be located within the building and will be screened from view.

(d) Site Design Standards

1. Massing, Ventilation and Wind Impact:

   a. Please refer to Section O, Architectural Design Narrative.

   b. Please refer to Section O, Architectural Design Narrative.

   c. Please refer to Section O, Architectural Design Narrative.

2. Shadows:

   a. Please refer to Section O, Architectural Design Narrative.

3. Snow and Ice Loading:

   a. The proposed building will be designed to reduce/prevent significant amounts of accumulated snow and ice from loading or falling into adjacent properties or public ways.

4. View Corridors:

   a. Please refer to Section O, Architectural Design Narrative.

5. Historic Resources:

    a. The development is not located in a Historic District.

    b. There are no known archaeological resources on the site.

    c. Not applicable

6. Exterior Lighting:

    a. Site Lighting.

        (i) Exterior lighting will be designed to meet the requirements of Section 12 of the Technical Manual. See Section N: Lighting for additional information.

        (ii) Any lighting that may adversely impact the abutting properties will feature side shielding.

    b. Architectural and Specialty Lighting.

        (i) No architectural or specialty lighting is proposed.

        (ii) No up-lighting is proposed.

    c. Street Lighting.

        (i) The project includes street lighting on Washington Avenue. The street lighting will be in conformance with the City's Technical Manual.

7. Noise and Vibration:

    a. The HVAC system will meet the applicable state and federal emissions requirements and will also be screened and directed away from abutters.

8. Signage and Wayfinding:

    a. Signage

        (i) Signage shall be designed to complement the building and its immediate context while conforming to the standards set forth in the City of Portland Land Use Code.

        (ii) Signage shall be designed to complement the building and its immediate context while conforming to the standards set forth in the City of Portland Land Use Code.

        (iii) Signage shall be designed to complement the building and its immediate

context while conforming to the standards set forth in the City of Portland Land Use Code.

(iv) Signage shall be designed to complement the building and its immediate context while conforming to the standards set forth in the City of Portland Land Use Code.

(v) Signage shall be designed to complement the building and its immediate context while conforming to the standards set forth in the City of Portland Land Use Code.

b. Wayfinding

(i) All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Chapter 25 of the City Code.

9. Signage and wayfinding:

a. Signage shall be designed to complement the building and its immediate context while conforming to the standards set forth in the City of Portland Land Use Code.

b. Signage shall be designed to complement the building and its immediate context while conforming to the standards set forth in the City of Portland Land Use Code.

10. Design Standards:

a. The project has been designed to meet the standards set forth in the B2b Business Community zoning district. The project proposes to develop the parcel into a new multi-family apartment building with 326 dwelling units, ground floor commercial space, and other site and utility improvements. Please refer to the Site Plan and Architectural Drawings for additional information.

b. The development is not located within a Historic District.

A C O R N
ENGINEERING, INC.

STORMWATER MANAGEMENT REPORT

Prepared For:

Redfern Properties
P.O. Box 8816
Portland, ME 04104

Prepared By:

Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104



November 2024
Revised February 2025

INTRODUCTION

Acorn Engineering, Inc. has been retained by Redfern Properties to provide civil engineering services for the proposed redevelopment located at 165 Washington Avenue, Portland, ME 04101. The site is currently comprised of the existing Northern Burner Supply building with gravel and paved surface parking areas. The property consists of approximately 1.50 acres of land. The proposed project anticipated increasing the total impervious area by approximately 14,150 square feet and is subject to stormwater treatment due to the creation of 1,000 square feet of new impervious area.

A stormwater analysis was prepared to demonstrate that the project will meet the requirements set forth by Maine DEP Chapter 500 Basic and General Standards and the following requirements from the City of Portland (the City):

- City of Portland Land Use Ordinance Article 14.6.2.D.
- City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and Maine DEP Chapter 500 Stormwater Management.
- City of Portland Code of Ordinances Chapter 32 – Post-Construction Stormwater Management
- DPW Specific Standard: Provide a minimum detention volume of the projected 24 hour daily sanitary flows with a maximum outflow rate of 0.1 CFS per acre until the storage is maximized.

EXISTING CONDITIONS

The proposed project site is located at 165 Washington Avenue. A Boundary & Topographic Survey has been prepared by Owen Haskell, Inc., dated July 25, 2023.

The existing property is covered by approximately 55% impervious surfaces including the existing Northern Burner building, pavement, and gravel parking lots.

The project team is not aware of the presence of any existing significant natural features located on the site. Given the urban setting and existing impervious surfaces, a field inventory of significant natural features was not undertaken. The project is not located within a watershed classified as an Urban Impaired Stream.

PROPOSED DEVELOPMENT

The project proposes demolishing the existing Northern Burner Supply building and associated parking areas and constructing a 325-unit multi-family / mixed use building with commercial space on the first floor. It is anticipated that the building will be a mixture of two-bedroom, one-bedroom and studio units. The project also includes various parking, utility, and landscape improvements.

Proposed drainage improvements include catch basins, roof drains, foundation drains, and field inlets. Treatment is proposed through a StormFilter BMP and storage will be met using

two separated R-tank systems. Ultimately the proposed storm drain network will outlet to the a relocated combined sewer system within Washington Avenue.

The development will be served by the Portland Water District, underground power/cable/communications, natural gas and the municipal sewer system. The project anticipates incorporating Maine DEP approved stormwater Best Management Practices (BMP) to meet the General and Flooding Standards.

For an analysis of water quality, please refer to the following section.

GENERAL STANDARDS – WATER QUALITY

The proposed project was designed to provide primary water quality treatment through the use of a StormFilter BMP. The system has been designed in accordance with the MDEP Proprietary Systems (Appendix B) StormFilter BMP, and the City of Portland Technical Manual (Section 5) Redevelopment Standards.

MaineDEP Chapter 500 Redevelopment standards are utilized to determine the required treatment for this project. The Pollutant Rankings and corresponding Weighted Impact Rankings are outlined below.

Table 1 – Land Use and Pollutant Summary Table: Existing Conditions

Land use	Pollutant Ranking	Existing Area	Weighted Impact
Roads where idling may occur; high use parking lots	5	0.00 ac.	0.00
Other roads; medium use parking lots	4	0.61 ac.	1.62
Other parking lots and driveways; flat roof asphalt rooftops	3	0.23 ac.	0.46
Other rooftops; grassed areas mowed > twice per year; walkways / foot-traffic-only pavement	2	0.00 ac.	0.00
Non-grass landscaped areas; Stormwater treatment / storage systems	1	0.67 ac.	0.45
TOTAL		1.50 ac.	2.53

The corresponding pre-development map can be viewed in Attachment D of this report.

The proposed post development land use rankings are as follows:

Table 2 – Land Use and Pollutant Summary Table: Previously Approved Conditions			
Land use	**Pollutant Ranking**	**Existing Area**	**Weighted Impact**
Roads where idling may occur; high use parking lots	5	0.00 ac.	0.00
Other roads; medium use parking lots	4	0.10 ac.	0.27
Other parking lots and driveways; flat roof asphalt rooftops	3	0.00 ac.	0.00
Other rooftops; grassed areas mowed > twice per year; walkways / foot-traffic-only pavement	2	1.15 ac.	1.53
Non-grass landscaped areas; Stormwater treatment / storage systems	1	0.26 ac.	0.17
TOTAL		1.50 ac.	1.97

The corresponding post-redevelopment map can be viewed in Attachment E of this report.

From Tables 1 & 2 above, the weighted impact for the proposed redevelopment is less than the weight impact for the existing condition, therefore Chapter 500 requires the project provides 0% treatment of the site's developed area for Stormwater Projects. Regardless, the project will need to provide no less than 95% treatment of the site's new impervious area due to the City of Portland stormwater managements threshold of creating 1,000 square feet or greater of new impervious area

Treatment Area

The development shall provide water quality treatment in accordance with the City of Portland for no less than 95% of the new impervious area and 80% of the new developed area. Water quality treatment will be provided through the use of a StormFilter BMP.

Exemptions

It should be noted that the Portland Stormwater Standard Section 5.2.2.B.2 states "Water quality treatment is not required for existing impervious areas which are developed into building roofs unless otherwise required by a state stormwater permit" & Section 5.2.2.B.4 states "Redeveloped public street right of way area is exempt from the treatment, flooding and minimum detention volume requirements".

See Table 3 & 4 below that outlines the stormwater treatment requirement thresholds:

Table 3 – Impervious Area						
Existing Impervious Area	Proposed Impervious Area	Exempt Impervious Area	Impervious Area Subject to Treatment	95% Impervious Area Requirement	Impervious Area Treatment Provided Onsite	Total Impervious Area Treatment Provided
36,133 SF	50,287 SF	28,538 SF	22,214 SF	21,103 SF	22,232 SF (105.3%)	28,565 SF (153.5%)

Table 4 – Developed Area					
Existing Developed Area	Proposed Developed Area	Developed Area Subject to Treatment	80% Developed Area Requirement	Developed Area Treatment Provided Onsite	Total Developed Area Treatment Provided
40,497 SF	60,128 SF	19,631 SF	15,705 SF	32,275 SF (205.5%)	53,518 SF (293.4%)

The project proposes to exceed the 95% new impervious and 80% development treatment requirements. See Attachment G Stormwater Treatment Exhibit for background on Impervious and Developed Area coverages.

It should be noted that upgradient offsite runoff is included within the treatment subcatchment. Although those areas are not needed to meet the projects treatment requirement thresholds for the site.

Water Quality Volume

In accordance with the Volume III: BMPs Technical Design Manual, a water quality volume of 1.0 inches times the tributary impervious area plus 0.4 inches times the tributary vegetated area is required to be treated by the StormFilter BMP. The water quality volume is calculated by the following formula:

(Imp. SF x 1.0") + (Veg. SF x 0.4") = Treatment Volume (CF)

Sub catchment 1.2 is the area that drains toward the StormFilter and the land coverage breakdown is outlined below:

Table 5 – Water Quality Volume Table				
	Upgradient Landscaped Area (SF)	Upgradient Impervious Area (SF)	Total Treatment Volume Required (CF)	Treatment Volume Provided (CF)
StormFilter	24,953	28,565	3,212	3,216

[(28,565 x 1") + (24,953 x 0.4")] = 3,212 CF

The water quality treatment volume was confirmed by using the HydroCAD model. HydroCAD calculations are attached to this report to demonstrate the compliance. The storage volume within the crushed stone, chambers, and filter sand is added together to calculate the water quality volume.

FLOODING STANDARD – WATER QUANTITY

To meet the City's requirement of limiting the burden on the combined sewer main, the project is subject to provide a minimum detention volume of the projected 24 hour daily sanitary flows with a maximum outflow rate of 0.1 CFS per acre until the storage is maximized. The project will utilize R-Tanks that will be wrapped in geotextile fabric and crushed stone to provide storage before being collected by an orifice-controlled outlet control structure and direct to the street.

See below table for the project redevelopment requirements and calculations for water quality volume.

Table 6 – DPW Detention Volume Requirement			
	Projected 24 hour Daily Sanitary Flows	Total Detention Volume Required (CF)	Total Detention Volume Provided (CF)
-	45,600 GPD	6,096 CF	**6,836 CF**
R-Tank 1			3,620 CF*
R-Tank 2	-	-	3,216 CF**
* Detention Volume is measured at the bypass weir wall invert elevation 61.25' ** Detention Volume is measured at the bypass weir wall invert elevation 62.65'			

To meet the 0.1 CFS per acre requirement. An orifice will be installed within the downgradient outlet control structures for each R-Tanks Detention system. The orifice will decrease the flow out of the BMPs to 0.1 CFS per acre and storage will be provided in excess of the project daily sanitary flows. Once the detention volume required has been reached the stormwater will overflow into the outlet pipe and enter the municipal system within Washington Avenue.

The proposed project was modeled using HydroCAD to verify that the post-development conditions do not exceed the pre-development conditions. A 24-hour SCS Type III storm distribution for the 2, 10, and 25-year storm events were used. The corresponding rainfall amounts for these storms are 3.10", 4.60", and 5.80" respectively. Due to the numerous variables, and inherent inaccuracies with the modeling program used to calculate stormwater

runoff it is custom at Acorn Engineering to round to the nearest whole number. However, due to the size of the project, the stormwater runoff shall be rounded to the nearest tenth of a cubic feet per second (cfs).

Time of Concentration (Tc)

The times of concentration for subcatchments in both the pre and post conditions were calculated by entering the flow path with the associated ground cover and slopes. HydroCAD then calculated the Tc's and incorporated the total Tc for each subcatchment into the model. When the calculated Tc was less than six minutes (0.1 hours), a direct entry of six minutes was used as advised by the TR-55 model. Consistent with previous submissions and best practices, the sheet flow length for any Tc path was capped at 150 feet.

Curve Number (CN)

Within the pre-development model, the vegetated areas were considered fair grass, and impervious areas consisted of either roof of existing building or pavement from parking lot.

Pre-Development
- Pavement, Walkways, Roofs – CN 98
- Gravel – CN 96
- 75% Grass Cover – Good, HSG A – CN 39
- Woods/Grass, - Fair, HSG A – 43

Post-Development
- Pavement, Walkways, Roofs – CN 98
- Gravel – CN 96
- >75% Grass Cover (new landscaping) – Good, HSG A – CN 39
- Woods/Grass, - Fair, HSG A – 43

Pre-development Calculations

The pre-development model was modeled in one subcatchment.
- Subcatchment 1 – This tributary area includes the entire parcel that drains toward the municipal storm drain network within Washington Avenue. Impervious area includes gravel, pavement, building roof, and upgradient grass and wooded areas.
    - This tributary area also includes the offsite area upgradient of the site that drains into the parcel. There is a steep hill with grades that range up to 80%. Land cover consists of mostly landscape areas comprised of trees and grass with minimal impervious area in the form of walkways.

A pre-development watershed map developed for this project can be viewed in Attachment A and a copy of the HydroCAD calculations is included within Attachment C, of this report. Point of interest flow rates for the two sub catchments outlined above are as follows:

Table 7 – Pre-Development Peak Stormwater Flows			
	2-Year Storm Event (cfs)	10-Year Storm Event (cfs)	25-Year Storm Event (cfs)
Total Runoff	1.25	3.25	5.10

Post-development Calculations

The post-development model was broken into four separate sub catchments.

- Subcatchment 1.1 – This tributary area includes a section of the building's roof and the central courtyard. The courtyard contains a mix of landscape and impervious coverage. This subcatchment is stored using a subsurface R-Tank Detention System.
- Subcatchment 1.2 - This tributary area includes the south and eastern sides of the site. This area includes the remaining portion of the building roof, a secondary courtyard, and a walkway and stone swale on the eastern side of the site. The area is directed toward a StormFilter BMP that provides treatment and subsurface R-tanks that provide storage under the drive aisle.
    - This area includes a majority of the upgradient offsite runoff mentioned in the predeveloped condition.
- Subcatchment 1.3 – This tributary area includes the northern and western side of the site. This area includes a concrete walkway and the brick location on the projects frontage.
    - This area includes a small portion of the upgradient offsite runoff mentioned in the predeveloped condition.

Total Peak flow rates for the post-development storm events are as follows:

Table 8 – Post-Development Peak Stormwater Flows			
	2-Year Storm Event (cfs)	10-Year Storm Event (cfs)	25-Year Storm Event (cfs)
Total Runoff	0.23	1.52	5.04

The post-development calculations include changes to the land use and the compensation provided by the stormwater BMPs. It should be noted that the project is also reducing the overall impervious area. As a result, the total peak flow rates in the post development are reduced in comparison to the total predevelopment flow rates for the 2, 10, & 25-year storms.

The following table represents a comparison of pre- development and post-development condition peak runoff rates for the proposed development and tributary area.

Table 9 – Comparison of Peak Flows						
POI	2-Year Storm Event (cfs)		10-Year Storm Event (cfs)		25-Year Storm Event (cfs)	
	Pre	Post	Pre	Post	Pre	Post
Total Runoff	1.25	0.23	3.25	1.52	5.10	5.04

A post-development watershed map developed for this project can be viewed in Attachment B, and a copy of the HydroCAD calculations is included within Attachment C of this report.

SOILS

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County
- United States Department of Agriculture Web Soil Survey

Given the soils information, listed above, no onsite wastewater is proposed; the applicant does not intend to perform a more intense hydric soil boundary delineation because the waiver requirements set forth in the City of Portland Technical Manual – Section 7 – Soil Survey, Rev. 6/17/11 are met.

The area within and surrounding the project includes soil types listed in the table below. The susceptibility of soils to erosion is indicated on a relative "K" scale of values over a range of 0.02 to 0.69. Higher "K" values indicate more erodible soils.

Table 10 - "K" Value		
Soils Type	**Subsurface**	**Substratum**
Hinckley Loamy Sand	0.17	0.17

The soil "K" value for the soil, listed above, shows a low susceptibility to erosion. The site's susceptibility to erosion is sourced from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County.

CONCLUSION

The proposed development was designed to meet the requirements implemented by the MDEP under the Stormwater Management Statute (38 M.R.S.A. § 420-D) as well as the City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards. The proposed project as designed is not anticipated to cause flooding or erosion problems within the subject site, abutters' sites, nor within the right-of-way. Overall, the project will provide an improvement to stormwater runoff and overall management from several perspectives as outlined above.

ATTACHMENTS

Attachment A: Pre-Development Watershed Map
Attachment B: Post-Development Watershed Map
Attachment C: HydroCAD Calculations
Attachment D: Pre-Redevelopment Map
Attachment E: Post Redevelopment Map
Attachment F: Stormwater Inspection and Maintenance Plan
Attachment G: Stormwater Treatment Exhibit (For Impervious and Developed Areas)

GENERAL NOTES:

REFER TO STORMWATER REPORT FOR ADDITIONAL INFORMATION.

1 — SUBCATCHMENT

SUBCATCHMENT EXTENTS

POA — POINT OF ANALYSIS

WOODS

TC: OFFSITE A–B

TC: OFFSITE B–C

TC: OFFSITE C–D

TC: OFFSITE D–E

TC: A–B

SHEET FLOW TO SHALLOW CONCENTRATED FLOW (150')

TC: B–C

1S

TC: C–D

TC: D–E

EXISTING BUILDING

E COVE STREET

WASHINGTON AVENUE
PAVED – PUBLIC

POA

20 0 20 40

SCALE: 1" = 20'

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY	DATE
SITE PLAN	PFH	11/20/24
COMMENT RESPONSE	PFH	2/14/25

DRAWING NAME: **PRE–DEVELOPMENT WATERSHED MAP**

PROJECT NAME: **TAVATA – 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101**

CLIENT: REDFERN PROPERTIES
P.O. BOX 8816, PORTLAND, MAINE 04104

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P.O. BOX 3372 PORTLAND, MAINE 04104
(207) 775-2655

FILE:	1202_CIVIL
JN:	1202
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

DRAWING NO.
EX-1

GENERAL NOTES:

REFER TO STORMWATER REPORT FOR ADDITIONAL INFORMATION.

1 — SUBCATCHMENT

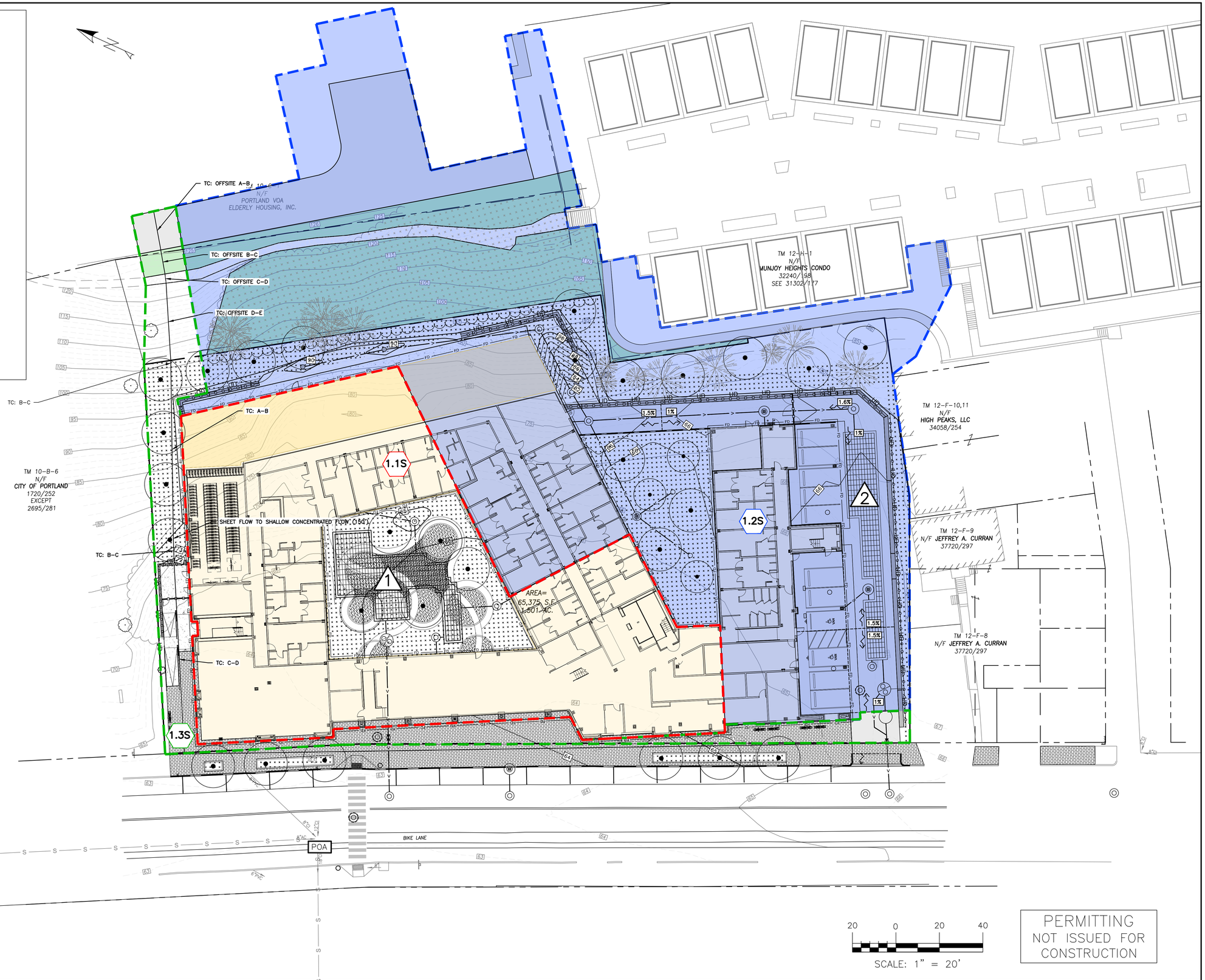
SUBCATCHMENT EXTENTS

POA — POINT OF ANALYSIS

1 — POND

AREA WITH TREATMENT

WOODS



20 0 20 40

SCALE: 1" = 20'

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SITE PLAN	PFH 11/20/24
COMMENT RESPONSE	PFH 2/14/25

DRAWING NAME: POST DEVELOPMENT WATERSHED MAP

PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE
PORTLAND, MAINE, 04101

CLIENT: REDFERN PROPERTIES
P.O. BOX 8816, PORTLAND, MAINE 04104

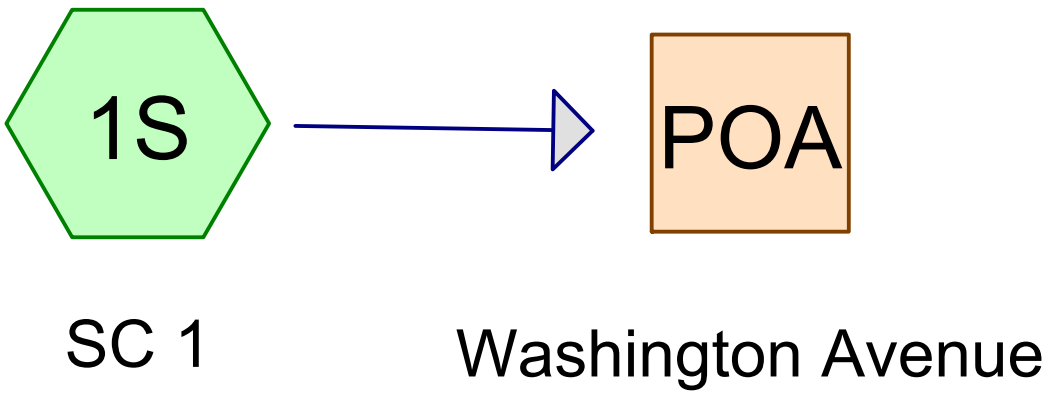
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FILE:	1202_CIVIL
JN:	1202
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
EX-2



Subcat Reach Pond Link

Routing Diagram for Pre Development 12.4.24
Prepared by HP Inc., Printed 2/14/2025
HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.143	39	>75% Grass cover, Good, HSG A (1S)
0.300	96	Gravel (1S)
0.153	39	Offsite Grass cover (1S)
0.022	96	Offsite Gravel Path (1S)
0.133	98	Offsite Pavement (1S)
0.212	43	Offsite Woods/grass comb., Fair, HSG A (1S)
0.307	98	Pavement (1S)
0.223	98	Roof, decks (1S)
0.528	43	Woods/grass comb., Fair, HSG A (1S)
2.023	**69**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.884	HSG A	1S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
1.139	Other	1S
2.023		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.143	0.000	0.000	0.000	0.000	0.143	>75% Grass cover, Good	1S
0.000	0.000	0.000	0.000	0.300	0.300	Gravel	1S
0.000	0.000	0.000	0.000	0.153	0.153	Offsite Grass cover	1S
0.000	0.000	0.000	0.000	0.022	0.022	Offsite Gravel Path	1S
0.000	0.000	0.000	0.000	0.133	0.133	Offsite Pavement	1S
0.212	0.000	0.000	0.000	0.000	0.212	Offsite Woods/grass comb., Fair	1S
0.000	0.000	0.000	0.000	0.307	0.307	Pavement	1S
0.000	0.000	0.000	0.000	0.223	0.223	Roof, decks	1S
0.528	0.000	0.000	0.000	0.000	0.528	Woods/grass comb., Fair	1S
0.884	**0.000**	**0.000**	**0.000**	**1.139**	**2.023**	**TOTAL AREA**	

Time span=1.00-36.00 hrs, dt=0.01 hrs, 3501 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: SC 1 Runoff Area=88,107 sf 32.79% Impervious Runoff Depth=0.72"
Flow Length=330' Tc=10.8 min CN=69 Runoff=1.25 cfs 0.122 af

Reach POA: Washington Avenue Inflow=1.25 cfs 0.122 af
Outflow=1.25 cfs 0.122 af

Total Runoff Area = 2.023 ac Runoff Volume = 0.122 af Average Runoff Depth = 0.72"
67.21% Pervious = 1.359 ac 32.79% Impervious = 0.663 ac

Summary for Subcatchment 1S: SC 1

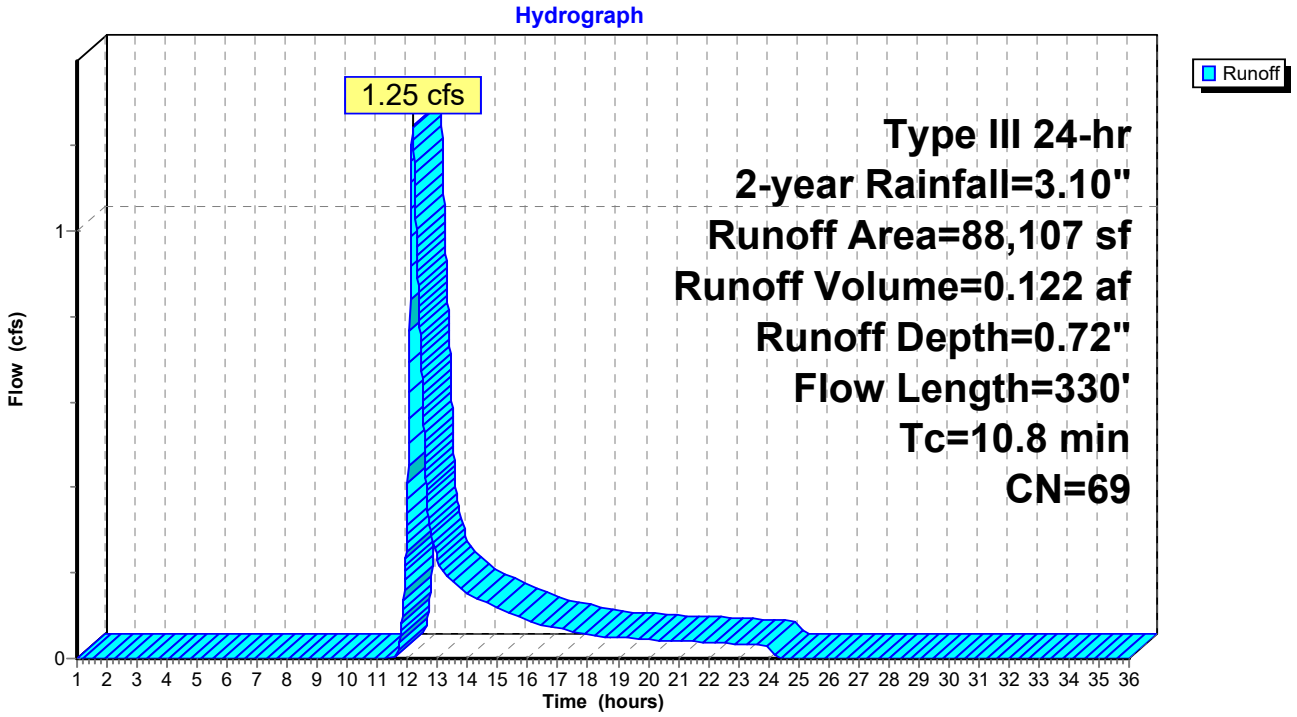
Runoff = 1.25 cfs @ 12.17 hrs, Volume= 0.122 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	9,698	98	Roof, decks
	6,249	39	>75% Grass cover, Good, HSG A
*	13,379	98	Pavement
*	13,056	96	Gravel
	22,995	43	Woods/grass comb., Fair, HSG A
*	5,815	98	Offsite Pavement
*	9,256	43	Offsite Woods/grass comb., Fair, HSG A
*	974	96	Offsite Gravel Path
*	6,685	39	Offsite Grass cover
	88,107	69	Weighted Average
	59,215		67.21% Pervious Area
	28,892		32.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	67	0.1040	0.31		**Sheet Flow, Offsite Sheet Flow A-B** Grass: Short n= 0.150 P2= 3.27"
1.6	18	0.4400	0.19		**Sheet Flow, Offsite Sheet Flow B-C** Woods: Light underbrush n= 0.400 P2= 3.27"
0.1	7	0.0200	0.82		**Sheet Flow, Offsite Sheet Flow C-D** Smooth surfaces n= 0.011 P2= 3.27"
2.4	34	0.5450	0.24		**Sheet Flow, Offsite Sheet Flow D-E** Woods: Light underbrush n= 0.400 P2= 3.27"
2.0	25	0.4400	0.20		**Sheet Flow, Sheet Flow A-B** Woods: Light underbrush n= 0.400 P2= 3.27"
0.3	54	0.3700	3.04		**Shallow Concentrated Flow, Shallow Concentrated B-C** Woodland Kv= 5.0 fps
0.1	13	0.2310	3.36		**Shallow Concentrated Flow, Shallow Concentrated C-D** Short Grass Pasture Kv= 7.0 fps
0.7	112	0.0200	2.87		**Shallow Concentrated Flow, Shallow Concentrated D-E** Paved Kv= 20.3 fps
10.8	330	Total			

Subcatchment 1S: SC 1

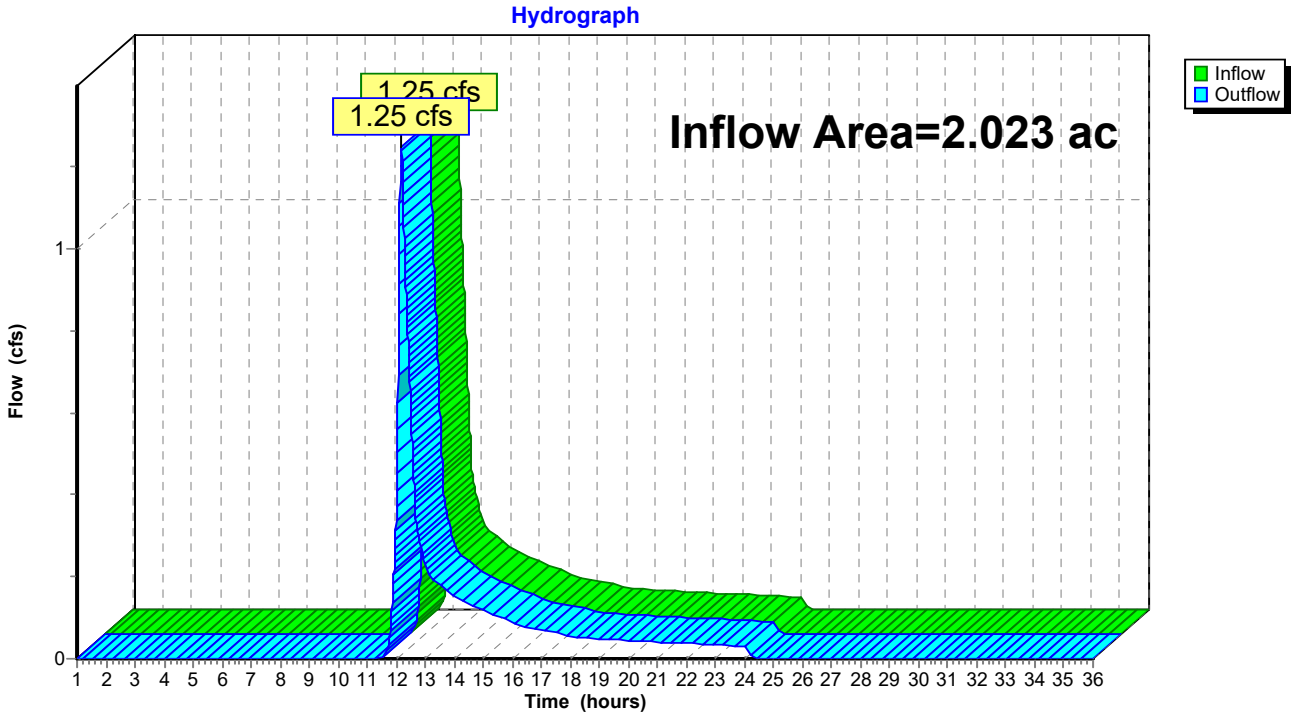


Summary for Reach POA: Washington Avenue

Inflow Area = 2.023 ac, 32.79% Impervious, Inflow Depth = 0.72" for 2-year event
Inflow = 1.25 cfs @ 12.17 hrs, Volume= 0.122 af
Outflow = 1.25 cfs @ 12.17 hrs, Volume= 0.122 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach POA: Washington Avenue



Time span=1.00-36.00 hrs, dt=0.01 hrs, 3501 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: SC 1 Runoff Area=88,107 sf 32.79% Impervious Runoff Depth=1.67"
Flow Length=330' Tc=10.8 min CN=69 Runoff=3.25 cfs 0.282 af

Reach POA: Washington Avenue Inflow=3.25 cfs 0.282 af
Outflow=3.25 cfs 0.282 af

Total Runoff Area = 2.023 ac Runoff Volume = 0.282 af Average Runoff Depth = 1.67"
67.21% Pervious = 1.359 ac 32.79% Impervious = 0.663 ac

Summary for Subcatchment 1S: SC 1

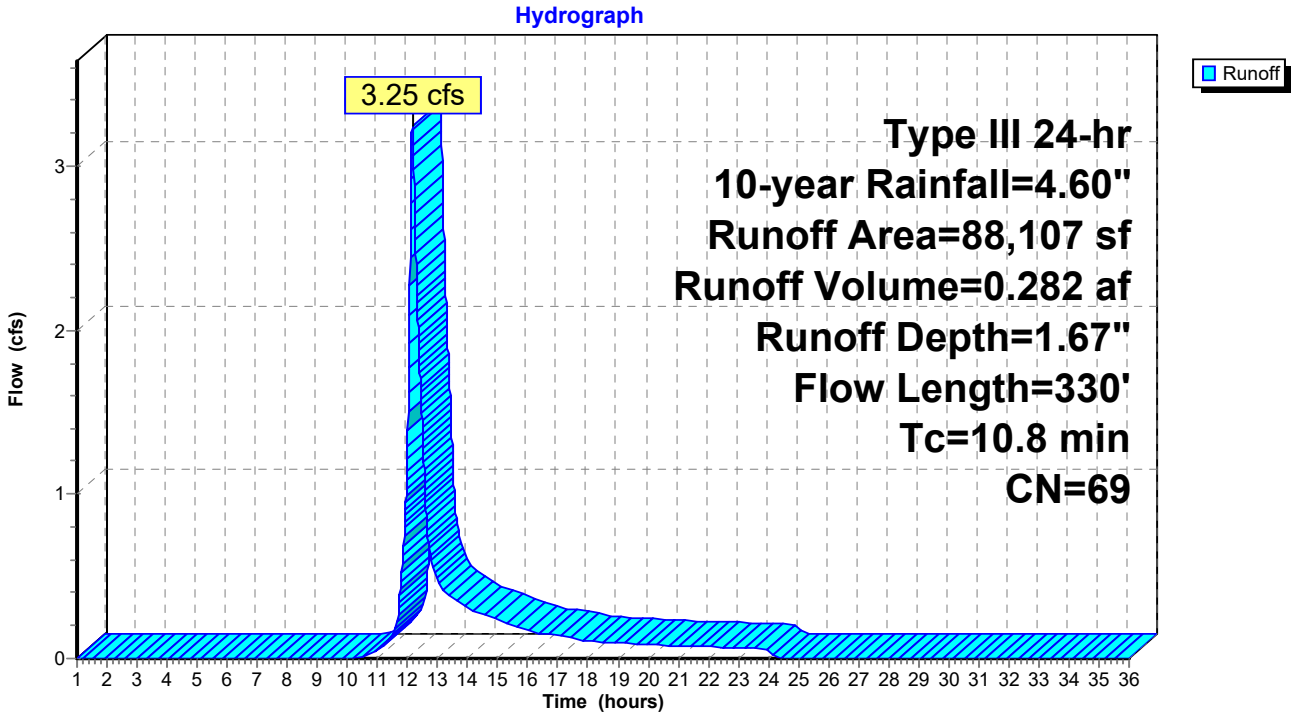
Runoff = 3.25 cfs @ 12.16 hrs, Volume= 0.282 af, Depth= 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	9,698	98	Roof, decks
	6,249	39	>75% Grass cover, Good, HSG A
*	13,379	98	Pavement
*	13,056	96	Gravel
	22,995	43	Woods/grass comb., Fair, HSG A
*	5,815	98	Offsite Pavement
*	9,256	43	Offsite Woods/grass comb., Fair, HSG A
*	974	96	Offsite Gravel Path
*	6,685	39	Offsite Grass cover
	88,107	69	Weighted Average
	59,215		67.21% Pervious Area
	28,892		32.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	67	0.1040	0.31		**Sheet Flow, Offsite Sheet Flow A-B** Grass: Short n= 0.150 P2= 3.27"
1.6	18	0.4400	0.19		**Sheet Flow, Offsite Sheet Flow B-C** Woods: Light underbrush n= 0.400 P2= 3.27"
0.1	7	0.0200	0.82		**Sheet Flow, Offsite Sheet Flow C-D** Smooth surfaces n= 0.011 P2= 3.27"
2.4	34	0.5450	0.24		**Sheet Flow, Offsite Sheet Flow D-E** Woods: Light underbrush n= 0.400 P2= 3.27"
2.0	25	0.4400	0.20		**Sheet Flow, Sheet Flow A-B** Woods: Light underbrush n= 0.400 P2= 3.27"
0.3	54	0.3700	3.04		**Shallow Concentrated Flow, Shallow Concentrated B-C** Woodland Kv= 5.0 fps
0.1	13	0.2310	3.36		**Shallow Concentrated Flow, Shallow Concentrated C-D** Short Grass Pasture Kv= 7.0 fps
0.7	112	0.0200	2.87		**Shallow Concentrated Flow, Shallow Concentrated D-E** Paved Kv= 20.3 fps
10.8	330	Total			

Subcatchment 1S: SC 1

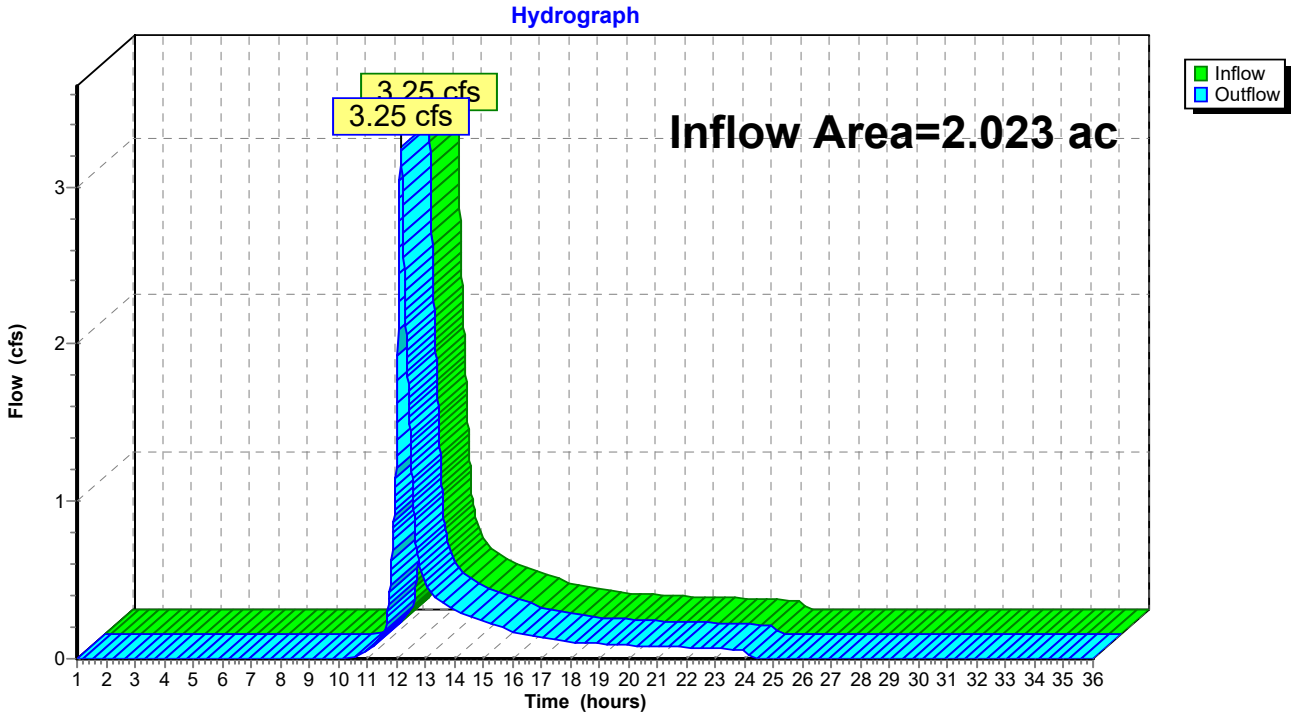


Summary for Reach POA: Washington Avenue

Inflow Area = 2.023 ac, 32.79% Impervious, Inflow Depth = 1.67" for 10-year event
Inflow = 3.25 cfs @ 12.16 hrs, Volume= 0.282 af
Outflow = 3.25 cfs @ 12.16 hrs, Volume= 0.282 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach POA: Washington Avenue



Time span=1.00-36.00 hrs, dt=0.01 hrs, 3501 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: SC 1 Runoff Area=88,107 sf 32.79% Impervious Runoff Depth=2.56"
Flow Length=330' Tc=10.8 min CN=69 Runoff=5.10 cfs 0.431 af

Reach POA: Washington Avenue Inflow=5.10 cfs 0.431 af
Outflow=5.10 cfs 0.431 af

Total Runoff Area = 2.023 ac Runoff Volume = 0.431 af Average Runoff Depth = 2.56"
67.21% Pervious = 1.359 ac 32.79% Impervious = 0.663 ac

Summary for Subcatchment 1S: SC 1

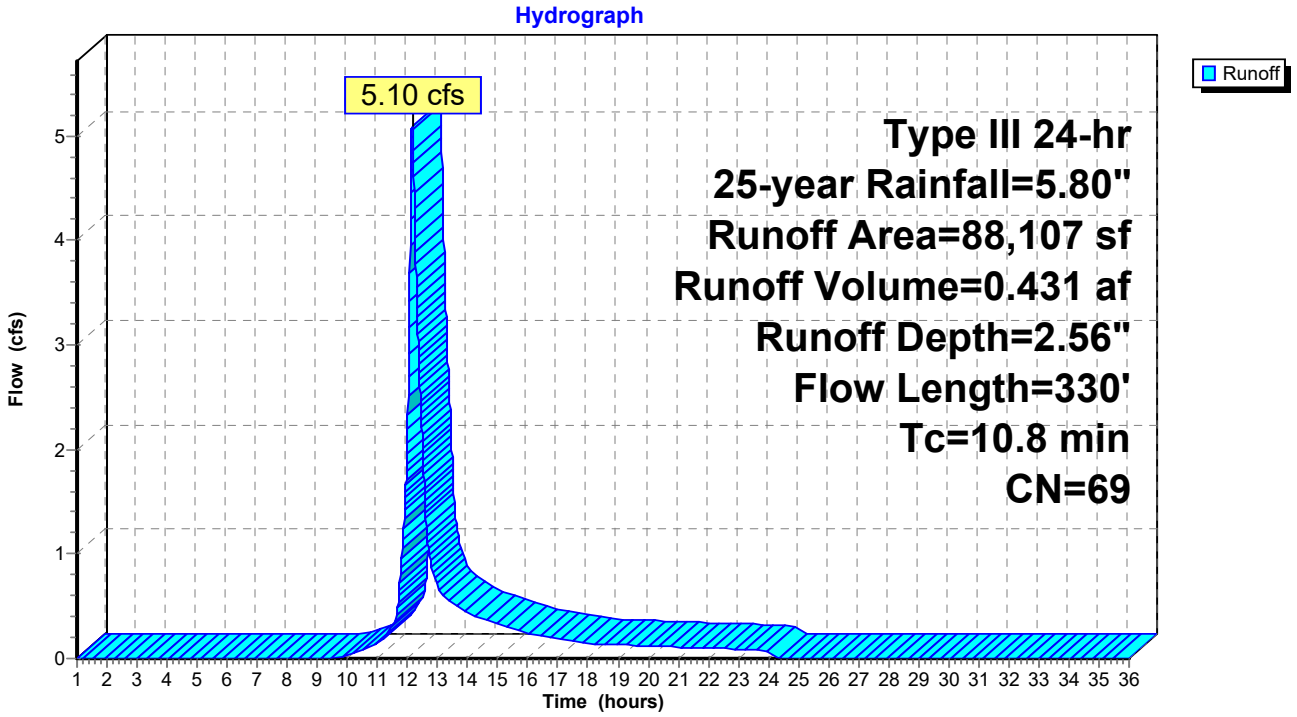
Runoff = 5.10 cfs @ 12.16 hrs, Volume= 0.431 af, Depth= 2.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	9,698	98	Roof, decks
	6,249	39	>75% Grass cover, Good, HSG A
*	13,379	98	Pavement
*	13,056	96	Gravel
	22,995	43	Woods/grass comb., Fair, HSG A
*	5,815	98	Offsite Pavement
*	9,256	43	Offsite Woods/grass comb., Fair, HSG A
*	974	96	Offsite Gravel Path
*	6,685	39	Offsite Grass cover
	88,107	69	Weighted Average
	59,215		67.21% Pervious Area
	28,892		32.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	67	0.1040	0.31		**Sheet Flow, Offsite Sheet Flow A-B** Grass: Short n= 0.150 P2= 3.27"
1.6	18	0.4400	0.19		**Sheet Flow, Offsite Sheet Flow B-C** Woods: Light underbrush n= 0.400 P2= 3.27"
0.1	7	0.0200	0.82		**Sheet Flow, Offsite Sheet Flow C-D** Smooth surfaces n= 0.011 P2= 3.27"
2.4	34	0.5450	0.24		**Sheet Flow, Offsite Sheet Flow D-E** Woods: Light underbrush n= 0.400 P2= 3.27"
2.0	25	0.4400	0.20		**Sheet Flow, Sheet Flow A-B** Woods: Light underbrush n= 0.400 P2= 3.27"
0.3	54	0.3700	3.04		**Shallow Concentrated Flow, Shallow Concentrated B-C** Woodland Kv= 5.0 fps
0.1	13	0.2310	3.36		**Shallow Concentrated Flow, Shallow Concentrated C-D** Short Grass Pasture Kv= 7.0 fps
0.7	112	0.0200	2.87		**Shallow Concentrated Flow, Shallow Concentrated D-E** Paved Kv= 20.3 fps
10.8	330	Total			

Subcatchment 1S: SC 1

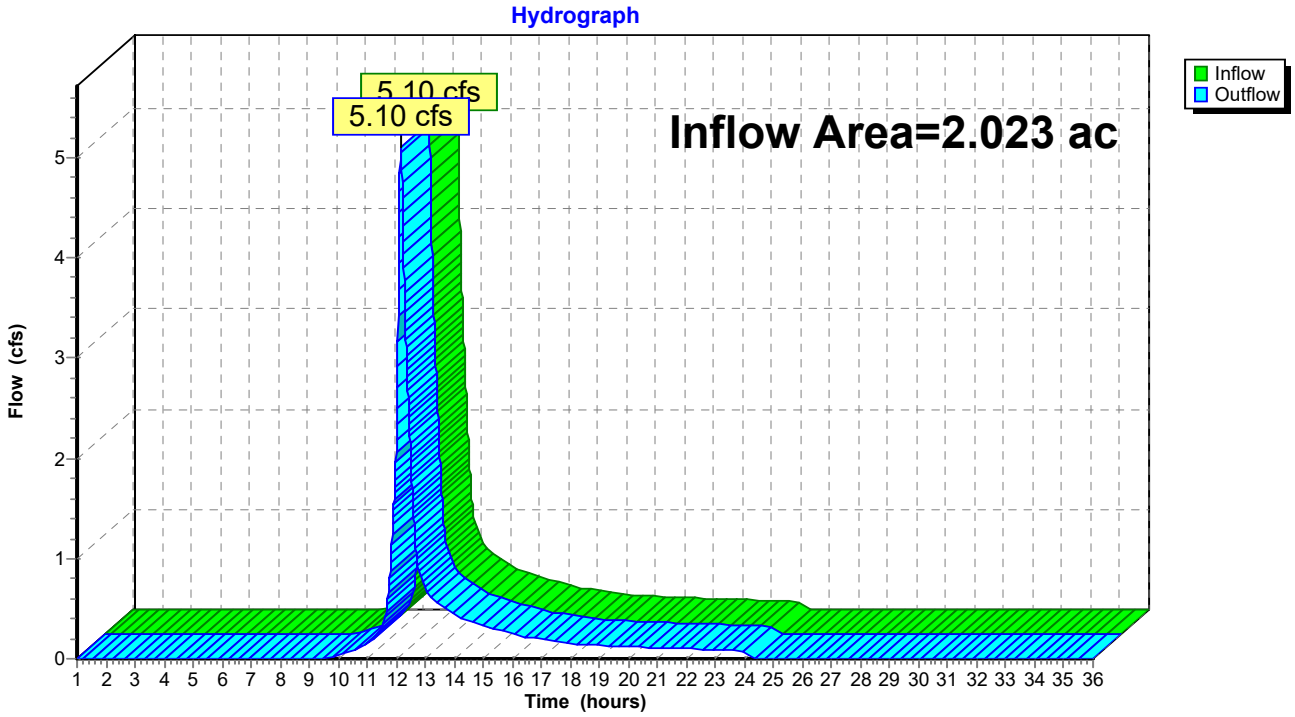


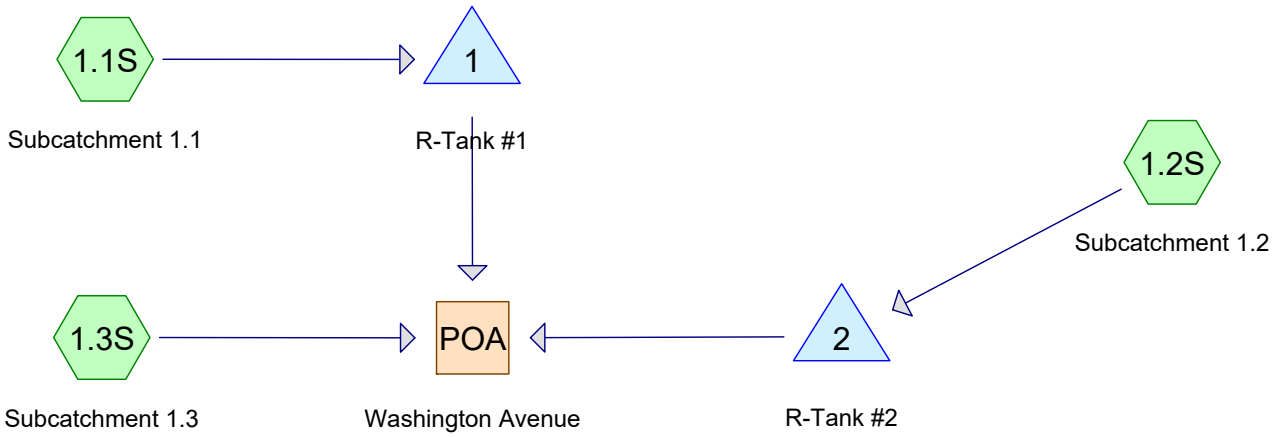
Summary for Reach POA: Washington Avenue

Inflow Area = 2.023 ac, 32.79% Impervious, Inflow Depth = 2.56" for 25-year event
Inflow = 5.10 cfs @ 12.16 hrs, Volume= 0.431 af
Outflow = 5.10 cfs @ 12.16 hrs, Volume= 0.431 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.01 hrs

Reach POA: Washington Avenue





Subcat Reach Pond Link

Routing Diagram for Post Development 2.12.25
Prepared by HP Inc., Printed 2/14/2025
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.279	39	>75% Grass cover, Good, HSG A (1.2S, 1.3S)
0.060	98	Brick (1.3S)
0.033	98	Concrete Walkway (1.2S, 1.3S)
0.060	39	Courtyard Landscape (1.1S)
0.067	98	Couryard Impervious (1.1S)
0.022	96	Offsite Gravel (1.2S, 1.3S)
0.154	39	Offsite Landscape (1.2S, 1.3S)
0.133	98	Offsite Pavement (1.2S, 1.3S)
0.212	43	Offsite Woods/grass comb., Fair, HSG A (1.2S, 1.3S)
0.094	98	Pavement (1.2S)
0.019	98	Retaining Wall (1.2S)
0.001	98	Retaining wall (1.3S)
0.858	98	Roof, decks (1.1S, 1.2S)
0.030	98	Stone (1.2S)
2.023	**78**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.492	HSG A	1.2S, 1.3S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
1.531	Other	1.1S, 1.2S, 1.3S
2.023		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.279	0.000	0.000	0.000	0.000	0.279	>75% Grass cover, Good	1.2S, 1.3S
0.000	0.000	0.000	0.000	0.060	0.060	Brick	1.3S
0.000	0.000	0.000	0.000	0.033	0.033	Concrete Walkway	1.2S, 1.3S
0.000	0.000	0.000	0.000	0.060	0.060	Courtyard Landscape	1.1S
0.000	0.000	0.000	0.000	0.067	0.067	Couryard Impervious	1.1S
0.000	0.000	0.000	0.000	0.022	0.022	Offsite Gravel	1.2S, 1.3S
0.000	0.000	0.000	0.000	0.154	0.154	Offsite Landscape	1.2S, 1.3S
0.000	0.000	0.000	0.000	0.133	0.133	Offsite Pavement	1.2S, 1.3S
0.212	0.000	0.000	0.000	0.000	0.212	Offsite Woods/grass comb., Fair	1.2S, 1.3S
0.000	0.000	0.000	0.000	0.094	0.094	Pavement	1.2S
0.000	0.000	0.000	0.000	0.019	0.019	Retaining Wall	1.2S
0.000	0.000	0.000	0.000	0.001	0.001	Retaining wall	1.3S
0.000	0.000	0.000	0.000	0.858	0.858	Roof, decks	1.1S, 1.2S
0.000	0.000	0.000	0.000	0.030	0.030	Stone	1.2S

Ground Covers (all nodes) (continued)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.492	**0.000**	**0.000**	**0.000**	**1.531**	**2.023**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1	56.44	56.15	58.0	0.0050	0.012	15.0	0.0	0.0
2	2	58.88	58.66	44.0	0.0050	0.012	15.0	0.0	0.0

Time span=1.00-48.00 hrs, dt=0.01 hrs, 4701 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1.1S: Subcatchment 1.1 Runoff Area=27,664 sf 90.61% Impervious Runoff Depth=2.26"
Tc=6.0 min CN=92 Runoff=1.64 cfs 0.119 af

Subcatchment 1.2S: Subcatchment 1.2 Runoff Area=53,518 sf 51.71% Impervious Runoff Depth=0.82"
Tc=6.0 min CN=71 Runoff=1.06 cfs 0.084 af

Subcatchment 1.3S: Subcatchment 1.3 Runoff Area=6,925 sf 52.85% Impervious Runoff Depth=0.82"
Flow Length=248' Tc=10.8 min CN=71 Runoff=0.12 cfs 0.011 af

Reach POA: Washington Avenue Inflow=0.23 cfs 0.214 af
Outflow=0.23 cfs 0.214 af

Pond 1: R-Tank #1 Peak Elev=60.86' Storage=3,124 cf Inflow=1.64 cfs 0.119 af
Outflow=0.05 cfs 0.119 af

Pond 2: R-Tank #2 Peak Elev=60.84' Storage=1,567 cf Inflow=1.06 cfs 0.084 af
Outflow=0.09 cfs 0.084 af

Total Runoff Area = 2.023 ac Runoff Volume = 0.214 af Average Runoff Depth = 1.27"
35.98% Pervious = 0.728 ac 64.02% Impervious = 1.295 ac

Summary for Subcatchment 1.1S: Subcatchment 1.1

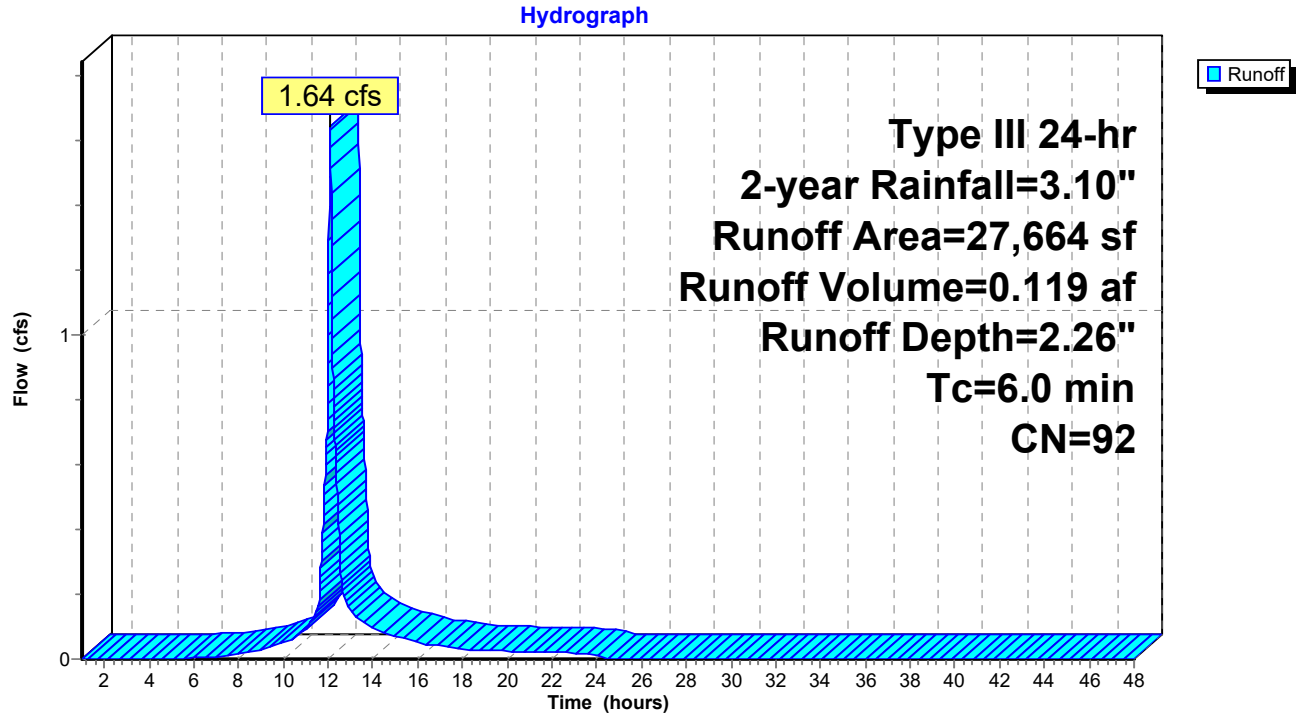
Runoff = 1.64 cfs @ 12.09 hrs, Volume= 0.119 af, Depth= 2.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	22,167	98	Roof, decks
*	2,597	39	Courtyard Landscape
*	2,900	98	Couryard Impervious
	27,664	92	Weighted Average
	2,597		9.39% Pervious Area
	25,067		90.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1.1S: Subcatchment 1.1



Summary for Subcatchment 1.2S: Subcatchment 1.2

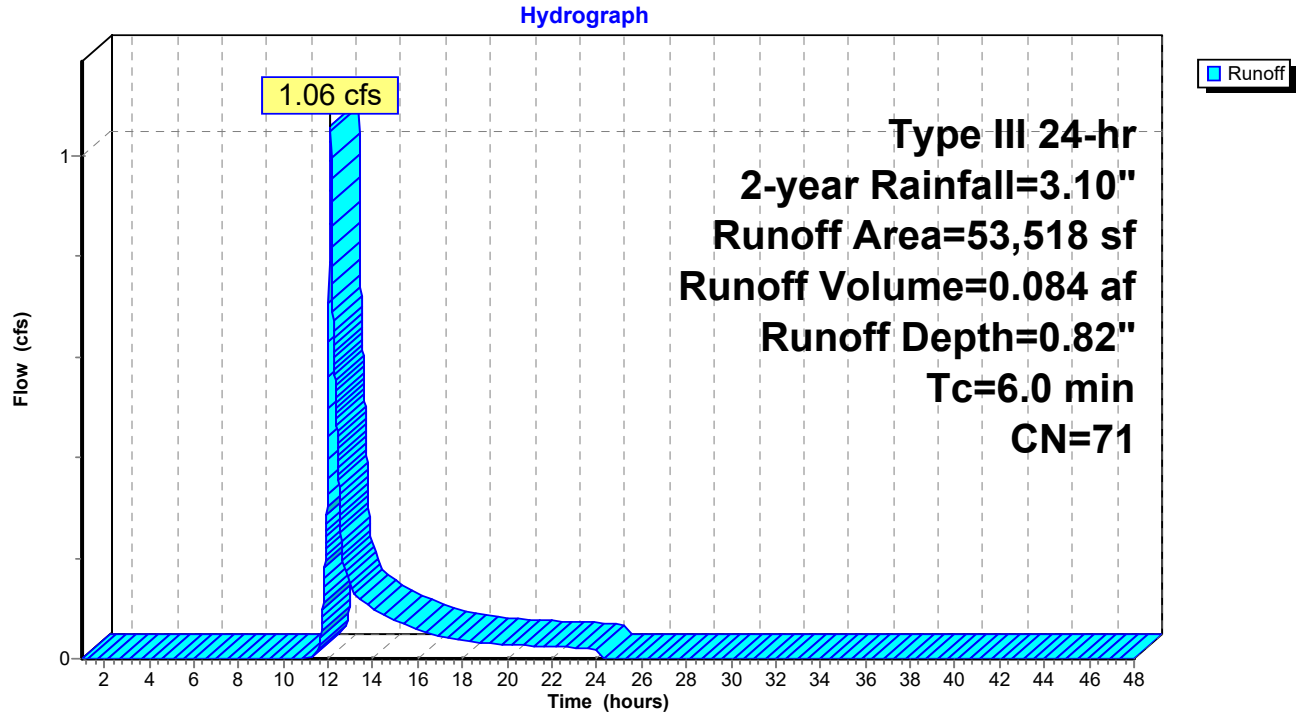
Runoff = 1.06 cfs @ 12.10 hrs, Volume= 0.084 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	15,228	98	Roof, decks
*	4,081	98	Pavement
*	811	98	Concrete Walkway
*	1,306	98	Stone
	10,043	39	>75% Grass cover, Good, HSG A
*	5,443	98	Offsite Pavement
*	890	96	Offsite Gravel
*	9,031	43	Offsite Woods/grass comb., Fair, HSG A
*	5,879	39	Offsite Landscape
*	806	98	Retaining Wall
	53,518	71	Weighted Average
	25,843		48.29% Pervious Area
	27,675		51.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1.2S: Subcatchment 1.2



Summary for Subcatchment 1.3S: Subcatchment 1.3

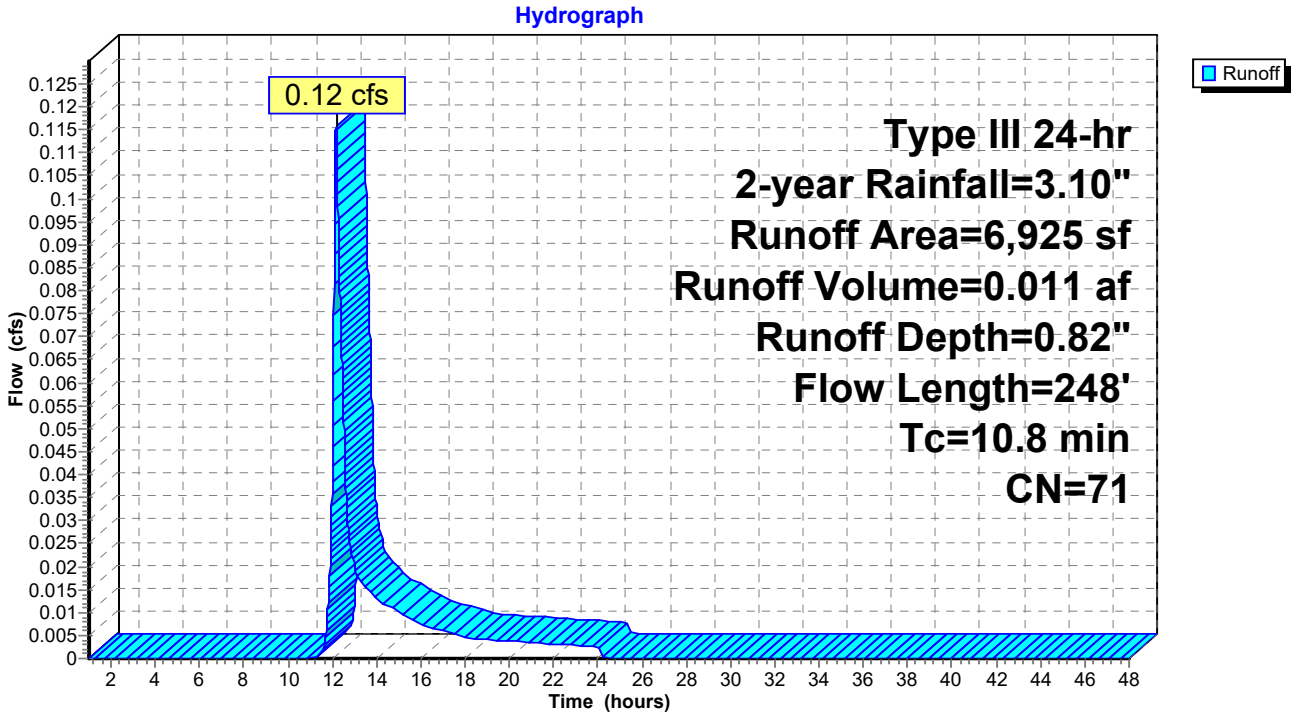
Runoff = 0.12 cfs @ 12.16 hrs, Volume= 0.011 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	2,607	98	Brick
	2,128	39	>75% Grass cover, Good, HSG A
*	630	98	Concrete Walkway
*	369	98	Offsite Pavement
*	83	96	Offsite Gravel
*	224	43	Offsite Woods/grass comb., Fair, HSG A
*	830	39	Offsite Landscape
*	54	98	Retaining wall
	6,925	71	Weighted Average
	3,265		47.15% Pervious Area
	3,660		52.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	18	0.0200	0.99		**Sheet Flow, Offsite Sheet Flow A-B** Smooth surfaces n= 0.011 P2= 3.27"
1.3	11	0.2700	0.14		**Sheet Flow, Offsite Sheet Flow B-C** Woods: Light underbrush n= 0.400 P2= 3.27"
0.1	4	0.0200	0.73		**Sheet Flow, Offsite Sheet Flow C-D** Smooth surfaces n= 0.011 P2= 3.27"
2.8	36	0.4200	0.22		**Sheet Flow, Offsite Sheet Flow D-E** Woods: Light underbrush n= 0.400 P2= 3.27"
5.5	82	0.4000	0.25		**Sheet Flow, Sheet Flow A-B** Woods: Light underbrush n= 0.400 P2= 3.27"
0.1	11	0.2700	2.60		**Shallow Concentrated Flow, Concentrated Flow B-C** Woodland Kv= 5.0 fps
0.7	86	0.0100	2.03		**Shallow Concentrated Flow, Concentrated Flow C-E** Paved Kv= 20.3 fps
10.8	248	Total			

Subcatchment 1.3S: Subcatchment 1.3

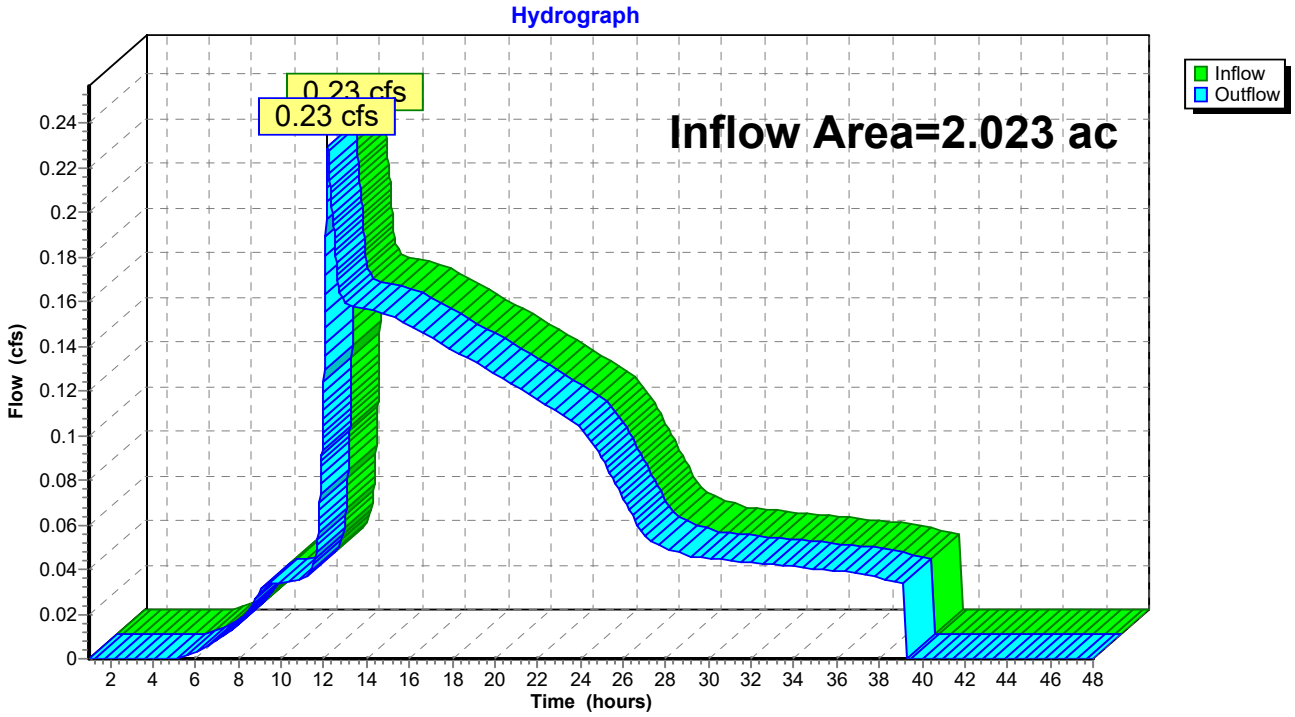


Summary for Reach POA: Washington Avenue

Inflow Area = 2.023 ac, 64.02% Impervious, Inflow Depth = 1.27" for 2-year event
Inflow = 0.23 cfs @ 12.18 hrs, Volume= 0.214 af
Outflow = 0.23 cfs @ 12.18 hrs, Volume= 0.214 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Reach POA: Washington Avenue



Summary for Pond 1: R-Tank #1

Inflow Area = 0.635 ac, 90.61% Impervious, Inflow Depth = 2.26" for 2-year event
Inflow = 1.64 cfs @ 12.09 hrs, Volume= 0.119 af
Outflow = 0.05 cfs @ 15.80 hrs, Volume= 0.119 af, Atten= 97%, Lag= 222.7 min
Primary = 0.05 cfs @ 15.80 hrs, Volume= 0.119 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.86' @ 15.80 hrs Surf.Area= 1,507 sf Storage= 3,124 cf
Flood Elev= 66.00' Surf.Area= 1,507 sf Storage= 4,632 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 592.5 min (1,391.4 - 798.9)

Volume	Invert	Avail.Storage	Storage Description
#1	58.18'	1,254 cf	**Stone (Prismatic)** Listed below (Recalc) 6,691 cf Overall - 3,556 cf Embedded = 3,135 cf x 40.0% Voids
#2	58.68'	3,378 cf	**R-Tanks (Prismatic)** Listed below (Recalc) Inside #1 3,556 cf Overall x 95.0% Voids
		4,632 cf	Total Available Storage

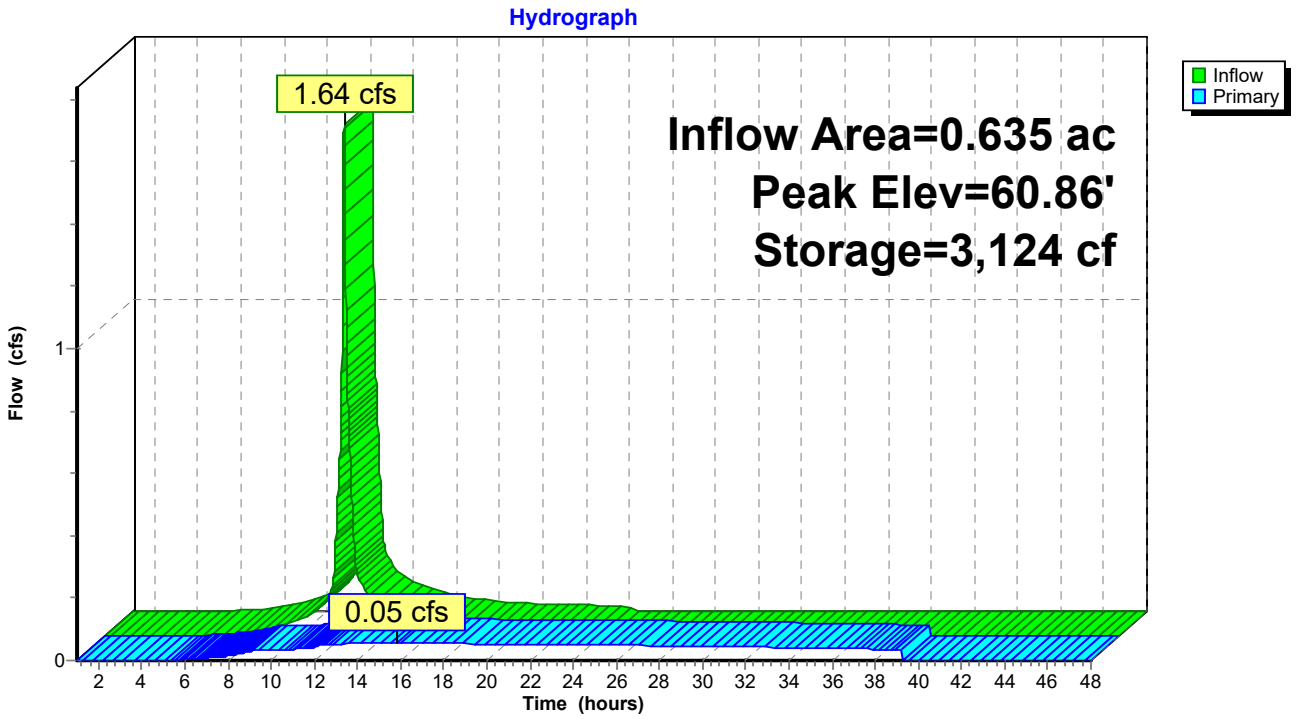
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.18	1,507	0	0
62.62	1,507	6,691	6,691

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.68	1,261	0	0
61.50	1,261	3,556	3,556

Device	Routing	Invert	Outlet Devices
#1	Primary	56.44'	**15.0" Round Culvert** L= 58.0' Ke= 0.900 Inlet / Outlet Invert= 56.44' / 56.15' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	56.54'	**1.0" Horiz. WQ Orifice** C= 0.600 Limited to weir flow at low heads
#3	Device 1	61.25'	**6.0" W x 11.4" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	62.20'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.05 cfs @ 15.80 hrs HW=60.86' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 0.05 cfs of 9.08 cfs potential flow)
  - **2=WQ Orifice** (Orifice Controls 0.05 cfs @ 10.00 fps)
  - **3=Orifice/Grate** (Controls 0.00 cfs)
  - **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1: R-Tank #1



Summary for Pond 2: R-Tank #2

Inflow Area = 1.229 ac, 51.71% Impervious, Inflow Depth = 0.82" for 2-year event
Inflow = 1.06 cfs @ 12.10 hrs, Volume= 0.084 af
Outflow = 0.09 cfs @ 14.34 hrs, Volume= 0.084 af, Atten= 92%, Lag= 134.4 min
Primary = 0.09 cfs @ 14.34 hrs, Volume= 0.084 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 60.84' @ 14.34 hrs Surf.Area= 1,197 sf Storage= 1,567 cf

Plug-Flow detention time= 219.6 min calculated for 0.084 af (100% of inflow)
Center-of-Mass det. time= 219.6 min (1,094.1 - 874.5)

Volume	Invert	Avail.Storage	Storage Description
#1	59.01'	997 cf	**Crushed Stone (Prismatic)**Listed below (Recalc) 5,171 cf Overall - 2,679 cf Embedded = 2,492 cf x 40.0% Voids
#2	59.51'	2,545 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc) Inside #1 2,679 cf Overall x 95.0% Voids
		3,542 cf	Total Available Storage

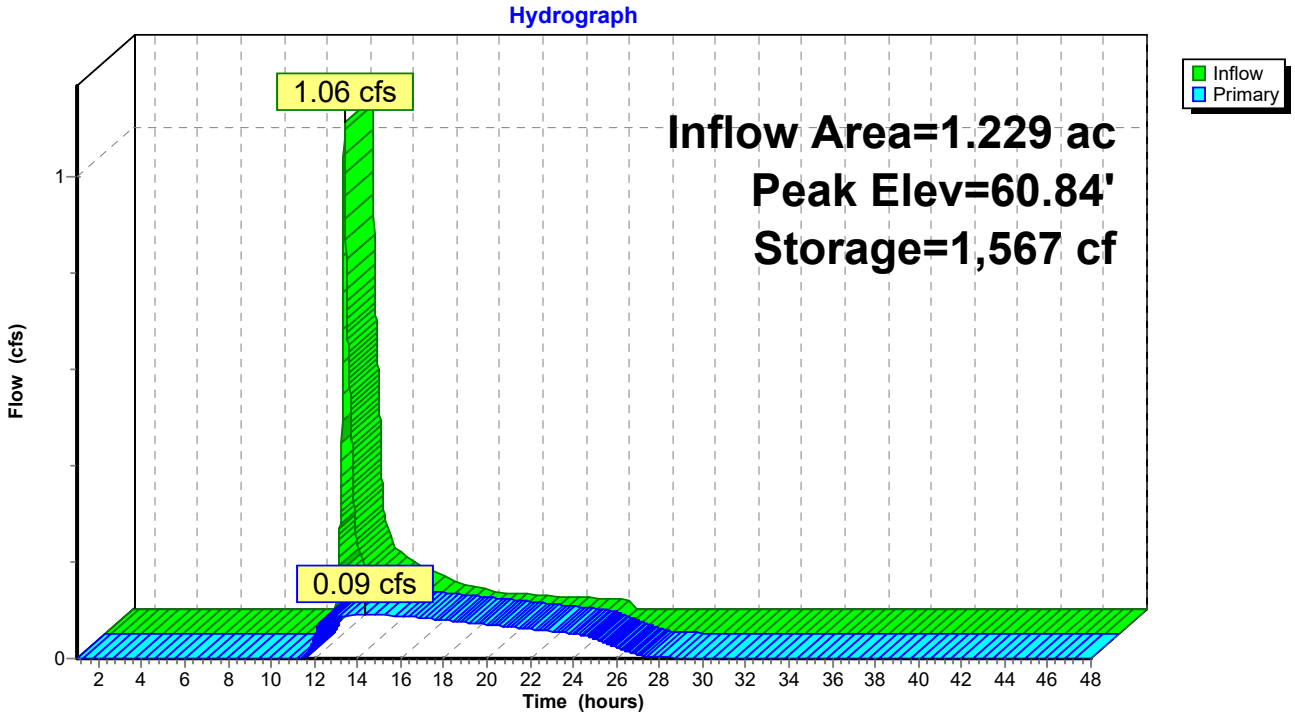
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.01	1,197	0	0
63.33	1,197	5,171	5,171

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.51	950	0	0
62.33	950	2,679	2,679

Device	Routing	Invert	Outlet Devices
#1	Primary	58.88'	**15.0" Round 15" storm drain** L= 44.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.88' / 58.66' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	58.98'	**1.6" Vert. Orifice/Grate** C= 0.600
#3	Device 1	62.65'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.09 cfs @ 14.34 hrs HW=60.84' TW=0.00' (Dynamic Tailwater)
└**1=15" storm drain** (Passes 0.09 cfs of 5.38 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.09 cfs @ 6.44 fps)
  └**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 2: R-Tank #2



Time span=1.00-48.00 hrs, dt=0.01 hrs, 4701 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1.1S: Subcatchment 1.1 Runoff Area=27,664 sf 90.61% Impervious Runoff Depth=3.70"
Tc=6.0 min CN=92 Runoff=2.63 cfs 0.196 af

Subcatchment 1.2S: Subcatchment 1.2 Runoff Area=53,518 sf 51.71% Impervious Runoff Depth=1.82"
Tc=6.0 min CN=71 Runoff=2.57 cfs 0.186 af

Subcatchment 1.3S: Subcatchment 1.3 Runoff Area=6,925 sf 52.85% Impervious Runoff Depth=1.82"
Flow Length=248' Tc=10.8 min CN=71 Runoff=0.28 cfs 0.024 af

Reach POA: Washington Avenue Inflow=1.52 cfs 0.406 af
Outflow=1.52 cfs 0.406 af

Pond 1: R-Tank #1 Peak Elev=61.76' Storage=4,116 cf Inflow=2.63 cfs 0.196 af
Outflow=0.65 cfs 0.196 af

Pond 2: R-Tank #2 Peak Elev=62.79' Storage=3,285 cf Inflow=2.57 cfs 0.186 af
Outflow=0.74 cfs 0.186 af

Total Runoff Area = 2.023 ac Runoff Volume = 0.406 af Average Runoff Depth = 2.41"
35.98% Pervious = 0.728 ac 64.02% Impervious = 1.295 ac

Summary for Subcatchment 1.1S: Subcatchment 1.1

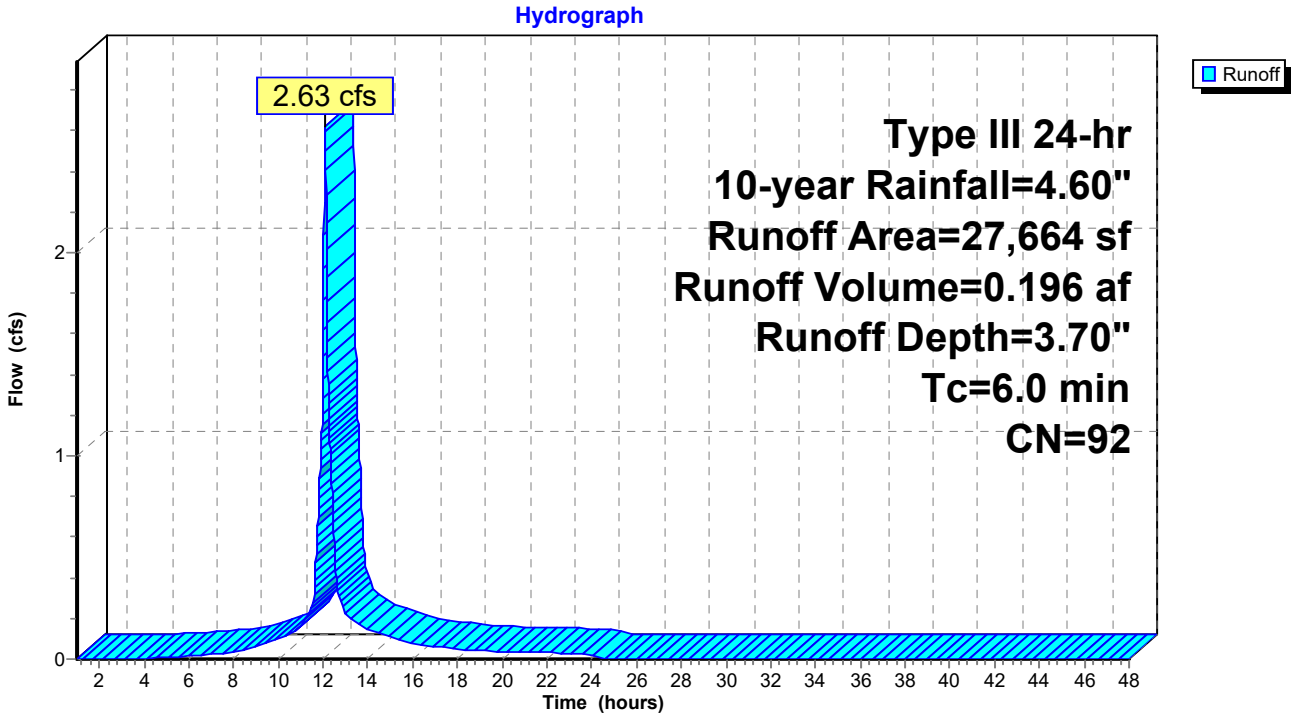
Runoff = 2.63 cfs @ 12.08 hrs, Volume= 0.196 af, Depth= 3.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	22,167	98	Roof, decks
*	2,597	39	Courtyard Landscape
*	2,900	98	Couryard Impervious
	27,664	92	Weighted Average
	2,597		9.39% Pervious Area
	25,067		90.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1.1S: Subcatchment 1.1



Summary for Subcatchment 1.2S: Subcatchment 1.2

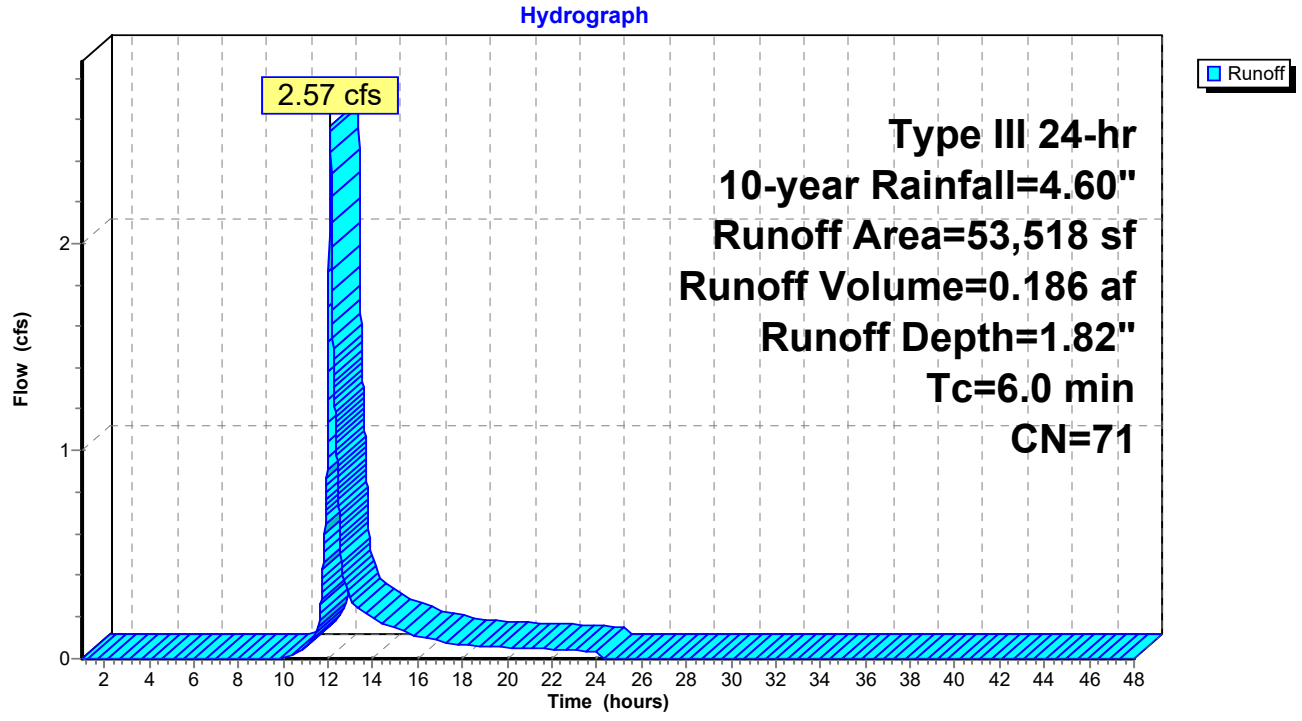
Runoff = 2.57 cfs @ 12.09 hrs, Volume= 0.186 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	15,228	98	Roof, decks
*	4,081	98	Pavement
*	811	98	Concrete Walkway
*	1,306	98	Stone
	10,043	39	>75% Grass cover, Good, HSG A
*	5,443	98	Offsite Pavement
*	890	96	Offsite Gravel
*	9,031	43	Offsite Woods/grass comb., Fair, HSG A
*	5,879	39	Offsite Landscape
*	806	98	Retaining Wall
	53,518	71	Weighted Average
	25,843		48.29% Pervious Area
	27,675		51.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1.2S: Subcatchment 1.2



Summary for Subcatchment 1.3S: Subcatchment 1.3

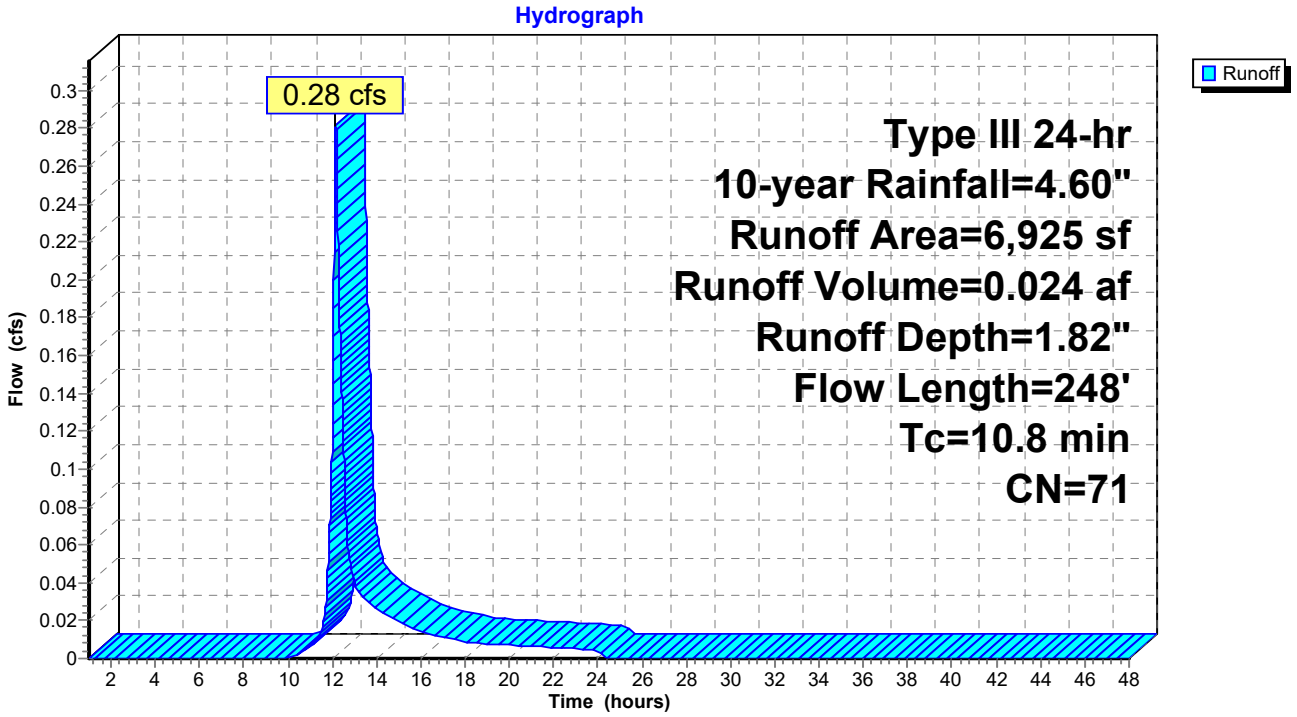
Runoff = 0.28 cfs @ 12.16 hrs, Volume= 0.024 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	2,607	98	Brick
	2,128	39	>75% Grass cover, Good, HSG A
*	630	98	Concrete Walkway
*	369	98	Offsite Pavement
*	83	96	Offsite Gravel
*	224	43	Offsite Woods/grass comb., Fair, HSG A
*	830	39	Offsite Landscape
*	54	98	Retaining wall
	6,925	71	Weighted Average
	3,265		47.15% Pervious Area
	3,660		52.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	18	0.0200	0.99		**Sheet Flow, Offsite Sheet Flow A-B** Smooth surfaces n= 0.011 P2= 3.27"
1.3	11	0.2700	0.14		**Sheet Flow, Offsite Sheet Flow B-C** Woods: Light underbrush n= 0.400 P2= 3.27"
0.1	4	0.0200	0.73		**Sheet Flow, Offsite Sheet Flow C-D** Smooth surfaces n= 0.011 P2= 3.27"
2.8	36	0.4200	0.22		**Sheet Flow, Offsite Sheet Flow D-E** Woods: Light underbrush n= 0.400 P2= 3.27"
5.5	82	0.4000	0.25		**Sheet Flow, Sheet Flow A-B** Woods: Light underbrush n= 0.400 P2= 3.27"
0.1	11	0.2700	2.60		**Shallow Concentrated Flow, Concentrated Flow B-C** Woodland Kv= 5.0 fps
0.7	86	0.0100	2.03		**Shallow Concentrated Flow, Concentrated Flow C-E** Paved Kv= 20.3 fps
10.8	248	Total			

Subcatchment 1.3S: Subcatchment 1.3

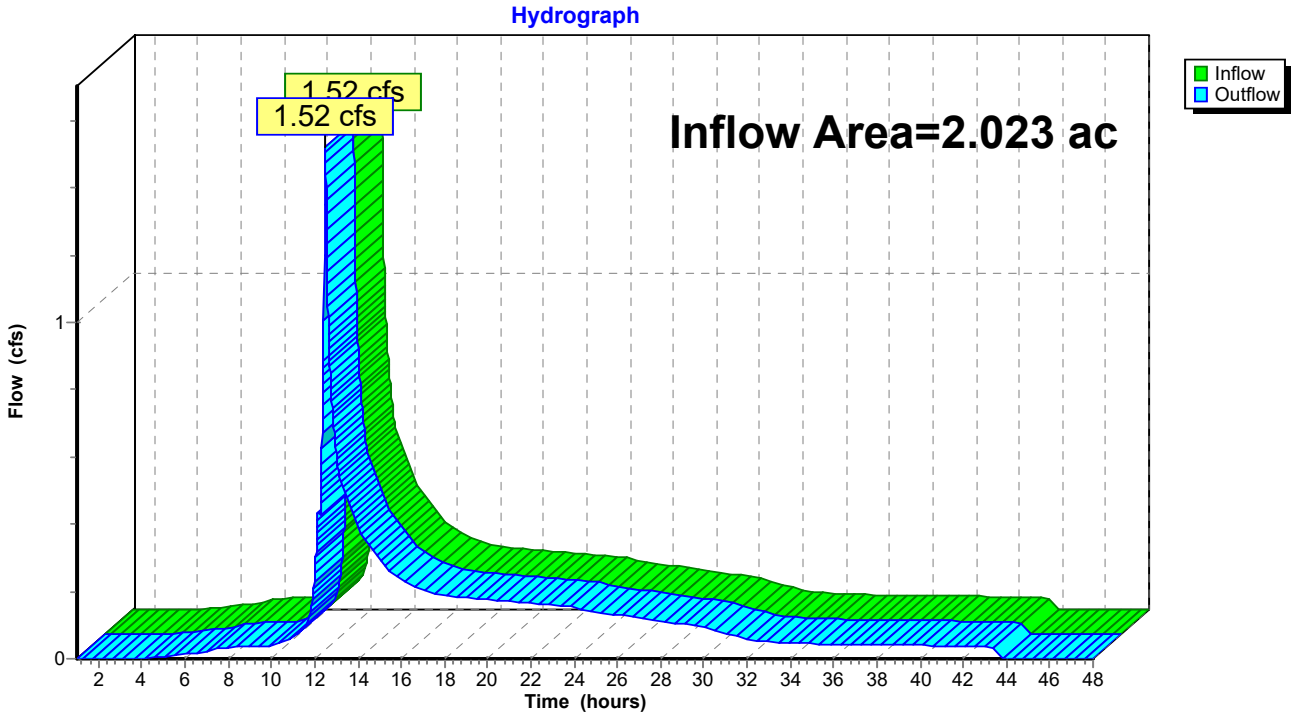


Summary for Reach POA: Washington Avenue

Inflow Area = 2.023 ac, 64.02% Impervious, Inflow Depth = 2.41" for 10-year event
Inflow = 1.52 cfs @ 12.47 hrs, Volume= 0.406 af
Outflow = 1.52 cfs @ 12.47 hrs, Volume= 0.406 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Reach POA: Washington Avenue



Summary for Pond 1: R-Tank #1

Inflow Area = 0.635 ac, 90.61% Impervious, Inflow Depth = 3.70" for 10-year event
Inflow = 2.63 cfs @ 12.08 hrs, Volume= 0.196 af
Outflow = 0.65 cfs @ 12.46 hrs, Volume= 0.196 af, Atten= 75%, Lag= 22.7 min
Primary = 0.65 cfs @ 12.46 hrs, Volume= 0.196 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 61.76' @ 12.46 hrs Surf.Area= 1,507 sf Storage= 4,116 cf
Flood Elev= 66.00' Surf.Area= 1,507 sf Storage= 4,632 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 518.6 min (1,304.0 - 785.4)

Volume	Invert	Avail.Storage	Storage Description
#1	58.18'	1,254 cf	**Stone (Prismatic)** Listed below (Recalc) 6,691 cf Overall - 3,556 cf Embedded = 3,135 cf x 40.0% Voids
#2	58.68'	3,378 cf	**R-Tanks (Prismatic)** Listed below (Recalc) Inside #1 3,556 cf Overall x 95.0% Voids
		4,632 cf	Total Available Storage

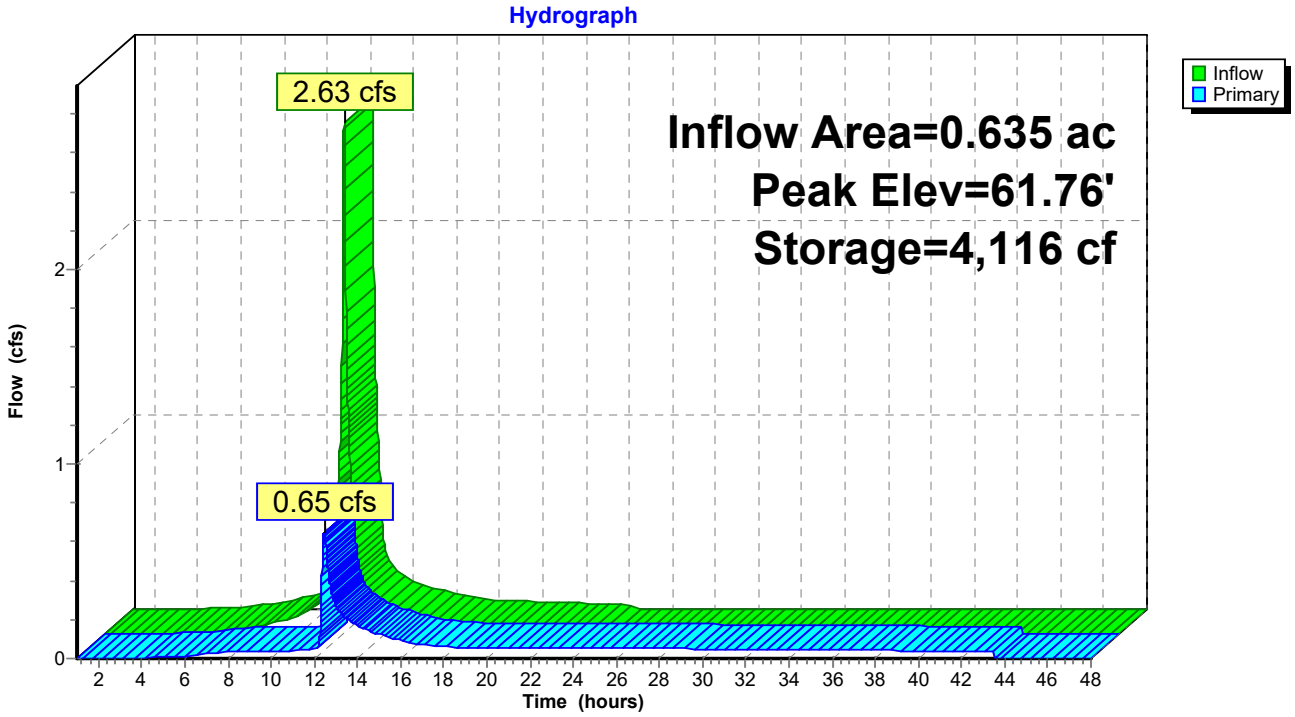
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.18	1,507	0	0
62.62	1,507	6,691	6,691

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.68	1,261	0	0
61.50	1,261	3,556	3,556

Device	Routing	Invert	Outlet Devices
#1	Primary	56.44'	**15.0" Round Culvert** L= 58.0' Ke= 0.900 Inlet / Outlet Invert= 56.44' / 56.15' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	56.54'	**1.0" Horiz. WQ Orifice** C= 0.600 Limited to weir flow at low heads
#3	Device 1	61.25'	**6.0" W x 11.4" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	62.20'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.65 cfs @ 12.46 hrs HW=61.76' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 0.65 cfs of 10.11 cfs potential flow)
  - **2=WQ Orifice** (Orifice Controls 0.06 cfs @ 11.00 fps)
  - **3=Orifice/Grate** (Orifice Controls 0.59 cfs @ 2.30 fps)
  - **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1: R-Tank #1



Summary for Pond 2: R-Tank #2

Inflow Area = 1.229 ac, 51.71% Impervious, Inflow Depth = 1.82" for 10-year event
Inflow = 2.57 cfs @ 12.09 hrs, Volume= 0.186 af
Outflow = 0.74 cfs @ 12.48 hrs, Volume= 0.186 af, Atten= 71%, Lag= 23.1 min
Primary = 0.74 cfs @ 12.48 hrs, Volume= 0.186 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.79' @ 12.48 hrs Surf.Area= 1,197 sf Storage= 3,285 cf

Plug-Flow detention time= 283.3 min calculated for 0.186 af (100% of inflow)
Center-of-Mass det. time= 283.4 min (1,132.9 - 849.6)

Volume	Invert	Avail.Storage	Storage Description
#1	59.01'	997 cf	**Crushed Stone (Prismatic)**Listed below (Recalc) 5,171 cf Overall - 2,679 cf Embedded = 2,492 cf x 40.0% Voids
#2	59.51'	2,545 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc) Inside #1 2,679 cf Overall x 95.0% Voids
		3,542 cf	Total Available Storage

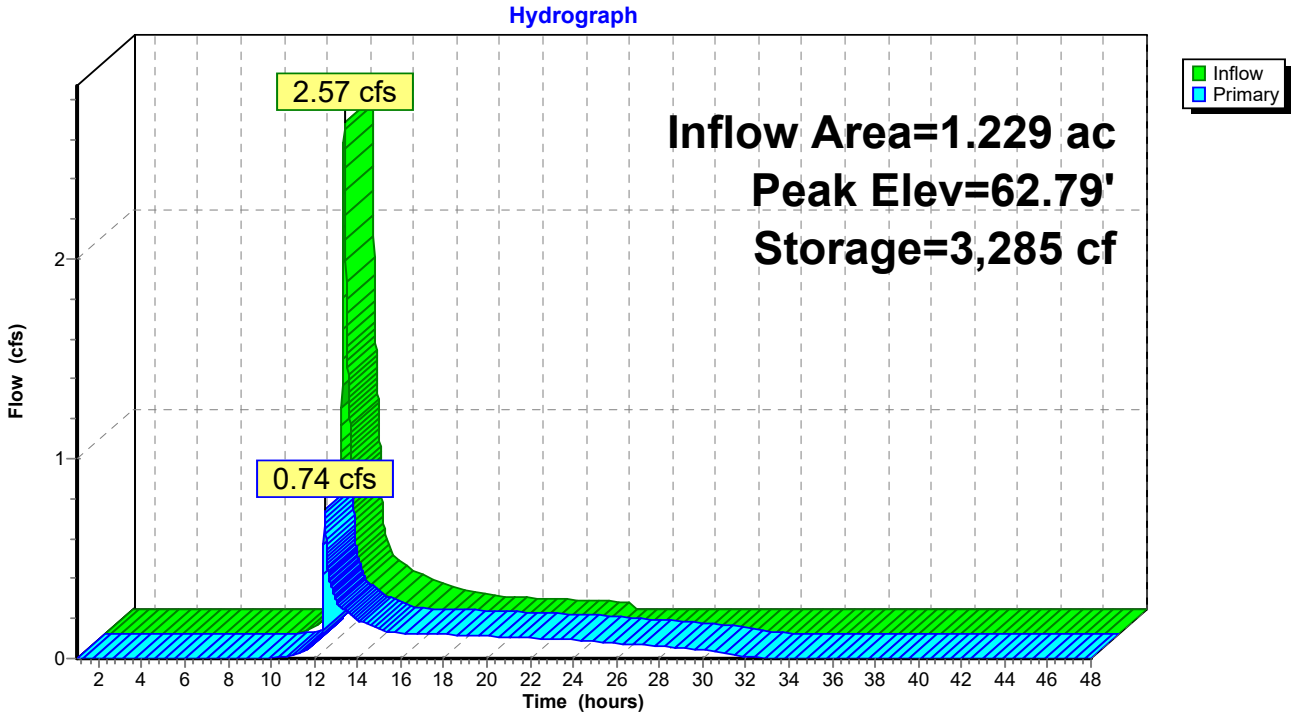
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.01	1,197	0	0
63.33	1,197	5,171	5,171

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.51	950	0	0
62.33	950	2,679	2,679

Device	Routing	Invert	Outlet Devices
#1	Primary	58.88'	**15.0" Round 15" storm drain** L= 44.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.88' / 58.66' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	58.98'	**1.6" Vert. Orifice/Grate** C= 0.600
#3	Device 1	62.65'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.74 cfs @ 12.48 hrs HW=62.79' TW=0.00' (Dynamic Tailwater)
└**1=15" storm drain** (Passes 0.74 cfs of 8.46 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.13 cfs @ 9.32 fps)
  └**3=Broad-Crested Rectangular Weir** (Weir Controls 0.61 cfs @ 1.06 fps)

Pond 2: R-Tank #2



Time span=1.00-48.00 hrs, dt=0.01 hrs, 4701 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1.1S: Subcatchment 1.1 Runoff Area=27,664 sf 90.61% Impervious Runoff Depth=4.87"
Tc=6.0 min CN=92 Runoff=3.41 cfs 0.258 af

Subcatchment 1.2S: Subcatchment 1.2 Runoff Area=53,518 sf 51.71% Impervious Runoff Depth=2.74"
Tc=6.0 min CN=71 Runoff=3.93 cfs 0.280 af

Subcatchment 1.3S: Subcatchment 1.3 Runoff Area=6,925 sf 52.85% Impervious Runoff Depth=2.74"
Flow Length=248' Tc=10.8 min CN=71 Runoff=0.43 cfs 0.036 af

Reach POA: Washington Avenue Inflow=5.04 cfs 0.575 af
Outflow=5.04 cfs 0.575 af

Pond 1: R-Tank #1 Peak Elev=62.27' Storage=4,424 cf Inflow=3.41 cfs 0.258 af
Outflow=1.92 cfs 0.258 af

Pond 2: R-Tank #2 Peak Elev=63.04' Storage=3,402 cf Inflow=3.93 cfs 0.280 af
Outflow=2.95 cfs 0.280 af

Total Runoff Area = 2.023 ac Runoff Volume = 0.575 af Average Runoff Depth = 3.41"
35.98% Pervious = 0.728 ac 64.02% Impervious = 1.295 ac

Summary for Subcatchment 1.1S: Subcatchment 1.1

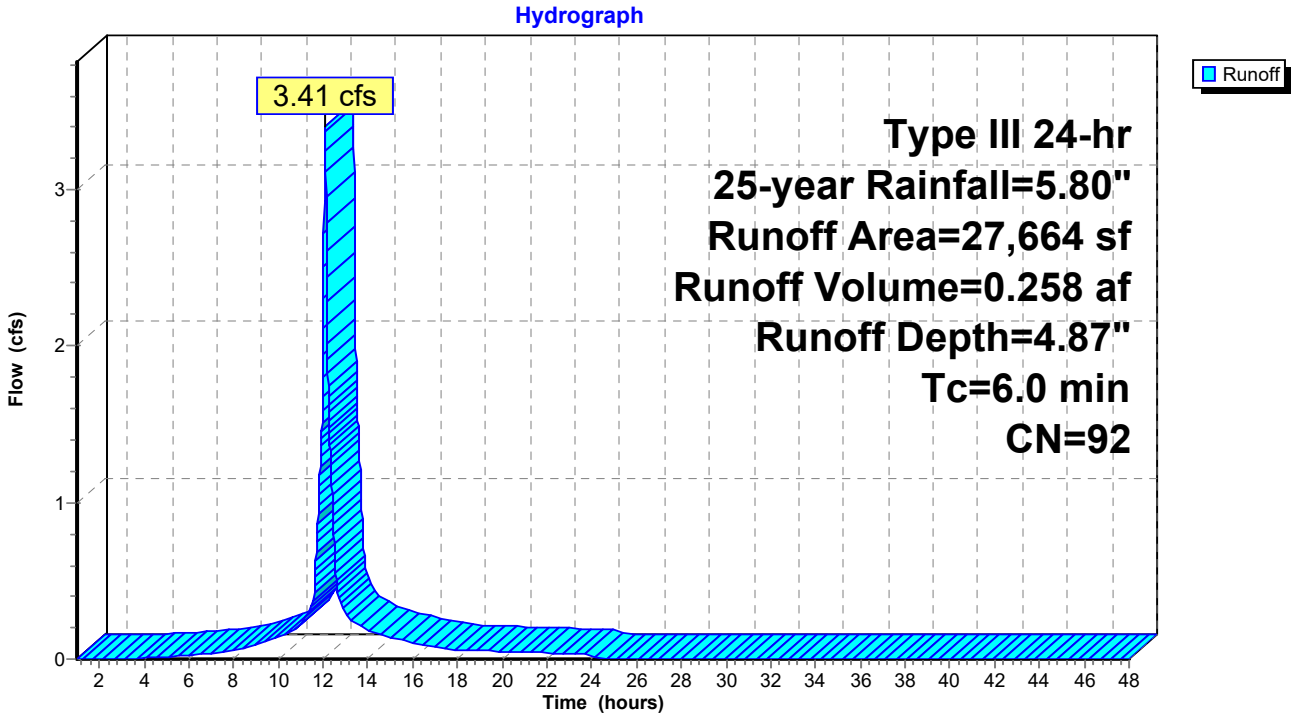
Runoff = 3.41 cfs @ 12.08 hrs, Volume= 0.258 af, Depth= 4.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	22,167	98	Roof, decks
*	2,597	39	Courtyard Landscape
*	2,900	98	Couryard Impervious
	27,664	92	Weighted Average
	2,597		9.39% Pervious Area
	25,067		90.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1.1S: Subcatchment 1.1



Summary for Subcatchment 1.2S: Subcatchment 1.2

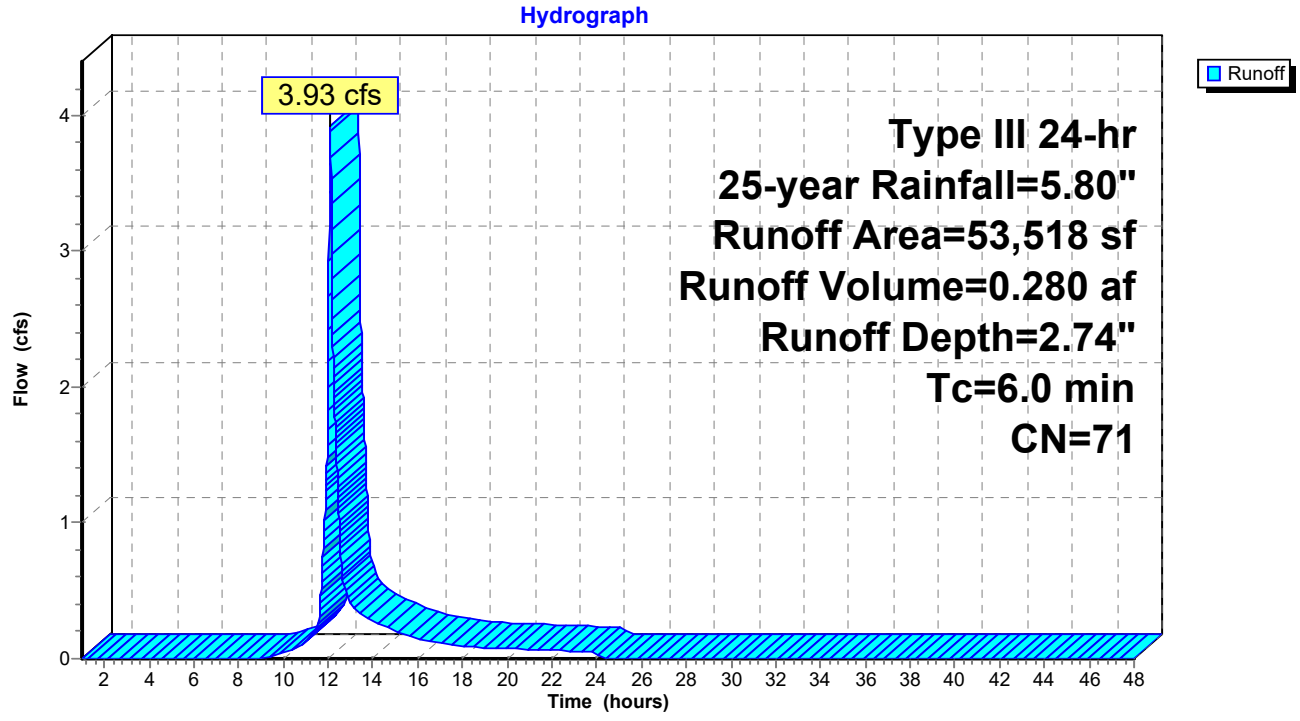
Runoff = 3.93 cfs @ 12.09 hrs, Volume= 0.280 af, Depth= 2.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	15,228	98	Roof, decks
*	4,081	98	Pavement
*	811	98	Concrete Walkway
*	1,306	98	Stone
	10,043	39	>75% Grass cover, Good, HSG A
*	5,443	98	Offsite Pavement
*	890	96	Offsite Gravel
*	9,031	43	Offsite Woods/grass comb., Fair, HSG A
*	5,879	39	Offsite Landscape
*	806	98	Retaining Wall
	53,518	71	Weighted Average
	25,843		48.29% Pervious Area
	27,675		51.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1.2S: Subcatchment 1.2



Summary for Subcatchment 1.3S: Subcatchment 1.3

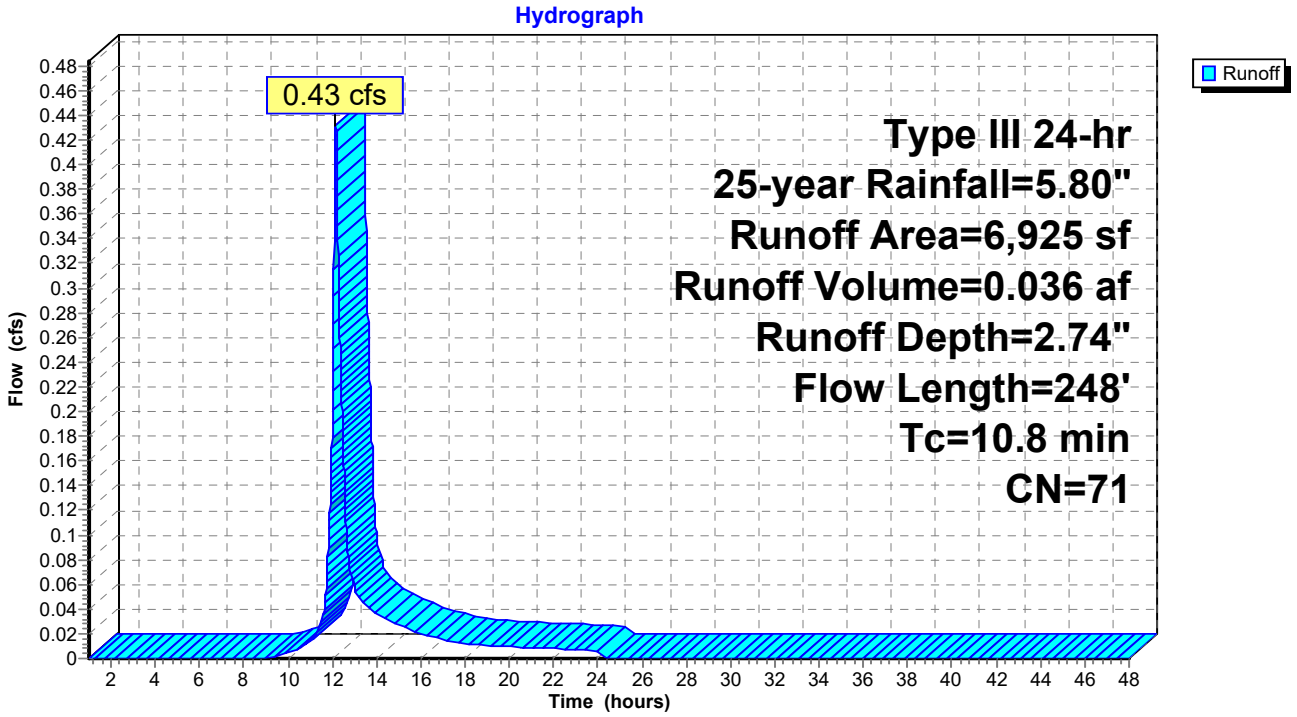
Runoff = 0.43 cfs @ 12.15 hrs, Volume= 0.036 af, Depth= 2.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	2,607	98	Brick
	2,128	39	>75% Grass cover, Good, HSG A
*	630	98	Concrete Walkway
*	369	98	Offsite Pavement
*	83	96	Offsite Gravel
*	224	43	Offsite Woods/grass comb., Fair, HSG A
*	830	39	Offsite Landscape
*	54	98	Retaining wall
	6,925	71	Weighted Average
	3,265		47.15% Pervious Area
	3,660		52.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.3	18	0.0200	0.99		**Sheet Flow, Offsite Sheet Flow A-B** Smooth surfaces n= 0.011 P2= 3.27"
1.3	11	0.2700	0.14		**Sheet Flow, Offsite Sheet Flow B-C** Woods: Light underbrush n= 0.400 P2= 3.27"
0.1	4	0.0200	0.73		**Sheet Flow, Offsite Sheet Flow C-D** Smooth surfaces n= 0.011 P2= 3.27"
2.8	36	0.4200	0.22		**Sheet Flow, Offsite Sheet Flow D-E** Woods: Light underbrush n= 0.400 P2= 3.27"
5.5	82	0.4000	0.25		**Sheet Flow, Sheet Flow A-B** Woods: Light underbrush n= 0.400 P2= 3.27"
0.1	11	0.2700	2.60		**Shallow Concentrated Flow, Concentrated Flow B-C** Woodland Kv= 5.0 fps
0.7	86	0.0100	2.03		**Shallow Concentrated Flow, Concentrated Flow C-E** Paved Kv= 20.3 fps
10.8	248	Total			

Subcatchment 1.3S: Subcatchment 1.3

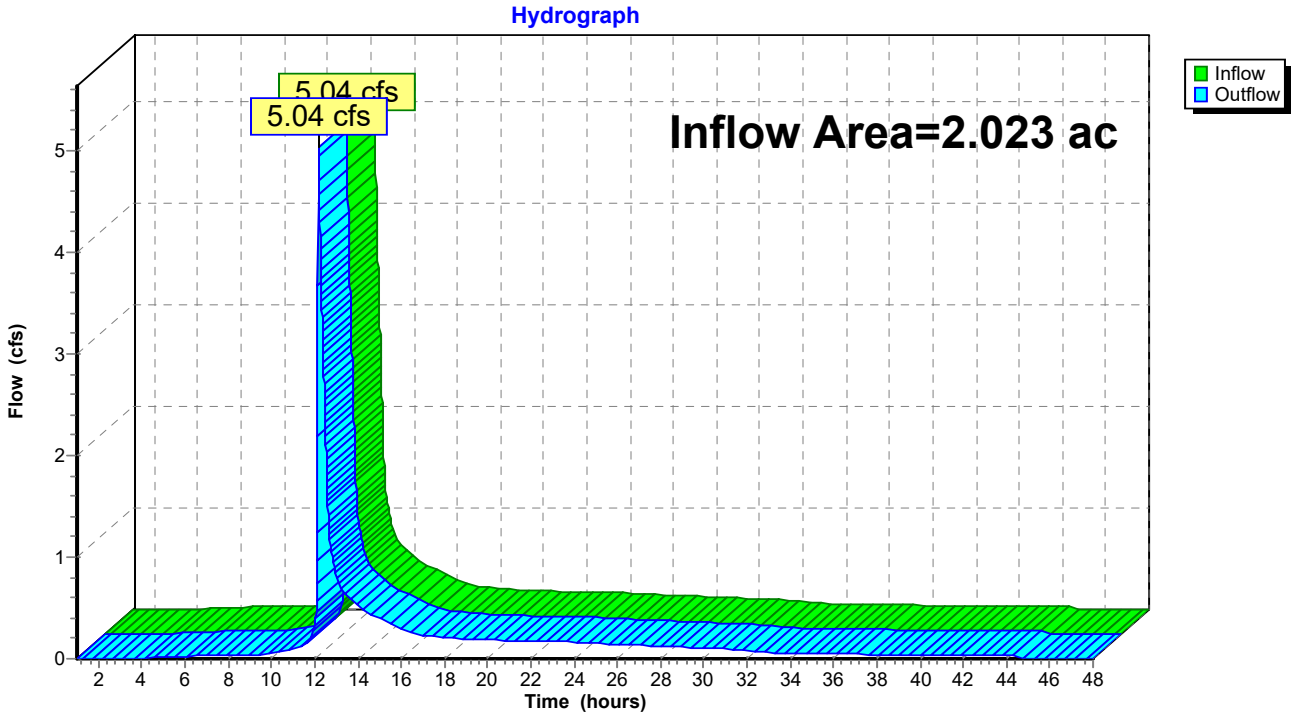


Summary for Reach POA: Washington Avenue

Inflow Area = 2.023 ac, 64.02% Impervious, Inflow Depth = 3.41" for 25-year event
Inflow = 5.04 cfs @ 12.18 hrs, Volume= 0.575 af
Outflow = 5.04 cfs @ 12.18 hrs, Volume= 0.575 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Reach POA: Washington Avenue



Summary for Pond 1: R-Tank #1

Inflow Area = 0.635 ac, 90.61% Impervious, Inflow Depth = 4.87" for 25-year event
Inflow = 3.41 cfs @ 12.08 hrs, Volume= 0.258 af
Outflow = 1.92 cfs @ 12.20 hrs, Volume= 0.258 af, Atten= 44%, Lag= 7.0 min
Primary = 1.92 cfs @ 12.20 hrs, Volume= 0.258 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 62.27' @ 12.20 hrs Surf.Area= 1,507 sf Storage= 4,424 cf
Flood Elev= 66.00' Surf.Area= 1,507 sf Storage= 4,632 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 424.3 min (1,202.5 - 778.2)

Volume	Invert	Avail.Storage	Storage Description
#1	58.18'	1,254 cf	**Stone (Prismatic)** Listed below (Recalc) 6,691 cf Overall - 3,556 cf Embedded = 3,135 cf x 40.0% Voids
#2	58.68'	3,378 cf	**R-Tanks (Prismatic)** Listed below (Recalc) Inside #1 3,556 cf Overall x 95.0% Voids
		4,632 cf	Total Available Storage

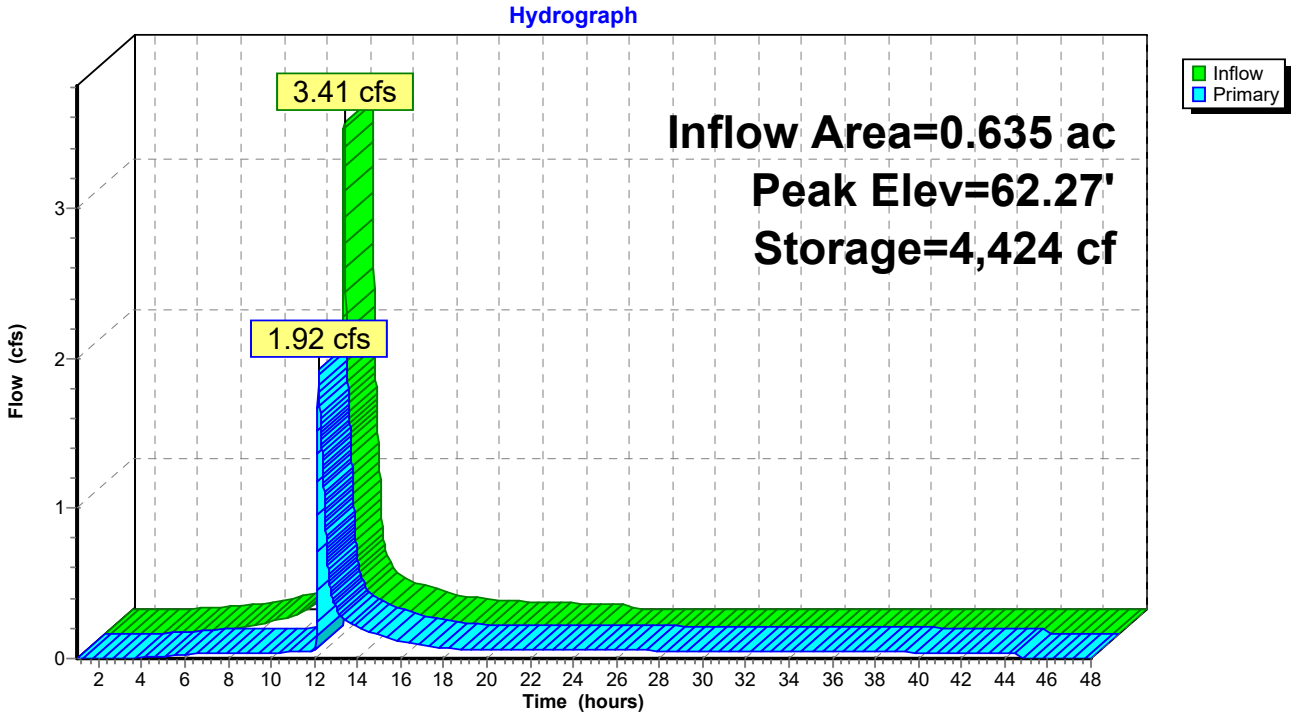
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.18	1,507	0	0
62.62	1,507	6,691	6,691

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
58.68	1,261	0	0
61.50	1,261	3,556	3,556

Device	Routing	Invert	Outlet Devices
#1	Primary	56.44'	**15.0" Round Culvert** L= 58.0' Ke= 0.900 Inlet / Outlet Invert= 56.44' / 56.15' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	56.54'	**1.0" Horiz. WQ Orifice** C= 0.600 Limited to weir flow at low heads
#3	Device 1	61.25'	**6.0" W x 11.4" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	62.20'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=1.92 cfs @ 12.20 hrs HW=62.27' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 1.92 cfs of 10.65 cfs potential flow)
  - **2=WQ Orifice** (Orifice Controls 0.06 cfs @ 11.53 fps)
  - **3=Orifice/Grate** (Orifice Controls 1.63 cfs @ 3.43 fps)
  - **4=Broad-Crested Rectangular Weir** (Weir Controls 0.23 cfs @ 0.76 fps)

Pond 1: R-Tank #1



Summary for Pond 2: R-Tank #2

Inflow Area = 1.229 ac, 51.71% Impervious, Inflow Depth = 2.74" for 25-year event
Inflow = 3.93 cfs @ 12.09 hrs, Volume= 0.280 af
Outflow = 2.95 cfs @ 12.16 hrs, Volume= 0.280 af, Atten= 25%, Lag= 4.4 min
Primary = 2.95 cfs @ 12.16 hrs, Volume= 0.280 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Peak Elev= 63.04' @ 12.16 hrs Surf.Area= 1,197 sf Storage= 3,402 cf

Plug-Flow detention time= 216.3 min calculated for 0.280 af (100% of inflow)
Center-of-Mass det. time= 216.4 min (1,053.9 - 837.5)

Volume	Invert	Avail.Storage	Storage Description
#1	59.01'	997 cf	**Crushed Stone (Prismatic)**Listed below (Recalc) 5,171 cf Overall - 2,679 cf Embedded = 2,492 cf x 40.0% Voids
#2	59.51'	2,545 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc) Inside #1 2,679 cf Overall x 95.0% Voids
		3,542 cf	Total Available Storage

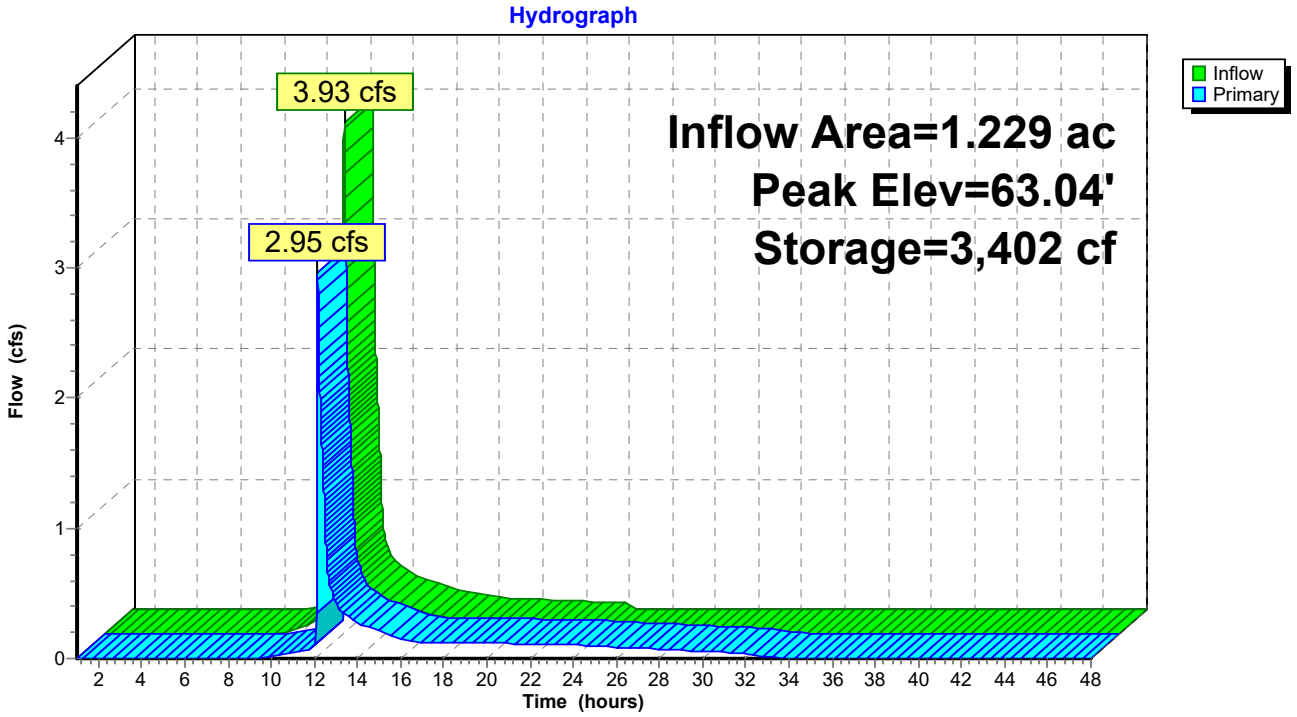
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.01	1,197	0	0
63.33	1,197	5,171	5,171

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
59.51	950	0	0
62.33	950	2,679	2,679

Device	Routing	Invert	Outlet Devices
#1	Primary	58.88'	**15.0" Round 15" storm drain** L= 44.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.88' / 58.66' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	58.98'	**1.6" Vert. Orifice/Grate** C= 0.600
#3	Device 1	62.65'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=2.93 cfs @ 12.16 hrs HW=63.04' TW=0.00' (Dynamic Tailwater)
└**1=15" storm drain** (Passes 2.93 cfs of 8.77 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.13 cfs @ 9.62 fps)
  └**3=Broad-Crested Rectangular Weir** (Weir Controls 2.79 cfs @ 1.81 fps)

Pond 2: R-Tank #2



165 WASHINGTON AVE LAND USE AND POLLUTANT SUMMARY TABLE

LAND USE	COLOR	POLLUTANT RANKING	EXISTING AREA	WEIGHTED AVE. RANKING
ROADS WHERE IDLING MAY OCCUR PERIODICALLY DUE TO TRAFFIC AND INTERSECTIONS; HIGH USE PARKING LOTS		5	0.00 AC	0.00
OTHER ROADS; MEDIUM USE PARKING LOTS		4	0.61 AC	1.62
OTHER PARKING LOTS AND DRIVEWAYS; FLAT ASPHALT ROOFTOPS; ROOFS ON AN INDUSTRIAL FACILITY		3	0.23 AC	0.46
OTHER ROOFTOPS; BIKEWAYS; GRASSED AREAS MOWED MORE THAN TWICE PER YEAR; WALKWAYS / FOOT TRAFFIC-ONLY PAVEMENT		2	0.00 AC	0.00
NON-GRASS LANDSCAPED AREAS; STORMWATER TREATMENT / STORAGE SYSTEMS (EXCEPT BUFFERS)		1	0.67 AC	0.45
TOTAL			1.50 AC	2.53



PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY DATE
SITE PLAN	PFH 11/20/24

DRAWING NAME: **PRE REDEVELOPMENT IMPACT RANKINGS**

PROJECT NAME: **TAVATA - 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101**

CLIENT: REDFERN PROPERTIES
P.O. BOX 8816, PORTLAND, MAINE 04104

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ACORN ENGINEERING, INC.
FALMOUTH, MAINE 04104
PO BOX 3427 (207) 775-2655

FILE:	1202_CIVIL
JN:	1202
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
EX-3

165 WASHINGTON AVE LAND USE AND POLLUTANT SUMMARY TABLE

LAND USE	COLOR	POLLUTANT RANKING	EXISTING AREA	WEIGHTED AVE. RANKING
ROADS WHERE IDLING MAY OCCUR PERIODICALLY DUE TO TRAFFIC AND INTERSECTIONS; HIGH USE PARKING LOTS		5	0.00 AC	0.00
OTHER ROADS; MEDIUM USE PARKING LOTS		4	0.10 AC	0.27
OTHER PARKING LOTS AND DRIVEWAYS; FLAT ASPHALT ROOFTOPS; ROOFS ON AN INDUSTRIAL FACILITY		3	0.00 AC	0.00
OTHER ROOFTOPS; BIKEWAYS; GRASSED AREAS MOWED MORE THAN TWICE PER YEAR; WALKWAYS / FOOT TRAFFIC-ONLY PAVEMENT		2	1.15 AC	1.53
NON-GRASS LANDSCAPED AREAS; STORMWATER TREATMENT / STORAGE SYSTEMS (EXCEPT BUFFERS)		1	0.26 AC	0.17
TOTAL			1.50 AC	1.97

LEGEND

TM 10-C-1
N/F
PORTLAND VOA
ELDERLY HOUSING, INC.

TM 12-H-1
N/F
MUNJOY HEIGHTS CONDO
32240/98
SEE 31302/177

TM 12-F-10,11
N/F
HIGH PEAKS, LLC
34058/254

TM 10-B-6
N/F
CITY OF PORTLAND
1720/252
EXCEPT
2695/281

TM 12-F-9
N/F JEFFREY A. CURRAN
37720/297

TM 12-F-8
N/F JEFFREY A. CURRAN
37720/297

AREA=
65,375 S.F.
1.501 AC.

E COVE STREET

WASHINGTON AVENUE
PAVED – PUBLIC

BIKE LANE

20 0 20 40
SCALE: 1" = 20'

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY DATE
SITE PLAN	PFH 11/20/24
COMMENT RESPONSE	PFH 2/14/25

DRAWING NAME: POST REDEVELOPMENT IMPACT RANKINGS
PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101
CLIENT: REDFERN PROPERTIES P.O. BOX 8816, PORTLAND, MAINE 04104

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FILE:	1202_CIVIL
JN:	1202
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER
3/14/25

DRAWING NO.
EX-4

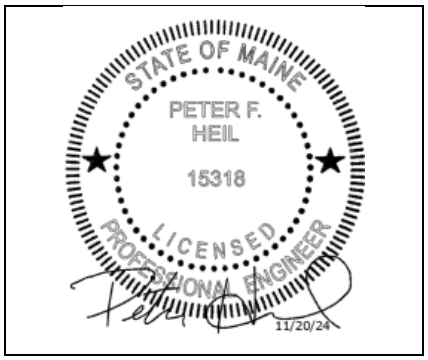
POST CONSTRUCTION - STORMWATER INSPECTION & MAINTENANCE PLAN

Prepared For:

Redfern Properties
P.O. Box 8816
Portland, ME 04104

Prepared By:

Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04102



November 2024

Revised February 2025

RESPONSIBLE PARTY

The owner, Redfern Properties and/or their successor shall be responsible for contracting with a qualified stormwater professional to implement the Inspection and Maintenance Plan. The qualified stormwater professional shall maintain a stormwater log (report) summarizing inspections, maintenance, and corrective action taken. The Qualified Stormwater Professional shall annually submit the Stormwater Log to the Engineering Department prior to June 15th.

The following is an example of a qualified stormwater professional that the owner may contract through.

Organization: Peter Heil, PE
Acorn Engineering, Inc
Portland, Maine

Phone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #15318
- Maine DEP – Certified in Maintenance & Inspection of Stormwater BMP's Cert
- Maine DEP – Certified Third-Party Inspector
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #7071

The inspection and maintenance criteria are based upon the Maine DEP - Stormwater Management for Maine, Volume III: BMPs Technical Design Manual. Refer to the Grading and Drainage Plan for the location of the BMPs

PURPOSE

This Inspection and Maintenance Plan has been individually tailored to this parcel's stormwater infrastructure, site characteristics, and their respective opportunities and limitations related to reducing the pollutant load on the receiving watershed. The maintenance of a parcel's impervious surfaces and stormwater infrastructure is critical to extending the long-term performance and effectiveness of Best Management Practices (BMPs). The Inspection and Maintenance Plan represents the parcel's minimum activities to meet the permit requirements. The parcel shall still be subject to any applicable Civil Site Plans, Permit Applications, Erosion and Sedimentation Control Plans Reports, Stormwater Management Plans, Inspection and Maintenance Manuals, and all Municipal, State, and Federal rules. The applicant shall be responsible for retaining post construction and maintenance documents for at least 5 years.

OPERATION AND MAINTENANCE ACTIVITY

Catch Basins / Field Inlets:

Catch basins and field inlets shall be inspected to confirm that the structure is operating properly.

- Inspect the presence of accumulated sediment or debris any sediment shall be removed. The equipment shall meet the following minimum specifications; power jet and water source for washing down the storm drain, vacuum attachment for catch basin cleaning, and a liquid handling method to dewater the material.
- Sediment shall be removed when accumulation is within 6 inches of the outfall pipe invert. Legally dispose of accumulated sediment and debris from the bottom of the basin, inlet grates, and inflow channels to the basin.
- If the basin outlet is designed with a hood to trap floatable materials (e.g. Snout), check to ensure watertight seal is working.
- Appropriately dispose of all collected material.

Sweeping:

Annual sweeping of the parking lot following the snow melt, if necessary. Appropriately dispose of all collected material.

Storm Drains:

The storm drain shall be annually inspected for the presence of accumulated sediment or debris. Any sediment shall be removed as required.

- The equipment shall meet the following minimum specifications; power jet and water source for washing down the storm drain, vacuum attachment for catch basin cleaning, and a liquid handling method to dewater the material.
- Inspect and legally dispose of accumulated sediment and debris within the storm drains between basins. Liquids must be decanted on-site and returned to the catch basin.

R-Tank:

The maintenance of the R-Tank system shall be in accordance with the following activities identified below and the Stormwater Drainage System Maintenance Agreement included within Stormwater Report.

- The system should be inspected after every major storm in the first few months to ensure proper function. Thereafter, the system should be inspected annually.
- Inspect and maintain the R-Tanks in accordance with the attached proprietary Operation and Maintenance Plan.

StormFilter:

The maintenance of the StormFilter system shall be in accordance with the following activities identified below and the Stormwater Drainage System Maintenance Agreement included within Stormwater Report.

- The system should be inspected after every major storm in the first few months to ensure proper function. Thereafter, the system should be inspected annually.
- Inspect and maintain the StormFilter in accordance with the attached proprietary Operation and Maintenance Plan.

Vegetated Areas and Embankments:

Inspect all landscaped and or vegetated slopes and embankments on an annual basis. Vegetated areas with bare areas or sparse growth (<90% coverage) shall be revegetated. Mulch shall be applied to landscaped areas, as necessary. Dead or decaying landscaping (ground cover, shrubs, trees etc.) shall be replanted in accordance with the approved Site Plan

INSPECTION AND MAINTENANCE TABLE

Inspection and Maintenance Frequency	Spring or Yearly	Summer	Fall	As Necessary
Catch Basins	X			X
Vegetated Areas & Slopes	X			X
R-Tank System	X			X
StormFilter	X			X
Storm Drains	X			X
Sweeping	X			X

In the above chart, it is assumed the certified stormwater professional will inspect each item in the spring. Inspections outside of the spring visits can likely be conducted by the property manager.

ATTACHED

1. R-Tank Operation and Maintenance
2. StormFilter Operation and Maintenance

Housekeeping Notes

1. **Spill prevention.** Controls must be used to prevent pollutants from construction and waste materials stored on site to enter stormwater, which includes storage practices to minimize exposure of the materials to stormwater. The site contractor or operator must develop, and implement as necessary, appropriate spill prevention, containment, and response planning measures.

   NOTE: Any spill or release of toxic or hazardous substances must be reported to the Department. For oil spills, call 1-800-482-0777 which is available 24 hours a day. For spills of toxic or hazardous material, call 1-800-452-4664 which is available 24 hours a day. For more information, visit the Department's website at : http://www.maine.gov/dep/spills/emergspillresp/

2. **Groundwater protection.** During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials. Any project proposing infiltration of stormwater must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, or provide for treatment within the infiltration area, in order to prevent the accumulation of fines, reduction in infiltration rate, and consequent flooding and destabilization.

   See Appendix D for license by rule standards for infiltration of stormwater.

   NOTE: Lack of appropriate pollutant removal best management practices (BMPs) may result in violations of the groundwater quality standard established by 38 M.R.S.A. §465-C(1).

3. **Fugitive sediment and dust.** Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control, but other water additives may be considered as needed. A stabilized construction entrance (SCE) should be included to minimize tracking of mud and sediment. If off-site tracking occurs, public roads should be swept immediately and no less than once a week and prior to significant storm events. Operations during dry months, that experience fugitive dust problems, should wet down unpaved access roads once a week or more frequently as needed with a water additive to suppress fugitive sediment and dust.

   NOTE: Dewatering a stream without a permit from the Department may violate state water quality standards and the *Natural Resources Protection Act*.

4. **Debris and other materials.** Minimize the exposure of construction debris, building and landscaping materials, trash, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials to precipitation and stormwater runoff. These materials must be prevented from becoming a pollutant source.

   NOTE: To prevent these materials from becoming a source of pollutants, construction and post-construction activities related to a project may be required to comply with applicable provision of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine solid waste and hazardous waste management rules; Maine hazardous waste management rules; Maine oil conveyance and storage rules; and Maine pesticide requirements.

5. **Excavation de-watering.** Excavation de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water removed from the ponded area, either through gravity or pumping, must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the Department.

NOTE: Dewatering controls are discussed in the "Maine Erosion and Sediment Control BMPs, Maine Department of Environmental Protection."

6. **Authorized Non-stormwater discharges.** Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:

   (a) Discharges from firefighting activity;

   (b) Fire hydrant flushings;

   (c) Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);

   (d) Dust control runoff in accordance with permit conditions and Appendix (C)(3);

   (e) Routine external building washdown, not including surface paint removal, that does not involve detergents;

   (f) Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;

   (g) Uncontaminated air conditioning or compressor condensate;

   (h) Uncontaminated groundwater or spring water;

   (i) Foundation or footer drain-water where flows are not contaminated;

   (j) Uncontaminated excavation dewatering (see requirements in Appendix C(5));

   (k) Potable water sources including waterline flushings; and

   (l) Landscape irrigation.

7. **Unauthorized non-stormwater discharges .** The Department's approval under this Chapter does not authorize a discharge that is mixed with a source of nonstormwater, other than those discharges in compliance with Appendix C (6). Specifically, the Department's approval does not authorize discharges of the following:

   (a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;

(b) Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance;

(c) Soaps, solvents, or detergents used in vehicle and equipment washing; and

(d) Toxic or hazardous substances from a spill or other release.

(8) Additional requirements. Additional requirements may be applied on a site-specific basis.

CONTECH®
ENGINEERED SOLUTIONS

StormFilter Inspection and Maintenance Procedures



The Stormwater Management StormFilter®

Maintenance Guidelines

The primary purpose of the Stormwater Management StormFilter® is to filter and prevent pollutants from entering our waterways. Like any effective filtration system, periodically these pollutants must be removed to restore the StormFilter to its full efficiency and effectiveness.

Maintenance requirements and frequency are dependent on the pollutant load characteristics of each site. Maintenance activities may be required in the event of a chemical spill or due to excessive sediment loading from site erosion or extreme storms. It is a good practice to inspect the system after major storm events.

Maintenance Procedures

Although there are many effective maintenance options, we believe the following procedure to be efficient, using common equipment and existing maintenance protocols. The following two-step procedure is recommended::

1. **Inspection**
   - Inspection of the vault interior to determine the need for maintenance.
2. **Maintenance**
   - Cartridge replacement
   - Sediment removal

Inspection and Maintenance Timing

At least one scheduled inspection should take place per year with maintenance following as warranted.

First, an inspection should be done before the winter season. During the inspection the need for maintenance should be determined and, if disposal during maintenance will be required, samples of the accumulated sediments and media should be obtained.

Second, if warranted, a maintenance (replacement of the filter cartridges and removal of accumulated sediments) should be performed during periods of dry weather.



In addition to these two activities, it is important to check the condition of the StormFilter unit after major storms for potential damage caused by high flows and for high sediment accumulation that may be caused by localized erosion in the drainage area. It may be necessary to adjust the inspection/ maintenance schedule depending on the actual operating conditions encountered by the system. In general, inspection activities can be conducted at any time, and maintenance should occur, if warranted, during dryer months in late summer to early fall.

Maintenance Frequency

The primary factor for determining frequency of maintenance for the StormFilter is sediment loading.

A properly functioning system will remove solids from water by trapping particulates in the porous structure of the filter media inside the cartridges. The flow through the system will naturally decrease as more and more particulates are trapped. Eventually the flow through the cartridges will be low enough to require replacement. It may be possible to extend the usable span of the cartridges by removing sediment from upstream trapping devices on a routine as-needed basis, in order to prevent material from being re-suspended and discharged to the StormFilter treatment system.

The average maintenance lifecycle is approximately 1-5 years. Site conditions greatly influence maintenance requirements. StormFilter units located in areas with erosion or active construction may need to be inspected and maintained more often than those with fully stabilized surface conditions.

Regulatory requirements or a chemical spill can shift maintenance timing as well. The maintenance frequency may be adjusted as additional monitoring information becomes available during the inspection program. Areas that develop known problems should be inspected more frequently than areas that demonstrate no problems, particularly after major storms. Ultimately, inspection and maintenance activities should be scheduled based on the historic records and characteristics of an individual StormFilter system or site. It is recommended that the site owner develop a database to properly manage StormFilter inspection and maintenance programs..



Inspection Procedures

The primary goal of an inspection is to assess the condition of the cartridges relative to the level of visual sediment loading as it relates to decreased treatment capacity. It may be desirable to conduct this inspection during a storm to observe the relative flow through the filter cartridges. If the submerged cartridges are severely plugged, then typically large amounts of sediments will be present and very little flow will be discharged from the drainage pipes. If this is the case, then maintenance is warranted and the cartridges need to be replaced.

Warning: In the case of a spill, the worker should abort inspection activities until the proper guidance is obtained. Notify the local hazard control agency and Contech Engineered Solutions immediately.

To conduct an inspection:

Important: Inspection should be performed by a person who is familiar with the operation and configuration of the StormFilter treatment unit and the unit's role, relative to detention or retention facilities onsite.

1. If applicable, set up safety equipment to protect and notify surrounding vehicle and pedestrian traffic.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the access portals to the vault and allow the system vent.
4. Without entering the vault, visually inspect the inside of the unit, and note accumulations of liquids and solids.
5. Be sure to record the level of sediment build-up on the floor of the vault, in the forebay, and on top of the cartridges. If flow is occurring, note the flow of water per drainage pipe. Record all observations. Digital pictures are valuable for historical documentation.
6. Close and fasten the access portals.
7. Remove safety equipment.
8. If appropriate, make notes about the local drainage area relative to ongoing construction, erosion problems, or high loading of other materials to the system.
9. Discuss conditions that suggest maintenance and make decision as to whether or not maintenance is needed.

Maintenance Decision Tree

The need for maintenance is typically based on results of the inspection. The following Maintenance Decision Tree should be used as a general guide. (Other factors, such as Regulatory Requirements, may need to be considered).

Please note Stormwater Management StormFilter devices installed downstream of, or integrated within, a stormwater storage facility typically have different operational parameters (i.e. draindown time). In these cases, the inspector must understand the relationship between the retention/detention facility and the treatment system by evaluating site specific civil engineering plans, or contacting the engineer of record, and make adjustments to the below guidance as necessary. Sediment deposition depths and patterns within the StormFilter are likely to be quite different compared to systems without upstream storage and therefore shouldn't be used exclusively to evaluate a need for maintenance.

1. Sediment loading on the vault floor.
   a. If >4" of accumulated sediment, maintenance is required.
2. Sediment loading on top of the cartridge.
   a. If >1/4" of accumulation, maintenance is required.
3. Submerged cartridges.
   a. If >4" of static water above cartridge bottom for more than 24 hours after end of rain event, maintenance is required. (Catch basins have standing water in the cartridge bay.)
4. Plugged media.
   a. While not required in all cases, inspection of the media within the cartridge may provide valuable additional information.
   b. If pore space between media granules is absent, maintenance is required.
5. Bypass condition.
   a. If inspection is conducted during an average rain fall event and StormFilter remains in bypass condition (water over the internal outlet baffle wall or submerged cartridges), maintenance is required.
6. Hazardous material release.
   a. If hazardous material release (automotive fluids or other) is reported, maintenance is required.
7. Pronounced scum line.
   a. If pronounced scum line (say ≥ 1/4" thick) is present above top cap, maintenance is required.

Maintenance

Depending on the configuration of the particular system, maintenance personnel will be required to enter the vault to perform the maintenance.

Important: If vault entry is required, OSHA rules for confined space entry must be followed.

Filter cartridge replacement should occur during dry weather. It may be necessary to plug the filter inlet pipe if base flows is occurring.

Replacement cartridges can be delivered to the site or customers facility. Information concerning how to obtain the replacement cartridges is available from Contech Engineered Solutions.

Warning: In the case of a spill, the maintenance personnel should abort maintenance activities until the proper guidance is obtained. Notify the local hazard control agency and Contech Engineered Solutions immediately.

To conduct cartridge replacement and sediment removal maintenance:

1. If applicable, set up safety equipment to protect maintenance personnel and pedestrians from site hazards.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the doors (access portals) to the vault and allow the system to vent.
4. Without entering the vault, give the inside of the unit, including components, a general condition inspection.
5. Make notes about the external and internal condition of the vault. Give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
6. Using appropriate equipment offload the replacement cartridges (up to 150 lbs. each) and set aside.
7. Remove used cartridges from the vault using one of the following methods:

Method 1:

A. This activity will require that maintenance personnel enter the vault to remove the cartridges from the under drain manifold and place them under the vault opening for lifting (removal). Disconnect each filter cartridge from the underdrain connector by rotating counterclockwise 1/4 of a turn. Roll the loose cartridge, on edge, to a convenient spot beneath the vault access.

   Using appropriate hoisting equipment, attach a cable from the boom, crane, or tripod to the loose cartridge. Contact Contech Engineered Solutions for suggested attachment devices.

B. Remove the used cartridges (up to 250 lbs. each) from the vault.



Important: Care must be used to avoid damaging the cartridges during removal and installation. The cost of repairing components damaged during maintenance will be the responsibility of the owner.

C. Set the used cartridge aside or load onto the hauling truck.

D. Continue steps a through c until all cartridges have been removed.

Method 2:

A. This activity will require that maintenance personnel enter the vault to remove the cartridges from the under drain manifold and place them under the vault opening for lifting (removal). Disconnect each filter cartridge from the underdrain connector by rotating counterclockwise 1/4 of a turn. Roll the loose cartridge, on edge, to a convenient spot beneath the vault access.

B. Unscrew the cartridge cap.

C. Remove the cartridge hood and float.

D. At location under structure access, tip the cartridge on its side.

E. Empty the cartridge onto the vault floor. Reassemble the empty cartridge.

F. Set the empty, used cartridge aside or load onto the hauling truck.

G. Continue steps a through e until all cartridges have been removed.

8. Remove accumulated sediment from the floor of the vault and from the forebay. This can most effectively be accomplished by use of a vacuum truck.
9. Once the sediments are removed, assess the condition of the vault and the condition of the connectors.
10. Using the vacuum truck boom, crane, or tripod, lower and install the new cartridges. Once again, take care not to damage connections.
11. Close and fasten the door.
12. Remove safety equipment.
13. Finally, dispose of the accumulated materials in accordance with applicable regulations. Make arrangements to return the used **empty** cartridges to Contech Engineered Solutions.

Material Disposal

The accumulated sediment found in stormwater treatment and conveyance systems must be handled and disposed of in accordance with regulatory protocols. It is possible for sediments to contain measurable concentrations of heavy metals and organic chemicals (such as pesticides and petroleum products). Areas with the greatest potential for high pollutant loading include industrial areas and heavily traveled roads.

Sediments and water must be disposed of in accordance with all applicable waste disposal regulations. When scheduling maintenance, consideration must be made for the disposal of solid and liquid wastes. This typically requires coordination with a local landfill for solid waste disposal. For liquid waste disposal a number of options are available including a municipal vacuum truck decant facility, local waste water treatment plant or on-site treatment and discharge.

Related Maintenance Activities - Performed on an as-needed basis

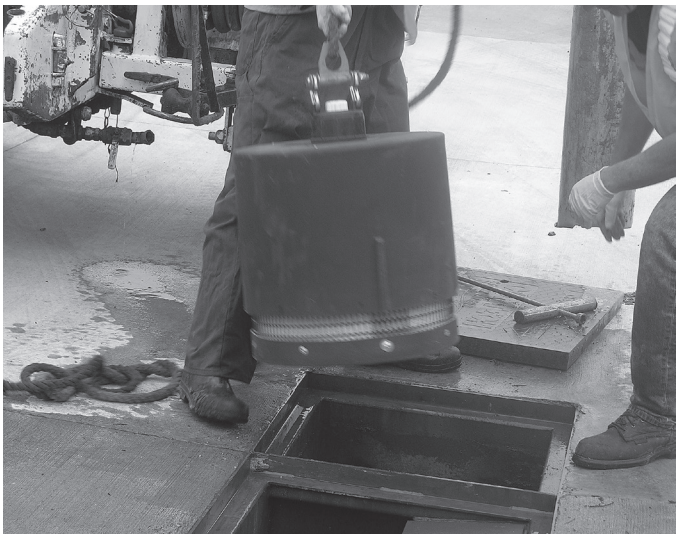
StormFilter units are often just one of many structures in a more comprehensive stormwater drainage and treatment system.

In order for maintenance of the StormFilter to be successful, it is imperative that all other components be properly maintained. The maintenance/repair of upstream facilities should be carried out prior to StormFilter maintenance activities.

In addition to considering upstream facilities, it is also important to correct any problems identified in the drainage area. Drainage area concerns may include: erosion problems, heavy oil loading, and discharges of inappropriate materials.







Inspection Report

Date: _____ Personnel: _____

Location: _____ System Size: _____ Months in Service: _____

System Type: Vault ☐ Cast-In-Place ☐ Linear Catch Basin ☐ Manhole ☐ Other: _____

Sediment Thickness in Forebay: _____ Date: _____

Sediment Depth on Vault Floor: _____

Sediment Depth on Cartridge Top(s): _____

Structural Damage: _____

Estimated Flow from Drainage Pipes (if available): _____

Cartridges Submerged: Yes ☐ No ☐ Depth of Standing Water: _____

StormFilter Maintenance Activities (check off if done and give description)

☐ Trash and Debris Removal: _____

☐ Minor Structural Repairs: _____

☐ Drainage Area Report _____

Excessive Oil Loading: Yes ☐ No ☐ Source: _____

Sediment Accumulation on Pavement: Yes ☐ No ☐ Source: _____

Erosion of Landscaped Areas: Yes ☐ No ☐ Source: _____

Items Needing Further Work: _____

Owners should contact the local public works department and inquire about how the department disposes of their street waste residuals.

Other Comments:

_____

_____

_____

_____

_____

_____

_____

_____

Review the condition reports from the previous inspection visits.

StormFilter Maintenance Report

Date: _____ Personnel: _____

Location: _____ System Size: _____

System Type: Vault ☐ Cast-In-Place ☐ Linear Catch Basin ☐ Manhole ☐ Other: _____

List Safety Procedures and Equipment Used: _____

_____

_____

System Observations

Months in Service: _____

Oil in Forebay (if present): Yes ☐ No ☐

Sediment Depth in Forebay (if present): _____

Sediment Depth on Vault Floor: _____

Sediment Depth on Cartridge Top(s): _____

Structural Damage: _____

Drainage Area Report

Excessive Oil Loading: Yes ☐ No ☐ Source: _____

Sediment Accumulation on Pavement: Yes ☐ No ☐ Source: _____

Erosion of Landscaped Areas: Yes ☐ No ☐ Source: _____

StormFilter Cartridge Replacement Maintenance Activities

Remove Trash and Debris: Yes ☐ No ☐ Details: _____

Replace Cartridges: Yes ☐ No ☐ Details: _____

Sediment Removed: Yes ☐ No ☐ Details: _____

Quantity of Sediment Removed (estimate?):

Minor Structural Repairs: Yes ☐ No ☐ Details: _____

Residuals (debris, sediment) Disposal Methods: _____

Notes:

_____

_____

_____

_____

_____

_____

_____

RECYCLED PAPER

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R-TANK® OPERATION, INSPECTION AND MAINTENANCE

Operation

Your R-Tank System has been designed to function in conjunction with the engineered drainage system on your site, the existing municipal infrastructure, and/or the existing soils and geography of the receiving watershed. Unless your site included certain unique and rare features, the operation of your R-Tank System will be driven by naturally occurring systems and will function autonomously. However, upholding a proper schedule of Inspection & Maintenance is critical to ensuring continued functionality and optimum performance of the system.

Inspection

Both the R-Tank and all stormwater pre-treatment features incorporated into your site must be inspected regularly. Inspections should be done every six months for the first year of operation, and at least yearly thereafter. Inspections may be required more frequently for pre-treatment systems. You should refer to the manufacturer requirements for the proper inspection schedule.

With the right equipment most inspections and measurements can be accomplished from the surface without physically entering any confined spaces. If your inspection does require confined space entry, you must follow all local, regional, and OSHA requirements.

All maintenance features of your system can be accessed through a covering at the surface. With the lid removed, you can visually inspect each component to identify sediment, trash, and other contaminants within the structure. Check you construction plans to identify the maintenance features engineered into your R-Tank system, which may include:

Upstream Pipes, Inlets, and Manholes

- Working from the structures adjacent the R-Tank toward those farther away, check for debris and sediment in both the structures and the pipes. Be sure to Include all structures that contain pre- treatment systems. Some structures may include a sump.

Maintenance Ports

- Located near the inlet and outlet connections and throughout the system, check sediment depth at each port.

Inspection Ports

- Less common, inspection ports are primarily located within the Treatment Row of an R-Tank System. These should be used to check for sediment deposits but are typically too small to access for backflushing.

Treatment Row

- On installations in 2018 or later, inlet pipes may connect to a row of modules with 12” diameter access holes running horizontally through the module that can be jet vacuumed. Check these rows for accumulation of sediment and debris.

All observations and measurements should be recorded on an Inspection Log kept on file. We’ve included a form you can use at the end of this guide.

Maintenance

For modules taller than 40” the R-Tank System should be back-flushed once sediment accumulation has reached 6”. For modules less than 40” tall, perform maintenance when sediment depths are greater than 15% of the total system height.

If your system includes a Treatment Row with linear access through the modules from the inlet pipe, backflush this area when sediment depths reach 6”.

BEFORE ANY MAINTENANCE IS PERFORMED ON YOUR SYSTEM -
PLUG THE OUTLET PIPE TO PREVENT CONTAMINATION OF THE DOWNSTREAM SYSTEMS.

Begin by cleaning all upstream structures, pipes, and pre-treatment systems containing sediment and/or debris. If your system includes a Treatment Row, this portion of the system should be cleaned with traditional jet-vac equipment. Add a centralizer to the jet for easiest access through the modules.

To back-flush the R-Tank, water is pumped into the system through the Maintenance Ports as rapidly as possible. The turbulent action of the water moving through the R-Tank will suspend sediments which may then be pumped out. If your system includes an Outlet Structure, this will be the ideal location to pump contaminated water out of the system. However, removal of back-flush water may be accomplished through the Maintenance Ports, as well.

For systems with large footprints that would require extensive volumes of water to properly flush the system, you should consider performing your maintenance within 24 hours of a rain event. Stormwater entering the system will aid in the suspension of sediments and reduce the volume of water required to properly flush the system.

STEP BY STEP INSTRUCTIONS FOR INSPECTION AND MAINTENANCE CAN BE FOUND ON THE NEXT PAGE, WITH A MAINTENANCE LOG ON THE LAST PAGE.

INSPECTION

1. Upstream Structures
    a. Remove cover
    b. Use flashlight to detect sediment deposits If present, measure sediment depth
    c. Inspect pipes connecting to R-Tank
        i. If inlet pipes connect to Treatment Row, check sediment depth within these modules
        ii. If access for measurement inside the Treatment Row is difficult, sediment depth can be estimated based on the coverage of the round, 12” opening of the module
    d. Inspect pre-treatment systems (if present)
    e. Record results on Maintenance Log
    f. Replace cover
    g. Repeat for ALL Manholes upstream of R-Tank until no sedimentation is observed and all pre- treatment systems have been checked
2. Maintenance Ports
    a. Remove cap
    b. Use flashlight to detect sediment deposits
    c. If present, measure sediment depth with stadia rod
    d. Record results on maintenance log
    e. Replace cap
    f. Repeat for ALL Maintenance Ports
3. Inspection Port
    a. Remove cap
    b. Use flashlight to detect sediment deposits
    c. If present, measure sediment depth with stadia rod
    d. Record results on Maintenance Log
    e. Replace cap

MAINTENANCE

1. Plug system outlet to prevent discharge of back-flush water
2. Vacuum all upstream structures, inlet pipes, and stormwater pre-treatment systems
3. If a Treatment Row is present, vacuum this row of modules
4. Determine best location to pump out back-flush water. Typically, the outlet structure will work best, but sometimes the Maintenance Ports must be used.
5. Remove cap from Maintenance Port and pump water as rapidly as possible into system through port to suspend sediments, pumping dirty water out of the system from the outlet or nearby Maintenance Port
6. Repeat at all Maintenance Ports until sediment levels are reduced to a satisfactory level
7. Sediment-laden water shall be disposed of per local regulations
8. Replace any remaining caps or covers and remove outlet plug
9. Record the back-flushing event in your Maintenance Log with any relevant specifics

R-Tank® Maintenance Log

Site Name:		Company:	
Location:		Contact:	
City and State:		Phone:	
System Owner:		Email:	

Date	Location	Sediment Depth	Observations / Notes	Initials

LEGEND

NEW IMPERVIOUS 22,214 SF

EXISTING IMPERVIOUS REDEVELOPED INTO ROOF = 25,963 SF

IMPERVIOUS AREA DESIGNATED TO PUBLIC RIGHT OF WAY (EASEMENT) = 2,575 SF

EXISTING DEVELOPED AREA = 40,497 SF

PROPOSED DEVELOPED AREA = 60,128 SF

TM 10-C-1
N/F
PORTLAND VOA
ELDERLY HOUSING, INC.

TM 12-H-1
N/F
MUNJOY HEIGHTS CONDO
32240/98
SEE 31302/177

TM 12-F-10,11
N/F
HIGH PEAKS, LLC
34058/254

TM 10-B-6
N/F
CITY OF PORTLAND
1720/252
EXCEPT
2695/281

1S

EXISTING BUILDING

AREA=
65,375 S.F.
1.501 AC.

TM 12-F-9
N/F JEFFREY A. CURRAN
37720/297

TM 12-F-8
N/F JEFFREY A. CURRAN
37720/297

E COVE STREET

WASHINGTON AVENUE
PAVED – PUBLIC

BIKE LANE

POA

OHW

20 0 20 40

SCALE: 1" = 20'

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SITE PLAN	PFH 11/20/24
COMMENT RESPONSE	PFH 2/14/25

STORMWATER TREATMENT EXHIBIT

PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE
PORTLAND, MAINE, 04101

CLIENT: REDFERN PROPERTIES
P.O. BOX 8816, PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.
ENGINEERING, INC.

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(207) 775-2655

FILE:	1202_CIVIL
JN:	1202
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER
2/14/25

DRAWING NO.
EX-5

ACORN ENGINEERING, INC.

K. EROSION & SEDIMENTATION CONTROL REPORT

Prepared For:

Redfern Properties
P.O. Box 8816
Portland, ME 04104

Prepared By:

Acorn Engineering, Inc.
P.O. Box 3372
Portland, Maine 04104



February 2025

INTRODUCTION

Acorn Engineering, Inc. has been retained by Redfern Properties to provide civil engineering services for the proposed work located at 165 Washington Avenue, Portland, ME 04101. The project proposes to demolish the existing Northern Burner Supply building and associated parking areas and construct a 326-unit multi-family / mixed use building with commercial space on the first floor. It is anticipated that the building will be a mixture of two-bedroom, one-bedroom and studio units. The project also includes various parking, utility, and landscape improvements.

The following Erosion and Sedimentation Control Report was developed in accordance with the City of Portland Technical Manual – Section 12 – Portland Stormwater Management Standards and the Maine DEP Chapter 500 Stormwater Management Appendix A and B (1), Amended August 12, 2015. This narrative also meets the standards required in the Maine DEP's Erosion & Sediment Control BMP's Manual, revised in 2016.

	Plan Submission Requirement	Inspector Requirement	Inspection Report Submittal
Construction Activity > 1 Acres of Disturbance	Comprehensive	Third-Party Inspector	Weekly to Water Resources & Planning
Construction Activity < 1 Acres of Disturbance	Basic	Qualified Professional	Weekly or as specified

The proposed project will disturb approximately 1.50 acres and as such is subject to a Comprehensive Erosion and Sedimentation Control Plan as defined in Section 12 of the City of Portland Technical Manual.

PRE-CONSTRUCTION MEETING

For sites with a Comprehensive Erosion Control Plan, a pre-construction meeting is required. Once an approved Performance Guarantee, if required, is in hand and at least five (5) days prior to commencing Construction Activity, the applicant shall request a pre-construction meeting with the Enforcement Authority. At a minimum, attendance at the meeting is required by the Enforcement Authority and the applicant or their representative in charge of construction. If the representative in charge of construction is not the primary earthwork contractor, a representative of the earth work contractor must also attend the pre-construction meeting. Erosion and sediment controls should be installed for inspection during the pre-construction meeting and must be installed and inspected prior to the start of construction.

1.0 EXISTING CONDITIONS

The proposed project is located at 165 Washington Avenue. A Boundary & Topographic Survey has been prepared by Owen Haskell, Inc. on July 25, 2023.

Abutting Uses:

- North OS-R Zone Land Banks

- East B2b/RN4 Zone Residential
- South B2b/RN4 Zone Multi-Use Commercial/Residential
- West B2b Zone Retail/Residential

A large majority of the existing site is impervious surface that mainly includes the existing Northern Burner Supply building and parking lots. The slope within the existing developed area is relatively flat with steep grades along the rear of the parcel.

1.1 Existing Soils

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County

Given the soils information, listed above, no onsite wastewater is proposed; the applicant does not intend to perform a more intense hydric soil boundary delineation because the waiver requirements set forth in the City of Portland Technical Manual – Section 7 – Soil Survey, Rev. 6/17/11;12/8/20 are met.

The area within and surrounding the project includes soil types listed in the table below. The susceptibility of soils to erosion is indicated on a relative "K" scale of values over a range of 0.02 to 0.69. Higher "K" values indicate more erodible soils.

Table 1 - "K" Value

Soils Type	Subsurface	Substratum
Hinkley Loamy Sand	0.17	0.17

The soil "K" value for the soil, listed above, shows a low susceptibility to erosion. The site's susceptibility to erosion is from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County. Although soil "K" values for the soils show a moderate susceptibility to erosion, implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of the utmost importance given the sustained slope throughout the site.

1.2 Existing Erosion Problems

There are no signs of erosion.

1.3 Critical Areas

There are no critical areas.

1.4 Protected Natural Resource

The client is not aware of the presence of any existing significant natural features located on the site as listed in Section 14-526 (b) 1. of the Land Use Code. The project is not located within a watershed classified as an Urban Impaired Stream by the Maine DEP.

1.5 Previous Construction Activity (5 years)

Acorn Engineering, Inc. is not aware of any construction related activities within the project limits within the past 5 years.

1.6 Timber Harvesting

Acorn Engineering, Inc. is not aware of any timber harvesting within the past five years.

2.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

As part of the site development, the following temporary and permanent erosion and sedimentation control devices shall be implemented. Devices shall be installed as described in this report or within the plan set. See the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices for further reference.

2.1 Temporary Erosion Control Measures

Erosion and Sedimentation Control BMPs must be in place prior to earth disturbance. For sites with 1 acre or more of disturbance which require a Comprehensive ESC Plan, ESC BMPs should be installed **prior** to the required pre- construction meeting.

The following temporary erosion and sedimentation control measures are planned for the project's construction period:

2.1.1 Crushed stone stabilized construction entrances shall be placed at all access points to the project site where there are disturbed areas. The following specifications shall be followed at a minimum:

- Stone size shall be 2-3 inches or reclaimed or recycled concrete equivalent.
- The thickness of the entrance stone layer shall be no less than 6 inches.
- The entrance shall not be less than 20 feet wide, however not less than the full width of points where ingress or egress occurs. The length shall not be less than 50 feet in length.
- Geotextile fabric (woven or non-woven) shall be placed over the entire entrance area.
- The entrance/exit shall be maintained to the extent that it will prevent the tracking of sediment onto public roadways.

2.1.2 Siltation fence or erosion control berm shall be installed down gradient of any disturbed areas to trap runoff borne sediments until permanent stabilization is achieved. The silt fence or erosion control berm shall be installed per the details provided in the plan set and inspected before and immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence line or

berm. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind the fence or berm, the barrier shall be replaced with a stone check dam.

2.1.3 Hay mulch including hydro seeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and November 1st on slopes of less than 15 percent shall be covered by fabric netting and anchored with staples in accordance with the manufacturer's recommendation. Mulch placed between November 1st and April 15th on slopes equal to or steeper than 8 percent and equal to or flatter than 2:1 shall use mats or fabric netting and anchored with staples in accordance with the manufacturer's recommendation.

2.1.4 At any time of the year, all slopes greater than 3:1 shall be stabilized with Double Net Erosion Control Blanket Bionet SC150BN by North American Green or Approved Equal, or Erosion Control Mix Slope Protection as detailed within the plans.

2.1.5 Washington Avenue shall be swept to control mud and dust from the construction site as necessary. Add additional stone to the stabilized construction entrance to minimize the tracking of material off the site and onto the surrounding roadways.

2.1.6 During demolition, clearing and grubbing operations, stone check dams shall be installed at any areas of concentrated flow. The maximum height of the check dam shall not exceed 2 feet. The center of the check dam shall be 6 inches below the outer edges of the dam. The contractor shall mulch the side slopes and install stone check dams for all newly excavated ditch lines within 24 hours of their creation.

2.1.7 Silt fence stake spacing shall not exceed 6 feet unless the fence is supported with 14-gauge wire in which case the maximum spacing shall not exceed 10 feet. The silt fence shall be "toed" into the ground.

2.1.8 Storm drain inlet protection shall be provided to storm drains using any of the following: hay bale drop inlet structures, silt fence drop inlet sediment filter, gravel and wire mesh drop inlet sediment filter, or curb inlet sediment filter. Barriers shall be inspected after every rainfall event and repaired as necessary. Sediments shall be removed when accumulation has reached ½ the design height.

2.1.9 Dust control shall be accomplished using any of the following: water, calcium chloride, stone, or an approved MDEP product. Dust control shall be applied as needed to accomplish dust control.

2.1.10 Temporary loam, seed, and mulching shall be used in areas where no other erosion control measure is used. Application rates for seeding are provided at the end of this report.

2.1.11 Stockpiles shall be stabilized within 7 days of formation unless a scheduled rain event occurs prior to the 7-day window, in which case the stockpile shall be stabilized prior to the rain event. Methods of stabilization shall be mulch, erosion control mix, or erosion control blankets/mats. Silt fence or a wood waste compost filter berm shall be placed downhill of any soil stockpile location.

2.1.12 For disturbance between November 1 and April 15, please refer to winter stabilization plan in this report and the Maine Erosion and Sediment Control BMP manual for further information.

2.1.13 It is of the utmost importance that stormwater runoff and potential sediment from the construction site be diverted around the proposed underdrains until the trench is backfilled.

2.1.14 Within 7 days of the cessation of Construction Activities in an area that will not be worked for more than 7 days, stabilize any exposed soil with mulch, or other non-erodible cover. Stabilize areas within 75 feet of a wetland or waterbody within 48 hours of the initial disturbance of the soil or prior to any storm event, whichever comes first.

2.2 Permanent Erosion Control Measures

If the Site or a portion of the Site will not be worked for more than one year or has been brought to final grade, then permanently stabilize the area within 7 days by planting vegetation, seeding, sod, or through the use of permanent mulch, or riprap, or road sub-base. If using vegetation for stabilization, select the proper vegetation for the light, moisture, and soil conditions; amend the Disturbed Area subsoils with topsoil, compost, or fertilizers; protect seeded areas with mulch or, if necessary, erosion control blankets; and schedule sodding, planting, and seeding so to avoid die-off from summer drought and fall frosts. Newly seeded or sodded areas must be protected from vehicle traffic, excessive pedestrian traffic, and concentrated runoff until the vegetation is well-established with 90% cover by healthy vegetation. If necessary, areas must be reworked and restabilized if germination is sparse, plant coverage is spotty, or topsoil erosion is evident. Permanent Stabilization Definitions are as follows:

2.2.1 **Seeded areas:** For seeded areas, permanent stabilization means a 90% cover of the Disturbed Area with mature, healthy plants with no evidence of washing or rilling of the topsoil.

2.2.2 **Sodded areas**: For sodded areas, permanent stabilization means the complete binding of the sod roots into the underlying soil with no slumping of the sod or die-off.

2.2.3 **Permanent mulch:** For mulched areas, permanent mulching means total coverage of the exposed area with an approved mulch material. Erosion control mix may be used as mulch for permanent stabilization according to the approved application rates and limitations.

2.2.4 **Riprap:** For areas stabilized with riprap, permanent stabilization means that slopes stabilized with riprap have an appropriate backing of a well-graded gravel or approved geotextile to prevent soil movement from behind the riprap. Stone must be sized appropriately. It is recommended that angular stone be used.

2.2.5 **Paved areas:** For paved areas, permanent stabilization means the placement of the compacted gravel subbase is completed, provided it is free of fine materials that may runoff with a rain event.

2.2.6 **Ditches, channels, and swales:** For open channels, permanent stabilization means the channel is stabilized with a 90% cover of healthy vegetation, with a well-graded riprap lining, turf reinforcement mat, or with another non- erosive lining such as concrete or asphalt pavement. There must be no evidence of slumping of the channel lining, undercutting of the channel banks, or down-cutting of the channel.

2.2.7 All disturbed areas during construction, not subject to other proposed conditions, shall receive a minimum 4" of loam, limed, and mulched. Erosion control blankets or mats shall be placed over the mulch in areas noted in paragraph 4.1 of this report.

2.2.8 All stormwater devices shall be installed, and tributary areas stabilized prior receiving stormwater.

2.2.9 Refer to the Maine Erosion and Sediment Control BMP manual for additional information.

2.2.10 Remove any temporary control measures, such as silt fence, within 30 days after permanent stabilization is attained. Remove any accumulated sediments and stabilize.

3.0 EROSION AND SEDIMENTATION CONTROL PLAN

3.1 The Erosion and Sedimentation Control Plan (Construction Management Plan) is included within the plan set.

4.0 DETAILS AND SPECIFICATIONS

4.1 Erosion Control Details and Specifications are included in the plan set.

5.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

Winter Construction consists of earthwork disturbance between the dates of November 1 and April 15. If a construction site is not stabilized with pavement, a road gravel base, 75%

mature vegetation cover or riprap by November 15, then the site shall be protected with over-winter stabilization. Any area not stabilized with pavement, vegetation, mulching, erosion control mix, erosion control mats, riprap, or gravel base on a road shall be considered open.

The contractor shall limit the work area to areas that work will occur in during the subsequent 15 days and so that it can be mulched one day prior to a snow event. The contractor shall stabilize work areas prior to opening additional work areas to minimize areas without erosion control measures.

The following measures shall be implemented during winter construction periods:

5.1 Sediment Barriers

During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

5.2 Mulching

All areas shall be considered to be denuded until seeded and mulched. Hay and straw mulch shall be applied at a rate of 150 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate of 75-lbs./1,000 s.f. or 1.5 tons/acre) and shall be properly anchored. Erosion control mix must be applied with a minimum 4-inch thickness. Mulch shall not be spread on top of snow. The snow shall be removed down to a one-inch depth or less prior to application. After each day of final grading, the area shall be properly stabilized with anchored hay or straw or erosion control matting. An area shall be considered to have been stabilized when exposed surfaces have been either mulched or adequately anchored so that ground surface is not visible through the mulch. Between the dates of November 1 and April 15, all mulch shall be anchored by either mulch netting, tracking or wood cellulose fiber. The cover will be considered sufficient when the ground surface is not visible through the mulch. After November 1st, mulch and anchoring of all exposed soil shall occur at the end of each final grading workday.

5.3 Soil Stockpiling

Stockpiles of soil or subsoil shall be mulched for over winter protection with hay or straw at twice the normal rate or with a four-inch layer of erosion control mix. This shall be done within 24 hours of stocking and re-established prior to any rainfall or snowfall.

5.4 Seeding

Between the dates of October 15th and April 1st, loam or seed shall not be required. During periods of above freezing temperatures finished areas shall be fine graded and either protected with mulch or temporarily seeded and mulched until the final treatment can be applied. If the date is after November 1st and if the exposed area has not been loamed, final grading with a uniform surface, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched.

Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5 lbs./1,000 s.f. All areas seeded during the winter shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75% catch) shall be revegetated by replacing loam, seed and mulch. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.

5.5 Over winter stabilization of disturbed soils

By September 15th, all disturbed soils on areas having a slope less than 15% shall be seeded and mulched. If the disturbed areas are not stabilized by this date, then one of the following actions shall be taken to stabilize the soil for late fall and winter:

- Stabilize the soil with temporary vegetation – By October 1st, seed the disturbed soil with winter rye at a seeding rate of 3lbs per 1,000 s.f., lightly mulch the seeded soil with hay or straw at 75 lbs per 1,000 s.f., and anchor the mulch with plastic netting. Monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1st, then mulch the area for over-winter protection.

- Stabilize the soil with sod – Stabilize the disturbed soil with properly installed sod by October 1st. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.

- Stabilize the soil with mulch – By November 15th, mulch the disturbed soil by spreading hay or straw at a rate of at least 150 lbs per 1,000 s.f. on the area so that no soil is visible through the mulch. Immediately after applying the mulch, anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.

5.6 Over winter stabilization of disturbed slopes

All stone-covered slopes shall be constructed and stabilized by November 15th. All slopes to be vegetated shall be seeded and mulched by September 1st. A slope is considered a grade greater than 15%. If a slope to be vegetated is not stabilized by September 1st, then one of the following action shall be taken to stabilize the slope for late fall and winter:

- Stabilize the soil with temporary vegetation and erosion control mats – By October 1st the disturbed slope shall be seeded with winter rye at a seeding rate of 3 lbs per 1,000 s.f. and then install erosion control mats or anchored mulch over the seeding. If the rye fails to grow at least three inches or fails to cover at least 75% of the slope by November 1st, then the contractor shall cover the slope with a layer of erosion control mix or with stone riprap.

- Stabilize the soil with sod – The disturbed slope shall be stabilized with properly installed sod by October 1st. Proper installation includes the contractor pinning the sod onto the slope with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil. The contractor shall not use late-season sod installation to stabilize slopes having a grade greater than 3H:1V or having groundwater seeps on the slope face.

- Stabilize the soil with erosion control mix – Erosion control mix shall be properly installed by November 15th. The contractor shall not use erosion control mix to stabilize slopes having grades greater than 2H:1V or having groundwater seeps on the slope face.

- Stabilize the soil with stone riprap – Place a layer of stone riprap on the slope by November 15th. A registered professional engineer shall be hired to determine the stone size needed for stability on the slope and to design a filter layer for underneath the riprap.

6.0 INSPECTION AND MAINTENANCE

A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct periodic visual inspections of installed erosion control measures. The frequency of inspection shall occur at least once every two weeks, as well as after a "storm event". A "storm event" shall consist 0.5 inches of rain within a 24-hour period. The following Erosion and Sediment Control - Best Management Practices (BMP's) shall inspected in the manner as described.

6.1 Sediment Barriers

Hay bale barriers, silt fences and filter berms shall be inspected and repaired for the following if there are any signs of erosion or sedimentation below them. If there are signs of undercutting at the center or the edges of the barrier, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary check dam. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits should be removed when deposits reach approximately one-half the height of the barrier. Filter berms should be reshaped as needed. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared and seeded.

6.2 Stabilized Stone Construction Entrances

The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way. When the control pad becomes ineffective, the stone shall be removed along with the collected soil material and redistributed on site in a stable manner. The entrance should then be reconstructed. The contractor shall sweep or wash pavement at exits, which have experienced mud-tracking on to the pavement or

traveled way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches, or waterways.

6.3 Mulched Areas

All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Nets must be inspected after rain events for dislocation or failure. If washouts or breakage occur, re-install the nets as necessary after repairing damage to the slope. Where mulch is used in conjunction with ornamental plantings, inspect periodically throughout the year to determine if mulch is maintaining coverage of the soil surface. Repair as needed.

6.4 Dust Control

When temporary dust control measures are used, repetitive treatment shall be applied as needed to accomplish control.

6.5 Stormwater Appurtenances

All underdrains, storm drains, and catch basins need to be operating effectively and free of debris.

Erosion and Sedimentation Control Inspections:

Acorn Engineering has personnel qualified to conduct Erosion and Sedimentation Control Inspections. For further information, contact:

Contact: Peter Heil, PE
Telephone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #15318
- Maine DEP - Certified in Maintenance & Inspection of Stormwater BMP's
- Maine DEP – Certified Third-Party Inspector
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #7071

The Contractor has sole responsibility for complying with the Erosion and Sedimentation Report/Plan, including control of fugitive dust. The Contractor shall be responsible for any monetary penalties resulting from failure to comply with these standards.

Comprehensive Inspection and Maintenance Requirements:

Erosion and Sedimentation Controls must be inspected, as detailed below, to confirm that BMPs are in place and functioning. Corrective actions must be taken if erosion is occurring or there is a discharge of sediment or turbid water from the construction site.

A. For all sites with one acre or greater of disturbance, the applicant shall retain the services of a qualified professional third-party inspector to inspect the site weekly, for the duration of construction until final site stabilization is in place. For sites less than one acre of disturbance that are required to have a comprehensive erosion and sediment control plan, the applicant shall retain the services of a qualified professional.

B. The inspection is required in order to ensure that all construction and stabilization activities comply with the approved drawings and specifications; that field decisions regarding erosion control implementation, stormwater system installation, and natural resource protection are based on sound engineering and environmental considerations; and that any changes to the development's erosion control plan, stormwater management plan, or final stabilization plan is communicated to the City of Portland for additional review and approval.

C. All areas of disturbance, impervious areas, ESC BMPs, materials storage areas exposed to precipitation, and locations where vehicles enter or exit the Site shall be inspected at least once a week as well as before and within 24 hours after a storm event (rainfall) and prior to completing permanent stabilization measures.

D. For all sites with one acre or greater of disturbance, the inspector will submit weekly written reports to the Stormwater Coordinator(s) in the Water Resources Division of Public Works and the Development Review Coordinator(s) in Planning. Reports must include: project ID, project address, the date(s) and time(s) of inspection(s), site photographs of areas under construction, and the date(s) and approximate duration(s) of any rainfall events in the prior week. The report will identify and describe any erosion problems or discharge of pollutants and what actions will be taken to address these issues and repair any damage to other properties or natural resources, actions to eliminate the erosion source, and actions to prevent future sediment discharges from the area. Sites with less than 1 acre of disturbance may request a waiver to be reviewed and approved by Water Resources, for weekly inspection report submission, as allowed by Chapter 32- 48 of the Code of Ordinances.

E. If ESC BMPs need to be maintained, repaired, or enhanced, the work shall be initiated upon discovery of the problem but no later than the end of the next workday or prior to a precipitation event, whichever comes first. Immediate corrective actions are required to address active discharges of sediment to municipal streets or storm drains or to surface waters. If additional ESC BMPs or significant repair of ESC BMPs are necessary, implementation must be completed prior to any storm event (rainfall) and within 7 calendar All development constructed within the limits of the City of Portland shall have a hydrant within five hundred feet (500') of all structures. days of identification. All measures must be maintained in effective operating condition until areas are permanently stabilized.

F. An inspection log summarizing the inspections and any corrective actions must be maintained. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of ESC BMPs, materials storage areas, and vehicle access points to the parcel. Inspection documentation must include maintenance needed, ESC BMPs that failed to operate as designed or proved inadequate for a particular location, and location(s) where

additional ESC BMPs are needed. The inspection log must also document what corrective actions are needed and when corrective actions were completed. The inspection log shall be maintained for at least three years from the completion of permanent stabilization.

7.0 IMPLEMENTATION SCHEDULE

The following implementation sequence is intended to maximize the effectiveness of the above described erosion control measures. Contractors should avoid overexposing disturbed areas and limit the amount of stabilization area.

1. Install a stabilized construction entrance in all locations where construction traffic will enter and exit the site.
2. Install perimeter silt fence or erosion control berm.
3. Commence installation of drainage infrastructure.
4. Install all other erosion control devices as necessary throughout the remainder of this schedule.
5. Commence earthwork operations, associated with the roadway construction.
6. Commence installation of utilities.
7. Continue earthwork and grading to subgrade as necessary for construction.
8. Complete installation of drainage infrastructure, as well as other utility work.
9. Complete remaining earthwork operations.
10. Install sub-base and base gravels in paved areas.
11. Install paving, curbing and brickwork.
12. Loam, lime, fertilize, seed and mulch disturbed areas and complete all landscaping.
13. Once the site is stabilized, 90% catch of grass has been obtained, or mulching of landscape areas is complete, remove all temporary erosion control measures.
14. Touch up areas without a vigorous catch of grass with loam and seed.
15. Complete site signage and striping.
16. Execute proper maintenance of all temporary and permanent erosion control measures throughout the project.

The above implementation sequence should be generally followed by the site contractor. However, the contractor may construct several items simultaneously. The contractor shall submit to the owner a schedule of the completion of the work. If the contractor is to commence the construction of more than one item above, they shall limit the amount of exposed areas to those areas in which work is expected to be undertaken during the following 30 days.

The contractor shall re-vegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a storm event. The contractor shall incorporate planned inlets and drainage systems as early as possible into the construction phase.

8.0 CONCLUSION

The above erosion control narrative is intended to minimize the development impact by implementing temporary and permanent erosion control measures. The contractor shall also refer to the Maine Erosion and Sediment Control BMP manual for additional information.

9.0 ATTACHMENTS

- Temporary Seeding Plan
- Permanent Seeding Plan
- Good Housekeeping and Pollution Prevention Plan
- Medium Intensity Soil Survey for Cumberland County
- Third Party Inspection Form

TEMPORARY SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P2O5-K2O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of temporary seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.	Recommended Seeding Dates
Winter Rye	2.57	Aug-15 to Oct-1
Oats	1.84	Apr-1 to Jul-1 Aug-15 to Sep-15
Annual Ryegrass	0.92	Apr-1 to Jul-1
Sudangrass	0.92	May-15 to Aug-15
Perennial	0.92	Aug-15 to Sep-15

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to temporary seeding and mulching.

PERMANENT SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P2O5-K2O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of permanent seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.
Kentucky Bluegrass	0.46
Creeping Red Fescue	0.46
Perennial Ryegrass	0.11
Total	1.03

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Recommendations

Permanent seeding is recommended to be completed in the spring. Later summer seeding is allowed if completed prior to September 1st. If seeding cannot be accomplished during the periods recommended for permanent seeding, then the contractor shall perform temporary seeding per the temporary seeding plan.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to permanent seeding and mulching.

GOOD HOUSEKEEPING AND POLLUTION PREVENTION PLAN

Spill Prevention:

Controls must be used to prevent pollutants from construction and waste materials stored on-Site from entering stormwater, which includes storage practices to minimize exposure of the materials to stormwater. The Site contractor or operator must develop, and implement as necessary, appropriate spill prevention, containment, and response planning measures.

Groundwater protection:

During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the Site draining to an infiltration area. An infiltration area is any area of the Site that by design or as a result of soils, topography, and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the Site for the purposes of storage and handling of these materials.

Fugitive sediment and dust:

Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control, but other water additives may be considered as needed. A stabilized construction entrance shall be included to minimize tracking of mud and sediment. If off-Site tracking occurs, public roads shall be swept immediately and no less than once a week and prior to significant storm events. Operations during dry months, that experience fugitive dust problems, shall wet down unpaved access roads once a week or more frequently as needed with a water additive to suppress fugitive sediment and dust.

Debris and other materials:

Minimize the exposure of construction debris, building and landscaping materials, trash, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials to precipitation and stormwater runoff. These materials must be prevented from becoming a pollutant source. Sediment generated by concrete or mortar mixing, brick cutting & saw cutting activities must be contained (e.g., sausage boom, straw bales, etc.) and cleaned up using dry methods (i.e., sweeping or vacuuming) to prevent it from entering drainage structures or water resources. These activities shall be done on vegetated areas whenever possible and away from drainage structures and water resources.

Excavation dewatering:

Excavation dewatering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and

safe construction practices. The collected water removed from the ponded area, either through gravity or pumping, must be spread through natural wooded buffers or otherwise treated to collect the maximum amount of sediment possible, like a coffer dam sedimentation or sediment filter bag. Avoid allowing the water to flow over Disturbed Areas of the Site. If the Maine DEP has approved equivalent measures, provide proof of approval. Note that discharge of excavation dewater fluids from the Site must be visually clear (no visible suspended or settleable solids). Any dewatering discharges from a site to the City right-of way or infrastructure are prohibited unless the City has provided approval of a Dewatering Plan and Application submitted by the Contractor. Discharges from the Site into the City's storm drain or sewer system must first obtain City approval through the Dewatering Program, as detailed in the Rules and Regulations for Use of the Sewer System.

Washout from concrete, stucco, paint, curing compounds, or other construction materials:

If washout/cleanout is to be completed on the Site, a designated area(s) shall be established and marked on the Erosion and Sedimentation Control Plan. This area shall be a minimum of 50 feet from all drainage structures, ditches, waterbodies, and resource areas, as well as property boundaries if possible. The area shall not have an outlet to discharge wastes or flows. No detergents shall be used or vehicles washed in this location. A leak-proof pit or container shall be established in the washout area(s), to which washings shall be directed. This area shall be used for washout containment and dewatering by evaporation only. The pit shall not allow infiltration to occur. To prevent clean water from entering the pit, the washout area shall be covered during precipitation events. Inspections of the pit shall be conducted daily to ensure no leaks are present and no discharge is occurring.

Non-stormwater discharges:

Except as allowed or exempted herein, no person shall create, initiate, originate or maintain a non-stormwater discharge to the storm drainage system. Such non-storm water discharges are prohibited, notwithstanding the fact that the City may have approved the connections, drains or conveyances by which a person discharges unallowed storm water discharges to the storm drain system.

Authorized non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified, and steps shall be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:

Discharges from firefighting activity

Hydrant flushing if dechlorinated to 0.05 mg/l or less
Vehicle wash water if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage, and transmission washing is prohibited)

Dust control runoff if it does not cause erosion

Routine external building washdown, not including surface paint removal, that does not involve detergents

Pavement wash water (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used

Uncontaminated air conditioning or compressor condensate

Uncontaminated groundwater or spring water

Foundation or footer drain-water where flows are not contaminated

Uncontaminated excavation dewatering per item 5 Excavation Dewatering

Potable water including waterline flushings

Landscape irrigation

Unauthorized non-stormwater discharges.

Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds, or other construction materials

Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance

Soaps, solvents, or detergents used in vehicle and equipment washing

Sediment laden discharges

Toxic or hazardous substances from a spill or other release

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Cumberland County and Part of Oxford County, Maine



October 28, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



Map Scale: 1:754 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 10 20 40 60

Feet
0 35 70 140 210

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

6

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 21, Aug 26, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HIC	Hinckley loamy sand, 8 to 15 percent slopes	0.8	54.5%
HID	Hinckley loamy sand, 15 to 25 percent slopes	0.7	45.5%
Totals for Area of Interest		**1.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Cumberland County and Part of Oxford County, Maine

HIC—Hinckley loamy sand, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2svm9
Elevation: 0 to 1,480 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Farmland of local importance

Map Unit Composition

Hinckley and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Kame terraces, outwash plains, kames, eskers, moraines, outwash terraces, outwash deltas
Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope
Landform position (three-dimensional): Head slope, nose slope, side slope, crest, riser
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 8 inches: loamy sand
Bw1 - 8 to 11 inches: gravelly loamy sand
Bw2 - 11 to 16 inches: gravelly loamy sand
BC - 16 to 19 inches: very gravelly loamy sand
C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: A
Ecological site: F144AY022MA - Dry Outwash

Hydric soil rating: No

HID—Hinckley loamy sand, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: 2svmc
Elevation: 0 to 1,460 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Farmland of local importance

Map Unit Composition

Hinckley and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hinckley

Setting

Landform: Outwash plains, eskers, moraines, outwash terraces, outwash deltas, kame terraces, kames
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Head slope, nose slope, side slope, crest, riser
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Parent material: Sandy and gravelly glaciofluvial deposits derived from gneiss and/or granite and/or schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
A - 1 to 8 inches: loamy sand
Bw1 - 8 to 11 inches: gravelly loamy sand
Bw2 - 11 to 16 inches: gravelly loamy sand
BC - 16 to 19 inches: very gravelly loamy sand
C - 19 to 65 inches: very gravelly sand

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: F144AY022MA - Dry Outwash
Hydric soil rating: No

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.



Map Scale: 1:754 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 10 20 40 60

Feet
0 35 70 140 210

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 21, Aug 26, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HIC	Hinckley loamy sand, 8 to 15 percent slopes	A	0.8	54.5%
HID	Hinckley loamy sand, 15 to 25 percent slopes	A	0.7	45.5%
Totals for Area of Interest			**1.5**	**100.0%**

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

References

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American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

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Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

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Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

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United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

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United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

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United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Third Party Inspection Form

This report is prepared by a Third Party Inspector to meet the requirements of the Third Party Inspector Condition attached as a Special Condition to the Department Order that was issued for the project identified below. The information in this report/form is not intended to serve as a determination of whether the project is in compliance with the Department permit or other applicable Department laws and rules. Only Department staff may make that determination.

TO:	FROM:	
PROJECT NAME & LOCATION:		DEP #:
DATE OF INSPECTION:	DATE OF REPORT:	
WEATHER:	CONDITIONS:	

CONTRACTOR:	
CONTACT NAME:	PHONE NUMBER:
LANDOWNER:	PHONE NUMBER:

SITE CHARACTERISTICS:

# ACRES OPEN:	# ACRES ACTIVE:	# ACRES INACTIVE:
LOCATION OF OPEN LAND:	LOCATION OF ACTIVE LAND:	LOCATION OF INACTIVE LAND:
OPEN SINCE:	OPEN SINCE:	OPEN SINCE:

PROGRESS OF WORK:

INSPECTION OF:	**Satisfactory**	**Minor Deviation** (corrective action required)	**Unsatisfactory** (include photos)
STORMWATER CONTROL (VEGETATIVE & STRUCTURAL BMP'S)			
EROSION & SEDIMENTATION CONTROL (TEMPORARY & PERMANENT BMP'S)			
OTHER: (PERMIT CONDITIONS, ENGINEERING DESIGN, ETC.)			

COMMENTS/CORRECTIVE ACTIONS TAKEN (attach additional sheets as necessary):

Photos (must be labeled with date, photographer and location)

cc:		
Original and all copies were sent by email only.		

Att. L

ACORN ENGINEERING, INC.

Chief Gillespie
City of Portland Fire Department
380 Congress St.
Portland, ME 04101

November 20, 2024

Subject: 165 Washington Avenue – Fire Department Checklist
Section L of Application

On behalf of Redfern Properties, the design team is pleased to respond to the Portland Fire Department Site Review Checklist.

1. Name, address, telephone number of applicant:

   Redfern Properties
   P.O. Box 8816,
   Portland, ME 04101
   (207) 261-5151

2. Name address, telephone number of architect:

   HOLST Architecture
   123 NE 3rd Avenue, Suite 310
   Portland, Oregon 97232
   (503) 233-9856

3. Proposed uses of any structures [NFPA and IBC classification]

   NFPA: Apartment / IBC: R-2

4. Square footage of all structures, including decks [total and per story]

Existing

Existing Building		
Total	Approx. 19,396	**gfa**

Proposed

Multi-Family Building		
1st Floor	28,074	sf
2nd Floor	32,157	sf
3rd Floor	37,447	sf
4th Floor	34,114	sf
5th Floor	25,625	sf
6th Floor	25,625	sf
7th Floor	25,625	sf
Total	Approx. 208,667	**gfa**

5. Elevation of all structures

   The proposed 7-story structure's height will be below the allowable 75 feet within the B-2b zoning district. Please refer to the building elevations provided by the Architect for additional information.

6. Proposed fire protection of all structures

   The proposed buildings will have a sprinkler system per code. Fire flows and requirements for system storage or booster pumping are subject to the fire designer which will be performed prior to the request for a building permit.

7. Hydrant locations

   a. An existing hydrant is located directly west of the existing building on Washington Avenue. Hydrant flow data from the Portland Water District once received may be made available to the Fire Department upon request.

8. Water main size and location

   The proposed Multi-family building will be serviced by a proposed 2" domestic water service connection, a 6" domestic water service connection as well as a 8" fire suppression service from the existing 8" water main within Washinton Avenue.

9. Access to all structures [min. 2 sides]

   Access to the structure is provided directly on Washington Avenue and from the drive isle along the southeast side of the site.

NFPA 1 – Chapter 18 Fire Department Access and Water Supply

18.2 Fire Department Access:

The project site is located in a heavily developed area and is fronted by a public street. The following pavement street width is currently available:

- Washington Avenue: 43 feet

Per NFPA 1 – Chapter 18.2.3.3.1, there will be public street access within 50 feet of at least one exterior door. Per NFPA 1 – Chapter 18.2.3.2.2.1, all first story floors shall be located not more than 450 feet from a Fire Department access road.

City of Portland Technical Manual – Section 3 Public Safety

3.4.1 Every dead-end roadway more than one hundred fifty (150') feet in length shall provide a turnaround at the closed end. Turnarounds shall be designed to facilitate future street connectivity and shall always be designed to the right (refer to Figure I-5).

Response: There are no dead-end roadway conditions more than one hundred fifty feet in length included as part of the proposed project. Please refer to C-10, which provides specifics on the 150 lf fire access lane.

3.4.2 Where possible, developments shall provide access for Fire Department vehicles to at least two sides of all structures. Access may be from streets, access roads, emergency access lanes, or parking areas.

Response: Access to structures onsite is provided directly from Washington Avenue and from the internal drive isle. See the Site Plan for additional information.

3.4.3 Building setbacks, where required by zoning, shall be adequate to allow for emergency vehicle access and related emergency response activities and shall be evaluated based on the following factors:

- *Building Height.*
- *Building Occupancy.*
- *Construction Type.*
- *Impediments to the Structures.*
- *Safety Features Provided.*

Response: The proposed development layout has contemplated emergency access conditions and provides for safe and efficient access along the public street for emergency vehicles.

3.4.4. Fire Dept. access roads shall extend to within 50' of an exterior door providing access to the interior of the structure.

Response: The building will be provided with exterior doors that will be within 50' of a Fire Department access route, namely Washington Avenue.

3.4.5. Site access shall provide a minimum of nine (9) feet clearance height to accommodate ambulance access.

Response: The proposed site maintains the required clearance height of nine feet in all cases.

3.4.6. Elevators shall be sized to accommodate an 80 x 24-inch stretcher.

Response: Elevators will be sized to accommodate an 80 x 24-inch stretcher.

3.4.7. All structures are required to display the assigned street number. Numbers shall be clearly visible from the public right of way.

Response: The site's address is 165 Washington Avenue in Portland Maine. The final address locations will be coordinated with public works as part of the proposed subdivision application process.

Thank you for your review. Please let me know if you have any additional questions or comments.
Sincerely,



Peter Heil, P.E.
Project Manager
Acorn Engineering, Inc.

Department of Public Works
Mike Murray
Director

Att. M

City of portland

Date: February 21, 2025
Re: Wastewater Capacity Authorization
Address: 165 Washington Avenue
Applicant: Redfern Properties
Planner: Taylor Colbeth

Estimate of Anticipated Wastewater Flows				
Development	**Unit Size**	**Number of Units**	**Gallons per Day per Unit**	**Total Gallons per Day**
Existing Flow to Remain				
Vacant				
Proposed flow				
Employees at place of employment with no showers/ Retail	# Employees	10	12 GPD/Employee	120
Multiple Family Dwelling Units	Efficiency	108	120	12960
Multiple Family Dwelling Units	Studio	128	120	15360
Multiple Family Dwelling Units	1-Bedroom	12	120	1440
Multiple Family Dwelling Units	2-Bedroom	78	180	14040
Net Change				**+ 43,920**
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition				

Comments:
The Department of Public Works, which includes the Water Resource Division, have reviewed and determined that the downstream sewers from the project address have the capacity to convey the estimated dry weather wastewater flows which will be generated from this development.

You are also reminded that new connections into the combined sewer system shall be equipped with backflow prevention in accordance with Section 2.6.10 of the City's Technical Manual.

If the City can be of further assistance, please contact me at 207-874-8840 or brad@portlandmaine.gov

Sincerely,



Bradley A. Roland, P.E.,
Senior Project Engineer

N. Lighting

The project proposes exterior lighting at egresses and street lighting on Washington Avenue to that will be in conformance with the City Technical Manual. Please refer to the Photometric Plan and attached cut sheets prepared by Reflex Lighting for additional information.

Luminaire Schedule							
Symbol	Qty	Label	Arrangement	Description	Tag	LLF	Luminaire Lumens
⊙	14	C1	Single	COOPER: MC6050D10-HM6052S830-61MDH	CANOPY LIGHT	0.900	706
●	5	CITY	Single	HOLOPHANE: ESL2-P20S-30K-AS-CMC-TG3-S-F7-WLZX2-BHDF1-200CMC	MOUNTED 19 FT 3 IN AFG WITH 15' POLE AND BRACKET ARM	0.900	11141
■	11	W1	Single	PERFORMANCE IN LIGHTING: MLO-M-10M-T3-CXX-3K-UNV-0-10V	WALL MTD ABOVE EGRESS DOORS, 8.5' AFG	0.900	542

Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CROSSWALK LIGHTING - HORIZONTAL ILLUMINANCE	Illuminance	Fc	1.97	2.7	1.0	1.97	2.70
ENTIRE AREA	Illuminance	Fc	0.33	5.1	0.0	N.A.	N.A.
VERTICAL ILLUMINANCE - NORTH APPROACH	Illuminance	Fc	2.40	3.9	0.7	3.43	5.57
VERTICAL ILLUMINANCE - SOUTH APPROACH	Illuminance	Fc	1.99	3.1	0.5	3.98	6.20

Revisions		
#	Date	Comments

Drawn By: Michael O'Brien
Checked By:
Date:2/13/2025
Contact: mobrien@charroninc.com
Scale: NTS

165 WASHINGTON AVE REDEVELOPMENT

PORTLAND, ME

Page 1 of 1

MIMIK 10





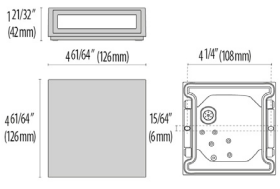
Wall sconce series. Fixtures consist of:

- Multi-step powder-coat painting process, optimized against UV rays and corrosion.
- Copper-free precision die-cast aluminum housing and mounting plate.
- Extra-clear, flat, tempered silk-screened soda-lime glass diffuser.
- Micro-prismatic patterned, flat, tempered silk-screened soda-lime glass diffuser (FLAT versions).
- Custom molded, anti-aging gasket(s).
- Stainless steel external hardware.
- Custom MCPCB utilized to maximize heat dissipation and promote a long LED life.
- High-transmittance transparent optics.
- Single (M) or dual (B) light emission.
- IESNA Type III light distribution (FLAT).
- IESNA Type III light distribution.
- 20° x 20° beam angle (C/I).
- Input voltage: 120-277 V (50 / 60 Hz), integral driver.
- Customizing facade faceplate available for MIMIK FLAT versions (ordered separately).
- Consult factory for dimming options, custom finishes (please specify RAL color), and non-cataloged CCT (Kelvin) options.
- Product meets Buy American Act requirements within ARRA.
- 5-year warranty.
- Marine Grade finish.
- Suitable for Natatorium applications.

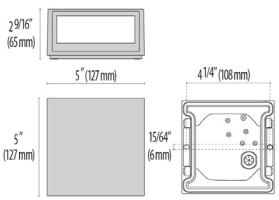
IP 65 · WET · PRONTO · cULus LISTED · RAL · IK 06 1 J

FINISHES

- **AN-96** / Iron gray / Textured
- **GR-94** / Aluminum metallic / Textured
- **WH-87** / White / Textured
- **BK-81** / Black / Textured
- **RB-10** / Iron rust / Textured



MIMIK
10 FLAT



MIMIK
10

Scan here for installation instructions

WATTAGE	
MIMIK 10 M T3	5W
MIMIK 10 M T3	10W
MIMIK 10 M C/I	5W
MIMIK 10 M C/I	10W
MIMIK 10 FLAT M	5W
MIMIK 10 FLAT M	10W
MIMIK 10 FLAT B	10W
MIMIK 10 B C/I	10W
MIMIK 10 B C/I+T3	10W

LUMEN OUTPUT		2700K	3000K	3500K	4000K
MIMIK 10 M T3	5W	292	314	336	358
MIMIK 10 M T3	10W	505	542	579	617
MIMIK 10 M C/I	5W	307	349	390	432
MIMIK 10 M C/I	10W	607	653	699	745
MIMIK 10 FLAT M	5W	440	451	462	473
MIMIK 10 FLAT M	10W	751	771	790	810
MIMIK 10 FLAT B	10W	857	880	902	925
MIMIK 10 B C/I	10W	725	779	833	888
MIMIK 10 B C/I+T3	10W	657	707	756	806

Revision 23
10/24

Order Guide - Mimik 10

Order code example: **M10F-B-AM-27K-120V-NA**

M10-

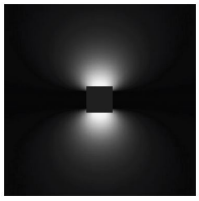
Housing Style	Light Emission	Wattage	Optics	Finish	Kelvin	Voltage	Controls	Accessories

Housing Style	Light Emission	Wattage	Optics	Finish	Kelvin	Voltage	Controls	Accessories
M10 Standard **M10F** Flat *Flat Housing is only suitable for T3 Distrubution	**M** (One-Way) **B** (Two-Way)	**5W** 5 watts **10W** 10 watts (max) **XX** Specify wattage must be below max	**Standard Housing only** **Select one for M & two for B** **Leave Blank for Flat Housing** **T3** Type III **T4** Type IV **C/I** 20˚ beam **10** 10˚ Beam **40** 40˚ Beam **65** 65˚ Beam	**AM** Aluminum Metallic **IG** Iron Gray **IR** Iron Rust **BK** Textured Black **WH** Textured White **CC** Custom Color	**27K** 2700k **3K** 3000k **35K** 3500k **4K** 4000k **RED** Static Red **GRN** Static Green **BLU** Static Blue **AMB** Static Amber **RGBW** RGBW (flat only)	**UNV** 120-277V	(When selecting Flat housing, or B (two-way) emmisions, Dimming options must be remote) **NA** Non Dimming (standard) **0-10V** 0-10V Dimming **ELV** ELV Dimming	(SEE PICTURES BELOW) **FC** Facade cover **SP8** 8" Square Panel **L24** 24" Vertical Panel **L33** 33" Vertical Panel **L48** 48" Vertical Panel **RP7** 7" Round Panel **Wedge** Wedge Panel **D-Wedge** Double Wedge Panel **SIGN** Signage **REM** Remote mounted Emergency battery back up **RDR** Remote driver **CON2** (double-gang j-box, adaptor plate and 1/2" knockouts) **CON4** (double-gang j-box, adaptor plate and 3/4" knockouts) **BABAA** Build America Buy America Act compliant

80 CRI STANDARD - OTHER OPTIONS AVAILABLE

Performance in Lighting reserves the right to make all necessary changes without prior notice.

MIMIK 10



8" Square Panel



L24 Vertical Panel



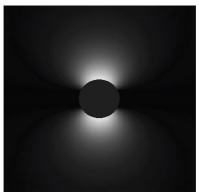
L33 Vertical Panel



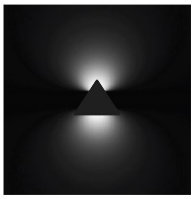
L48 Vertical Panel



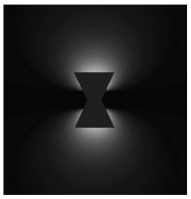
Signage Panel



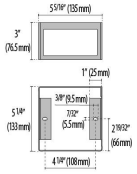
7" Round Panel



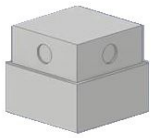
Wedge Panel



Double Wedge Panel



Fascade Cover



CON 2/4
Surface Mounted
J-box with Conduit
Entry

Performance in Lighting reserves the right to make all necessary changes without prior notice.

Performance in Lighting - 2621 Keys Pointe - Grayson, GA 30013 - USA - voice 770.822.2115 - info.usa@pil.lighting
www.performanceinlighting.com

REMOTE RGBW ACCESSORIES

Power Supply



17433
Kit driver 48V



17096
Kit driver 48V WP

RF Controls



3104173
RGBW RF controller 4 channel
(0.35A each CH)



31041730
RGBW RF controller WP 4 channel
(0.35A each CH)



310429
RGBW hand held remote

DMX Controls



178973
RGBW DMX enabler/decoder 4
channel (0.35A each CH)



1789730
RGBW DMX enabler/decoder WP 4
channel (0.35A each CH)



11015
Terminating Resistor



110150
Terminating Resistor WP

Project		Catalog #		Type	
Prepared by		Notes		Date	



HALO Commercial

HC6 | HM6 | 61 | 61PS

6-inch LED downlight and wall wash

Typical Applications

Office • Healthcare • Hospitality • Institutional • Mixed-Use/Retail

Interactive Menu

- Order Information page 2
- Product Specifications page 4
- Photometric Data page 5
- Energy & Performance Data page 8
- Connected Systems page 10
- Product Warranty

Product Certification

ENERGY STAR · Efficiency Standards T24 Can be used to comply with California Title 24 Non-Residential · wet location · Chicago Plenum Approved · FC · RoHS Compliant · UL Certified

Product Features

QS Quick Spec · Showerlight

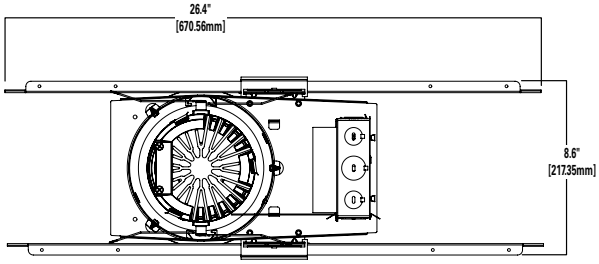
Control Compatibility

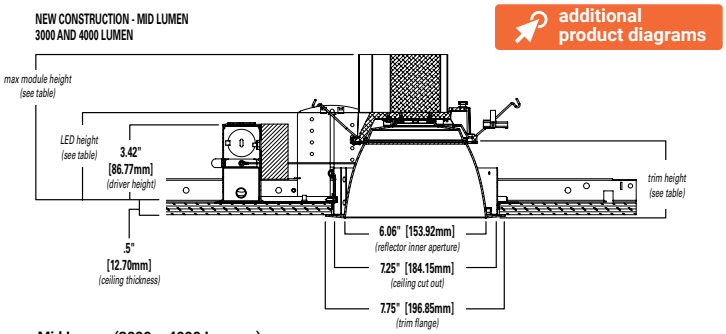
WaveLinx LITE · WaveLinx PRO

Top Product Features

- New construction/remodel series; 500 to 6,000 lumens
- Narrow, Medium and Wide distributions; Wall wash with rotatable linear spread lens
- 2700K, 3000K, 3500K, 4000K, 5000K CCT; 80 or 90 CRI
- Universal voltage 120V-277V; Standard 0-10V driver dims to 1%
- Mounting frame converts to remodel that installs from below the ceiling
- Quick Spec emergency backup mounting frames - fast delivery option

Dimensional and Mounting Details





additional product diagrams

Mid Lumen (3000 – 4000 Lumens)

Distribution	Max. Module Height	Trim Height	LED Height
Narrow	6.6"	3.4"	3.8"
Medium	6.7"	3.5"	3.9"
Wide	6.5"	3.3"	3.7"
Baffle	6.5"	3.3"	3.7"

Mounting Frame Order Information

Sample Number: HC620D010REM7 – HM60525835 - 61MDC

A complete luminaire consists of a housing frame, LED module, and reflector (ordered separately)

Mounting Frame	Lumens	Driver Options	Factory Installed Emergency & Connected Lighting Options	Accessories (Order & Install Separately)
HC6 = 6" new construction downlight housing **HC6CP** = 6" new construction housing, Chicago Plenum - CCEA compliant	**05** = 500 lm **07** = 750 lm **10** = 1000 lm **15** = 1500 lm **20** = 2000 lm **25** = 2500 lm **30** = 3000 lm **35** = 3500 lm **40** = 4000 lm **45** = 4500 lm (7) **50** = 5000 lm (7) **55** = 5500 lm (7) **60** = 6000 lm (7)	**D010**=UNV 120-277V, 50/60Hz, 0-10V 1%-100% dimming at 120-277V on 0-10V controls **Canada Option 500-5000 lumens:** **D010347** = 347VAC 50/60Hz 0-10V 1%-100% dimming. For 500, 750, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000lm models only (1) **Canada Option 5500-6000 lumens:** **D010X347** = step down transformer factory installed (with standard "D010" 120V-277V LED driver). For 5500, 6000lm models only (1)	**REM7** = 7 watt emergency battery pack with remote test / indicator light, use with D010 only (1) (2) (6) **REM14** = 14 watt emergency battery pack with remote test / indicator light, use with D010 only (1) (2) (6) **IEM7** = 7 watt emergency battery pack with integral test / indicator light, use with D010 only (1) (2) (6) **IEM14** = 14 watt emergency battery pack with integral test / indicator light, use with D010 only (1) (2) (6) **BOD7ST** = 7.5 watt Bodine self-test emergency battery pack with remote test / indicator light, use with D010 only (1) (2) (6) **WTA** = Factory WaveLinx PRO Tilemount Sensor Kit (4) **WTK** = Factory WaveLinx LITE Tilemount Sensor Kit (5) **WPN** = WaveLinx PRO Wireless Node without Sensor (9) **WLN** = WaveLinx LITE Wireless Node without Sensor (10)	**HB128APK** = L channel hanger bar, 26", pair (replacement) **RMB22** = Adjustable wood joist mounting bars, pair, extend to 22" long **HSA6** = Slope Adapter for 6" Aperture Housings, Specify Slope (refer to instructions for installing housing and trim) **H347** = 347 to 120V step down transformer, 75VA **H347200** = 347 to 120V step down transformer, 200VA **WTA** = Field WaveLinx PRO Tilemount Sensor Kit (4) **WTK** = Field WaveLinx LITE Tilemount Sensor Kit (5)
		DLV = Distributed Low Voltage dimming driver 1%-100%, 1000-4000 lumens only. For use with DLVP system only, refer to DLVP specifications for details. (1)	**REMV7** = 7 watt emergency battery pack with remote test / indicator light, use with DLV only (1) (2) (3) (6) **REMV14** = 14 watt emergency battery pack with remote test / indicator light, use with DLV only (1) (2) (3) (6) **IEMV7** = 7 watt emergency battery pack with integral test / indicator light, use with DLV only (1) (2) (3) (6) **IEMV14** = 14 watt emergency battery pack with integral test / indicator light, use with DLV only (1) (2) (3) (6)	
Notes	**Notes** (7) Marked Spacing: Center to Center of Adjacent Luminaires = 36" Center of Luminaire to Building Member = 18" Minimum overhead = 0.5	**Notes** (1) Not available with CP models	**Notes** (1) Not available with CP models (2) Not available with D010347 (347V models) (3) ULus for U.S. only (4) WTA = WaveLinx PRO tilemount sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with D010 only. (Refer to WaveLinx PRO specifications.) (5) WTK = WaveLinx LITE tilemount sensor kit for daylight dimming, PIR motion sensing, use with D010 only. (Refer to WaveLinx LITE specifications.) (6) Emergency battery backup options are Non-IC only, and rated for a minimum starting temperature of 0°C (9) WPN = WaveLinx PRO wireless node provides luminaire-level control with scene and zone configuration without an integrated sensor; Connects wirelessly with daylight dimming sensor and PIR motion sensor if desired. Use with 0-10V driver only. Not compatible with 347V or Chicago plenum. (Refer to WaveLinx PRO specifications.) (10) WLN = WaveLinx LITE wireless node provides luminaire-level control with scene and zone configuration without an integrated sensor; Connects wirelessly with daylight dimming sensor and PIR motion sensor if desired. Use with 0-10V driver only. Not compatible with 347V or Chicago plenum. (Refer to WaveLinx LITE specifications.)	**Notes** (4) WTA = WaveLinx PRO tilemount sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with D010 only. (Refer to WaveLinx PRO specifications.) (5) WTK = WaveLinx LITE tilemount sensor kit for daylight dimming, PIR motion sensing, use with D010 only. (Refer to WaveLinx LITE specifications.)

Quick Spec Emergency Mounting Frame Order Information

Select from the Quick Spec Mounting Frame ordering information to receive the *Fast Delivery* option for the frame.

Sample Number :

Quick Spec Emergency Mounting Frame: RR-HC620D010REM7

LED module and reflectors are ordered separately.

Order separately: LED Module: HM60525835 | Reflector: 61MDC

Quick Spec Code	Mounting Frame	Lumens	Driver Options	Factory Installed Emergency & Connected Lighting Options	Accessories (Order & Install Separately)
RR = East Region **BRR** = West Region	**HC6** = 6" new construction downlight housing	**10** = 1000 lm **15** = 1500 lm **20** = 2000 lm **30** = 3000 lm **40** = 4000 lm	**D010**=UNV 120-277V, 50/60Hz, 0-10V 1%-100% dimming at 120-277V on 0-10V controls	**REM7** = 7 watt emergency battery pack with remote test / indicator light, use with D010 only (2) (6) **REM14** = 14 watt emergency battery pack with remote test / indicator light, use with D010 only (2) (6) **IEM7** = 7 watt emergency battery pack with integral test / indicator light, use with D010 only (2) (6) **IEM14** = 14 watt emergency battery pack with integral test / indicator light, use with D010 only (2) (6)	**HB128APK** = L channel hanger bar, 26", pair (replacement) **RMB22** = Adjustable wood joist mounting bars, pair, extend to 22" long
Notes	**Notes**	**Notes**	**Notes**	**Notes** (2) Not available with D010347 (347V models) (6) Emergency battery backup options are Non-IC only, and rated for a minimum starting temperature of 0°C	**Notes**

LED Module Order Information

LED Module	Lumens	CRI/CCT	
HM6 = 6" LED Modules For use with HC6 - HC6CP New Construction housings only	**0525** = 500 - 2500 lumen **3040** = 3000-4000 lumen **4560** = 4500-6000 lumen	**827** = 80CRI, 2700K **830** = 80CRI, 3000K **835** = 80CRI, 3500K **840** = 80CRI, 4000K **850** = 80CRI, 5000K	**927** = 90CRI, 2700K **930** = 90CRI, 3000K **935** = 90CRI, 3500K **940** = 90CRI, 4000K **950** = 90CRI, 5000K
Notes	**Notes**	**Notes**	

Trim Order Information

Reflector	Distribution[8]	Finish	Flange	Accessories
61 = 6" conical reflector	**ND** = narrow 55° beam angle 0.97 SC **MD** = medium 60° beam angle 1.10 SC **WD** = wide 65° beam angle 1.28 SC **RWW** = rotatable wall wash with linear spread lens	**C** = Specular clear **H** = Semi-specular clear **W** = White	**Blank** = Polished flange standard with C & H reflectors **Blank** = White flange standard with W reflector **WF** = White flange option available with C & H reflectors	**61RWWPK** = Replacement part kit - wall wash lens insert - for use with 61RWW* only.
Notes	**Notes** (8) Values are nominal, with specular clear reflector, other finishes and field results may vary.	**Notes**	**Notes**	**Notes**

Baffle	Distribution[8]	Finish	Flange	Accessories
61 = 6" baffle reflector	**WD** = wide 65° beam angle 1.28 SC (nominal) **RWW** = rotatable wall wash with linear spread lens	**BB** = Black baffle **WB** = White baffle	**Blank** = White flange standard with BB, & WB **BF** = Black flange option available with BB	**61RWWPK** = Replacement part kit - wall wash lens insert - for use with 61RWW* only.
Notes	**Notes** (8) Values are nominal, with specular clear reflector, other finishes and field results may vary.	**Notes**	**Notes**	**Notes**

Reflector	Distribution[8]	Finish	Flange
61PS = 6" non-conductive polymer 'dead front' conical reflector[9]	**MD** = medium 60° beam angle 1.10 SC (nominal)	**W** = White	**Blank** = White flange standard with W reflector
Notes (9) 61PS is 1000-2000 lumens Non-IC rated. 500 & 750 lumens IC rated. 61PS is not for use over 2000lm in Non-IC or over 750lm in IC.	**Notes** (8) Values are nominal, with specular clear reflector, other finishes and field results may vary.	**Notes**	**Notes**

IEM Reflector	Distribution[8]	Finish	Flange	Integral Emergency
61 = 6" IEM reflector for integral emergency only	**ND** = narrow 55° beam angle 0.97 SC **MD** = medium 60° beam angle 1.10 SC **WD** = wide 65° beam angle 1.28 SC	**C** = Specular clear **H** = Semi-specular clear **W** = White	**Blank** = Polished flange standard with C & H reflectors **Blank** = White flange standard with W reflector **WF** = White flange option available with C & H reflectors	**IEM** = Reflector for use with integral emergency housings only. Provides access hole for integral emergency test switch.
Notes	**Notes** (8) Values are nominal, with specular clear reflector, other finishes and field results may vary.	**Notes**	**Notes**	**Notes**

IEM Baffle	Distribution[8]	Finish	Flange	Integral Emergency
61 = 6" IEM baffle reflector for integral emergency only	**WD** = wide 65° beam angle 1.28 SC (nominal)	**BB** = Black baffle **WB** = White baffle	**Blank** = White flange standard with BB, & WB **BF** = Black flange option with BB	**IEM** = Reflector for use with integral emergency housings only. Provides access hole for integral emergency test switch.
Notes	**Notes** (8) Values are nominal, with specular clear reflector, other finishes and field results may vary.	**Notes**	**Notes**	**Notes**

Product Specifications

Housing Frame
- Boat shaped galvanized steel plaster frame with adjustable plaster lip
- Accommodates 1/2" to 1-1/2" thick ceilings
- Installs in new construction or from below the finished ceiling (non-accessible) for remodeling (with mounting bars removed)
- Provided with two remodel clips to secure the frame to the ceiling

Universal Mounting Bracket
- Adjusts 2" vertically from above and below the ceiling
- Use with the included mounting bars or with 1/2" Electric Metallic Tube (EMT)
- Removable to facilitate remodeling installation from below the finished ceiling

Mounting Bars
- Captive pre-installed No Fuss™ mounting bars lock to T-grid with screwdriver or pliers
- Centering detents allow for consistent positioning of fixtures

LED Module
- Proximity phosphors over chip on board LEDs provide a uniform source with high efficiency and no pixilation
- Available in 80 or 90 color rendering index (CRI)
- Color accuracy within 3 SDCM provides color consistency and uniformity
- 90 CRI option: R9>50 (refer to chromaticity information for details)
- Available in 2700K, 3000K, 3500K, 4000K and 5000K correlated color temperature (CCT)
- Lumen options include 500, 750, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 5500, 6000 lumens (nominal)
- Passive thermal management achieves 60,000 hours at 70% lumen maintenance (L70) in insulated ceilings (IC) and non-IC applications
- Integral diffuse lens provides visual shielding
- Integral connector allows quick connection to housing flex

Reflector
- Self-flanged aluminum reflectors available in narrow, medium or wide distribution patterns
- Medium distribution polymer non-conductive matte white reflector may be used to meet local codes for 'dead front' applications (500 & 750 lumen max. in IC and 2000 lumen max. in Non-IC)
- Wall wash reflector features a rotatable linear spread lens for alignment of vertical illumination
- Reflectors attach to LED module with three speed clamps
- Available in multiple painted or plated finishes

Reflector/Module Retention
- Reflector/module assembly is securely retained in the housing with two torsion springs

Driver
- Field-replaceable constant current driver provides low noise operation
- Universal 120-277VAC 50/60Hz input standard
- Continuous, 1% to 100% dimming with 0-10V analog control
- Optional low-voltage DC driver for use with Distributed Low Voltage Power (DLVP) system
- Distributed Low Voltage Power (DLVP) system combines power, lighting and controls with ease of installation (refer to DLVP Design Guide at www.cooperlighting.com for details)

Canada Options
- 347VAC 50/60Hz; 1% dimming on 0 -10V analog control, for 500, 750, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000 lumen models only
- 347V step down transformer factory installed with the standard "D010" 120V-277V, LED driver on 5500, 6000 lumen models only

Emergency Option
- Provides 90 minutes of standby lighting, meeting most life safety codes for egress lighting
- Available with integral or remote charge indicator and test switch
- Available Self-Test (self-diagnostic) with remote charge indicator and test switch
- Quick Spec emergency ordering option for quick-turn projects

Connected Lighting System
Two WaveLinx connected solutions to choose from. Refer to WaveLinx system specifications and application guides for details.

WaveLinx PRO Tilemount Sensor Kit
- WaveLinx PRO WTA tilemount sensor kit offers daylight dimming, PIR motion sensing, scene and zone configuration, automatic commissioning; and optional RLTS - Real Time Location Services available.

WaveLinx PRO Wireless Node
- WaveLinx PRO WPN wireless node provides luminaire-level control with scene and zone configuration without an integrated sensor; Connects wirelessly with daylight dimming sensor and PIR motion sensor if desired. Use with 0-10V driver only. **Note:** Not compatible with 347V or Chicago plenum.

WaveLinx LITE Tilemount Sensor Kit
- WaveLinx LITE WTK tilemount sensor kit offers daylight dimming and PIR motion sensing, scene and grouping configuration.

WaveLinx LITE Wireless Node
- WaveLinx LITE WLN wireless node provides luminaire level control with scene and zone configuration without an integrated sensor; Connects wirelessly with daylight dimming sensor and PIR motion sensor if desired. Use with 0-10V driver only. **Note:** Not compatible with 347V or Chicago plenum.

WaveLinx Tilemount Sensor Kits Application
- The WTA and WTK tilemount sensor kits include a control module mounted on the luminaire junction box via 1/2" knock-out, and a tilemount sensor on 54-inch whip; for ceiling installation by direct-mount spring clips or via mounting bracket in octagon ceiling boxes.
- The WTA and WTK tilemount sensor kits may be ordered as factory installed on the luminaire, or ordered separately as a field installed accessory kit.
- **Note: WaveLinx PRO devices are only compatible with the WaveLinx PRO system.**
- **Note: WaveLinx LITE devices are only compatible with the WaveLinx LITE system.**

Junction Box
- Galvanized steel junction box
- 20 in^3 internal volume excluding voltage barrier
- 25 in^3 internal total volume
- Voltage barrier for 0-10V dimming wires (occupies one 1/2" pry-out space)
- Listed for eight #12 AWG (four in, four out) 90˚C conductors and feed-thru branch wiring
- Three 1/2" and two 3/4" trade size pry-outs available
- Three 4-port push wire nuts for mains voltage with 1-port for fixture connection

Compliance
- cULus Certified to UL 1598 / C22.2 No. 250.0, suitable for damp locations and wet locations in covered ceilings only
- Emergency options provided with UL Listed emergency drivers to UL 924 / C22.2 No. 141, suitable for indoor/damp locations
- IP20 - Above finished ceiling; IP65 - Below finished ceiling
- Non-Insulated ceiling (Non-IC) rated for 2500, 3000, 3500, 4000, 4500, 5000, 5500, 6000 lumen models (insulation must be kept 3" from top and sides)
- Insulated ceiling (IC) rated for 500, 750, 1000, 1500, 2000 lumen models and suitable for direct contact with air permeable insulation* (IC models are also suitable for Non-IC installations)
- Non-IC marked spacing required for 4500, 5000, 5500, 6000 lumen models
  - Marked Spacing Center to Center of Adjacent Luminaires = 36"
  - Center of Luminaire to Building Member = 18"
  - Minimum overhead = 0.5"
- Airtight per ASTM-E283-04
- Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements
- EMI/RFI emissions FCC CFR Title 47 Part 15 Class A at 120/277V
- Contains no mercury or lead and RoHS compliant
- Photometric testing completed in accordance of IES LM-79-08
- Lumen maintenance projection in accordance of IES LM-80-08 and TM-21-11
- 500, 750, 1,000, 1,500 and 2,000 lumen, 90 CRI, ICAT models may be used to comply with State of California Title 24 residential code, per JA8 certification standards
- May be used to comply with State of California Title 24 non-residential code as a dimmable LED luminaire
- ENERGY STAR® certified, reference certified light fixtures database

*Not for use in direct contact with spray foam insulation, consult NEMA LSD57-2013

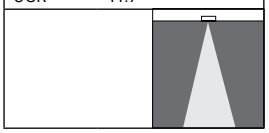
Warranty
- Five year limited warranty, consult website for details. www.cooperlighting.com/legal

Photometric Data

View IES files

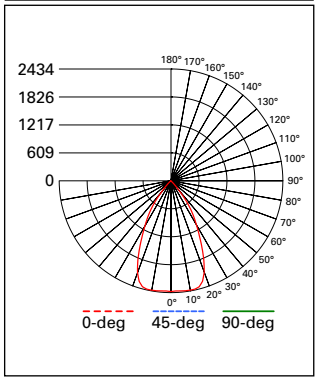
NARROW DISTRIBUTION - SPECULAR CLEAR FINISH, 2000 LUMEN MODEL, 80 CRI, 3500K

NARROW (55° BEAM*)	
Test Number	P581878
Housing	HC620D010
Module	HM60525835
Reflector	61NDC
Lumens	2228 Lm
Efficacy	111.4 Lm/W
SC	0.93
UGR	11.7

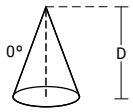


CANDLEPOWER DISTRIBUTION

Downlight



CONE OF LIGHT



MH	FC	L	W
5.5'	80.2	5	5
7'	49.5	6.4	6.4
8'	37.9	7.4	7.4
9'	30	8.2	8.2
10'	24.3	9.2	9.2
12'	16.9	11	11

CANDELA TABLE

Degrees Vertical	Candela
0	2427
5	2422
15	2405
25	1621
35	761
45	118
55	12
65	3
75	2
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	1636	73.4
0-40	2098	94.2
0-60	2223	99.8
0-90	2228	100
90-180	0	0
0-180	2228	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
45	9187
55	1118
65	376
75	318
85	0

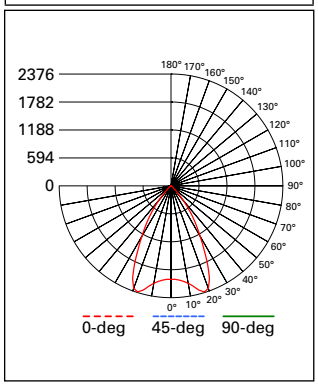
MEDIUM DISTRIBUTION - SPECULAR CLEAR FINISH, 2000 LUMEN MODEL, 80 CRI, 3500K

MEDIUM (60° BEAM*)	
Test Number	P581875
Housing	HC620D010
Module	HM60525835
Reflector	61MDC
Lumens	2307 Lm
Efficacy	115.3 Lm/W
SC	1.06
UGR	11.8

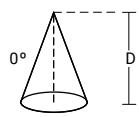


CANDLEPOWER DISTRIBUTION

Downlight



CONE OF LIGHT



MH	FC	L	W
5.5'	68.7	5.6	5.6
7'	42.4	7.2	7.2
8'	32.5	8.2	8.2
9'	25.7	9.4	9.4
10'	20.8	10.4	10.4
12'	14.4	12.4	12.4

CANDELA TABLE

Degrees Vertical	Candela
0	1998
5	2022
15	2307
25	1842
35	796
45	126
55	15
65	4
75	2
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	1671	72.4
0-40	2163	93.8
0-60	2301	99.7
0-90	2307	100
90-180	0	0
0-180	2307	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
45	9753
55	1395
65	571
75	318
85	0

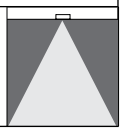
Note: Refer to IES files for more product data.

Photometric Data

View IES files

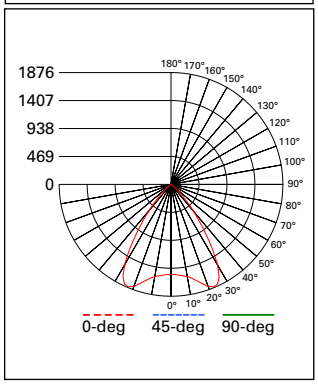
WIDE DISTRIBUTION - SPECULAR CLEAR FINISH, 2000 LUMEN MODEL, 80 CRI, 3500K

WIDE (65° BEAM*)	
Test Number	P581885
Housing	HC620D010
Module	HM60525835
Reflector	61WDC
Lumens	2359 Lm
Efficacy	118 Lm/W
SC	1.28
UGR	11.6

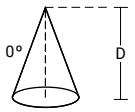


CANDLEPOWER DISTRIBUTION

Downlight



CONE OF LIGHT



MH	FC	L	W
5.5'	50.5	7	7
7'	31.2	8.8	8.8
8'	23.9	10.2	10.2
9'	18.8	11.4	11.4
10'	15.3	12.8	12.8
12'	10.6	15.4	15.4

CANDELA TABLE

Degrees Vertical	Candela
0	1526
5	1540
15	1685
25	1861
35	1027
45	252
55	32
65	6
75	2
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	1461	61.9
0-40	2105	89.2
0-60	2351	99.6
0-90	2359	100
90-180	0	0
0-180	2359	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
45	19506
55	3078
65	765
75	318
85	0

*Value are nominal with specular clear reflectors, other finishes and field results may vary.
SC = Spacing Criteria
UGR = Unified Glare Rating

Photometric Multipliers (Nominal Lumen Values)

500 Lumen	750 Lumen	1000 Lumen	1500 Lumen	2000 Lumen	2500 Lumen	3000 Lumen	3500 Lumen
0.33	0.44	0.54	0.74	1.00	1.12	1.46	1.76

4000 Lumen	4500 Lumen	5000 Lumen	5500 Lumen	6000 Lumen
1.81	2.17	2.28	2.38	2.65

Multipliers for relative lumen values with other series models.

Color Finish Multipliers

Finish code	C	H	W/WB	BB
Finish	Specular Clear	Semi-Specular	Matte White White Baffle	Black Baffle
Multiplier	1.00	0.92	0.91	0.82

Multipliers for relative lumen values with other color finishes.

CCT Multipliers – 80CRI

2700K	3000K	3500K	4000K	5000K
0.92	0.98	1.00	1.03	1.03

Multipliers for relative lumen values with other series color temperatures.

CCT Multipliers – 90CRI

2700K	3000K	3500K	4000K	5000K
0.77	0.84	0.89	0.90	0.90

Multipliers for relative lumen values with other series color temperatures.

Note: Refer to IES files for more product data.

Photometric Data

View IES files

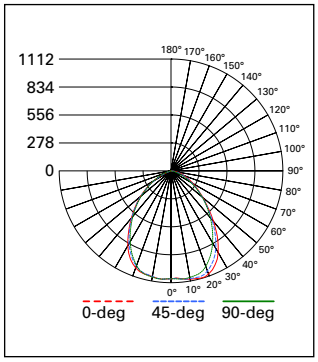
WALL WASH DISTRIBUTION - SPECULAR CLEAR FINISH, 2000 LUMEN MODEL, 80 CRI, 3500K

WALL WASH	
Test Number	P581882
Housing	HC620D010
Module	HM60525835
Reflector	61RWWC
Lumens	2179 Lm
Efficacy	109 Lm/W
SC	1.15



CANDLEPOWER DISTRIBUTION

Downlight



CANDELA TABLE	
Degrees Vertical	Candela
0	1080
5	1081
15	1112
25	1034
35	800
45	514
55	319
65	184
75	85
85	12
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	849	39
0-40	1313	60.2
0-60	1978	90.8
0-90	2179	100
90-180	0	0
0-180	2179	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	39810
55	30479
65	23907
75	17983
85	7359

SC = Spacing Criteria, nominal for specular clear reflector, other finishes and field results may vary.

SINGLE UNIT FOOTCANDLES

	2.5' from wall (distance from fixture along wall)						
1	19.3	13.8	6.1	2.2	0.7	0.3	0.1
2	29.1	22.6	12.3	5.7	2.5	1.2	0.6
3	27.6	22.5	13.8	7.3	3.7	1.9	1
4	21	18.2	12.4	7.4	4.2	2.4	1.4
5	14.4	13.1	9.9	6.6	4.1	2.5	1.6
6	9.7	9.1	7.5	5.5	3.7	2.5	1.6
7	6.7	6.4	5.5	4.3	3.2	2.2	1.5
8	4.7	4.6	4.1	3.4	2.7	2	1.4
9	3.4	3.3	3.1	2.7	2.2	1.7	1.3
10	2.5	2.5	2.4	2.1	1.8	1.4	1.1

MULTIPLE UNIT FOOTCANDLES

	2.5' from wall (Distance from fixture along 3')			2.5' from wall (Distance from fixture along 4')		
1	21.5	19.1	21.5	20	12.1	20
2	34.7	34.4	34.7	31.6	24.6	31.6
3	34.9	36	34.9	31.3	27.6	31.3
4	28.4	30.7	28.4	25.2	24.8	25.2
5	21	23.2	21	18.6	19.8	18.6
6	15.2	16.8	15.2	13.4	15	13.4
7	11	12	11	9.9	11	9.9
8	8.1	8.7	8.1	7.4	8.2	7.4
9	6.1	6.5	6.1	5.6	6.2	5.6
10	4.6	4.9	4.6	4.3	4.7	4.3

Photometric Multipliers (Nominal Lumen Values)

500 Lumen	750 Lumen	1000 Lumen	1500 Lumen	2000 Lumen	2500 Lumen	3000 Lumen	3500 Lumen
0.33	0.44	0.54	0.74	1.00	1.12	1.46	1.76

4000 Lumen	4500 Lumen	5000 Lumen	5500 Lumen	6000 Lumen
1.81	2.17	2.28	2.38	2.65

Multipliers for relative lumen values with other series models.

Color Finish Multipliers

Finish code	C	H	W/WB	BB
Finish	Specular Clear	Semi-Specular	Matte White White Baffle	Black Baffle
Multiplier	1.00	0.92	0.91	0.82

Multipliers for relative lumen values with other color finishes.

CCT Multipliers – 80CRI

2700K	3000K	3500K	4000K	5000K
0.92	0.98	1.00	1.03	1.03

Multipliers for relative lumen values with other series color temperatures.

CCT Multipliers – 90CRI

2700K	3000K	3500K	4000K	5000K
0.77	0.84	0.89	0.90	0.90

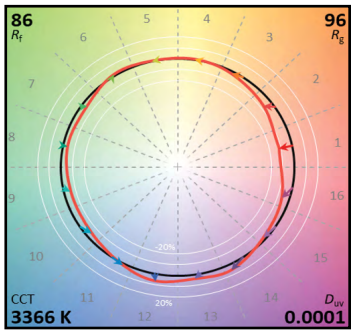
Multipliers for relative lumen values with other series color temperatures.

Note: Refer to IES files for more product data.

Energy & Performance Data

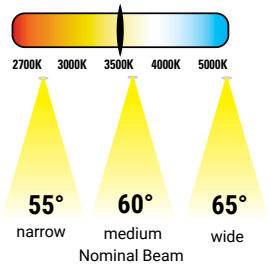
COLOR METRICS - TM-30-15 & CRI/CIE (3500K)

80 CRI Color Metric Summary - 3500K*

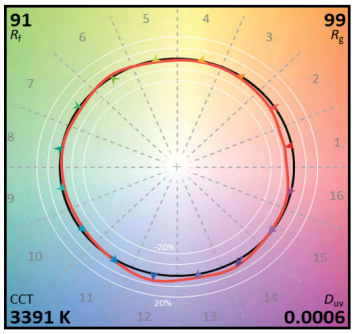


Reference Illuminant — Test Source

TM-30-15	Rf = 86
	Rg = 95.5
CRI/CIE	Ra = 83.8
	R9 = 10.3

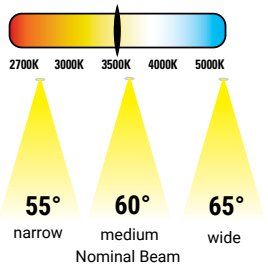


90 CRI Color Metric Summary - 3500K*



Reference Illuminant — Test Source

TM-30-15	Rf = 91.1
	Rg = 99
CRI/CIE	Ra = 92.4
	R9 = 55.1



* Color values are based on 61WDWB reflector, other finishes and field results may vary.

ENERGY DATA

Series	500 lumen		750 lumen		1000 lumen		1500 lumen		2000 lumen	
Input Voltage 120-277VAC	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V
Input Current (A)	0.051	0.026	0.067	0.036	0.083	0.039	0.119	0.053	0.171	0.077
Input Power (W)	6.1	6.5	7.9	8.3	10	10.4	14.5	14.5	20.9	20.6
In-rush (A)	1.9	8.4	2	8.4	2.2	8.5	2.7	8.5	2.1	9.7
Inrush duration (µs)	251	135	237	133	250	134	250	139	245	131
THD (%)	6.2	13.5	7.4	8.8	5.4	10.3	10	6.7	6.5	7.9
PF	≥ 0.99	≥ 0.9	≥ 0.98	≥ 0.92	≥ 0.99	≥ 0.95	≥ 0.99	≥ 0.97	≥ 0.99	≥ 0.96

Series	2500 lumen		3000 lumen		3500 lumen		4000 lumen		4500 lumen	
Input Voltage 120-277VAC	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V
Input Current (A)	0.23	0.103	0.24	0.107	0.292	0.152	0.351	0.159	0.384	0.172
Input Power (W)	27.5	27.5	28.6	28.5	34.6	35.1	42.1	42.1	45.9	45.6
In-rush (A)	2.5	5.6	2.5	11.6	3.4	13.9	3.1	14.7	3.1	14.8
Inrush duration (µs)	232	123	216	111	183	95	200	98	202	100
THD (%)	6.5	8.1	7.8	8.3	5.6	10	4.1	9.5	4.5	8.5
PF	≥ 0.99	≥ 0.96	≥ 0.99	≥ 0.96	≥ 0.99	≥ 0.93	≥ 0.99	≥ 0.94	≥ 0.99	≥ 0.95

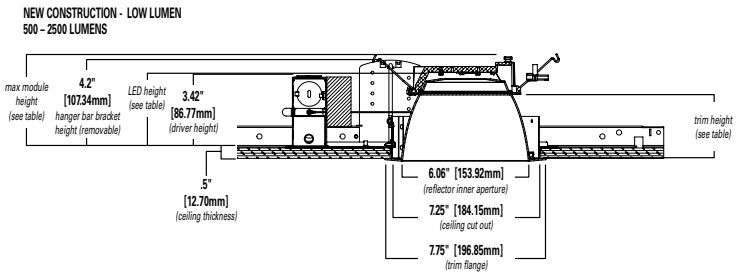
Series	5000 lumen		5500 lumen		6000 lumen	
Input Voltage 120-277VAC	120V	277V	120V	277V	120V	277V
Input Current (A)	0.419	0.186	0.457	0.201	0.489	0.214
Input Power (W)	50.1	49.5	54.6	53.7	58.4	57.4
In-rush (A)	3.1	15	3.2	14.8	3.4	14.8
Inrush duration (µs)	202	117	196	131	192	121
THD (%)	5.5	7.6	7	7.2	8.1	7.2
PF	≥ 0.99	≥ 0.96	≥ 0.99	≥ 0.96	≥ 0.99	≥ 0.97

Minimum starting temperature -30°C (-22°F)* (Nominal input 120-277VAC & 100% of rated output power)
Sound Rating: Class A standards

Notes:
* Emergency Battery packs are rated for a minimum starting temperature of 0°C.

Dimensional and Mounting Details

NEW CONSTRUCTIONS - LOW LUMEN 500 – 2500 LUMENS



Low Lumen (500 – 2500 Lumens)*

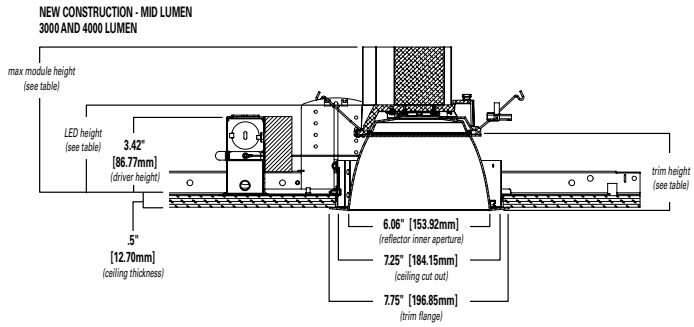
Distribution	Max. Module Height	Trim Height	LED Height
Narrow	4.5"	3.4"	3.8"
Medium	4.6"	3.5"	3.9"
Wide	4.4"	3.3"	3.7"
Baffle	4.4"	3.3"	3.7"

*Max. height w/removable hanger bar bracket 4.2"



Low Lumen Module

NEW CONSTRUCTIONS - MID LUMEN 3000 – 4000 LUMENS



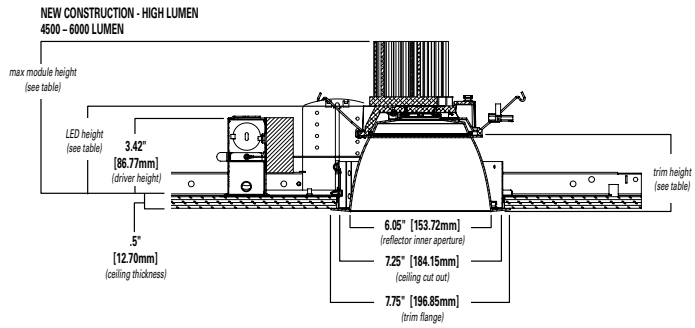
Mid Lumen (3000 – 4000 Lumens)

Distribution	Max. Module Height	Trim Height	LED Height
Narrow	6.6"	3.4"	3.8"
Medium	6.7"	3.5"	3.9"
Wide	6.5"	3.3"	3.7"
Baffle	6.5"	3.3"	3.7"



Mid Lumen Module

NEW CONSTRUCTIONS - HIGH LUMEN 4500 – 6000 LUMENS



High Lumen (4500 – 6000 Lumens)

Distribution	Max. Module Height	Trim Height	LED Height
Narrow	6.9"	3.4"	3.8"
Medium	7.0"	3.5"	3.9"
Wide	6.8"	3.3"	3.7"
Baffle	6.8"	3.3"	3.7"



High Lumen Module

Connected Solutions



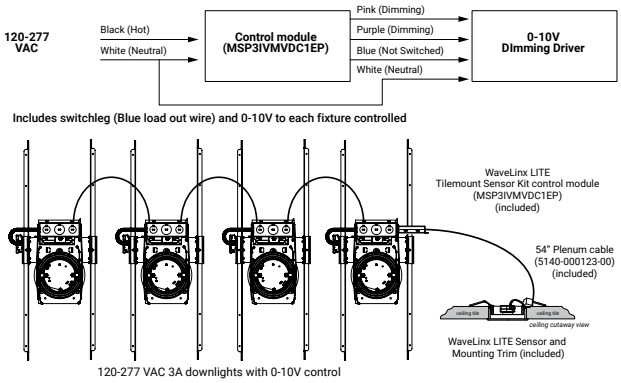
WaveLinx LITE - WTK Tilemount Sensor

WaveLinx LITE devices only compatible with the WaveLinx LITE system.

- Intuitive Android™ or Apple® iOS® app for basic system code compliant set up and configuration via Bluetooth
- Up to 28 unique areas per project site (WaveLinx LITE Bluetooth network)
- Up to 50 devices for an area, any one of 16 control zones, up to 6 occupancy sets, and custom lighting scenes
- Automatic occupancy or vacancy, sensor sensitivity, daylight dimming, etc. configurable through the app
- Refer to the WaveLinx system specifications for details

Device Security | Manual Dimmer | Occupancy Sensor | Daylighting Control | Manually Switched ON/OFF | Tuning Control | Lumen Maintenance Control | Scenes

WaveLinx LITE WTK Tilemount Wiring Diagram



WaveLinx LITE Bluetooth Enabled System



WaveLinx PRO – WTA Tilemount Sensor

WaveLinx PRO devices only compatible with the WaveLinx PRO system.



- WaveLinx PRO tilemount functionality configures zones and customizes settings from one secure mobile app
- Automatic code commissioning that meets the strictest codes
- Fixtures and sensors integrate with Wireless Area Controller, Wall Stations, and Control Devices
- Stand-Alone Offices or Entire Building Network Installations



Downlights with tilemount sensor wireless communication
Highly efficient LED fixtures

WaveLinx Area Controller
Provides centralized coordination of multiple area control options

Wireless Wall Station/Receptacle
Provides customized wireless control of each area

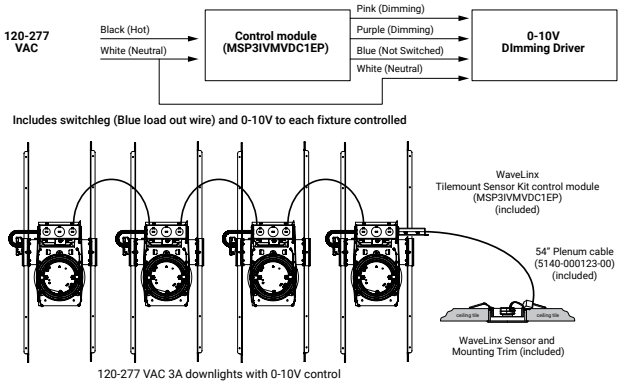
Mobile Applications
Provides personalized, local control from a tablet or smartphone

WaveLinx mobile app settings

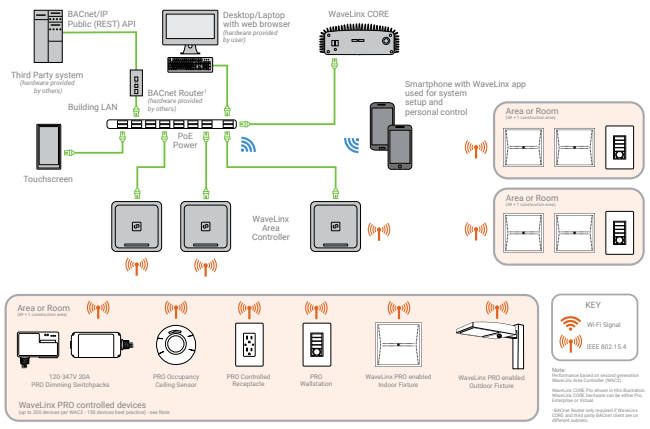
Manual Dimmer | Occupancy Sensor | Lumen Maintenance Control | Daylighting Control

Receptacle Control | Tuning Control | Scheduling | Manually Switched ON/OFF | Demand Response

WaveLinx WTA Tilemount Wiring Diagram



WaveLinx CORE Building Management Integration



Connected Solutions



WaveLinx LITE Wireless Node - WLN

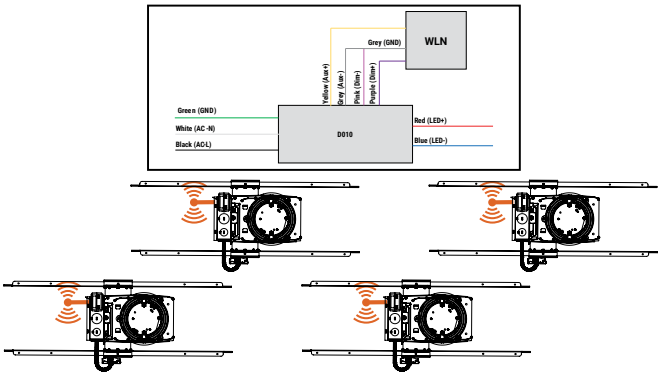
WaveLinx LITE devices only compatible with the WaveLinx LITE system.

- Intuitive Android™ or Apple® iOS® app for basic system code compliant set up and configuration via Bluetooth
- Up to 28 unique areas per project site (WaveLinx LITE Bluetooth network)
- Up to 50 devices for an area, any one of 16 control zones, up to 6 occupancy sets, and custom lighting scenes
- Refer to the WaveLinx system specifications for details

WaveLinx mobile app settings

Device Security · Manual Dimmer · Occupancy Sensor · Daylighting Control · Manually Switched ON/OFF · Tuning Control · Lumen Maintenance Control · Scenes

WaveLinx LITE Wireless Node (WLN) Wiring Diagram



WaveLinx LITE Bluetooth Enabled System





WaveLinx PRO Wireless Node - WPN

WaveLinx PRO devices only compatible with the WaveLinx PRO system.

- WaveLinx Wireless functionality configures zones and customizes settings from one secure mobile app
- Automatic code commissioning that meets the strictest codes
- Fixtures and sensors integrate with WaveLinx Area Controller, Wall Stations, and Control Devices
- Stand-Alone Offices or Entire Building Network Installations



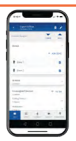
Downlights with wireless communication
Highly efficient LED fixtures



WaveLinx Area Controller
Provides centralized coordination of multiple area control options



Wireless Wall Station/Receptacle
Provides customized wireless control of each area

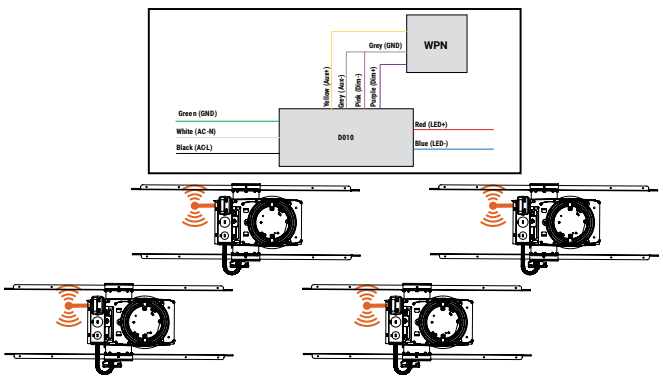


Mobile Applications
Provides personalized, local control from a tablet or smartphone

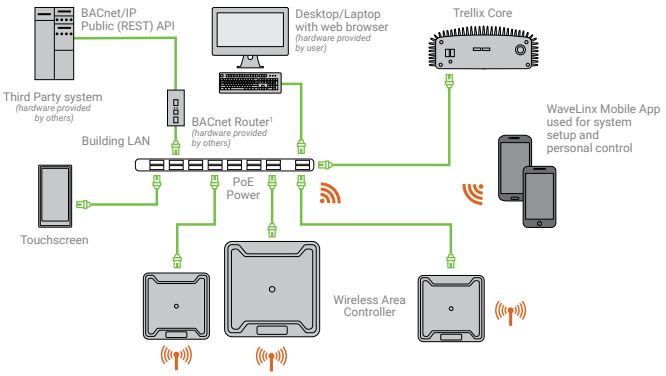
WaveLinx mobile app settings

Manual Dimmer · Occupancy Sensor · Lumen Maintenance Control · Daylighting Control · Receptacle Control · Tuning Control · Scheduling · Manually Switched ON/OFF · Demand Response

WaveLinx PRO Wireless Node (WPN) Wiring Diagram



WaveLinx CORE Building Management Integration



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Specifications and dimensions subject to change without notice.

O. Architectural Design Narrative

Please find attached the design narrative completed by HOLST Architecture.

TAVATA

ARCHITECTURAL DESIGN NARRATIVE
November 20, 2024

CONTENTS

I. Proposal ..... page 2
II. Site Plan Narrative ..... page 3
III. Technical Standards and Design Guidelines ..... page 8

I. PROPOSAL

Project Location: 165 Washington Ave, Portland, ME 04101

The proposed building is a new, 7-story, mixed-use housing project of approximately 207,496 square feet. The project includes tuck-under parking, retail shell space, resident amenities, and 326 housing units broken down into 108 efficiency units, 128 studios, 12 1-bedroom units, and 78 2-bedroom units. The building massing is designed to optimize natural ventilation and daylight for residents by including two exterior courtyards and providing a roof-top amenity deck atop a stepped-down middle portion of its massing. The building also steps down to the South to protect views for the neighboring property and steps back 15' from the adjacent community orchard to the North, mitigating any impact of shadows cast for most of the year. The building's primary cladding materials include a mix of brick and fiber cement panel, with most of the brick visible from Washington Ave and fiber cement panel located on back (East) of the building and in the residential courtyards. Granite stone veneer is used along the base of the building to minimize wear and tear on the façade and large, glazed openings with decorative metallic highlights are used at the street edge to offer warmth and visual interest. Additionally, there are substantial building overhangs and canopies located at building entrances to offer weather protection for pedestrians.

II. SITE PLAN NARRATIVE

LAND USE CODE - Chapter 14
14.6.4 Site Design Standards

A. Massing, ventilation, and wind impact.
1. The bulk, location, or height of proposed buildings and structures shall not result in health or safety problems from a reduction in ventilation to abutting structures or changes to the existing wind climate that would result in unsafe wind conditions for users of the site and/or adjacent public spaces.

2. The bulk, location, or height of proposed buildings and structure shall minimize, to the extent feasible, any substantial diminution in the value or utility to neighboring structures under different ownership and not subject to a legal servitude in favor of the site being developed.

3. Development shall locate all HVAC venting mechanisms to direct exhaust away from public spaces and residential properties directly adjacent to the site.

Response: The building maintains enough distance from all existing neighboring buildings so as not to create any health or safety problems due to reduced ventilation or unsafe wind conditions.

Per the design narrative (previous page), the massing of the building steps down from 7 stories to 4 stories at the South portion to avoid obstructing views from the neighboring condominium development.

No HVAC venting mechanisms that create direct exhaust from the building will be located near public spaces and residential properties directly adjacent to the site.

B. Shadow.
All development outside the B-3, B-5, B-6 and B-7 zones shall be designed to avoid and/or mitigate the adverse impacts of shadows cast by new structures

or building additions from falling on publicly accessible open space in accordance with the shadow standards of the Technical Manual.

Response: The building is designed to mitigate the impacts of shadow on the public spaces surrounding the property, including the zoned OS property to the North where there's currently a public orchard. Dates used to analyze the impacts of shading are outlined in the City of Portland Technical Manual, Section 11 (March 21st, June 21st, May 6th, and December 21st).

C. Snow and ice loading.
All development shall be designed to prevent significant amounts of accumulated snow and ice from loading or falling onto adjacent properties or public ways.

Response: The proposed building does not have any sloped roofs or awnings to prevent the shedding of snow or ice onto adjacent properties or public ways. Any measurable snow event would require the snow to be trucked off site by the property management company (Redfern).

D. View corridors.
The massing, location, and height of development shall not substantially obstruct public view corridors identified in the Downtown Vision View Corridor Protection Plan.

Response: Development is outside the Downtown Vision View Corridor Protection Plan.

E. Historic resources.
1. When developments affect designated landmarks or lie within designated historic districts or historic landscape districts, such development shall be required to obtain a Certificate of Appropriateness under Article 17.

2. When any part of a proposed development is within 100 feet of any designated landmark, historic district, except the India Street Historic District, or historic landscape district, such development shall be generally compatible

with the major character-defining elements of the landmark or portion of the district in the immediate vicinity of the proposed development. Character-defining elements of landmarks and historic districts are identified in the historic resources inventory and respective historic district designation reports. For the purposes of this provision, "compatible" design shall be defined as design which respects the established building patterns and visual characteristics that exist in a given setting and, at the same time, is a distinct product of its own time. To aid the review authority in its deliberations, Historic Preservation staff shall provide a written analysis of the proposed development's immediate context, identifying the major character defining elements and any established building patterns that characterize the context.

3. All development shall document and protect state or local archaeological resources known to exist or discovered on the site.

a. Protection shall include leaving archaeological resources untouched beneath a new development through adaptation of foundation design or architectural layout.

b. Where the applicant can demonstrate that complete protection is not feasible, the applicant shall excavate and document archeological resources. Such measures shall be conducted in consultation with the City's historic preservation program and Maine Historic Preservation Commission. For resources of state significance, excavation and documentation shall be conducted by a qualified professional, in coordination with Maine Historic Preservation Commission. Local archeological resources may or may not be recognized by the Maine Historic Preservation Commission as significant and shall include the following:

i. Original seawall structure located landward of Commercial Street.

ii. Inactive historic family cemetery plots.

iii. Historic railroad beds including but not limited to the Portland Lewiston interurban railroad.

iv. Original structure and/or landforms associated with the Cumberland and Oxford Canal.

v. Buried portions of colonial and post-colonial period structures or built features located on the Portland Peninsula predating the Great Fire of 1866.

vi. Pre-colonial occupation sites identified by shell middens or other evidence.

vii. Sites listed or eligible for listing on the National Register of Historic Places.

c. In order to preserve archeological resources, the review authority may waive standards listed in the City of Portland Technical Manual where necessary if it is determined that such a waiver would not jeopardize the health, safety, or welfare of the development's occupants, the public, or the natural environment.

Response: The building site does not lie within a designated historic district nor is within 100 feet away from one. No known archaeological resources exist on the site and full compliance with section 3.a-c of this chapter will be adhered to if archaeological resources are discovered during construction of the building.

F. Exterior Lighting.

1. Site lighting

a. All exterior site lighting shall be full cutoff with no light emitted above the horizontal plane or spilled onto adjacent properties and streets. Illumination levels shall be adequate but not excessive for the safety, comfort, and convenience of occupants and users of the site, and shall conform to the lighting standards of the Technical Manual.

b. Where light from a proposed development may adversely impact adjacent residential properties, exterior lighting shall employ house side shielding.

2. Architectural and specialty lighting.

a. Architectural and specialty lighting of such features as architectural details, monuments, public art, or other site features shall be designed to illuminate specific details or attributes only and shall meet the lighting standards of the Technical Manual.

b. Up-lighting by any method is prohibited except for public buildings and parklands; clock towers and steeples; landscape features; designated historic landmarks; flags of state, federal, or national jurisdictions; and public art. Such light fixtures, brackets, conduits, and all other components shall be designed by a lighting professional and shall be scaled and placed to minimize their visibility and installed in accordance with the lighting standards of the Technical Manual.

3. Street lighting. All development shall provide municipal street lighting adequate for the safety and comfort of pedestrians and motorists and, where applicable, conforming to specific lighting district requirements as specified in the street lighting standards of the Technical Manual.

Response: See included lighting plan for photometrics and cut sheets of lighting fixtures proposed.

III. TECHNICAL STANDARDS AND DESIGN GUIDELINES

DESIGN MANUAL

Development in the B-1, B-1b, B-2, B-2b shall meet the following guidelines in order to meet the Site Plan Standards.

1. Building location and form*.*

Buildings shall be located near the street so as to create an urban street wall. An urban street wall is created by a pattern of buildings which line the street in a consistent manner, thereby establishing a desirable spatial relationship between the building in the commercial district and the major object. Location is one of several related factors defining the street environment.

Building Form, including height, bulk, and massing, contribute to the development of a street wall. The desired condition is to have the building frame and enclose the street, which is achieved by providing building height that is proportionate to the width of the adjoining major street. A ratio of building height to street width of one-to-two creates a strong "room-like" street, while a one- to-three ratio provides good street definition and proportion. Shorter buildings of one story facing broad streets will not achieve the desired relationship.

In the B-2b zone, buildings adjacent to streets should approach 1:2 height to street width, with a minimum of 1:3. For a fifty-foot street right-of-way, therefore, a minimum height of 15' is required, with 25' height preferred. An eighty-foot right-of-way requires about 27' to achieve the 1:3 proportion., with 40'-height preferred. Obviously, buildings located as close as possible to the street right-of- way will provide better definition and proportion than buildings set further back.

Response: The proposed building is located within the required front setback per the B-2b dimensional standards and is continuous across most of the street facing property line creating a continuous street wall. The building steps in height along Washington Avenue but maintains a minimum 1:2 height to street ratio along the entire street facing frontage. 110 feet of the building frontage

maintains a 1:2 ratio with Washington Avenue's 65' wide right-of-way and the rest of the building exceeds the ratio in height. This stepping in height helps to break up the scale of the development while maintaining a continuous urban street wall.

***2. Building Function**.*

An urban street and business district requires a substantial intensity and variety of uses. It is beneficial to have mixed uses within portions of buildings situated near the street. For example, a retail first floor might have office or residential on the second or third floors. This provides both the scale of building height desired, as well as the economic vitality of the business district.

Response: The ground floor of the building will have a variety of active uses. The NW corner will have retail space while the rest of the building's ground floor spaces will have resident-focused amenities including coworking spaces, study lounges, office, and lobby space. Additional active use amenity space will be located on the second floor which includes study and coworking spaces, as well as a fitness room and 4th floor roof deck. Any inactive uses along the ground floor street edge have been minimized as much as possible.

***3. Orientation of buildings and their entrances to the street**.*

Major building entries shall be designed and located to provide the primary building access oriented to the public street and sidewalk. Doorways should be prominent and obvious in appearance, so as to attract the users toward the entry. Major entry features should primarily address the street, with entry courts, display windows, signage, lights, walkways, and vestibules, as appropriate. Major entries should be adjacent to, or very close to, the street and public sidewalk.

Response: All building entrances face the public street and major entrances have an overhead canopy for weather protection.

***4. Windows**.*

Windows shall be located in all building facades visible from the public way, especially on building facades along the major public street. Retail uses

with store fronts are the most desirable feature for locations adjacent to the public sidewalk; and active, transparent (minimum visible transmittance (VT) of .7 or greater), and interesting windows contribute the maximum value. Limitations on transparency, such as dark or reflective glass, or interior coverings, should be avoided. Where uses (such as office) are not conducive to transparent viewing from the public way, windows can still convey a sense of activity and presence along the street. Even these more private windows can convey occupancy and habitation when lighted from within, as during evening hours, even if the interior is screened from view.

Response: All ground floor active use spaces have glazed storefront windows facing the street with maximum transparency. The office spaces will remain transparent with glazed storefront windows but will have interior shades for occupants to control for light and privacy when appropriate.

5. Building character, detail, scale, and graphic qualities.

Building design will include various architectural and graphic amenities to provide a strong presence along a street and relate a building to its community. Awnings, canopies, and flags may be utilized to highlight entryways and to further identify the activity and identity of a use. Facade lighting may be used to highlight entryways or to provide visual interest along an otherwise blank facade Building scale, roof pitch, architectural detail, and fenestration shall be designed to complement and be compatible with surrounding residential and commercial buildings.

Response: Awnings are used to highlight major building and retail entrances, and lighting will be included in these areas as well as in building overhangs along the street frontage to provide a comfortable pedestrian experience. Large, glazed openings on the ground floor will provide light and visual interest during day and night and fenestration patterning has been designed to match the commercial character of the neighborhood.

6. Signage and building entrances.

*Building entrances and building signage in the B-1, B-1b, and B-2b zones will be designed and constructed at the pedestrian scale. *We may need to revise the Sign Ordinance for allowed height and dimension of signs.*

Response: Building signage will be limited to key areas and constructed at the pedestrian scale.

7. Development relationship to street.

Building facades and site amenities shall form a cohesive wall of enclosure along a street. Where buildings are not located at the street line, site amenities, including masonry walls, fences, and landscaping, shall be placed along the street to provide a sense of enclosure or definition.

Response: The entire building façade is located at the street line with sidewalk paving continuing up to the building's facade.

8. Parking lots.

Parking Lots shall be screened from view of the public way. Landscaping or fencing shall be used to screen parking lots from public ways and residential neighbors. Where parking is located within the front yard (or side yard of a corner lot), a landscaped buffer or fence shall be placed along the street line to distinguish the private space from the public space and to help define the street wall.

Parking lots shall be screened from neighboring properties. A densely planted landscape buffer or fencing shall be installed to protect neighboring properties from the impacts associated with the parking lot and the use it serves.

Crosswalks shall be provided within parking lots and across entrance driveways, directing pedestrians to building entrances.

Street trees shall be planted along property street frontage 25ft. on center.

Response: The parking lot is located along the side yard where the building will screen parked cars from the street and will have planting to screen it from the

neighboring property. Street trees will be located along the street frontage at a maximum of 25 feet on-center where possible.

***9. Transit connections**.*

Development proposed along established transit corridors must design uninterrupted access from the proposed development to the transit stop. An easement to place a transit shelter may be requested for development located along a transit corridor.

Response: The closest transit stops are located approximately 150 feet to the South and approximately 300 feet to the North and the building will have uninterrupted access to these two locations.

END

P. Utilities

Please see below for the proposed utility breakdown as part of the redevelopment of 165 Washington Avenue.

Water:

The proposed development will be served by an 8" fire suppression, 6" domestic, and a 2" domestic water service. The 6" domestic will serve the residential units and the 2" domestic will serve the first-floor commercial space. The proposed services will tap into the existing 8" Cast Iron pipe water main within Washington Avenue.

Sewer:

The project proposed to relocate the existing 8" Sewer Main in the Washington Avenue sidewalk to the street from Cove Street to Gould Street and upsize to a 15" PVC SDR pipe. The proposed development will be served by two 8" sewer service connections to the new combined 15" PVC combined sewer main in Washington Avenue.

Stormwater:

Please refer to the Stormwater Report for additional information.

UGE/T/C:

It is assumed the existing overhead wires along the project frontage, on Washington Avenue, will be dropped underground. The development will require a proposed submersible transformer that is serviced by 3-phase primary conduits from a utility pole on Washington Avenue. A secondary conduit will extend from the transformer to the building.

Gas:

There is an existing 4" HDPE gas main located within Washington Avenue. The project will have a new gas service connecting into this main, with any meters located on the side of the building.

Ability to serve letters have been sent out to the respective utility companies in accordance with the City of Portland Code of Ordinances Chapter 14 Land Use Code. Responses received thus far from the utility companies can be found attached.

ACORN ENGINEERING, INC.

Department of Public Works
Attn: Bradley Roland
212 Canco Road
Portland, Maine 04103

November 14, 2024

Subject: 165 Washington Avenue Redevelopment
Ability to Serve Request

Mr. Roland:

On behalf of Redfern Properties, we are pleased to submit the following request for Portland Department of Public Work's ability to serve at a proposed project at 165 Washington Avenue in Portland, Maine. It is our understanding that the project proposes to construct a new multi-family apartment building with 326 dwelling units with ground floor commercial space. Along with the proposed building, the project would include additional amenity space, associated structured parking below the building and infrastructure upgrades.

The development will upsize the existing 8" combined sewer main along the project frontage to a 15" combined sewer main and proposes to move the sewer alignment into the street. Additionally, the project will incorporate two new 8" sewer service connections and two new stormwater network connections to the 15" sewer main. Please refer to the attached Utility Plan & Grading Plan for additional information.

Based upon Section 4 of the *Maine Subsurface Wastewater Disposal Rules*, the table below outlines the proposed flow. The proposed project is anticipated to increase the net flow by approximately **46,260** gallons per day (GPD). It should be noted that these values were developed using conservative estimates from the State of Maine Subsurface Wastewater Disposal Rules. We will provide any changes to the anticipated sewage demand as the project design progresses.

Estimate of Anticipated Daily Flows			
Development	Unit Size	Gallons per Day per Unit	Total Gallons per Day (GPD)
Existing Flow			
Northern Burner Supply Company, Inc. (Vacant)	-	-	Unknown
Total Gallons per Day (Existing)			-
Proposed Flow			
Residential	(108) Efficiency Units	120 GPD/ Unit	12,960
Residential	(128) Studio Units	120 GPD/ Unit	15,360
Residential	(12) 1-Bedroom Units	120 GPD/ Unit	1,440
Residential	(78) 2 Bedroom Units	210 GPD / Unit	16,380
Retail	10 Employees	12 GPD / Employee	120
Total Gallons per Day (Proposed)			**46,260 GPD**
Net Change			**+46,260 GPD**
*Values based on Chapter 241 State of Maine: Subsurface Wastewater Disposal Rules, most recent edition			

On behalf of the client, we are requesting DPW's ability to serve the project.

I have attached a Boundary and Topographic Survey created by Owen Haskell, Inc., to facilitate your review, as well as a preliminary utility and grading plan developed by our office. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Peter Heil, PE
Project Manager
Acorn Engineering, Inc.

A C O R N
ENGINEERING, INC.

Central Maine Power Company
Attn: Katherine Dumont
162 Canco Road
Portland, Maine 04103

October 28, 2024

Subject: 165 Washington Avenue Redevelopment
Re: Ability to Serve Request

Katherine,

On behalf of Redfern Properties, we are pleased to submit the following request for Central Maine Power's ability to serve at a proposed project at 165 Washington Avenue in Portland, Maine. It is our understanding that the project proposes to construct a new multi-family apartment building with approximately 325 dwelling units with ground floor commercial space. Along with the proposed building, the project would include additional amenity space, associated structured parking below the building and infrastructure upgrades.

It is assumed the existing overhead wires along the project frontage will be dropped underground. The development will likely require a submersible transformer that is serviced by 3-phase primary conduits from a utility pole on Washington Avenue. A secondary conduit will extend from the transformer to the building.

On behalf of the client, we are requesting the following information:

1. Additional information, such as utility mapping confirming single and three-phase power locations along Washington Avenue.
2. Existing easements for underground services currently crossing the proposed development.
3. Alternative connection locations from the development to the existing system.
4. CMP's proposed infrastructure improvements within the project vicinity.
5. CMP's ability to serve the project.
6. Access requirements to the CMP meters.
7. Please send a list of communication/telecom providers that are located on the utility poles in front of the 165 Washington Avenue,

I have attached a Boundary and Topographic Survey created by Owen Haskell, Inc., to facilitate your review, as well as a preliminary utility plan developed by our office. Forthcoming electrical loading computations and final metering will be performed by the project's M.E.P designer &/or architect. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

A C O R N Engineering, Inc. • www.acorn-engineering.com
207-775-2655 • PO Box 3372 • Portland • Maine • 04104

Peter Heil, PE
Project Manager
Acorn Engineering, Inc.

Pete Heil

From: COUGH, JAMES <jcough@cmpco.com>
Sent: Wednesday, February 12, 2025 7:46 AM
To: Zach Stevens
Cc: Pete Heil; BOUCHER BOUCHER, ANTHONY; Dumont, Katherine; John Tarr
Subject: 165 Washington Ave - Portland, ME CMP Three Phase Service Process and Ability to Serve Letter
Attachments: Easement_Information_Worksheet.doc; Standard Easement Sample.pdf; blank W9.pdf; CMP EDET January 2025.xlsx

Zachary Stevens, PE
Acorn Engineering, Inc

RE: 165 Washington Ave - Portland, ME
Letter of Ability to Serve Request

SAP TBD

Project Description:
The developer proposes to construct a seven story multi-family apartment building with approximately multi- story 325 dwelling units with ground floor commercial space. Along with the proposed building, the project would include additional amenity space, associated structured parking below the building and infrastructure upgrades

CMP has the ability to serve the proposed project in accordance with our CMP Handbook (web link below). We can provide you the desired transformers per your request and city approval, in accordance with our CMP Handbook of Standard Requirements. If you have any questions on the process, or need help in completion of the documents, please contact CMP at 800-565-3181

Here is our typical process for getting your service installed. If you have any questions, please let us know. The underlined links will redirect you to the appropriate site for additional information.

Service Milestones for Three Phase Services and CT Rated Single Phase Services:

- Call 800-750-4000 option 4 to establish a new account (if needed) and an SAP work order. Please provide both of these to me. You will need multiple notifications set up but until we understand the build out we need only one to get started.
- Submit Load information. Please complete the attached EDET (excel file) using load information. Please complete this and email back to me. If the loads are over 500 kw, more in depth load studies may be required with our Distribution Planning and Transmission Planning Departments. Be advised that these may involve more detailed load information, a load study agreement (signed contract), as well as other items. This additional study process may add up to two additional months to completion of the job.
- Submit the easement information worksheet, including where any CMP structures may be on ANY private property (Poles, Wires, Anchors). You are responsible for obtaining all information for all required easements. Please complete this form and either email or fax back to me.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections.
- For Primary Metered installations (including PV), please have the access road in for pole staking.
- Preliminary meetings with CMP Advisor and Engineer to determine details of job (I will need to schedule with your electrician/contractor-please let me know who this is)

- Field planner design appointment scheduled once the preliminary information is complete. This will allow us to cost out the job and develop a CMP Invoice. The invoice is typically generated 5-6 weeks after the design appointment. This expires after 90 days from the invoice date.
- Submit completed W9 so that your bill can be properly processed. This is a new CMP process.
- CMP submits invoice to the customer for payment (typically via email). Payment received from customer.
- Easements (based on easement information worksheet) sent out, signed and originals returned to CMP.
- Job scheduled for completion after payment, easements and the electrical inspection have been received.

There are additional requirements for primary metered Solar Service Installations listed in the Chapter 324 Interconnections section below. Please refer to CMP Installation Checklists for other installations.

This process can take several months, depending upon several factors including transformer or materials delivery, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

As you may be aware, there are global supply chain issues impacting the utility industry. CMP is closely monitoring and managing their inventory in order to serve our customers. Larger submersible and pad mount transformers may not be readily available for the date that you will need to be energized. Please consider this as part of your construction plan. The energy service advisor will continue to work closely with you and let you know as soon as the transformer becomes available. Should you have any questions or concerns throughout this process, please do not hesitate to contact your ESA directly at the number or email provided.

Please complete the attached forms (the specific instructions are on each form). Please email them at your earliest convenience. If you are returning an Easement Form, a 1190 or State Permit please be sure to send those documents to lineclerknewservice@cmpco.com, All W9's should be sent to gettingconnected@cmpco.com. All other forms including the EDET (load sheet) and technical information should be sent to me.

For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements: CMP Handbook of Standard Requirements Additional resources include our CMP Metering Supplement is our Distribution Construction Standards: CMP Distribution Construction Standards CMP Distribution Construction Standards.

You will be responsible for installing the customer connections, conduits, and metering in accordance with the CMP Handbook of Standard Requirements The transformer will be sized based on your submitted load sheets.

Your deposit amount will be typically based on an estimated two month bill, calculated from your completed load sheet unless otherwise determined by CMP.

In addition, we have recently added on an online map that shows single phase and three phase power locations within CMP. Here is that link: CMP ArcGIS Information

Metering:

All metering (including locations) must be preapproved by CMP. If you have any questions, please consult the CMP Handbook of Standard Requirements and our CMP Metering Supplement.

Chapter 324 Interconnections:

Please be advised that if you plan to install solar/wind/hydro generation, you must complete an application under the MPUC mandated Chapter 324 Interconnection Standards. If you go to Chapter 324 Interconnection Standards and follow the instructions for the Small Generator Interconnection Procedures, CMP can do this work in parallel to your

service request that will be handled by me. If you project is under 660 KW You will be able to have a Customer Net Energy Billing contract. Information concerning Customer Net Energy Billing can be accessed thru the Chapter 324 website or by clicking here: Net Energy Billing

Reallocation/Line Extensions:

Recently, changes were made to the three-phase construction policy, which require CMP to reallocate construction costs paid by customers. If applicable, those projects identified as "developments" do not qualify for reallocation of funds. Please see this document at our website for details about the reallocation conditions. Any reallocation charges will be specifically denoted on your invoice. The website address for this is: Polyphase Line Extension.

This line extension will be part of Central Maine Power's distribution system. In the event the property served under this Agreement is sold or otherwise conveyed, all rights and obligations of the Agreement shall stay with the property. Please note that if you rent or lease this property to another and you want to receive the reimbursement payments, you must make special arrangements with the Central Maine Power Company. Otherwise, any reimbursement payments will be sent to the "Customer" taking service at the service location.

Electricity Supplier Information:

Central Maine Power Company (CMP) will provide your facility with electric delivery service. If you don't already have a provider, you will need to make arrangements with a competitive electricity provider in order to receive electricity supply for your facility. In the event you fail to choose a competitive electricity provider, you will receive Standard Offer service arranged by the Maine Public Utilities Commission. If you wish to be served by a competitive electricity provider immediately upon establishment of delivery service, you must arrange for this service directly through your chosen competitive electricity provider, who must enroll your account no later than 5 PM on the business day prior initiation of delivery service by CMP. An up-to-date list of competitive suppliers can be found at the:

1. Maine Public Utilities Commission (MPUC) web site- **Maine PUC**
2. By calling the MPUC at (207) 287-3831

Attachments:

Easement Worksheet and Sample Standard Easement
W9
CMP EDET (Load Sheet)

Regards,

Jamie

Jamie Cough
Central Maine Power Company
162 Canco Road
Portland, ME 04103
207.610.0055 (NEW NUMBER)

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ACORN ENGINEERING, INC.

Portland Water District
Attn: MEANS Department
225 Douglass Street
Portland, Maine 04104

October 28, 2024

RE: 165 Washington Avenue Redevelopment
Ability to Serve Request

To Whom It May Concern:

On behalf of Redfern Properties, we are pleased to submit the following request for Portland Water District's ability to serve at a proposed project at 165 Washington Avenue in Portland, Maine. It is our understanding that the project proposes to construct a new multi-family apartment building with approximately 327 dwelling units with ground floor commercial space. Along with the proposed building, the project would include additional amenity space, associated structured parking below the building and infrastructure upgrades.

It is assumed the development will require an 8" fire suppression, 6" domestic, and a 2" domestic water service. It is assumed the 6" domestic will likely be used for the residential units and the 2" domestic for the first-floor commercial spaces. The existing water main within Washington Avenue is 8", material and age of pipe is unknown at this time. Please refer to the Utility Plan for additional information. Based upon Section 4 of the *Maine Subsurface Wastewater Disposal Rules*, the table below outlines the proposed flow.

Estimate of Anticipated Daily Flows			
Development	Unit Size	Gallons per Day per Unit	Total Gallons per Day (GPD)
Existing Flow			
Northern Burner Supply Company, Inc. (Vacant)	-	-	Unknown
Total Gallons per Day (Existing)			-
Proposed Flow			
Residential	(108) Efficiency Units	120 GPD/ Unit	12,960
Residential	(129) Studio Units	120 GPD/ Unit	15,480
Residential	(12) 1-Bedroom Units	120 GPD/ Unit	1,440
Residential	(78) 2 Bedroom Units	210 GPD / Unit	16,380
Retail	10 Employees	12 GPD / Employee	120

Total Gallons per Day (Proposed)	46,380 GPD
Net Change	**+46,380 GPD**
*Values based on Chapter 241 State of Maine: Subsurface Wastewater Disposal Rules, most recent edition	

The proposed project is anticipated to increase the net flow by approximately **46,380** gallons per day (GPD). It should be noted that these values were developed using conservative estimates from the State of Maine Subsurface Wastewater Disposal Rules. We will provide any changes to the anticipated sewage demand as the project design progresses.

On behalf of the client, we are requesting the following information:

1. Additional information, such as utility mapping within Washington Avenue and confirmation of the location and size of the services to the existing property.
2. PWD's proposed infrastructure improvements within the project vicinity.
3. Flow data for adjacent hydrants.
4. PWD's ability to serve the project.
5. Any project related offsite water main improvements.

I have attached a Boundary and Topographic Survey created by Owen Haskell, Inc., to facilitate your review, as well as a preliminary utility plan developed by our office. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,



Peter Heil, PE
Project Manager
Acorn Engineering, Inc.

Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

December 6, 2024

Zach Stevens, P.E.
Acorn Engineering, Inc.

Re: 165 Washington Avenue, PO
Ability to Serve with PWD Water

Dear Mr. Stevens:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on October 31, 2024. Based on the information provided per plans dated December 6, 2024, we can confirm that the District will be able to serve the proposed project as further described in this letter. **Please note that this letter constitutes approval of the water system as currently designed and is valid for eighteen (18) months after the date of issue. Any changes affecting the approved water system will require further review and approval by PWD.**

Conditions of Service

The following conditions of service apply:

- Three new services may be installed from the water main in Washington Avenue: a new 1-inch copper domestic service with a 5/8-inch meter for the commercial portion of the project, a new 6-inch ductile-iron domestic service with a 4-inch compound meter for the residential portion, and a new 8-inch ductile-iron fire service. The service should enter through the property's frontage on Washington Avenue at least 10-feet from any side property lines.
- An approved backflow prevention device must be installed on each service line: a nontestable dual-check backflow preventer for the 1-inch service and testable double-check backflow preventers for the 6-inch and 8-inch services, directly after the meter or before the sprinkler riser prior to service activation.
- Please note that only one meter and one bill will be associated to each domestic service line. This one master meter would be located in a common space that all tenants could gain access to if necessary.
- An irrigation system has not been included in the sizing of services for this project.
- The Portland Water District does not have record of any other existing infrastructure in public roads and recommends a survey and test pitting be performed by the development team prior to construction. Any conflicts that arise during construction are at the risk of the developer and may result in job shutdown until new plans are submitted by the developer and reviewed and approved by PWD.

Prior to construction, the owner or contractor will need to complete a Service Application and pay all necessary fees for each proposed service. When the project is ready for construction, an Application for each service can be requested by contacting the MEANS Group at MEANS@pwd.org or 207-774-5961 ext. 3199. Once a completed Application has been submitted with payment, please allow seven (7) days for processing.

225 DOUGLASS STREET P.O. BOX 3553 PORTLAND, MAINE 04104-3553
PHONE: 207.774.5961 FAX: 207.761.8307 WEB: WWW.PWD.ORG

Existing Site Service

According to District records, the project site does not currently have existing water service.

Water System Characteristics

According to District records, there is an 8-inch diameter cast-iron water main in Washington Avenue and a public fire hydrant directly across the street from the site. The estimated static pressure in the area is 81 psi.

Public Fire Protection

The installation of new public hydrants to be accepted into the District water system will most likely not be required. It is your responsibility to contact the City of Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

Domestic Water Needs

The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project. Based on the high water pressure in this area, we recommend that you consider the installation of pressure reducing devices that comply with state plumbing codes.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact MEANS to request a hydrant flow test and we will work with you to get more complete data.

Should you disagree with this determination, you may request a review by the District's Internal Review Team. Your request for review must be in writing and state the reason for your disagreement with the determination. The request must be sent to MEANS@PWD.org or mailed to 225 Douglass Street, Portland Maine, 04104 c/o MEANS. The Internal Review Team will undertake review as requested within 2 weeks of receipt of a request for review.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District



Robert A. Bartels, P.E.
Senior Project Engineer

ACORN ENGINEERING, INC.

Unitil Service Corp.
Attn: Scott Carpenter
376 Riverside Industrial Parkway
Portland, Maine 04103

October 28, 2024

RE: 165 Washington Avenue Redevelopment
Ability to Serve Request

Dear Mr. Carpenter:

On behalf of Redfern Properties, we are pleased to submit the following request for Unitil's ability to serve at a proposed project at 165 Washington Avenue in Portland, Maine. It is our understanding that the project proposes to construct a new multi-family apartment building with approximately 327 dwelling units with ground floor commercial space. Along with the proposed building, the project would include additional amenity space, associated structured parking below the building and infrastructure upgrades.

There is an existing gas main located within the Washington Avenue sidewalk along the project frontage. Size, material, age are unknown at this time. The project will have a new gas service connecting into this main, with any meters located to the side of the building.

On behalf of the client, we are requesting the following information:

1. Any additional gas lines within Washington Avenue.
2. Confirmation of the existing building service tap location & size.
3. Unitil's proposed infrastructure improvements within the project vicinity.
4. Unitil's ability to serve the project.
5. Any project related offsite main improvements.

I have attached a Boundary and Topographic Survey created by Owen Haskell, Inc., to facilitate your review, as well as a preliminary utility plan developed by our office. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Peter F. Heil, PE
Project Manager
Acorn Engineering, Inc.

October 29, 2024

Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104

Attn: Zachary Stevens, PE & Peter F. Heil, PE

Subject/Description of project: 165 Washington Avenue, Portland - Ability to Serve Request

Re: Natural Gas Ability to Serve Response

Dear Zachary and Peter,

Thank you for your interest in using natural gas for the above referenced project.

This is to confirm that Unitil has a 4 inch HDPE natural gas in front of the property at 165 Washington Avenue, Portland.

Once the gas load is available please send that along and we can size any new gas mains, services and/or meter(s) that will be needed.

If you have any further questions or require additional information, please contact me at 207-541-2543 or email at carpenters@unitil.com.

Sincerely,

Scott Carpenter

Scott Carpenter
Senior Business Development Representative
207-541-2543

ME GAS OPERATIONS
376 Riverside Industrial Parkway
Portland, ME 04103

T 866.933.3821 www.unitil.com

Q. Construction Management Plan

Project Address: 165 Washington Avenue, Portland, ME

Project Description:

The project proposes to demolish the existing Northern Burner Supply building and construct a new multi-family / mixed-use apartment building with 326 dwelling units with ground floor commercial space. Along with the proposed building, the project would include additional amenity space, associated structured parking below the building and infrastructure upgrades.

Project Team Summary:

Owner:	Redfern Properties
General Contractor:	Penobscot General Contractors
Civil Engineer:	Acorn Engineering, Inc.
Architect:	HOLST Architecture
Structural Engineer:	Structural Integrity

The Owner/GC and all subcontractors will work with the City of Portland and adjacent landowners to minimize any project impacts.

The GC will remain responsible for enforcement of all compliance with 1) all contract plans and specifications in their scope of work and 2) all site working conditions and safety requirements, day and night, for both persons and property, in each case for the duration of their work. These include OSHA, NIOSH, U.S. EPA, local ordinance and any other applicable governmental regulations. Both the Owner/GC and any subcontractors will remain responsible for safeguarding the general public.

The GC shall review all permits and conditions associated with the project. The GC will prepare a Construction Management Plan their means and methods to be taken during construction.

The following outline has been developed in accordance with the City of Portland Construction Management Plan General Template and shall be referenced by the GC during construction.

A. Construction Management Principles

The control of noise, vibrations, ground movement, truck traffic, and other construction related factors will be of utmost importance. Care shall be taken to minimize these effects in the best interest of neighbors and the general public. GC to ensure that work hours conform to the City of Portland's Ordinance.

B. Development Review of Construction Management Plan

Logistics and safety program shall be submitted at or prior to the preconstruction meeting by the GC with all pertinent information required by the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.

C. Performance Guarantees, Inspection Fees, Preconstruction Meeting, and Permits

Guarantees and fees will be paid at the time of the respective application. Sections 14-530 and 13-532 will be complied with all necessary permits will be obtained prior to work.

1. Street Opening and Street Occupancy Permits:

   Required permits regarding street opening and occupancy will be obtained from the Department of Public Works. The requests shall conform to the approved Construction Management Plan.

2. Blasting:

   Although not anticipated, if blasting occurs, it shall conform to Article VIII. In Chapter 14 of the City Code and Section 3.7 in the City's Technical Manual.

3. Building Code:

   Employ the best practices, as applicable, of Chapter 33 Safeguards During Construction, from the 2009 International Building Code.

D. Construction Administration and Communication

The Contractor will work closely with adjacent abutters, businesses, and all parties informed, as far in advance as possible, of scheduled work, particularly work anticipated to cause significant noise, vibrations, or dust. Communication in order to comply with all agreements, ordinances, and special permits will be of the utmost importance. Contractor contact information shall be posted on a sign on the construction fence along Washington Avenue frontage. Additional signage necessary for communication shall be provided but will be temporary and removed upon completion of the project. The contact information for the project personnel is:

Haynes Johnston
Redfern Properties
(207) 261-5151

GC and Subcontractor information will be posted along Washington Avenue frontage once contracted.

E. Construction Schedule

The GC shall submit a construction timeline at or prior to the preconstruction meeting. Construction may occur during the daytime hours as defined in Section 17-18 of the Construction Activities for Building permit and City Code Section 25-129, Noise, dust and debris. Between September 1 and May 31, the following year, no person shall engage in construction activities generating noise exceeding 50 decibels, between the hours of 7 pm and 7 am of the following day within 500 feet of any buildings. From June 1 to August 31, construction activity may continue until 8 pm. No construction activity shall begin before 8 am on a Saturday, Sunday, or legal holiday. Extended hours or night work may be requested for special circumstances and street utility work if needed. These requests will be subject to approval by the Public Works Authority.
Due to the limited space within the project parcel, deliveries will need to be stored in an

alternate location or deliveries must be small enough to fit within the property. Deliveries will be scheduled between 7 am and 5 pm.

The estimated timeframe of the proposed project is outlined below:

Project Start Date:	2025
Project End Date:	2027

A more detailed work schedule shall be provided by the GC at or before the pre-construction meeting with the City.

F. Security & Public Safety

1. The GC will provide all fencing and other barriers, with the intent of separating pedestrian and vehicle circulation from the construction site. Construction entrances per detail shall be installed.

2. Structures undergoing construction, alteration, or demolition operations, including those in underground locations, shall comply with NFPA 1 Chapter 16. *Safeguarding Construction, Alteration, and Demolition Operations.*

3. Fire Safety Program: Prior to construction, an overall construction and demolition fire safety program shall be developed. Essential items to be emphasized include the following:
    - Good Housekeeping
    - On-site security
    - Installation of new fire protection systems as construction progresses
    - Preservation of existing systems during demolition
    - Organization and training of an on-site fire brigade
    - Development of a pre-fire plan with the local fire department
    - Rapid communication
    - Consideration of special hazards resulting from previous occupancies
    - Protection of existing structures and equipment from exposure fires resulting from construction, alteration, and demolition operations.

4. Blasting, if required, shall conform with all measures of Article VIII. Regulation of Explosives in the Land Use Code and Section 3.7 Standards for Blasting and Regulation of Explosives in Portland's Technical Manual.

5. Temporary security lighting shall be shown on the Construction Management Plan, and all fixtures shall be full cutoffs.

G. Construction Permitting and Traffic Control Plans

1. Construction Activity in Public Streets

   Construction activity in the public right-of-way shall be compliant with Chapter 25 Article VII of the City Code. At no time will it be permissible for construction activity including delivery vehicle to close or block streets or affect public safety access without prior notice and approval of the Department of Public Works.
2. Sewer and Stormwater

Sewer and stormwater system connections are controlled by Chapters 24 and 32 of the City code of Ordinance. Required permits for new connections and/or abandonment of existing connections are available through the Street Opening Clerk at the Department of Public Works. Rules and Regulations for these utility systems are available through the City Engineer's office of the Department of Public Works and in Section II of the Technical Manual. This will apply to the new connections within Washington Avenue.

3. Traffic Control Plans

Construction activity that impacts the existing public street system must be controlled to protect the safety of the construction workers and all modes of the traveling public. The contractor shall submit a satisfactory "Maintenance of Traffic" (MOT) plan prior to any street opening permit approval. This document shall contain all pertinent information from the Maine Department of Transportation's Traffic Control Plan Standard Specification 652.3.3.

The MOT will address the work required for utility connections in Washington Avenue. Traffic will be channelized utilizing drums and cones. Proper signage will be installed prior to the through work zone. Alternating traffic will be controlled with flaggers. Trenches will be patched with pavement daily.

The MOT plan shall provide for the safe passage of the public through or along the construction work zone. It may be permissible to close a portion of Washington Avenue during utility connections and/or detour a mode of traffic when absolutely necessary for safety. All requests shall be subject to City approval. MOT plans shall employ the appropriate techniques and devices as called for in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). In addition:

- Construction speed signing may be used as needed to slow traffic.
- Traffic Control signs shall not be placed where they would create any obstructions to bicycles or pedestrians.
- Flaggers will be utilized when necessary.

All existing modes of travel in the work zone area shall be accommodated if impacted by the activity. The safe passage of pedestrians, bicyclists, transit providers, and motorists are of equal importance when planning and laying out the work zone; no pre-existing travel mode may be eliminated without the express approval of the Department of Public Works. The MOT should also address on-street parking impacts, including deliveries and parking for adjoining businesses and property owners, analysis of roadway capacity or diversion capacity if street closure or change to roadway capacity is required, and coordination with other on-going or future construction or utility projects in the vicinity.

- Traffic control bicycle and pedestrian facilities or routes through work zones shall be maintained until the bicycle and pedestrian facilities or routes are ready for safe operation. Traffic control will not be removed to allow auto travel at the expense of bicycle and pedestrians.
- Barrier systems utilized to separate the construction activity from the public street and /or sidewalk shall not inhibit sight distances, particularly for visibility of pedestrians and bicyclists.

- ADA compliance in all capacities shall be maintained.

Use of public parking spaces on Washington Avenue shall not be permissible. The blockage of any portion of sidewalk for the purpose of construction activity shall require an occupancy permit and appropriate fee as assessed by the Department of Public Works.

H. Site Management and Controls

1. Regular trash and debris shall be managed appropriately, and its removal shall comply with all local, state, and federal regulations.

2. Street cleaning and sweeping shall be followed as outlined in the erosion and sedimentation control notes and report. Damage to the street shall be avoided and shall be the responsibility of the contractor.

3. Dust shall be controlled and shall comply with Section 25-129 and the erosion and sedimentation control notes, plan, and details.

4. Noise shall be controlled and shall comply with Section 17-18 and Section 25-129.

5. Rodent Control shall be provided, if applicable, by a professional exterminator and shall be consistent with Chapter 22 of the City Code.

6. Snow and Ice Removal shall be provided. Pursuant to Section 25-173, the Contractor shall ensure a safe means of travel within the work zone by the following steps:

    a. Snow/ice removal or commence automatically from 1" or greater of snow or ice
    b. Remove snow as needed within the work zone, including parking spaces. Driveways and site lines shall not be blocked by piles of snow.
    c. Clear all walks and ramps within the work zone
    d. Sand or salt as needed
    e. Clear all basin or drainage to help snow melt
    f. The above steps shall be carried out Sunday-Saturday including holidays.

I. Erosion Control and Preservation of Trees

1. The Contractor shall install all erosion and sedimentation controls as outlined in the plan set, and the approved erosion and sedimentation control report, prior to the pre-construction meeting for inspection by the City. The Contractor shall regularly inspect the control measures, no less than weekly and after storm events (0.5" or more in 24 hours). Additionally, temporary or permanent stormwater management systems shall be inspected and maintained to ensure working order. The Contractor shall document all inspection activities and corrective actions and be prepared to provide these documents for inspection by the City, Maine Department of Environmental Protection (MDEP) or the U.S. Environmental Protection Agency (EPA) upon request.

2. Due to the existing sparse landscaping on site, no protection during construction will be necessary.

3. Stored materials shall be identified and avoid being located under/near trees.

J. Construction Staging Area

1. The Contractor shall submit a plan with locations depicted for the location of material staging areas, the location of on-site temporary construction trailers, the location of on-site truck delivery holding areas, the location of on-site truck washing stations, masonry mixing stations, the general location of the construction security fence and the general location of temporary construction dumpsters. This plan shall be submitted at or prior to the pre-construction meeting. Any open storage areas shall be shown on the plan.

2. Delivery Truck Holding Areas On-Site: The majority of materials delivered to the site will be scheduled such that they are able to be off-loaded immediately. On days when the construction activities require multiple truck deliveries, these deliveries will be carefully scheduled so that there is always adequate on-site area for the holding of trucks until they can be unloaded. Once at the site all vehicles will be brought within the fence line and will make every attempt to avoid queuing on public streets. If, for any reason, on-site holding of trucks is not feasible, an off-site location must be designated and shown on the submitted plan referenced above in J.1.

3. All deliveries for materials shall comply with the City's noise requirements.

K. Parking During Construction

1. Adequate parking for construction workers shall be provided on site or arrangements for off-street parking at an off-site location shall be provided.

2. Truck Routes and Volumes: The following quantities are estimated as part of the reconstruction:

    - Gravel & Stone – Approx. 617 CY. Earthwork subcontractor(s) pit to project site.
    - Hot Mix Asphalt – Approx. 172 tons. Paving subcontractor(s) pit to project site.

L. Dewatering Plans

1. A basic dewatering plan for any construction work is required and shall be submitted by the Contractor. The plan must cover construction sites where groundwater is not expected but the impact of rainwater may require dewatering. The plan must include operating procedures, equipment to be used, including filters, erosion and sediment control measures, or other methods of removing sediment from approved discharges.

2. For construction work that will require frequent dewatering of groundwater from site, a dewatering plan must be prepared by the Contractor and approved by the Department of Public Works. Groundwater and/or soil testing may be required to determine course of action if treatment is necessary. Approval for all discharges to City infrastructure is required. The proposed plan must address the following:

    - Project duration, discharge location, storage equipment on-site, dewatering schematic, and emergency contact.

- General requirements include trained staff on-site for all approve discharges and required site log for documentation of all discharges.
- Storage and/or treatment process should include proper settling time and maintain proper use of filtering medium as required.
- Contingency/maintenance plan for all dewatering equipment devices and filtration mediums.

Any water that is removed from an excavation must be pumped from a perforated device buried in crush stone prior discharge and/or prior to storage and treatment. There will be no discharge allowed during precipitation events.

M. Special Measures as Necessary

No special measures are necessary for the proposed reconstruction.

R. Solid Waste Disposal

The proposed multi-family building will utilize an interior trash room. Please refer to the attached architectural plan for more information. Bins will be rolled out to the curb and collected by a private hauler, to be contracted for removal services.

S. Parking Analysis

Per Land Use ReCode Section 18-A Off Street Parking Table Maximums. The project does not require any parking onsite and the maximum allowed parking onsite is calculated below.

Residential: 1 space per 2 dwelling units (325 units) = 650 Parking Spaces

Retail: 1 Space per 300 SF of Floor Area = 6 Spaces

Total Maximums Parking Spaces allowed = 656 Spaces

The project proposes 11 parking spaces on site, including 2 ADA parking spaces, and 2 EV parking spaces under the building, significantly below the maximum allowed parking spaces and plans to implement strategies identified in the attached Transportation Demand Management Plan to promote multi-modal transportation options, including biking and walking.

Per Land Use ReCode Section 18-A Off Street Parking Table, the require bicycle parking space for residential units are 1 space per every 2 dwelling units, which results in 163 bike spaces required for the project. Please refer to C-10 for the locations of the bike racks, including internal bike room and external bike racks to meet the demand.

All mixed-use developments more than 50,000 SF shall be required to design and implement a Transportation Demand Management (TDM) Plan. Please refer to the attached Section T: Traffic for additional information.

Barton & Loguidice

Att. T1

TRAFFIC MOVEMENT PERMIT

FOR PROPOSED

165 Washington Avenue
RESIDENTIAL & COMMERCIAL REDEVELOPMENT

165 Washington Ave, Portland, Maine

Prepared For: **Redfern Properties, LLC**
Prepared By: Barton & Loguidice

November, 2024
2943.001.001

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Residential & Commercial Redevelopment

165 Washington Avenue, Maine

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APPENDIX 28

Department of Transportation
Traffic Engineering Division
16 State House Station
Augusta, Maine 04333
Telephone: 207-624-3600

FOR MDOT USE
ID #

Total Fees:
Date: Received

****

PERMIT APPLICATION - TRAFFIC
TRAFFIC MOVEMENT PERMIT, 23 M.R.S.A. § 704 - A

Please type or print:

This application is for:

Traffic 100-200 PCE's	**X**
Traffic 100-200 PCE's (Expedited)	
Traffic 200+ PCE's	

Name of Applicant: **Redfern Properties, LLC**

Address: **120 Exchange St, Suite 330, Portland, ME 04101** Telephone: **(207) 261-5303**

Name of local contact or agent: **John Q. Adams, P.E., PTOE, Barton & Loguidice, LLC**

Address: **383 US Route 1, Suite 2A, Box 4, Scarborough, ME 04074** Telephone: **(207) 331-6694**

Name and type of development: **165 Washington Ave: 326 Apartment Units & 1,800sf Commercial Unit**

Location of development including road, street, or nearest route number: **165 Washington Ave, Portland, ME 04101**

City/Town/Plantation: **Portland** County: **Cumberland**, Tax Map # **12** Lot # **F002**

Do you want a consolidated review with DEP pursuant to 23 M.R.S.A. § 704-A (7)? Yes ____ No **X**

Was this development started prior to obtaining a traffic permit? **No**

Is the project located in an area designated as a growth area (as defined in M.R.S.A. title 30 - A, chapter 187)? Yes ___ No X

Is this project located within a compact area of an urban compact municipality? Yes **X** No_____

Is this development or any portion of the site currently subject to state or municipal enforcement action? **No**

Existing DEP or MDOT permit number (if applicable): **N/A**

Name(s) of DOT staff person(s) contacted concerning this application: **N/A**

Name(s) of DOT staff person(s) present at the scoping meeting for 200+ applications: **N/A**

NOTICE OF INTENT TO FILE
Traffic Movement Permit

Please take notice that

Redfern Properties, LLC
120 Exchange St, Suite 330, Portland, ME 04101
(207) 261-5303

Are intending to file a Maine Department of Transportation Traffic Movement Permit with the City of Portland under their delegated review authority pursuant to the provisions of 23 M.R.S.A. § 704 - A on or about

November 20, 2024

The application is for the development of a 7-floor multi-use building with 326 apartment units and 1,800sf of retail space located at 165 Washington Avenue in the City of Portland. The project is anticipated to generate the following peak hour trips:

AM Peak Hour (Street) = 98
PM Peak Hour (Street) = 99
Saturday Peak Hour = 109

At the following location:

165 Washington Ave
Portland, ME 04101

Any interested party may request in writing to participate in the scoping meeting for the subject project no later than 20 days after the application is found by the City to be complete and is accepted for processing. Public comments on the application pertaining to either congestion or safety will be accepted throughout the processing of the application.

The application will be filed for public inspection at the City of Portland's Planning and Urban Development office during normal working hours.

Written public comments concerning congestion or safety only, may be sent to the Department of Transportation, State Traffic Engineer, 16 State House Station, Augusta, Maine 04333

1/2000

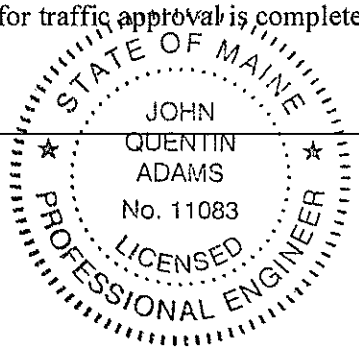
CERTIFICATION

The traffic engineer responsible for preparing this application and/or attaching pertinent site and traffic information hereto, by signing below, certifies that the application for traffic approval is complete and accurate to the best of his/her knowledge.

Signature: _____ Re/Cert/Lic No.: _____

Name (print): John Q. Adams

Date: 11-20-24



If the signature below is not the applicant's signature, attach letter of agent authorization signed by applicant.

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

	10/25/2024
Signature of applicant	Date

ABUTTERS LIST

IAS_PARCEL_ID	ST_NUM	ST_NAME	UNIT_NUM	OWN	OWN_ADDR	OWN_CITY	OWN_ST	OWN_ZIP
008 A007001	170	NORTH ST		CITY OF PORTLAND	389 CONGRESS ST	PORTLAND	ME	4101
010 D001001	165	WASHINGTON AVE		WATERHOUSE RAYMOND H & ALINA WATERHOUSE	105 PARTRIDGE CIR	PORTLAND	ME	4102
012 F008001	163	WASHINGTON AVE		CURRAN JEFFREY A	163 WASHINGTON AVE	PORTLAND	ME	4101
012 F010001	9	E COVE ST		HIGH PEAKS LLC	PO BOX 482	AUBURN	ME	4212
012 F011001	3	E COVE ST		HIGH PEAKS LLC	PO BOX 482	AUBURN	ME	4212
012 F014001	159	WASHINGTON AVE		ANASTACIO RAMON L & RUBY L ANASTACIO JTS	159 WASHINGTON AVE	PORTLAND	ME	4101
012 H001001	79	WALNUT ST	1	NIELSEN CATHERINE E & GARY M NIELSEN JTS	2283 WEST RIVER RD	AUGUSTA	ME	4330
012 H001002	191	SHERIDAN ST	2	FILLER NORMA M	191 SHERIDAN ST	PORTLAND	ME	4101
012 H001003	193	SHERIDAN ST	3	ENGLERT EVIANA L F & ALEXANDER M F ENGLERT TRUSTEES	193 SHERIDAN ST # 3	PORTLAND	ME	4101
012 H001004	197	SHERIDAN ST	4	FAHERTY ROBERT DOUGLASS & ELIZABETH ANNE OWENS JTS	197 SHERIDAN ST # 4	PORTLAND	ME	4101
012 H001005	199	SHERIDAN ST	5	BAGG PETER VN VET & PATRICIA BAGG JTS	199 SHERIDAN ST	PORTLAND	ME	4101
012 H001006	201	SHERIDAN ST	6	UNDERBERG PAUL D & SHARON E UNDERBERG JTS	201 SHERIDAN ST	PORTLAND	ME	4101
012 H001007	203	SHERIDAN ST	7	BOOKIN STEPHEN O ETAL JTS	4B PLOVER WAY	GLOUCESTER	MA	1930
012 H001008	205	SHERIDAN ST	8	PITEGOFF PETER & ANN CASADY JTS	205 SHERIDAN ST	PORTLAND	ME	4101
012 H001009	207	SHERIDAN ST	9	THOMPSON DAVID CHARLES & TANJA CURTIS JTS	207 SHERIDAN ST # 9	PORTLAND	ME	4101
012 H001010	211	SHERIDAN ST	10	MAYER ELDON C JR & BETTY F MAYER TRUSTEES	7 CENTRAL LANDING RD	CHEBEAGUE ISLAND	ME	4017
012 H001011	213	SHERIDAN ST	11	MACHESNEY DAVID & NANCY MACHESNEY JTS	213 SHERIDAN ST	PORTLAND	ME	4101
012 H001012	215	SHERIDAN ST	12	HART LESLIE & KEVIN SCHOCHAT JTS	215 SHERIDAN ST	PORTLAND	ME	4101
012 H001013	217	SHERIDAN ST	13	PEACOCK BRADLEY D & TRACY O PEACOCK JTS	809 ELMWOOD AVE	WILMETTE	IL	60091
012 H001014	219	SHERIDAN ST	14	COYLE MICHAEL & ANGELA COYLE JTS	930 ROBIN RD	STATE COLLEGE	PA	16801
012 H001015	223	SHERIDAN ST	15	SHAFFER MARGUERITE SANDS & BENNETT MATTHEW JACKS JTS	223 SHERIDAN ST	PORTLAND	ME	4101
012 H001016	225	SHERIDAN ST	16	POLLAK BERNARD E & BETTY J LORBER JTS	225 SHERIDAN ST	PORTLAND	ME	4101
012 H001017	227	SHERIDAN ST	17	WILLIAMS FREDRIC W	227 SHERIDAN ST	PORTLAND	ME	4101
012 H001018	229	SHERIDAN ST	18	SAX SHAWNEE A & DOUGLAS S SAX JTS	229 SHERIDAN ST	PORTLAND	ME	4101
012 H001019	200	SHERIDAN ST	19	CURTIS HEATHER E TRUSTEE	200 SHERIDAN ST # 19	PORTLAND	ME	4101
012 H001020	202	SHERIDAN ST	20	GUNASEKERA GESHRI & JOHN RUDOY JTS	202 SHERIDAN ST	PORTLAND	ME	4101
012 H001021	204	SHERIDAN ST	21	REINHARZ JEHUDA & YAEL REINHARZ TRUSTEES	204 SHERIDAN ST # 21	PORTLAND	ME	4101
012 H001022	206	SHERIDAN ST	22	ROBINS TERRELL S & SUZANNE ROBINS JTS	206 SHERIDAN ST	PORTLAND	ME	4101
012 H001023	208	SHERIDAN ST	23	MORSE ROBERT L & MARY E MORSE JTS	208 SHERIDAN ST	PORTLAND	ME	4101
012 H001024	210	SHERIDAN ST	24	MARSTERS ANDREW & MARY SPALDING MARSTERS JTS	210 SHERIDAN ST	PORTLAND	ME	4101
012 H001025	218	SHERIDAN ST	25	RITTER GREGG T	218 SHERIDAN ST # 25	PORTLAND	ME	4101
012 H001026	220	SHERIDAN ST	26	220 LOBSTER ROLL LLC	90 FURMAN ST # N-611	BROOKLYN	NY	11201
012 H001027	222	SHERIDAN ST	27	DUNN ERIN C & CHAD W ROBERTSON JTS	222 SHERIDAN ST	PORTLAND	ME	4101
012 H001028	224	SHERIDAN ST	28	PRATT MARIANNA M	224 SHERIDAN ST	PORTLAND	ME	4101
012 H001029	226	SHERIDAN ST	29	MARINO RICHARD	226 SHERIDAN ST	PORTLAND	ME	4101
012 H001000	79	WALNUT ST		MUNJOY HEIGHTS CONDO	79 WALNUT ST	PORTLAND	ME	4101
010 A030001	192	WASHINGTON AVE		192 WASHINGTON AVE LLC	PO BOX 1398	PORTLAND	ME	4104
010 F002001	184	WASHINGTON AVE		LORING CHARLES AMVETS POST NO 25	186 WASHINGTON AVE	PORTLAND	ME	4101
010 F004001	178	WASHINGTON AVE		NO PLACE LLC	PO BOX 1321	SCARBOROUGH	ME	4070
010 F007001	170	WASHINGTON AVE		TMJ ASSOCIATES	P.O.BOX 734	PORTLAND	ME	4104
010 F011001	180	WASHINGTON AVE		HARMON DAVID L	8 CHASE LN	SACO	ME	4072
010 F012001	182	WASHINGTON AVE		MAINE MODERN DEVELOPMENT INC	8 CHASE LN	SACO	ME	4072
012 D004001	168	WASHINGTON AVE		TMJ ASSOCIATES	PO BOX 734	PORTLAND	ME	4104
010 A031001	190	WASHINGTON AVE		PIERPONT ERIC	50 E ST	SOUTH PORTLAND	ME	4106

Section 1

1

1A. Site Plan

Redfern Properties LLC, is proposing the construction of a 208,667sf mixed-use residential and commercial building on the 1.31-acre parcel addressed 165 Washington Avenue in the City of Portland. Of the total acreage, 1.31 acres are developable. The project will construct a 7-floor multi-use building with 326 apartment units and 1,800sf of retail space on the ground level. Access to the site will be provided via a single driveway entrance, which intersects with the eastern side of Washington Avenue 120 feet north of East Cove Street.

The project will provide storage for 163 bicycles and 11 vehicle parking spaces, 2 of which will be signed and striped as handicapped.

1B. Existing & Proposed Uses

Existing

The existing development parcel is occupied by a vacant building that formerly was occupied by Northern Burner Supply, a wholesale distributor of heating and electrical supplies. Access to the existing site is provided by two driveway entrances that intersect with the eastern side of Washington Avenue, both of which will be removed with the development of the proposed project.

Proposed

The proposed development will construct a 7-floor multi-use building with 326 apartment units and 1,800sf of retail space on the ground level. Access to the site will be provided via a single driveway entrance, which intersects with the eastern side of Washington Avenue 120 feet north of East Cove Street.

The project will provide storage for 163 bicycles and 11 vehicle parking spaces, 2 of which will be signed and striped as handicapped.

1C. Regional Mapping

For the regional mapping analysis, we have established a study area with a ¼-mile radius from the site entrance at Main Street. The study area is based on MaineDOT's requirements for an urban/suburban development area.

Pedestrian & Bicycle Trip Origins/Destinations

Portland, within a ¼-mile radius of the site entrance, generally consists of residential, retail, and commercial land uses. It is assumed that these existing residential dwellings could be pedestrian/bicycle trip origins and that the pedestrian/bicycle destinations would be the retail and commercial institutional land uses generally located around Washington Avenue, Anderson Street, and Marginal Way.

Pedestrian Infrastructure

A review of existing pedestrian and bicycle infrastructure was completed using Google Earth and field surveys. Our surveys show that within the ¼-mile study radius, there are existing sidewalks on one or both sides of most streets. The existing sidewalks and crosswalks are illustrated in the *Regional Mapping Plan* attached in *Section A of the appendix*.

Bicycle Infrastructure
A review of existing pedestrian and bicycle infrastructure was completed using Google Earth, as well as field surveys. Our surveys show that within the ¼-mile study radius, there are striped bicycle lanes on the southbound Washington Avenue travel lane between Back Cove Trail and Walnut Street, on the northern side of Fox Street between Washington Avenue and Anderson Street, and on both sides of Marginal Way for the length of the study area. The existing bike lanes are illustrated in the *Regional Mapping Plan* attached in *Section A of the appendix*.

Bus Infrastructure
From a survey of Google Earth, we have identified the existing bus stops within the study area. The *Regional Mapping Plan* attached in *Section A of the appendix* illustrates the locations of the bus stops. The plan shows that there are existing bus stops on both sides of Washington Avenue within the vicinity of the development site.

Pedestrian Infrastructure Gaps
As shown in the *Regional Mapping Plan*, there are no significant gaps in the pedestrian sidewalk infrastructure.

1D. Proposed Uses in the General Vicinity of the Proposed Development

Traffic generated by projects that have been approved by the Local Planning Board and/or the Maine Department of Transportation, yet are not opened, must be included in the estimate of pre-development traffic. The City of Portland has been consulted to identify any and all development projects whose trips may impact the study area. The City identified 5 projects which potentially impact the study area:

- Roux Institute – 1 Bean Pot Circle
- St. Lawrence Performing Arts Center
- 70 Thames Street
- 385 Congress Street
- 58 Fore Street

Project and traffic information for each of the five identified projects is provided below:

Roux Institute
Traffic estimates prepared for the Roux Institute show that **18** AM peak hour trips and **21** PM peak hour trips will travel north on Washington Avenue to I-295, and **1** AM peak hour trip and **19** PM peak hour trips will travel from I-295 south on Washington Avenue.

St. Lawrence Performing Arts Center
Friends of St. Lawrence Church are proposing a 401-seat building expansion to the existing St. Lawrence Arts Center located at 76 Congress Street. Site trip assignments, prepared by Traffic Solutions in support of the proposed project, estimate **10** trips will travel directionally on Walnut Street to the proposed St. Lawrence Arts Center site from the Washington Avenue corridor in the "pre-event" peak hour, assumed to be the PM peak hour.

70 Thames Street is a 3-story mixed-use building composed of 43,730sf of office space, 2,00sf of retail space, and 8,315sf (300 seats) of restaurant space. Gorrill Palmer's traffic estimates show that the site produces **63 trips** in the AM peak hour and **129** trips in the PM peak hour. The approximate entry and exit trips, based on the data provided in ITE, are provided below:

AM Peak Hour:	**PM Peak Hour:**
Enter = 51	Enter = 56
Exit = 12	Exit = 73

385 Congress Street provides 156 hotel rooms and 9 residential condominiums. The TDM prepared for the project shows that the site will generate **49 trips** in the AM peak hour and **34 trips** in the PM peak hour. The trips are broken down into entry and exit trips below:

AM Peak Hour:	**PM Peak Hour:**
Enter = 19	Enter = 15
Exit = 30	Exit = 19

58 Fore Street is composed of a 128-room hotel, 43 condominium units, 4,928sf of retail space, 18,083sf of food & beverage, and a 19,697sf spa. Gorrill Palmer's traffic estimates show that the site is expected to generate **419 trips** in the AM peak hour and **565 trips** in the PM peak hour. The approximate entry and exit trips, which have been prepared based on the data provided in the TDM plan, are provided below:

AM Peak Hour:	**PM Peak Hour:**
Enter = 226	Enter = 283
Exit = 193	Exit = 282

1E. Site Trip Generation

Trip generation for the proposed 326 apartment units and 1,800sf of commercial space was determined based on the trip generation rates provided in the 11th edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. The ITE Manual provides numerous land use codes (LUC) and the average volume of site generated trips produced by each category.

Trip generation calculations for the 326 apartment units were prepared using *LUC #221—Multi-Family Housing (Mid-Rise)*, which ITE describes as "*apartments and condominiums located in a building that has between four and 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, an elevator, and a set of hallways.*"

Trip generation calculations for the 1,800sf of commercial spaces were prepared using *LUC #932 – High-Turnover (Sit-Down) Restaurant*, defined by ITE as "*full-service eating establishments with a typical duration of stay of 60 minutes or less. This restaurant is usually moderately priced, frequently belongs to a restaurant chain, and is commonly referred to as casual dining. Generally, the restaurants serve lunch and dinner; they may also be open for breakfast and are sometimes open 24 hours a day.*"

In the *Trip Generation Manual*, for LUC #221 and LUC #932, ITE provides the *Average* trip generation rate and the *Fitted Curve* trip generation rate. MaineDOT guidelines state that when $R^2 \geq 0.80$, the *Fitted Curve* trip generation rate shall be used. The trip generation calculations for the apartment units and commercial space are provided below in Table 1.1 and Table 1.2:

Table 1.1 ITE Trip Generation Calculations (Dense Multi-Use Urban)							
Land Use	**Multifamily Housing (Mid-Rise) Not Close to Rail Transit - LUC 221**						
Time Period	**Dwelling Units (X)**	**R^2**	**Fitted Curve Equation/ Avg. Rate**	**Trips Generated (T)**	**Distribution Entering / Exiting**	**Enter**	**Exit**
Weekday	326	n/a	2.93	955	50% / 50%	478	477
AM Weekday Peak Hour (Street)	326	0.96	T = 0.25(X) + 5.35	87	15% / 85%	13	74
PM Weekday Peak Hour (Street)	326	0.97	T = 0.29(X) - 6.26	88	73% / 27%	64	24
AM Weekday Peak Hour (Generator)	326	0.69	0.23	75	17% / 83%	13	62
PM Weekday Peak Hour (Generator)	326	0.78	0.24	78	63% / 37%	49	29
Saturday Peak Hour*	326	n/a	0.27	88	50% / 50%	44	44

*ITE does not provide trip distribution for Saturday peak hour. Assumed to be 50/50.

Table 1.2 ITE Trip Generation Calculations (General Urban/Suburban)						
Land Use	**High-Turnover (Sit-Down) Restaurant - LUC 932**					
Time Period	**Sq. Footage (1k)**	**Avg. Trip Generation Rate (Trips Per 1k Sf)**	**Trips Generated**	**Distribution Entering / Exiting**	**Enter**	**Exit**
Weekday	1.8	107.20	193	50% / 50%	97	96
AM Weekday Peak Hour (Street)	1.8	9.57	18	55% / 45%	10	8
PM Weekday Peak Hour (Street)	1.8	9.05	17	61% / 39%	11	6
AM Weekday Peak Hour (Generator)	1.8	13.68	25	57% / 43%	15	10
PM Weekday Peak Hour (Generator)	1.8	16.35	30	51% / 49%	16	14
Saturday Peak Hour	1.8	11.19	21	51% / 49%	11	10

Summarizing the trip generation calculations shown in the preceding tables, Table 1.3, following, provides the trip generation calculations for the proposed development:

Table 1.3 ITE Trip Generation Summary			
Time Period	**Total Trips**	**Enter**	**Exit**
Weekday	1148	575	573
AM Weekday Peak Hour (Street)	105	23	82
PM Weekday Peak Hour (Street)	105	75	30
AM Weekday Peak Hour (Generator)	100	28	72
PM Weekday Peak Hour (Generator)	108	65	43
Saturday Peak Hour	109	55	54

The preceding table shows that the proposed multi-use building is expected to generate 105 trips during the AM peak hour of the adjacent street, and 105 trips during the PM peak hour of the adjacent street. During the peak hours of the generator, the site is expected to produce 100 trips in the AM and 108 trips in the PM. During the Saturday peak hour, the development is expected to generate 109 trips.

1F. Net New Trips

MaineDOT Traffic Movement Permit Regulations allow for trip generation credits to be taken for on-site uses that are displaced by the development of a site which were operational within the past 10 years. Within the past 10 years, the site was occupied by Northern Burner Supply Company, a heating and air conditioning/HVAC wholesale distributer store. The development was located in a 9,500sf building which will be removed with the development of the project. The trip generation estimates for Northern Burner Supply Co., which were prepared using ITE's LUC #110 – General Light Industrial, are provided below in Table 1.4:

Table 1.4
ITE Trip Generation Calculations (General Urban /Suburban)

Land Use	General Light Industrial - LUC 110					
Time Period	**Sq. Footage (1k)**	**Avg. Trip Generation Rate (Trips Per 1k Sf)**	**Trips Generated**	**Distribution Entering / Exiting**	**Enter**	**Exit**
Weekday	9.5	4.87	46	50% / 50%	23	23
AM Weekday Peak Hour (Street)	9.5	0.74	7	88% / 12%	6	1
PM Weekday Peak Hour (Street)	9.5	0.65	6	14% / 86%	1	5
AM Weekday Peak Hour (Generator)	9.5	0.91	9	87% / 13%	8	1
PM Weekday Peak Hour (Generator)	9.5	0.80	8	18% / 82%	1	7
Saturday Peak Hour		Closed				

Table 1.4 shows that the site's prior use generated 7 trips during the AM peak hour of the adjacent street and 6 trips during the PM peak hour of the adjacent street. During the AM and PM peak hours of the generator, the site produced 9 trips and 8 trips, respectively.

Taking credit for the site's prior use, Table 1.5, following, presents the net new site trip generation:

Table 1.5
Net New Trip Generation Calculations

Time Period	Proposed Trip Generation			Existing Trip Generation			Net New Trip Generation		
	Total	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**	**Enter**	**Exit**
Weekday	1148	575	573	-46	-23	-23	1102	552	550
AM Weekday Peak Hour (Street)	105	23	82	-7	-6	-1	98	17	81
PM Weekday Peak Hour (Street)	105	75	30	-6	-1	-5	99	74	25
AM Weekday Peak Hour (Generator)	100	28	72	-9	-8	-1	91	20	71
PM Weekday Peak Hour (Generator)	108	65	43	-8	-1	-7	100	64	36
Saturday Peak Hour	109	55	54	0	0	0	109	55	54

The preceding table shows that the proposed multi-use building is expected to generate 98 net new trips during the AM peak hour of the adjacent street, and 99 net new trips during the PM peak hour of the adjacent street. During the peak hours of the generator, the site is expected to produce 91 net new trips in the AM and 100 net new trips in the PM. During the Saturday peak hour, the development is expected to generate 109 net new trips.

1G. Trip Adjustments

It is assumed that a certain number of trips generated by the proposed apartment units will also visit the proposed restaurant located on the ground floor. We have calculated the internally captured (shared) trips for proposed developments using the approach recommended by the ITE *Trip Generation Handbook*, which recommends using the NCHRP Report 684 methodology. The NCHRP Report 684 determines the internally captured trips between office, retail, restaurant, cinema/entertainment, residential, and hotel land uses.

The NCHRP spreadsheets, *attached in Section A of the appendix*, have been prepared by inputting the net new trips generated by the proposed residential and restaurant uses. The outputs of the spreadsheets are summarized below in Table 1.6:

Table 1.6
NCHRP Report 684 Summary

Time Period	Internal Capture Percentages			External Vehicle Trips		
	Total	Enter	Exit	Total	Enter	Exit
AM Weekday Peak Hour (Street)	4%	12%	2%	94	15	79
PM Weekday Peak Hour (Street)	6%	4%	12%	93	71	22
Saturday Peak Hour	7%	7%	7%	101	51	50

Table 1.6 shows that with the internally captured trips accounted for, the site is expected to produce 94 net new trips in the AM peak hour, 93 net new trips in the PM peak hour, and 101 net new trips in the PM peak hour.

While the Saturday peak hour is the site's highest trip generator, by 6 trips, the most critical study time periods are the AM and PM peak hours of the street due to the higher directional traffic volumes on the existing roadway. Accordingly, in this analysis, we will be studying the AM and PM peak hours of the street. To be conservative in our analyses, in this application, we will be completing the traffic analysis using the unadjusted site generated trips shown in Table 1.3

1H. Site Trip Distribution

Vehicle trips generated by the proposed multi-use building have been assigned to and from the site during the AM and PM peak hours based on the entering and exiting distribution patterns provided by ITE. The entering and exiting distributions for LUC #221 are provided in Table 1.7, and the entering and exiting distributions for LUC #932 are provided in Table 1.8.

Table 1.7
ITE Trip Generation Calculations

Land Use	LUC #221
Time Period	Distribution Entering / Exiting
AM Weekday Peak Hour (Street)	15% / 85%
PM Weekday Peak Hour (Street)	73% / 27%

Table 1.8 ITE Trip Generation Calculations			
Land Use	**LUC #932**		
Time Period	**Distribution Entering / Exiting**		
AM Weekday Peak Hour (Street)	55%	/	45%
PM Weekday Peak Hour (Street)	61%	/	39%

1J. Site Trip Assignment

Trips generated by the proposed development in the AM and PM peak hour time periods have been assigned to and from the development site following the existing traffic patterns recorded at the intersection of Washington Avenue at Eastern Promenade and Washington Avenue at Walnut Street/Fox Street. The turning movement counts, collected in October of 2024, are attached in *Section A of the appendix* and illustrated in **Figure 1**, which is also attached in *Section A of the appendix*. The trip assignment percentages are provided below in Table 1.9:

Table 1.9 Percent Site Trip Assignment		
Approach (To/From)	**AM Peak Hour**	**PM Peak Hour**
Eastern Promenade	12%	11%
Washington Ave (North)	30%	30%
Walnut St	7%	9%
Washington Ave (South)	40%	34%
Fox St	11%	16%

The site generated trips have been assigned through the intersections, to/from the site, following the percentages shown in Table 1.6. **Figure 2**, attached in *Section A of the appendix*, illustrates the site trip assignment.

Section 2

2

2A. Crash Analysis

MaineDOT's Office of Safety, Crash Records Section, has provided crash data for the latest three-year period (2021 – 2023) for the section of Washington Avenue between the Eastern Promenade and Fox Street/Walnut Street intersections. A summary of the crash report is provided below, and additional crash data outside of the study area is included in *Section B of the appendix*.

Table 2.1
2021 - 2023 Crash Summary
Washington Ave btw. Fox St and Eastern Promenade

#	Location		Total Crashes	Critical Rate Factor
1	Washington Ave @	Site	0	0.00
2	Washington Ave @	Walnut St	5	1.05
3	Washington Ave @	Eastern Promenade	5	1.08
4	Washington Ave @	Fox St	3	0.62
4	Washington Ave btw.	Fox St and Walnut St	0	0.00
6	Washington Ave btw.	Walnut St and Site	6	0.97
7	Washington Ave btw.	Site and Eastern Prom	2	0.47

MaineDOT considers any roadway intersection or segment a high crash location (HCL) if both of the following criteria are met:

- ***8 or more crashes in the most recent three-year period***
- ***A Critical Rate Factor greater than or equal to 1.00***

As shown in the preceding table, there are no high crash locations within the defined study area.

2B. Pedestrian & Bike Crash Analysis

A review of MaineDOT's Public Map Viewer shows that 0 bicycle crashes and 0 pedestrian crashes occurred in the study area.

Section 3

3

3A. Entrance/Exit Location

The development site will be accessed via a single driveway entrance, which intersects with the eastern side of Washington Avenue 120 feet north of East Cove Street.

3B. Entrance & Exit Plan View

Intersection sight distances were directionally recorded from the proposed site entrance in accordance with the criteria established within the MaineDOT's *Highway Driveway and Entrance Rules* publication, which require the following minimum sight distances for non-mobility roadways based upon the posted speed limit:

MaineDOT Sight Distance Standards	
Posted Speed Limit	**Minimum Sight Distance**
25 mph	**200 feet**
30 mph	250 feet
35 mph	305 feet
40 mph	360 feet
45 mph	425 feet
50 mph	495 feet

The section of Washington Avenue fronting the proposed site driveway is posted at 25 mph, requiring an unobstructed sight distance of 200 feet. In accordance with *Highway Driveway and Entrance Rules,* sight distance measurements were recorded using the following procedures: "*Sight distance is measured to and from the point on the centerline of the proposed access that is located 10 feet from the edge of traveled way. The height of the hypothetical person's view is considered to be 3½ feet above the pavement, and the height of the object being viewed is considered to be 4¼ feet above the pavement.*"

The field measurements recorded from the proposed site entrance looking directionally onto Washington Avenue indicate that existing sight distances are in excess of the minimum standard based on the 25 mph posted speed limit. Looking left, we recorded a sight distance of 225 feet; looking right, we recorded a measurement in excess of 400 feet.

3C. Entrance/Exit Design

The proposed project, including any required off-site improvements, will be designed and constructed as directed by the City of Portland.

3D. Entrance/Exit Criteria

This site driveway will be designed to meet the requirements of the City of Portland's Technical Standards.

Section 4

4

4. Title, Right or Interest

A PURCHASE AND SALE AGREEMENT, signed and dated July 1, 2023, provides documentation of Redfern Properties, LLC's ownership in the property portrayed in the *Boundary & Topographic Survey*, dated July 25, 2023, prepared by Owen Haskell, Inc. and attached in *Section E of the appendix*. The P&SA is attached in *Section C of the appendix*.

Section 5

5

5. Public or Private Right-of-way

The *Boundary & Topographic Survey* plan, dated July 25, 2023, prepared by Owen Haskell, Inc., and attached in *Section E of the appendix*, indicates that there are no easements on the development parcel.

Section 6

6

6. Schedule

Redfern Properties LLC is anticipating the start of construction in 2025 with a spring 2027 completion.

Section 6½

6½ A EXISTING & PROJECTED TRAFFIC VOLUMES

6A-1. Existing Traffic Volumes

Manual turning movement traffic counts were conducted at the signalized intersection of Washington Avenue at Fox Street/Walnut Street and the unsignalized intersection of Washington Avenue at Eastern Promenade on October 16, 2024, during the weekday AM and PM peak hours.

All vehicular traffic entering the study intersections was recorded in 15-minute intervals; the AM traffic data was recorded between 7:00 and 9:00 AM, and the PM traffic data was recorded between 3:00 and 6:00 PM. From a summary of the data, peak hour time periods were established for the *"peak"* commuter travel periods. At the intersection of Washington Avenue at Fox Street/Walnut Street, the AM peak hour begins at 7:45 AM, and the PM peak hour begins at 4:15 PM. At the intersection of Washington Avenue and Eastern Promenade, the AM peak hour begins at 7:30 AM, and the PM peak hour begins at 4:15 PM. The turning movement count reports are attached in *Section A of the appendix*.

The 2024 traffic volumes are illustrated in Figure 1, attached in *Section A of the appendix*.

6½ A-2. Seasonal Adjustments

Traffic data collected during the month of October requires a seasonal adjustment to reflect the "*peak*" travel conditions found during the summer months of July and August. MaineDOT provides Weekly Mean Factors for adjusting traffic volumes collected outside of the peak time periods.

MaineDOT utilizes highway classifications of I, II, or III for all State and Local roadways. MaineDOT's 2023 Count Book classifies Washington Avenue, Eastern Promenade, Walnut Street, and Fox Street as Group I roadways. **Group I** *roadways or urban roads are those which carry commuter traffic and exhibit little seasonal change in traffic volumes.* The Group I classification indicates that the roadways at the study intersections will experience minimal seasonal fluctuation.

In accordance with MaineDOT's 2023 Weekly Group Mean Factors, we have applied a seasonal adjustment factor of 1.046 to the traffic volumes recorded at both study intersections.

6½ A-3. Annual Adjustments

This traffic study has been prepared based on a projected build-out year of 2027. MaineDOT's traffic counts recorded on Washington Avenue southeast of Anderson Street show that traffic volumes on Washington Avenue have experienced negative annual growth between 2014 (AADT 5,623) and 2022 (AADT 4680). To be conservative in this study, we will apply a 1% annual growth rate to the recorded traffic volumes (factor of 1.0303).

Figure 3, attached in *Section A of the appendix*, depicts the 2027 design hour traffic volumes, including the seasonal and annual adjustments.

6½ A-4. Other Development Trips

Traffic generated by projects that have been approved by the Local Planning Board and/or the Maine Department of Transportation, yet are not opened, must be included in the estimate of pre-development traffic. The City of Portland has been consulted to identify any and all development projects whose trips may impact the study area. The City has identified 5 projects which may impact the study area:

- Roux Institute – 1 Bean Pot Circle
- St. Lawrence Performing Arts Center
- 70 Thames Street
- 385 Congress Street
- 58 Fore Street

Project and traffic information for each of the five identified projects is provided below:

Roux Institute
Traffic estimates prepared for the Roux Institute show that **18** AM peak hour trips and **21** PM peak hour trips will travel north on Washington Avenue to I-295, and **1** AM peak hour trip and **19** PM peak hour trips will travel from I-295 south on Washington Avenue.

St. Lawrence Performing Arts Center
Friends of St. Lawrence Church are proposing a 401-seat building expansion to the existing St. Lawrence Arts Center located at 76 Congress Street. Site trip assignments, prepared by Traffic Solutions in support of the proposed project, estimate **10** trips will travel directionally on Walnut Street to the proposed St. Lawrence Arts Center site from the Washington Avenue corridor in the "pre-event" peak hour, assumed to be the PM peak hour.

70 Thames Street is a 3-story mixed-use building composed of 43,730sf of office space, 2,00sf of retail space, and 8,315sf (300 seats) of restaurant space. Gorrill Palmer's traffic estimates show that the site produces **63 trips** in the AM peak hour and **129** trips in the PM peak hour. The approximate entry and exit trips, based on the data provided in ITE, are provided below:

AM Peak Hour:	**PM Peak Hour:**
Enter = 51	Enter = 56
Exit = 12	Exit = 73

385 Congress Street provides 156 hotel rooms and 9 residential condominiums. The TDM prepared for the project shows that the site will generate **49 trips** in the AM peak hour and **34 trips** in the PM peak hour. The trips are broken down into entry and exit trips below:

AM Peak Hour:	**PM Peak Hour:**
Enter = 19	Enter = 15
Exit = 30	Exit = 19

58 Fore Street is composed of a 128-room hotel, 43 condominium units, 4,928sf of retail space, 18,083sf of food & beverage, and a 19,697sf spa. Gorrill Palmer's traffic estimates show that the site is expected to generate **419 trips** in the AM peak hour and **565 trips** in the PM peak hour. The approximate entry and exit trips, which have been prepared based on the data provided in the TDM plan, are provided below:

AM Peak Hour:	**PM Peak Hour:**
Enter = 226	Enter = 283
Exit = 193	Exit = 282

6½ A-5. Other Development Site Trip Assignment

Traffic generated by the other development sites has been assigned through the study intersections following the existing traffic patterns and/or the assumptions listed below:

Roux Institute

The trips traveling north and south on Washington Avenue have been assigned through the study intersections following the traffic patterns illustrated in Figure 1. The Roux Institute's site trip assignment is provided in **Figure 4**, attached in *Section A of the appendix*.

St. Lawrence Performing Arts Center

The traffic figure, prepared by Traffic Solutions and *attached in Section A of the appendix*, shows that 10 trips will travel east, via Walnut Street, from Washington Avenue during the PM peak hour. We have assigned the trips through the study intersections following the traffic patterns illustrated in Figure 1. The St. Lawrence site trip assignment is depicted in **Figure 5**, attached in *Section A of the appendix*.

70 Thames Street & 58 Fore Street

Based on the roadway network adjacent to these sites and the easiest routes to I-295, we have assumed that 20% of the sites entering and exiting trips will travel through the intersection of Washington Avenue, Fox Street, and Walnut Street. We have then assigned them through the study intersections following the existing traffic patterns shown in Figure 1. The 70 Thames Street and 58 Fore Street other development site trip assignments are provided in **Figure 6** and **Figure 7**, respectively, attached in *Section A of the appendix*.

385 Congress Street

Based on the adjacent roadway network and the most convenient route to I-295, we have assumed that 10% of the sites entering and exiting trips will travel through the intersection of Washington Avenue, Fox Street, and Walnut Street. We have then assigned them through the study intersections following the existing traffic patterns shown in Figure 1. The 385 Congress Street site trip assignment is provided in **Figure 8**, attached in *Section A of the appendix*.

6½ A-6. 2027 Pre-Development Traffic

2027 pre-development traffic estimates, illustrated in **Figure 9** and *attached in Section A of the appendix*, have been prepared by combining the 2027 design hour traffic volumes shown in Figure 3 with the other development trips shown in Figures 4, 5, 6, 7, and 8.

6½ A-7. 2027 Post-Development Traffic

The 2027 post-development traffic volumes are provided in **Figure 10**, attached in *Section A of the appendix*. This figure has been prepared by combining the 2027 pre-development traffic volumes shown in Figure 9 with the site trip assignment shown in Figure 2.

6½ B Analysis

6½ B-2. Capacity Analysis

A capacity analysis of the 2027 pre- and post-development traffic conditions has been performed for the 3 identified study intersections listed below:

1. Washington Avenue @ Eastern Promenade
2. Washington Avenue @ Walnut Street/Fox Street

3. Washington Avenue @ Site Entrance

Within the capacity analysis, we review the level of service (LOS) for the vehicle movements at each of the study intersections. LOS is a measurement of the delay experienced by stopped vehicles at an intersection. LOS rankings are similar to the academic grading system, where an "A" is very good with little delay, and an "F" represents very poor conditions. The following chart presents the relationship between delay and LOS for signalized and unsignalized intersections.

Level of Service Criteria for Signalized Intersections		Level of Service Criteria for Unsignalized Intersections	
Level of Service	**Total Control Delay (sec/veh)**	**Level of Service**	**Total Control Delay (sec/veh)**
A	Up to 10.0	A	Up to 10.0
B	10.1 to 20.0	B	10.1 to 15.0
C	20.1 to 35.0	C	15.1 to 25.0
D	35.1 to 55.0	D	25.1 to 35.0
E	55.1 to 80.0	E	35.1 to 50.0
F	Greater Than 80.0	F	Greater Than 50.0

The capacity analysis was performed using Synchro 12 inputs and SimTraffic 12 reporting outputs. The results are based upon 7 SimTraffic runs, averaging 5 runs with the lowest and highest run removed. The SimTraffic reports are included in *Section D of the appendix.*

Table B1, following, summarizes the results of the capacity analysis completed for the AM and PM peak hours of the 2027 pre- and post-development conditions.

Table B2 Level of Service Summary								
Approach/Lane	2027 Pre-Development				2027 Post-Development			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay (sec./veh.)	LOS	Delay (sec./veh.)	LOS	Delay (sec./veh.)	LOS	Delay (sec./veh.)	LOS
Washington Ave at Fox Street/Walnut Street								
Washington Ave - NB Left	19.1	B	17.8	B	25.4	C	15.8	B
Washington Ave - NB Thru/Right	14.1	B	21.9	C	14.7	B	22.7	C
Washington Ave - SB Left	7.7	A	23.5	C	8.4	A	23.2	C
Washington Ave - SB Thru/Right	20.8	C	20.7	C	22.2	C	18.7	B
Fox St - NE Left/Thru	34.3	C	33.6	C	36.0	D	36.7	D
Fox St - NE Right	11.1	B	5.5	A	11.6	B	5.5	A
Walnut St - Left/Thru	33.5	C	34.6	C	34.7	C	34.6	C
Walnut St - Right	4.0	A	7.6	A	3.6	A	7.1	A
Overall	***20.3***	***C***	***23.1***	***C***	***21.5***	***C***	***23.2***	***C***
Washington Ave at Eastern Prom								
Eastern Prom - WB Left/Right	10.3	B	11.5	B	11.8	B	11.7	B
Washington Ave - NB Thru/Right	2.2	A	3.2	A	1.1	A	1.6	A
Washington Ave - SB Left/Thru	2.8	A	4.6	A	2.9	A	4.2	A
Overall	***3.8***	***A***	***4.8***	***A***	***3.8***	***A***	***4.0***	***A***
Washington Ave at Site								
Site - WB Left/Right	-	n/a	-	n/a	11.4	B	9.7	A
Washington Ave - NB Thru/Right	-	n/a	-	n/a	1.3	A	2.1	A
Washington Ave - SB Left/Thru	-	n/a	-	n/a	1.6	A	1.9	A
Overall	***-***	***n/a***	***-***	***n/a***	***2.4***	***A***	***2.2***	***A***

1. Washington Ave @ Fox St/Walnut St

The capacity analysis shows that the proposed development has minimal impact on the signalized intersection of Washington Avenue, Fox Street, and Walnut Street. In the pre-development and post-development peak hours, the level of delay at the intersection of Washington Avenue, Fox Street, and Walnut Street is expected to remain similar.

Overall, the intersection will continue to operate at an LOS C in the AM and PM peak hours, with minor increases in the overall intersection delay.

2. Washington Ave @ Eastern Prom

The analysis shows that during the pre- and post-development peak hours, the Eastern Promenade approach will continue operating at LOS B, while the Washington Avenue approaches will remain at LOS A. Overall, the intersection is projected to operate at LOS A with very minor changes in LOS.

3. Washington Ave @ Site

At the site's intersection with Washington Avenue, the capacity analysis shows that Washington Avenue approaches will operate at LOS A while the site entrance will operate at LOS B in the AM peak hour and LOS A in the PM peak hour.

Overall, the intersection will operate at an LOS A with an average delay of 2.4 seconds and 2.2 seconds in the AM and PM peak hours, respectively.

6½ B-3. Vehicle Queuing Analysis

In addition to outputting the vehicle delay, SimTraffic also provides vehicle queue reports, which show the expected average queue, 95th percentile queue, and maximum queue. For the 2027 pre- and post-development conditions, the 95th percentile vehicle queue results are summarized in Table B2, below, while the average and maximum vehicle queues are included in the SimTraffic reports provided in *Section D of the appendix*.

Table B2
95th Percentile Vehicle Queue Summary

Approach/Lane	Storage Length (ft.)	2027 Pre-Development		2027 Post-Development	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
		Queue Length (ft)	Queue Length (ft)	Queue Length (ft)	Queue Length (ft)
Washington Ave at Fox Street/Walnut Street					
Washington Ave - NB Left	30	54	57	55	61
Washington Ave - NB Thru/Right	n/a	164	307	162	347
Washington Ave - SB Left	30	37	57	40	54
Washington Ave - SB Thru/Right	n/a	327	229	373	134
Fox St - NE Left/Thru	n/a	114	184	124	114
Fox St - NE Right	90	77	91	88	38
Walnut St - Left/Thru	n/a	147	110	137	59
Walnut St - Right	40	79	70	81	32
Washington Ave at Eastern Prom					
Eastern Prom - WB Left/Right	n/a	108	97	125	98
Washington Ave - NB Thru/Right	n/a	5	5	7	-
Washington Ave - SB Left/Thru	n/a	142	161	133	150
Washington Ave at Site					
Site - WB Left/Right	n/a	-	-	70	47
Washington Ave - NB Thru/Right	n/a	-	-	-	7
Washington Ave - SB Left/Thru	n/a	-	-	67	71

1. Washington Ave @ Fox St/Walnut St

The vehicle queuing analysis shows the 30-foot Washington Avenue left-turn lanes are exceeded by 1-2 vehicle lengths (25' per vehicle) in the pre-development and post-development peak hours.

2. Washington Ave @ Eastern Prom
The vehicle queuing analysis shows that the vehicle queues at the intersection of Washington Avenue and Eastern Promenade will remain similar in the pre- and post-development peak hours.

3. Washington Ave @ Site
At the site's intersection with Washington Avenue, the queuing analysis shows that vehicle queues of 67 and 65 feet are anticipated in the post-development AM and PM peak hours, respectively.

6½ C Summary

6½ C-1. Capacity Analysis

A capacity of the 2027 pre- and post-development traffic conditions has been performed for the 3 identified study intersections: Washington Avenue @ Eastern Promenade, Washington Avenue @ Walnut Street/Fox Street, and Washington Avenue @ Site.

1. Washington Ave @ Fox St/Walnut St
The capacity analysis shows that the proposed development has minimal impact on the signalized intersection of Washington Avenue, Fox Street, and Walnut Street. In the pre-development and post-development peak hours, the level of delay at the intersection of Washington Avenue, Fox Street, and Walnut Street is expected to remain similar.

Overall, the intersection will continue to operate at an LOS C in the AM and PM peak hours, with minor increases in the overall intersection delay.

2. Washington Ave @ Eastern Prom
The analysis shows that during the pre- and post-development peak hours, the Eastern Promenade approach will continue operating at LOS B, while the Washington Avenue approaches will remain at LOS A. Overall, the intersection is projected to operate at LOS A with very minor changes in LOS.

3. Washington Ave @ Site
At the site's intersection with Washington Avenue, the capacity analysis shows that Washington Avenue approaches will operate at LOS A while the site entrance will operate at LOS B in the AM peak hour and LOS A in the PM peak hour.

Overall, the intersection will operate at an LOS A with an average delay of 2.4 seconds and 2.2 seconds in the AM and PM peak hours, respectively.

6½ C-3. Vehicle Queuing Analysis

A vehicle queueing analysis was completed for the 2027 pre- and post-development conditions at each of the three study intersections.

1. Washington Ave @ Fox St/Walnut St
The vehicle queuing analysis shows the 30-foot Washington Avenue left-turn lanes are exceeded by 1-2 vehicle lengths (25' per vehicle) in the pre-development and post-development peak hours.

2. Washington Ave @ Eastern Prom
The vehicle queuing analysis shows that the vehicle queues at the intersection of Washington Avenue and Eastern Promenade will remain similar in the pre- and post-development peak hours.

3. Washington Ave @ Site

At the site's intersection with Washington Avenue, the queuing analysis shows that vehicle queues of 67 and 65 feet are anticipated in the post-development AM and PM peak hours, respectively.

APPENDIX

A. TRAFFIC FIGURES, NCHRP REPORT 684 CALCULATION SHEETS, REGIONAL MAPPING PLAN, TRAFFIC SOLUTIONS ST. LAWRENCE TRAFFIC FIGURE, & TRAFFIC COUNTS

B. MAINEDOT CRASH DATA

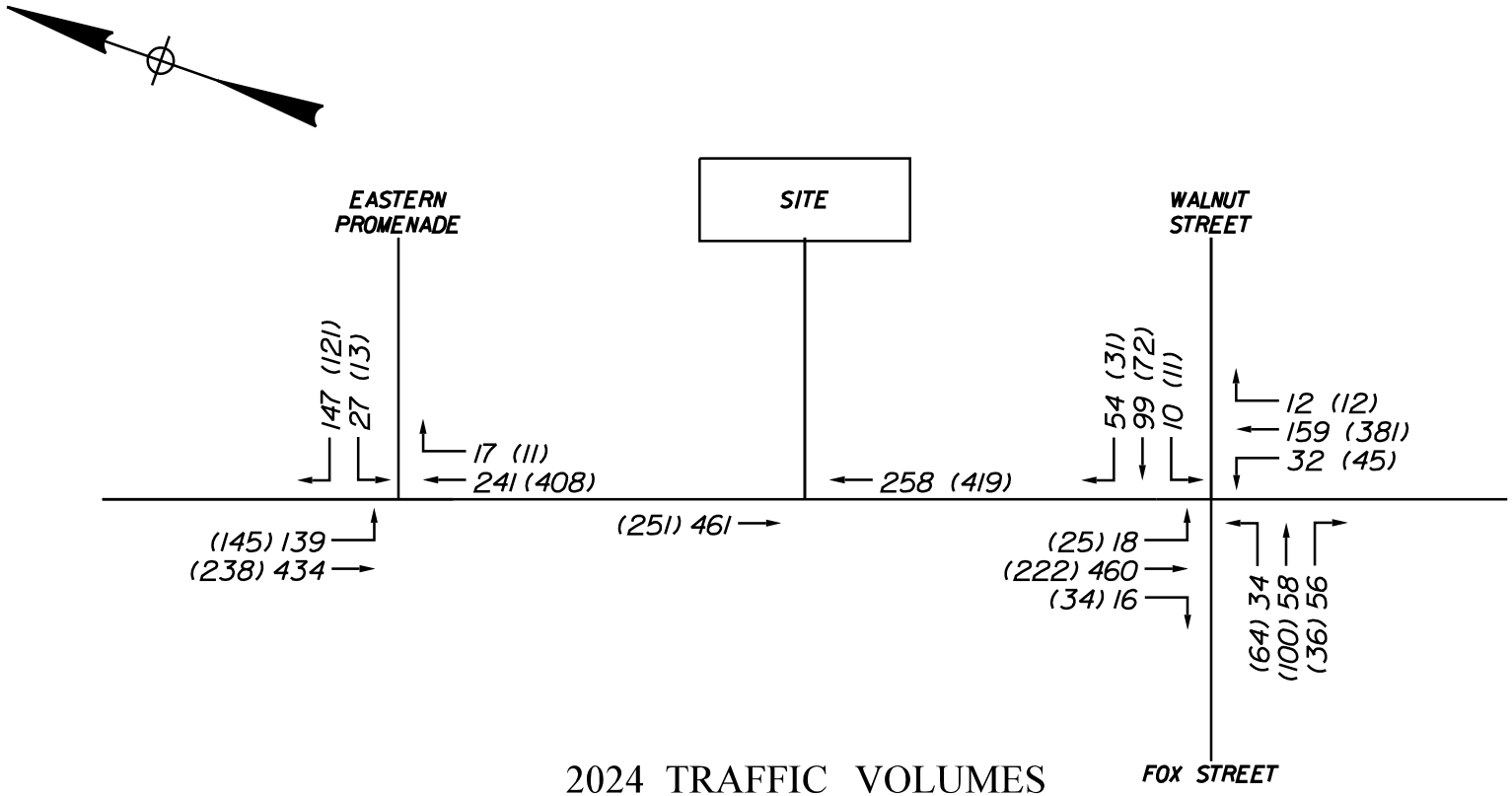
C. PURCHASE & SALE AGREEMENT

D. SIMTRAFFIC CAPACITY ANALYSIS REPORTS

E. BOUNDARY & TOPOGRAPHIC SURVEY PLAN & SITE PLAN

APPENDIX A

- TRAFFIC FIGURES
- NCHRP REPORT 684 CALCULATION SHEETS
- REGIONAL MAPPING PLAN
- TRAFFIC SOLUTIONS ST. LAWRENCE TRAFFIC FIGURE
- TRAFFIC COUNTS



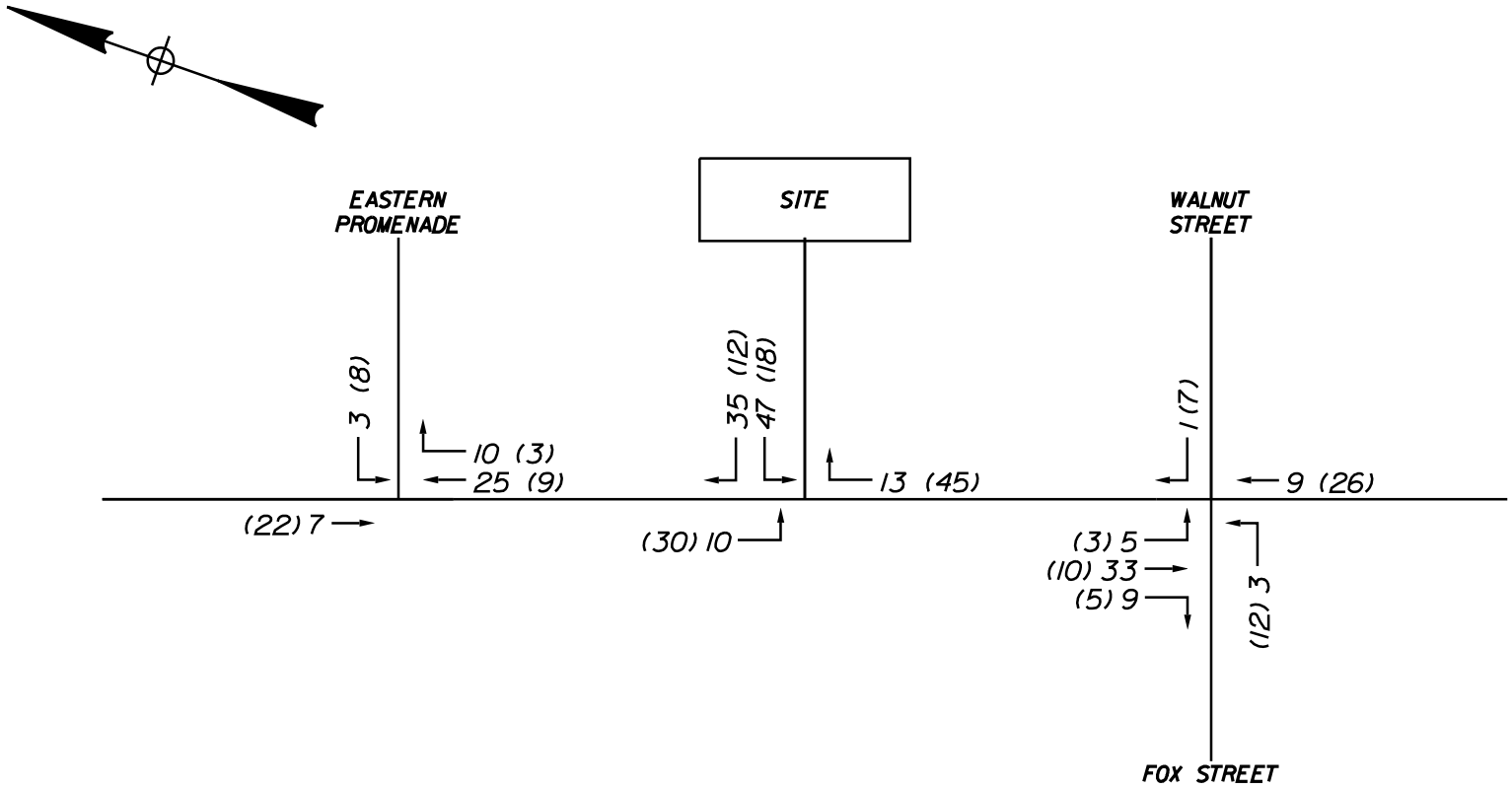
2024 TRAFFIC VOLUMES

FIGURE 1

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

165 WASHINGTON AVE DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



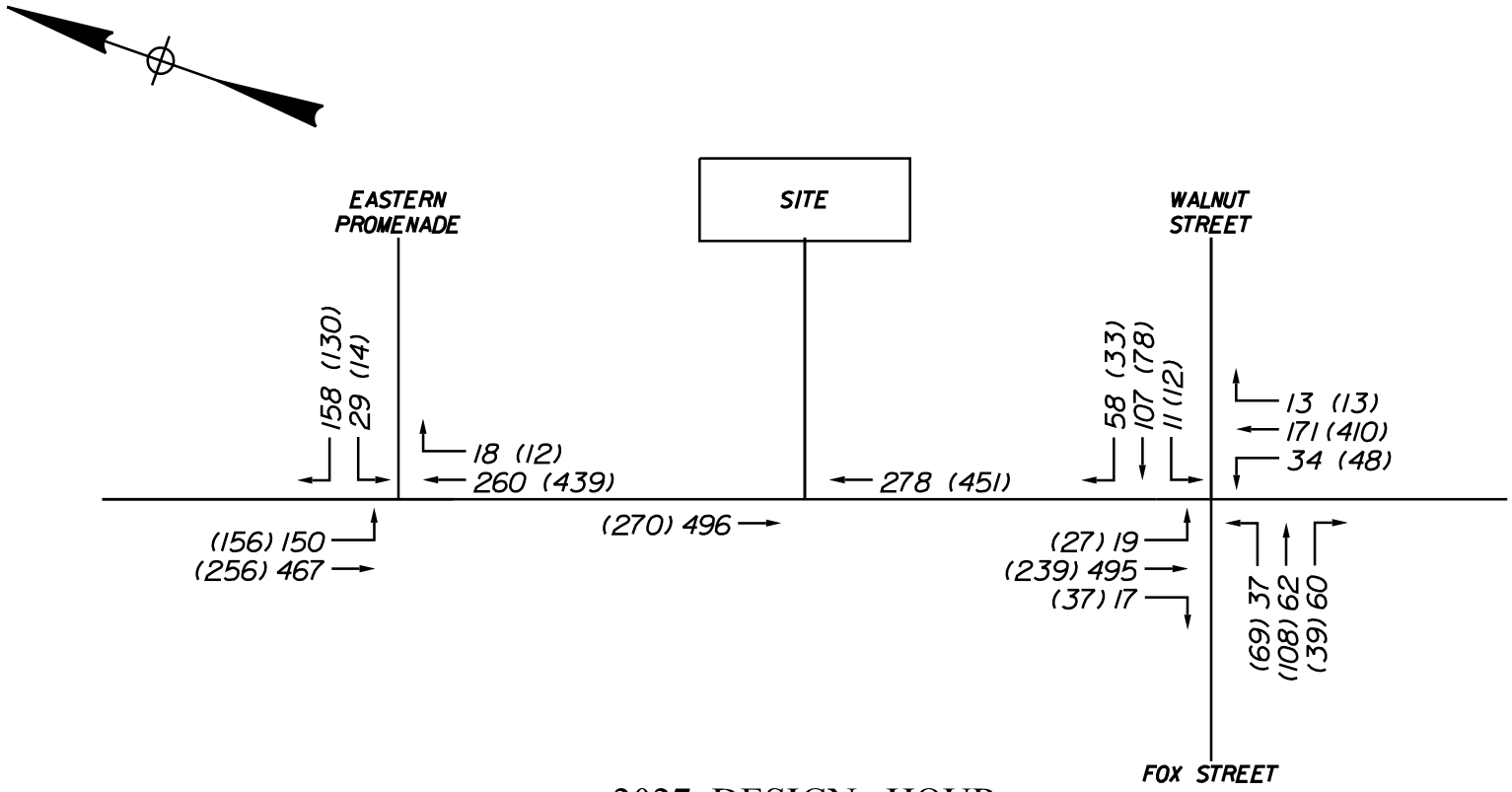
SITE TRIP ASSIGNMENT

FIGURE 2

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

165 WASHINGTON AVE DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



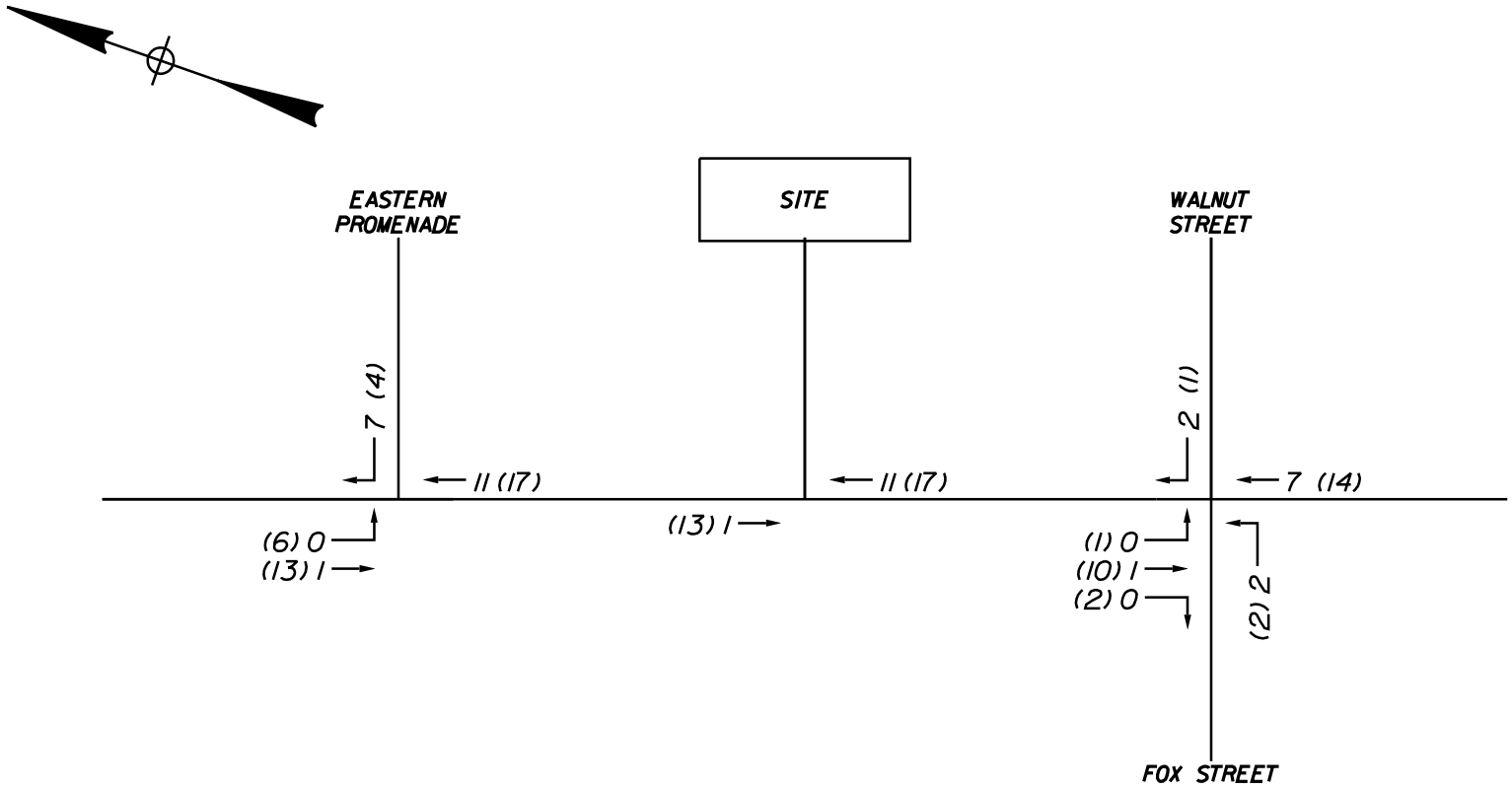
2027 DESIGN HOUR
TRAFFIC VOLUMES

FIGURE 3

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

165 WASHINGTON AVE DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



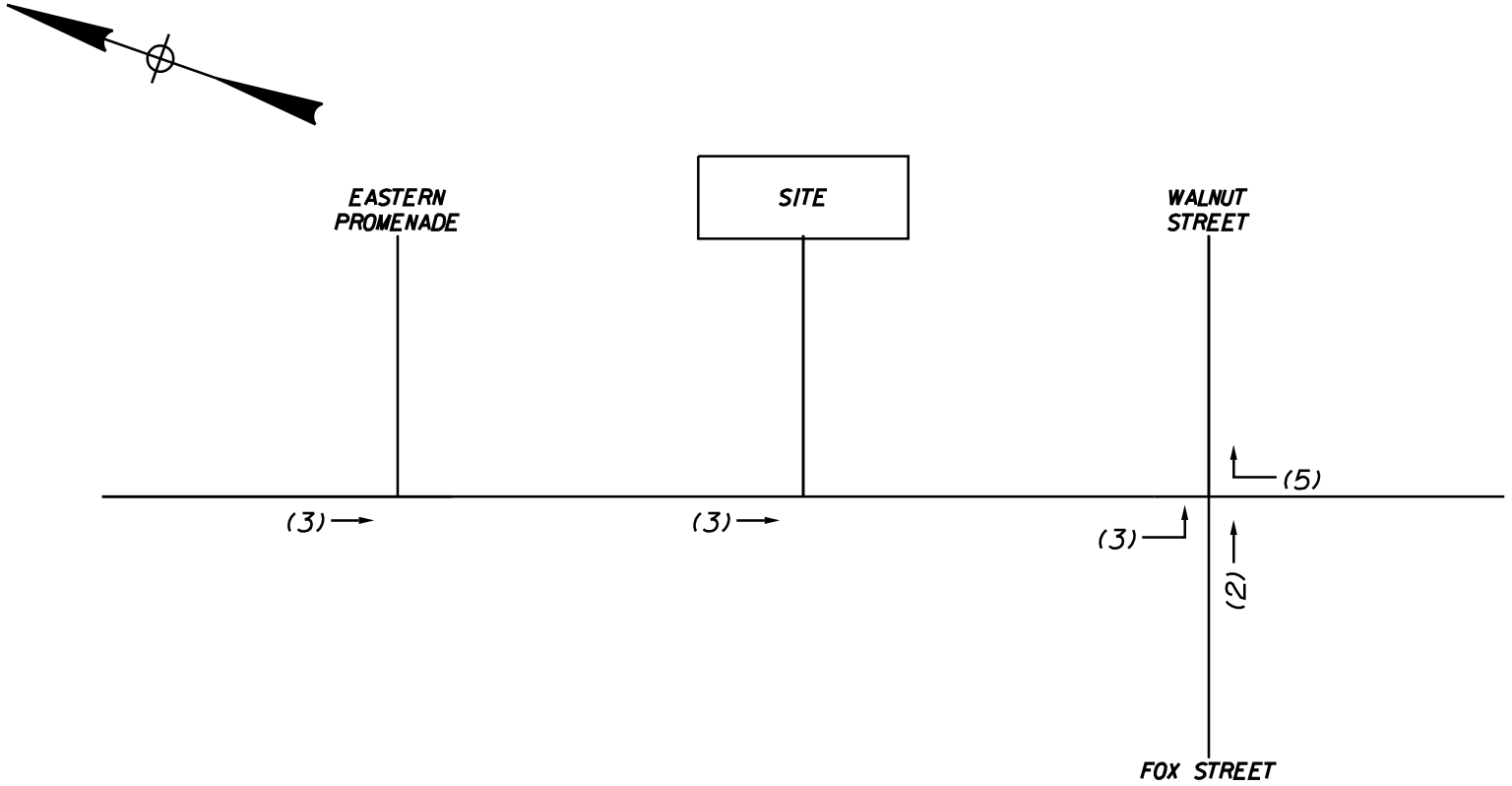
ROUX INSTITUTE
OTHER DEVELOPMENT
TRIP ASSIGNMENT

FIGURE 4

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

165 WASHINGTON AVE
DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



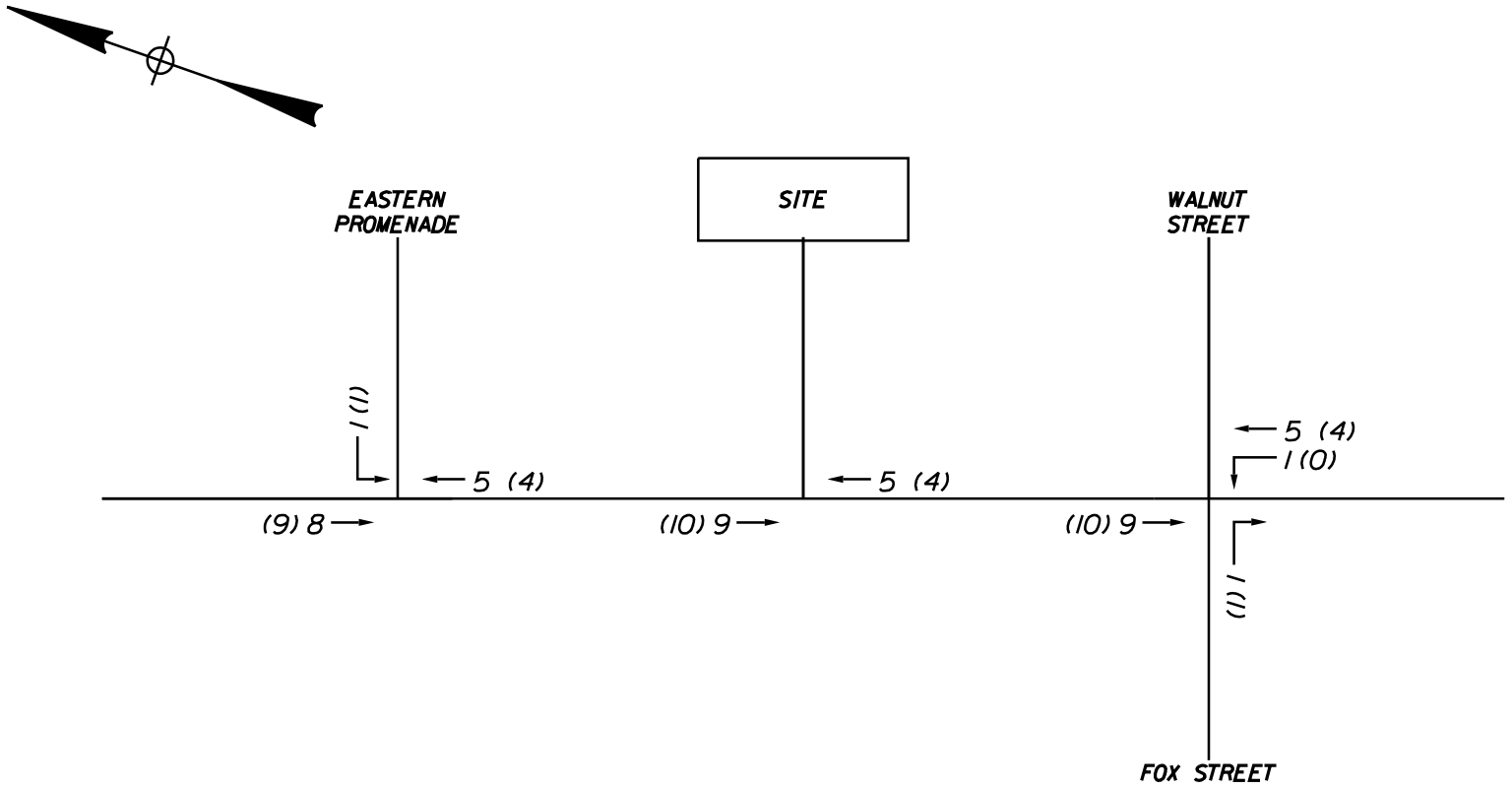
ST. LAWRENCE
OTHER DEVELOPMENT
TRIP ASSIGNMENT

FIGURE 5

LEGEND:
(XX) = PM PEAK HOUR

165 WASHINGTON AVE
DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



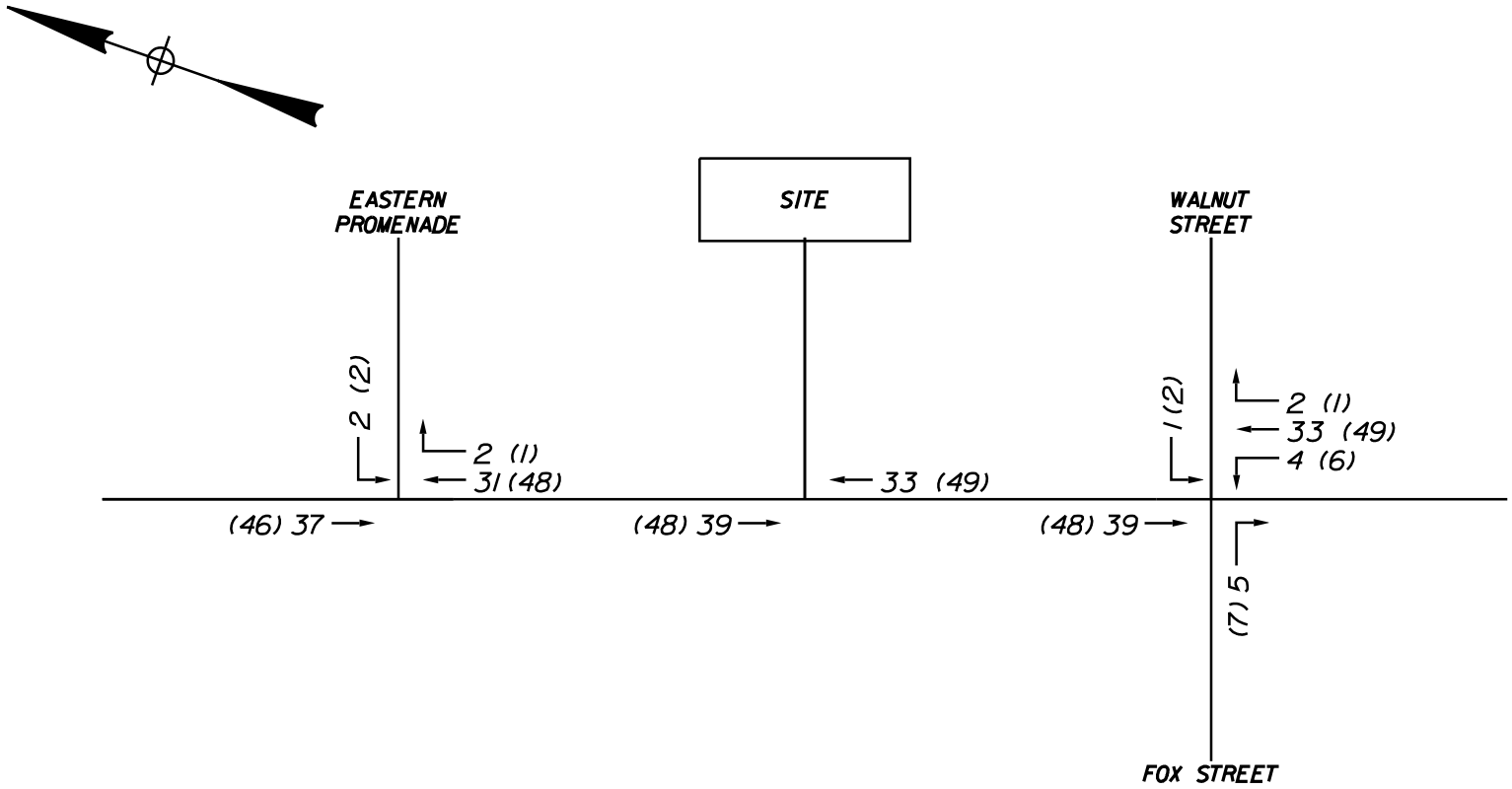
70 THAMES STREET
OTHER DEVELOPMENT
TRIP ASSIGNMENT

FIGURE 6

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

165 WASHINGTON AVE
DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



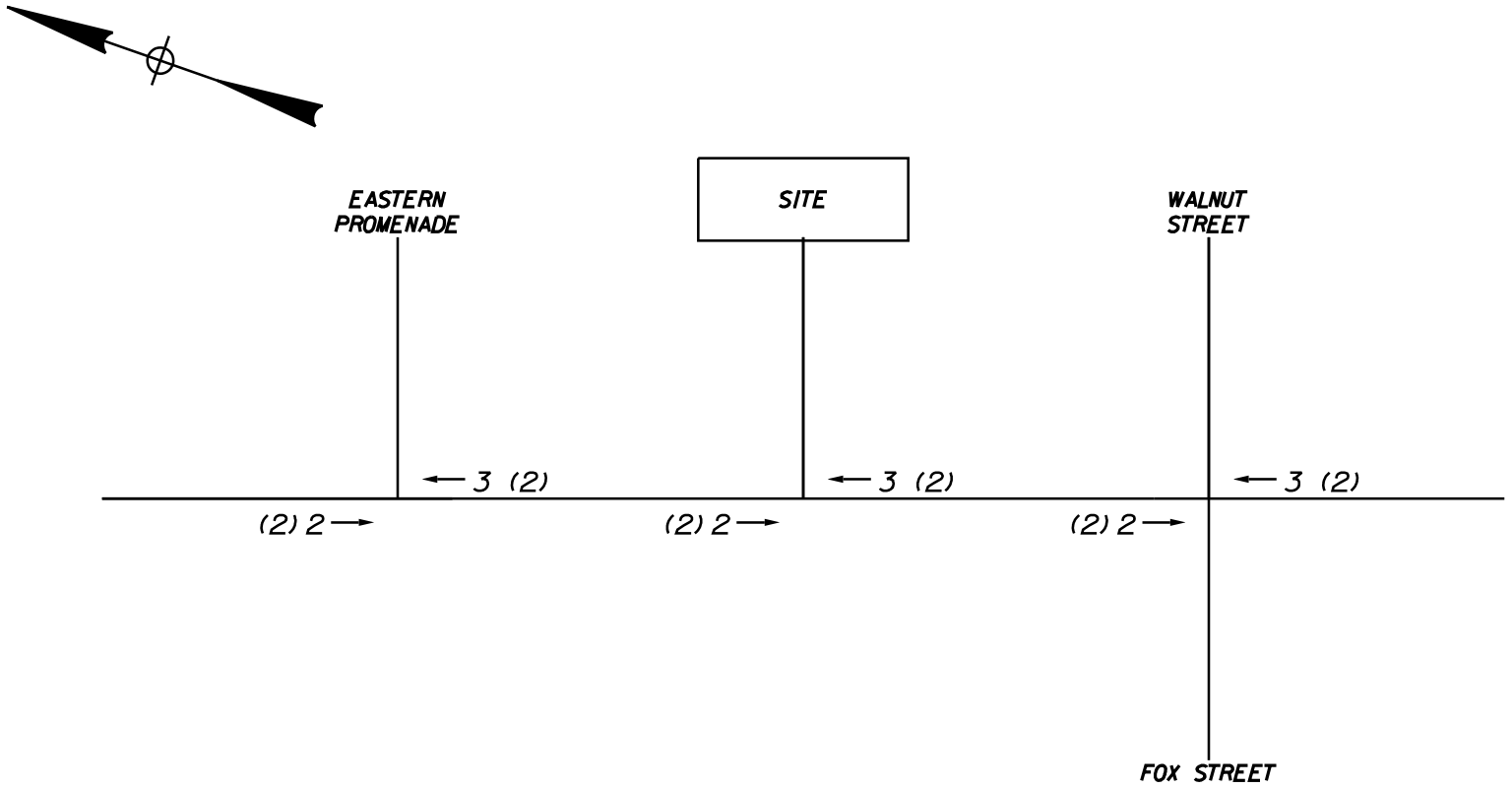
58 FORE STREET
OTHER DEVELOPMENT
TRIP ASSIGNMENT

FIGURE 7

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

165 WASHINGTON AVE DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



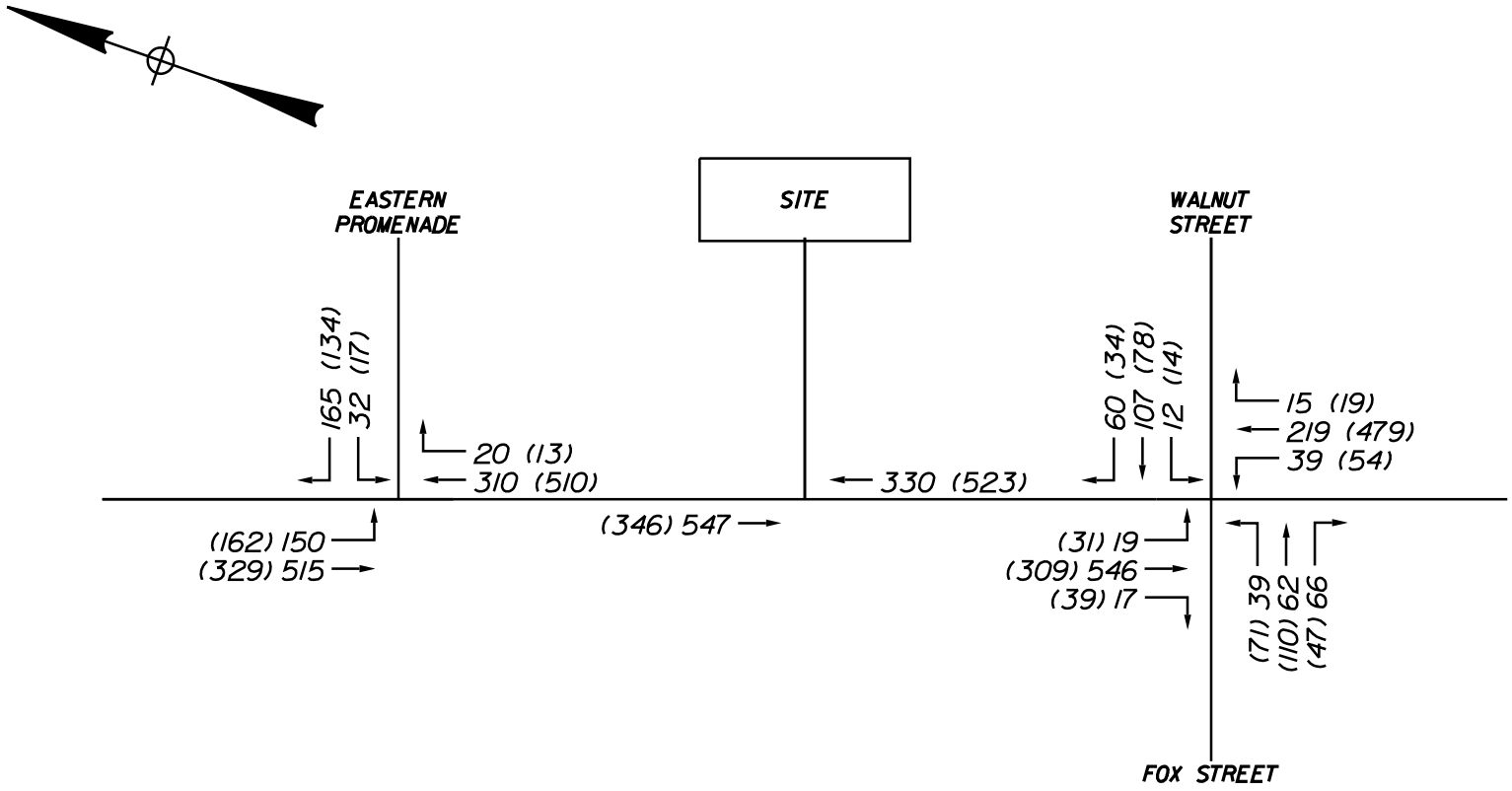
385 CONGRESS STREET
OTHER DEVELOPMENT
TRIP ASSSIGNMENT

FIGURE 8

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

165 WASHINGTON AVE
DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



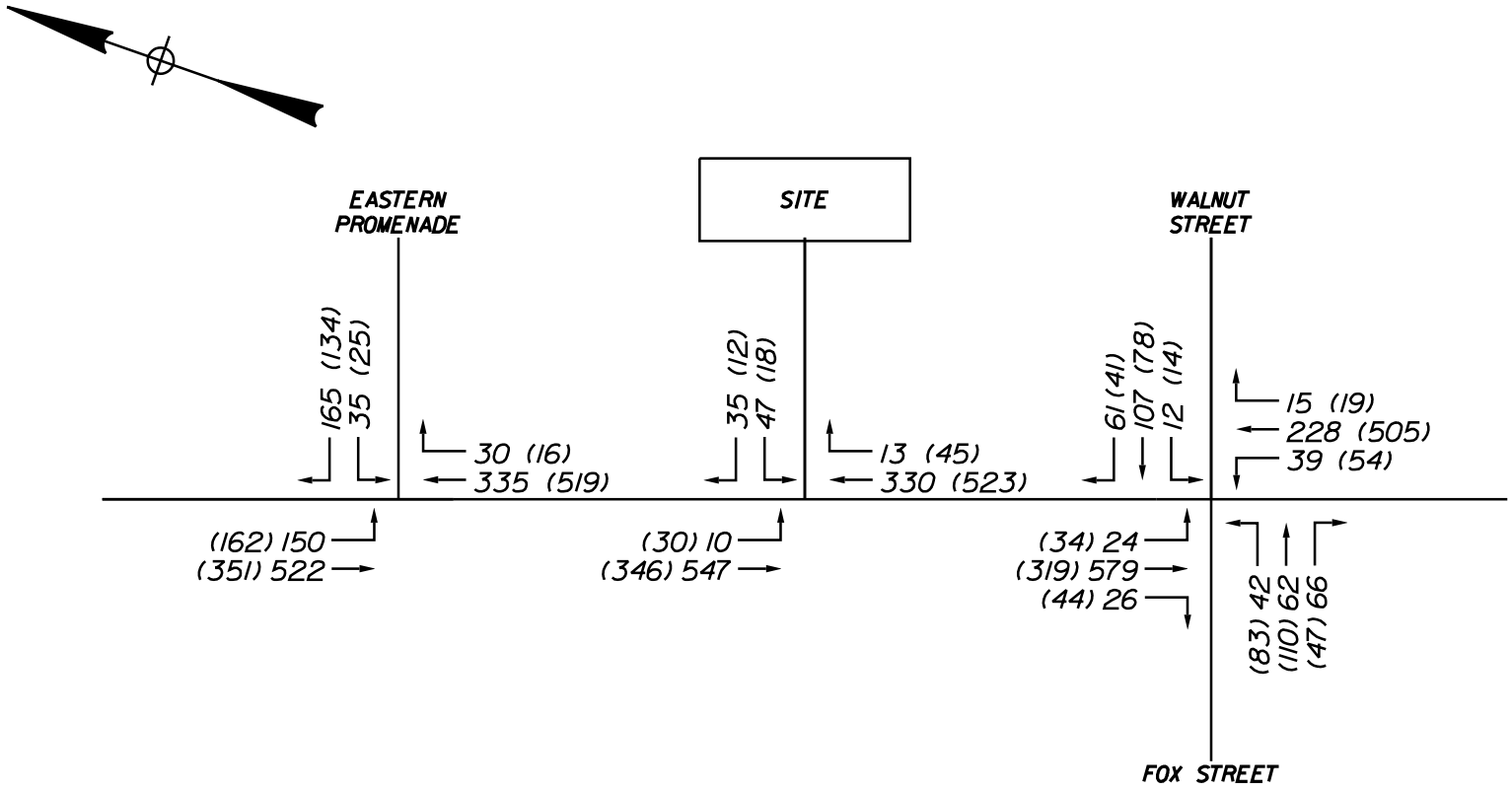
2027 PRE-DEVELOPMENT
TRAFFIC VOLUMES

FIGURE 9

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

165 WASHINGTON AVE DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



2027 POST-DEVELOPMENT
TRAFFIC VOLUMES

FIGURE 10

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

165 WASHINGTON AVE DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Multi-Use Development	**Organization:**	B&L
Project Location:	165 Washington Ave	**Performed By:**	JWS
Scenario Description:		**Date:**	11/20/2024
Analysis Year:	2027	**Checked By:**	
Analysis Period:	**Weekday AM Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail				0		
Restaurant	932	1,800	Square Feet	18	10	8
Cinema/Entertainment				0		
Residential	221	326	Dwelling	80	7	73
Hotel				0		
All Other Land Uses[2]				0		
Total				98	17	81

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	1	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	98	17	81
Internal Capture Percentage	4%	12%	2%
External Vehicle-Trips[3]	94	15	79
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	10%	13%
Cinema/Entertainment	N/A	N/A
Residential	14%	1%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual* , published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Multi-Use Development	**Organization:**	B&L
Project Location:	165 Washington Ave	**Performed By:**	JWS
Scenario Description:		**Date:**	11/20/2024
Analysis Year:	2027	**Checked By:**	
Analysis Period:	**Weekday PM Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail				0		
Restaurant	932	1,800	Square Feet	17	11	6
Cinema/Entertainment				0		
Residential	221	326	Dwelling	82	63	19
Hotel				0		
All Other Land Uses[2]				0		
Total				99	74	25

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	2	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	99	74	25
Internal Capture Percentage	6%	4%	12%
External Vehicle-Trips[3]	93	71	22
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	18%	17%
Cinema/Entertainment	N/A	N/A
Residential	2%	11%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual* , published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Multi-Use Development	**Organization:**	B&L
Project Location:	165 Washington Ave	**Performed By:**	JWS
Scenario Description:		**Date:**	11/20/2024
Analysis Year:	2027	**Checked By:**	
Analysis Period:	**Saturday Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail				0		
Restaurant	932	1,800	Square Feet	21	11	10
Cinema/Entertainment				0		
Residential	221	326	Dwelling	88	44	44
Hotel				0		
All Other Land Uses[2]				0		
Total				109	55	54

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	2	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	109	55	54
Internal Capture Percentage	7%	7%	7%
External Vehicle-Trips[3]	101	51	50
External Transit-Trips[4]	0	0	0
External Non-Motorized Trips[4]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	N/A	N/A
Restaurant	18%	20%
Cinema/Entertainment	N/A	N/A
Residential	5%	5%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual* , published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[4]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute



PLAN

150 0 150 300

Scale of Feet

LEGEND

= SITE

= SIDEWALK/MULTIUSE PATH

= BIKE LANE

= BUS STOP

Barton & Loguidice

PROJ. MANAGER	JOHN Q. ADAMS	BY	DATE
DESIGN-DETAILED	JWS	JWS	11/2024
CHECKED-REVIEWED			
DESIGN2-DETAILED2			SIGNATURE
DESIGN3-DETAILED3			
REVISIONS 1			P.E. NUMBER
REVISIONS 2			
REVISIONS 3			DATE
REVISIONS 4			
FIELD CHANGES			

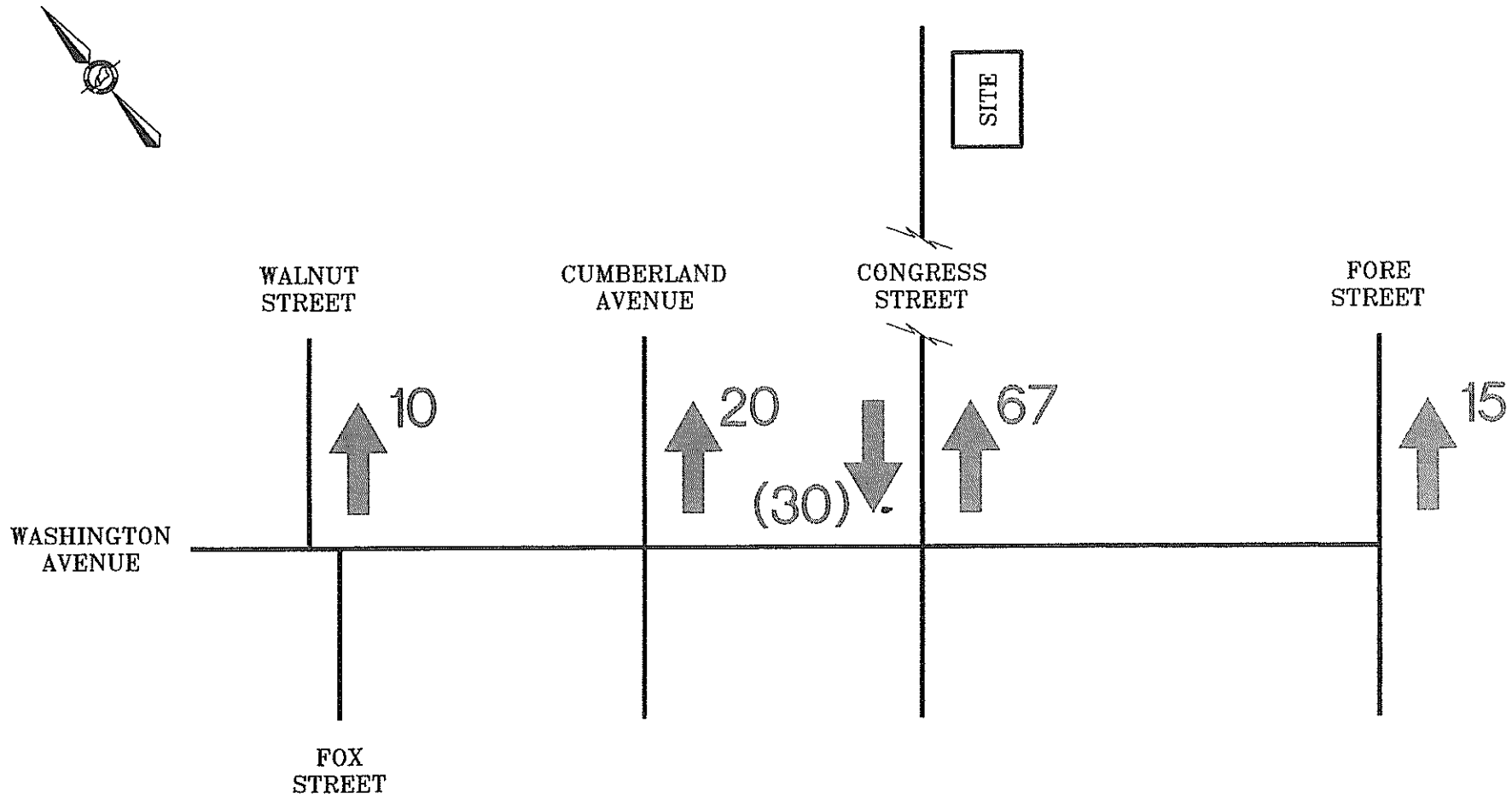
PORTLAND
165 WASHINGTON AVE

REGIONAL MAPPING PLAN

SHEET NUMBER

1

OF 1



LEGEND

XX = EVENT VEHICLE TRIPS

(XX) = OFF-SITE VALET VEHICLE STORAGE TRIPS

SITE TRIP ASSIGNMENT (PRE-EVENT PEAK)

FIGURE 1

E:\LAND PROJECTS\34000\34439 TRAFFIC SOLUTIONS\ST. LAWRENCE ART CENTER\PLANSET\ST. LAWRENCE ART CENTER FIG 1.DWG

ST. LAWRENCE ART CENTER PORTLAND, MAINE	TRAFFIC SOLUTIONS 235 BANCROFT STREET, PORTLAND, MAINE 04102-1753
DATE: JULY, 2017	FIGURE: 1

Traffic Solutions
17 Mountview Drive
Gorham, ME 04038

Portland Washington, Walnut, Fox
October 16, 2024 AM
Sunny
St.Clair Associates

File Name : Portland Washington, Walnut, Fox 10-16-2024 AM
Site Code : 10162411
Start Date : 10/16/2024
Page No : 1

Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

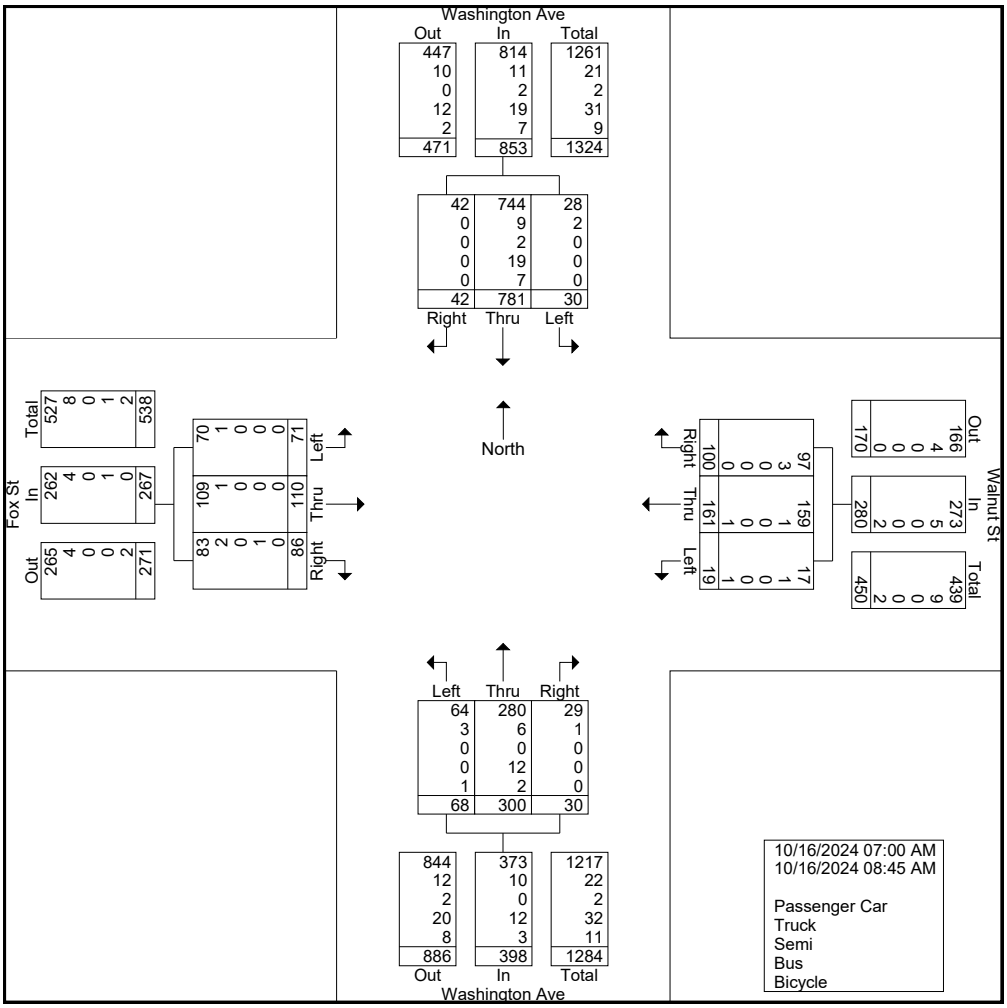
	Washington Ave From North					Walnut St From East					Washington Ave From South					Fox St From West							
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	56	5	1	62	13	12	0	0	25	3	25	5	1	33	3	13	7	0	23	2	143	145
07:15 AM	3	73	3	1	79	10	12	3	0	25	2	31	9	1	42	7	13	9	2	29	4	175	179
07:30 AM	13	82	2	2	97	12	24	6	3	42	10	47	9	0	66	10	11	9	2	30	7	235	242
07:45 AM	7	118	2	2	127	21	39	5	0	65	8	53	10	1	71	11	15	7	0	33	3	296	299
Total	24	329	12	6	365	56	87	14	3	157	23	156	33	3	212	31	52	32	4	115	16	849	865
08:00 AM	0	120	3	1	123	15	17	2	0	34	1	33	8	1	42	7	12	8	1	27	3	226	229
08:15 AM	4	108	6	3	118	5	18	2	0	25	1	38	8	0	47	21	19	10	0	50	3	240	243
08:30 AM	5	114	7	0	126	13	25	1	1	39	2	35	6	1	43	17	12	9	2	38	4	246	250
08:45 AM	9	110	2	2	121	11	14	0	2	25	3	38	13	3	54	10	15	12	4	37	11	237	248
Total	18	452	18	6	488	44	74	5	3	123	7	144	35	5	186	55	58	39	7	152	21	949	970

Traffic Solutions
17 Mountview Drive
Gorham, ME 04038

File Name : Portland Washington, Walnut, Fox 10-16-2024 AM
Site Code : 10162411
Start Date : 10/16/2024
Page No : 2

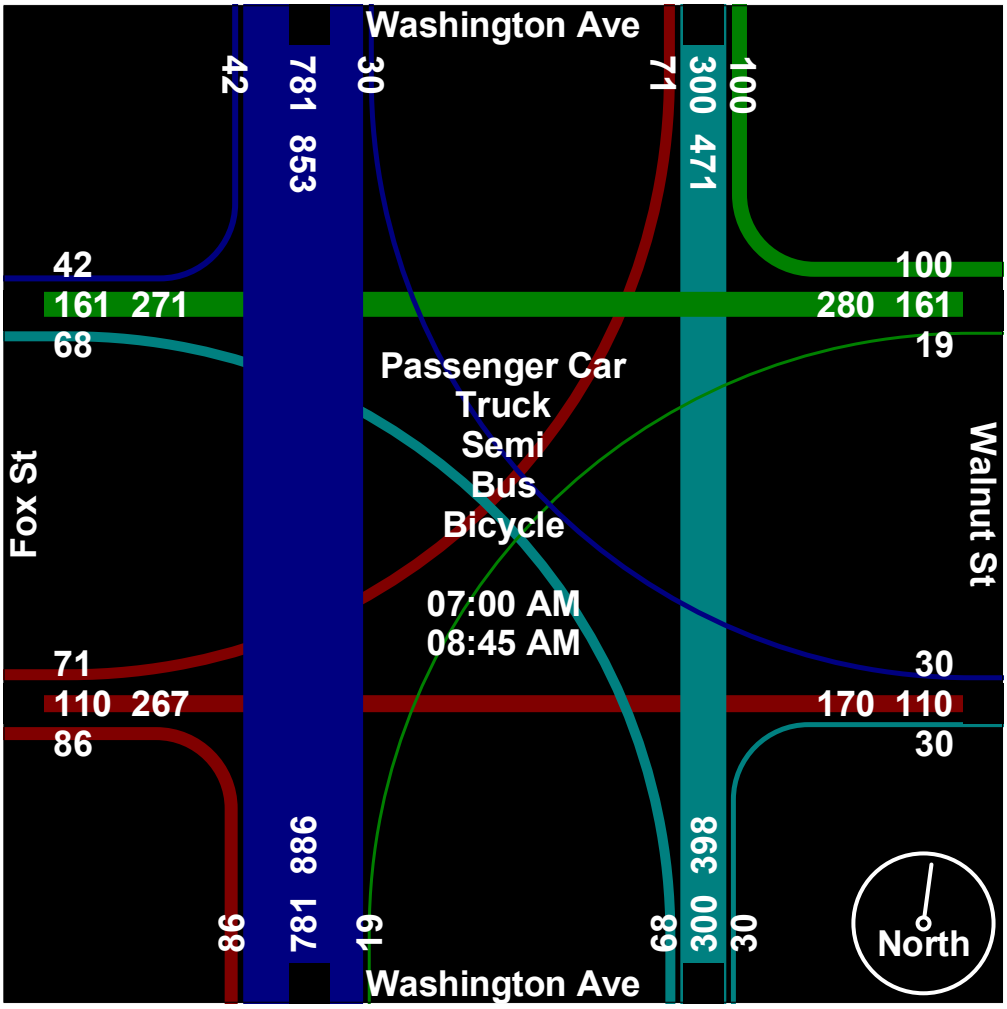
Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

	Washington Ave From North					Walnut St From East					Washington Ave From South					Fox St From West							
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
Grand Total	42	781	30	12	853	100	161	19	6	280	30	300	68	8	398	86	110	71	11	267	37	1798	1835
Apprch %	4.9	91.6	3.5			35.7	57.5	6.8			7.5	75.4	17.1			32.2	41.2	26.6					
Total %	2.3	43.4	1.7		47.4	5.6	9	1.1		15.6	1.7	16.7	3.8		22.1	4.8	6.1	3.9		14.8	2	98	
Passenger Car	42	744	28		826	97	159	17		279	29	280	64		381	83	109	70		273	0	0	1759
% Passenger Car	100	95.3	93.3	100	95.5	97	98.8	89.5	100	97.6	96.7	93.3	94.1	100	93.8	96.5	99.1	98.6	100	98.2	0	0	95.9
Truck	0	9	2		11	3	1	1		5	1	6	3		10	2	1	1		4	0	0	30
% Truck	0	1.2	6.7	0	1.3	3	0.6	5.3	0	1.7	3.3	2	4.4	0	2.5	2.3	0.9	1.4	0	1.4	0	0	1.6
Semi	0	2	0		2	0	0	0		0	0	0	0		0	0	0	0		0	0	0	2
% Semi	0	0.3	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1
Bus	0	19	0		19	0	0	0		0	0	12	0		12	1	0	0		1	0	0	32
% Bus	0	2.4	0	0	2.2	0	0	0	0	0	0	4	0	0	3	1.2	0	0	0	0.4	0	0	1.7
Bicycle	0	7	0		7	0	1	1		2	0	2	1		3	0	0	0		0	0	0	12
% Bicycle	0	0.9	0	0	0.8	0	0.6	5.3	0	0.7	0	0.7	1.5	0	0.7	0	0	0	0	0	0	0	0.7



Traffic Solutions
17 Mountview Drive
Gorham, ME 04038

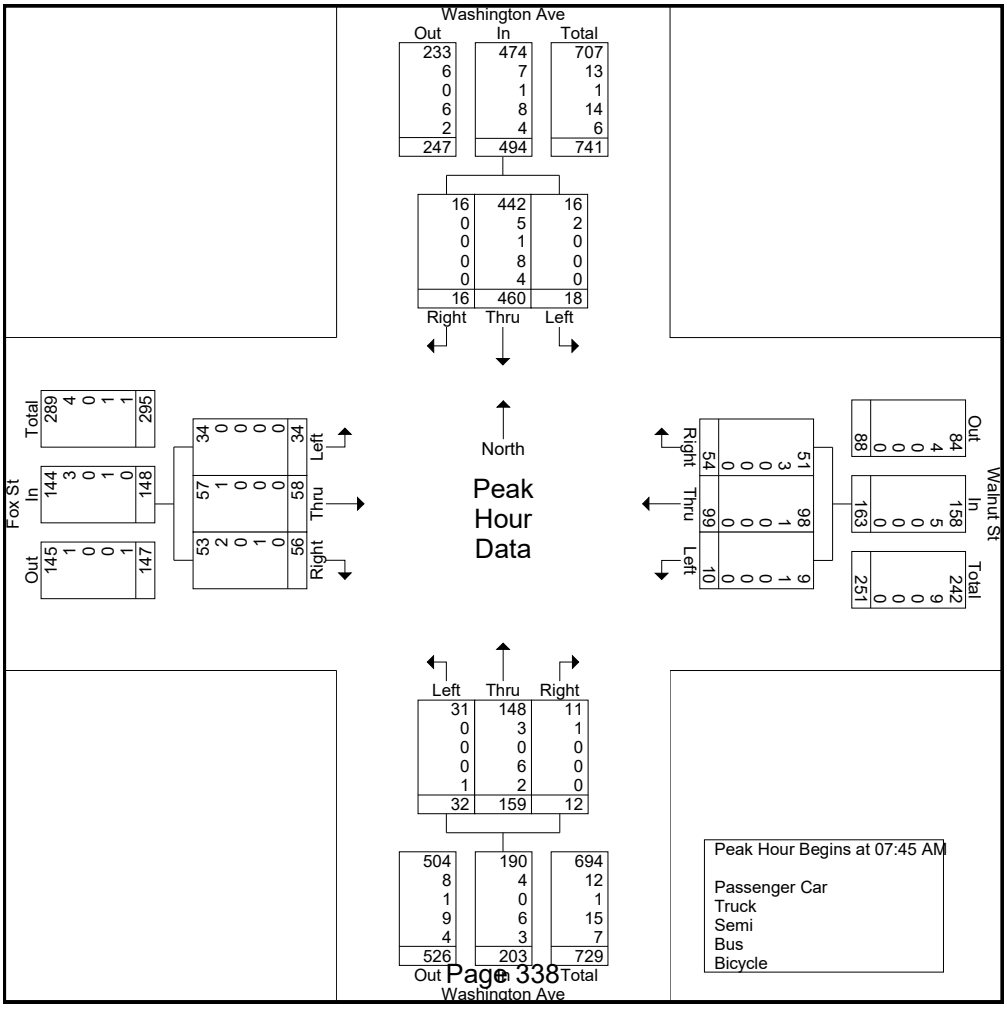
File Name : Portland Washington, Walnut, Fox 10-16-2024 AM
Site Code : 10162411
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Gorham, ME 04038

File Name : Portland Washington, Walnut, Fox 10-16-2024 AM
Site Code : 10162411
Start Date : 10/16/2024
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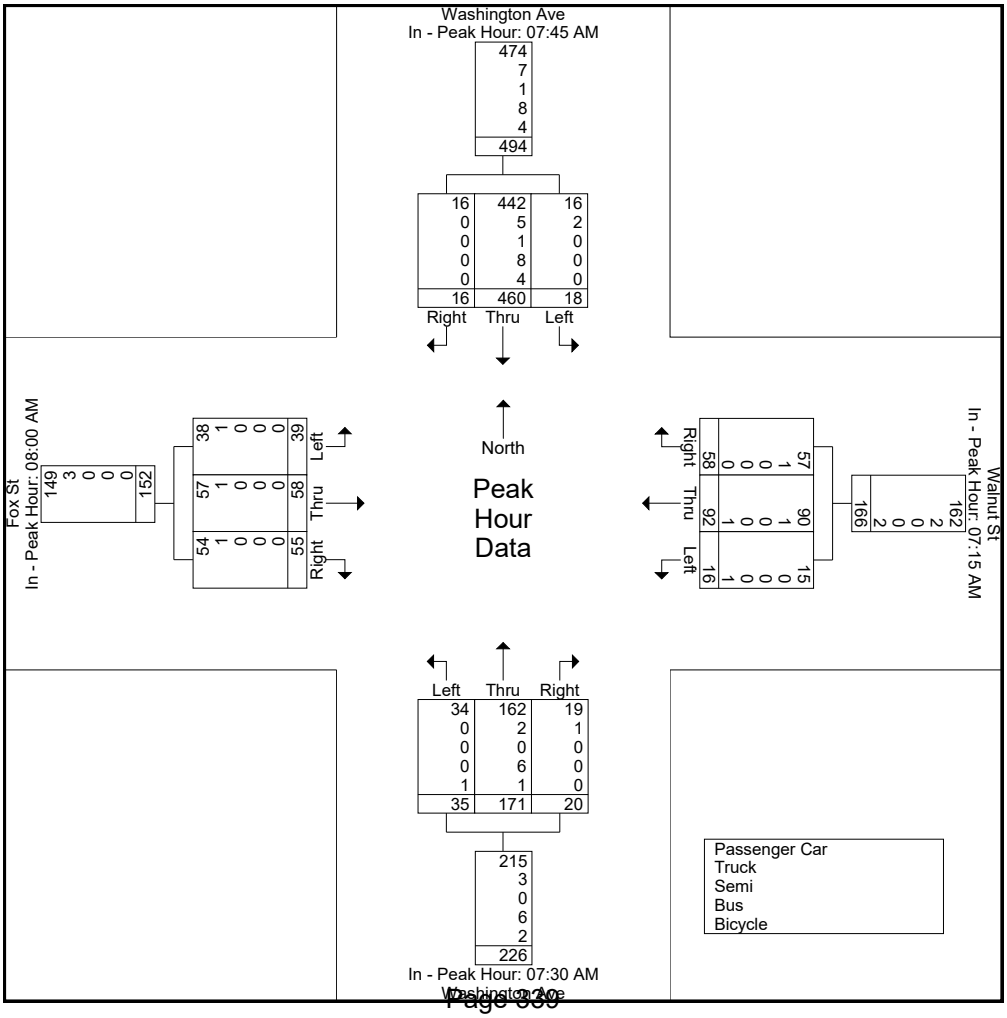
	Washington Ave From North				Walnut St From East				Washington Ave From South				Fox St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**7**	118	2	**127**	**21**	**39**	**5**	**65**	**8**	**53**	**10**	**71**	11	15	7	33	**296**
08:00 AM	0	**120**	3	123	15	17	2	34	1	33	8	42	7	12	8	27	226
08:15 AM	4	108	6	118	5	18	2	25	1	38	8	47	**21**	**19**	**10**	**50**	240
08:30 AM	5	114	**7**	126	13	25	1	39	2	35	6	43	17	12	9	38	246
Total Volume	16	460	18	494	54	99	10	163	12	159	32	203	56	58	34	148	1008
% App. Total	3.2	93.1	3.6		33.1	60.7	6.1		5.9	78.3	15.8		37.8	39.2	23		
PHF	.571	.958	.643	.972	.643	.635	.500	.627	.375	.750	.800	.715	.667	.763	.850	.740	.851
Passenger Car	16	442	16	474	51	98	9	158	11	148	31	190	53	57	34	144	966
% Passenger Car	100	96.1	88.9	96.0	94.4	99.0	90.0	96.9	91.7	93.1	96.9	93.6	94.6	98.3	100	97.3	95.8
Truck	0	5	2	7	3	1	1	5	1	3	0	4	2	1	0	3	19
% Truck	0	1.1	11.1	1.4	5.6	1.0	10.0	3.1	8.3	1.9	0	2.0	3.6	1.7	0	2.0	1.9
Semi	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% Semi	0	0.2	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0.1
Bus	0	8	0	8	0	0	0	0	0	6	0	6	1	0	0	1	15
% Bus	0	1.7	0	1.6	0	0	0	0	0	3.8	0	3.0	1.8	0	0	0.7	1.5
Bicycle	0	4	0	4	0	0	0	0	0	2	1	3	0	0	0	0	7
% Bicycle	0	0.9	0	0.8	0	0	0	0	0	1.3	3.1	1.5	0	0	0	0	0.7



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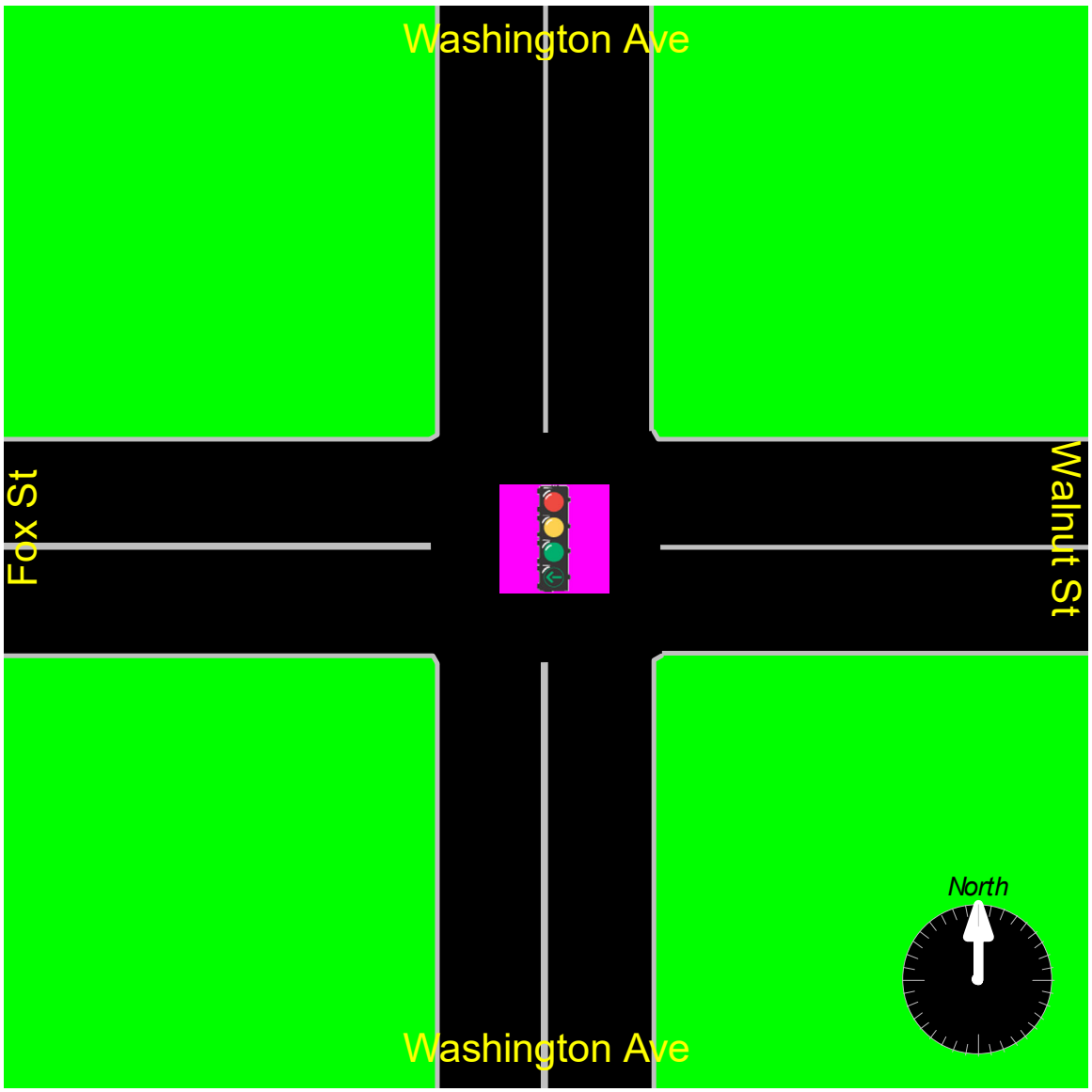
File Name : Portland Washington, Walnut, Fox 10-16-2024 AM
Site Code : 10162411
Start Date : 10/16/2024
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	Washington Ave From North				Walnut St From East				Washington Ave From South				Fox St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:45 AM				07:15 AM				07:30 AM				08:00 AM				
+0 mins.	**7**	118	2	**127**	10	12	3	25	**10**	47	9	66	7	12	8	27	
+15 mins.	0	**120**	3	123	12	24	**6**	42	8	**53**	**10**	**71**	**21**	**19**	10	**50**	
+30 mins.	4	108	6	118	**21**	**39**	5	**65**	1	33	8	42	17	12	9	38	
+45 mins.	5	114	**7**	126	15	17	2	34	1	38	8	47	10	15	**12**	37	
Total Volume	16	460	18	494	58	92	16	166	20	171	35	226	55	58	39	152	
% App. Total	3.2	93.1	3.6		34.9	55.4	9.6		8.8	75.7	15.5		36.2	38.2	25.7		
PHF	.571	.958	.643	.972	.690	.590	.667	.638	.500	.807	.875	.796	.655	.763	.813	.760	
Passenger Car	16	442	16	474	57	90	15	162	19	162	34	215	54	57	38	149	
% Passenger Car	100	96.1	88.9	96	98.3	97.8	93.8	97.6	95	94.7	97.1	95.1	98.2	98.3	97.4	98	
Truck	0	5	2	7	1	1	0	2	1	2	0	3	1	1	1	3	
% Truck	0	1.1	11.1	1.4	1.7	1.1	0	1.2	5	1.2	0	1.3	1.8	1.7	2.6	2	
Semi	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
% Semi	0	0.2	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	
Bus	0	8	0	8	0	0	0	0	0	6	0	6	0	0	0	0	
% Bus	0	1.7	0	1.6	0	0	0	0	0	3.5	0	2.7	0	0	0	0	
Bicycle	0	4	0	4	0	1	1	2	0	1	1	2	0	0	0	0	
% Bicycle	0	0.9	0	0.8	0	1.1	6.2	1.2	0	0.6	2.9	0.9	0	0	0	0	



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File Name : Portland Washington, Walnut, Fox 10-16-2024 AM
Site Code : 10162411
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Washington, Eastern Prom.
October 16, 2024 AM
Sunny
St.Clair Associates

File Name : Portland Washington, Eastern Promenade 10-16-2024 AM
Site Code : 01016241
Start Date : 10/16/2024
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Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

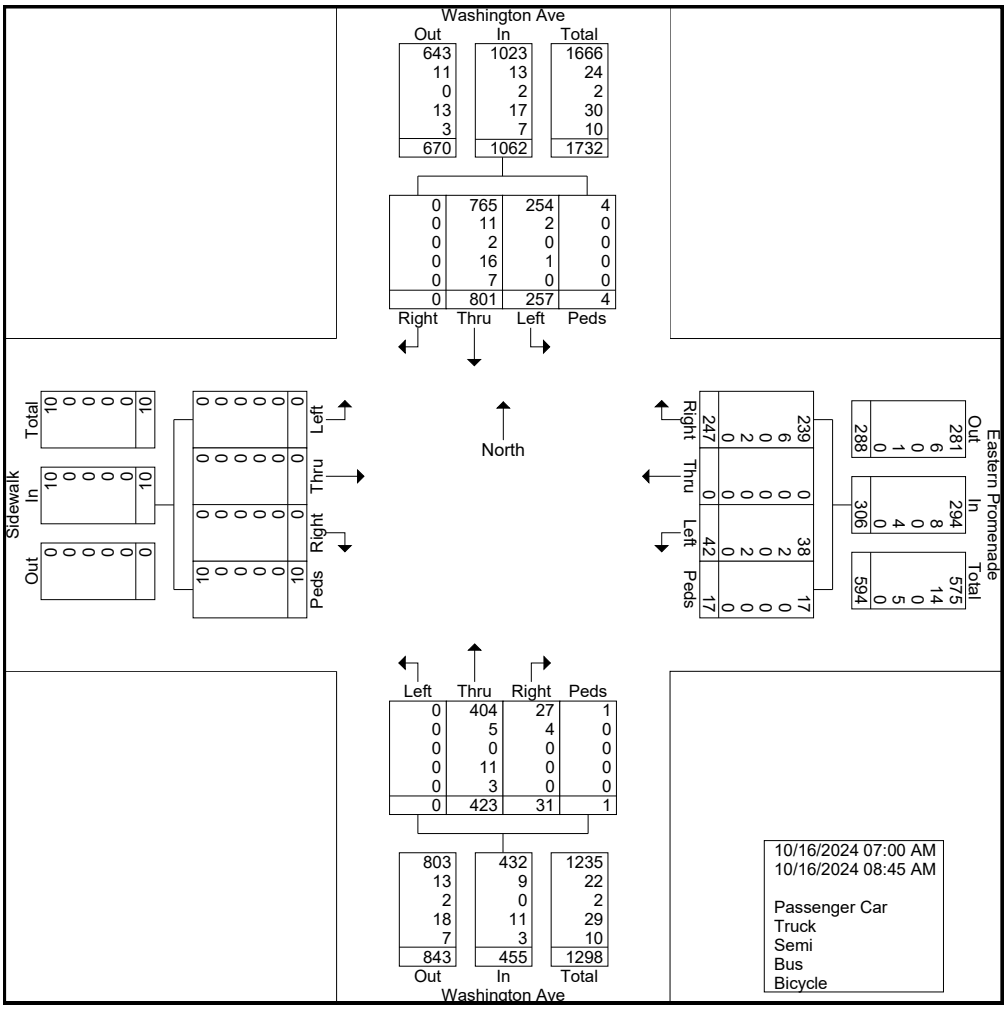
	Washington Ave From North					Eastern Promenade From East					Washington Ave From South					Sidewalk From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	66	33	1	100	22	0	1	3	26	4	38	0	0	42	0	0	0	0	0	168
07:15 AM	0	71	32	0	103	29	0	3	2	34	3	46	0	0	49	0	0	0	1	1	187
07:30 AM	0	79	35	2	116	48	0	16	2	66	7	60	0	0	67	0	0	0	5	5	254
07:45 AM	0	117	32	1	150	45	0	7	2	54	5	87	0	0	92	0	0	0	0	0	296
Total	0	333	132	4	469	144	0	27	9	180	19	231	0	0	250	0	0	0	6	6	905
08:00 AM	0	121	31	0	152	30	0	3	2	35	1	55	0	0	56	0	0	0	2	2	245
08:15 AM	0	117	41	0	158	24	0	1	2	27	4	39	0	0	43	0	0	0	1	1	229
08:30 AM	0	126	28	0	154	27	0	5	2	34	7	45	0	0	52	0	0	0	0	0	240
08:45 AM	0	104	25	0	129	22	0	6	2	30	0	53	0	1	54	0	0	0	1	1	214
Total	0	468	125	0	593	103	0	15	8	126	12	192	0	1	205	0	0	0	4	4	928

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Gorham, ME 04038

File Name : Portland Washington, Eastern Promenade 10-16-2024 AM
Site Code : 01016241
Start Date : 10/16/2024
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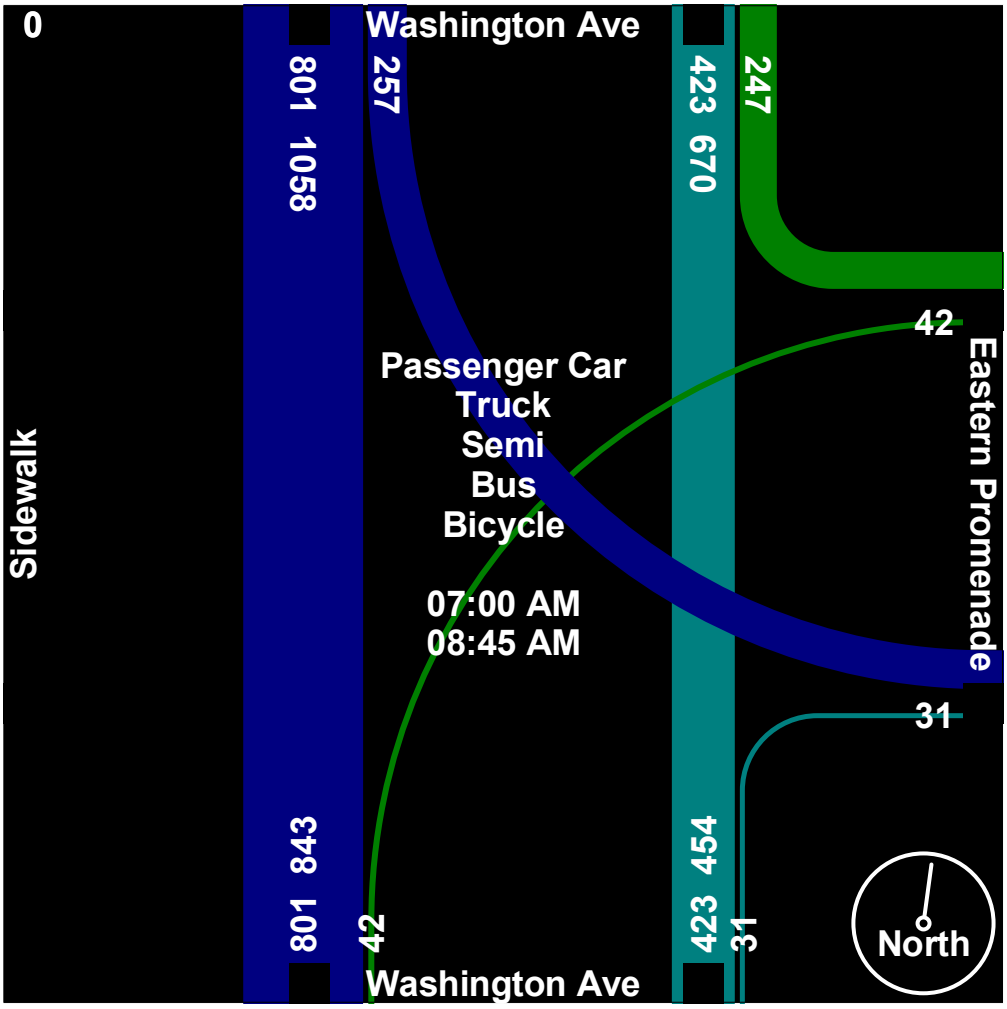
Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

	Washington Ave From North					Eastern Promenade From East					Washington Ave From South					Sidewalk From West					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Grand Total	0	801	257	4	1062	247	0	42	17	306	31	423	0	1	455	0	0	0	10	10	1833
Apprch %	0	75.4	24.2	0.4		80.7	0	13.7	5.6		6.8	93	0	0.2		0	0	0	100		
Total %	0	43.7	14	0.2	57.9	13.5	0	2.3	0.9	16.7	1.7	23.1	0	0.1	24.8	0	0	0	0.5	0.5	
Passenger Car	0	765	254	4	1023	239	0	38	17	294	27	404	0	1	432	0	0	0	10	10	1759
% Passenger Car	0	95.5	98.8	100	96.3	96.8	0	90.5	100	96.1	87.1	95.5	0	100	94.9	0	0	0	100	100	96
Truck	0	11	2	0	13	6	0	2	0	8	4	5	0	0	9	0	0	0	0	0	30
% Truck	0	1.4	0.8	0	1.2	2.4	0	4.8	0	2.6	12.9	1.2	0	0	2	0	0	0	0	0	1.6
Semi	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% Semi	0	0.2	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1
Bus	0	16	1	0	17	2	0	2	0	4	0	11	0	0	11	0	0	0	0	0	32
% Bus	0	2	0.4	0	1.6	0.8	0	4.8	0	1.3	0	2.6	0	0	2.4	0	0	0	0	0	1.7
Bicycle	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	10
% Bicycle	0	0.9	0	0	0.7	0	0	0	0	0	0	0.7	0	0	0.7	0	0	0	0	0	0.5



Traffic Solutions
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Gorham, ME 04038

File Name : Portland Washington, Eastern Promenade 10-16-2024 AM
Site Code : 01016241
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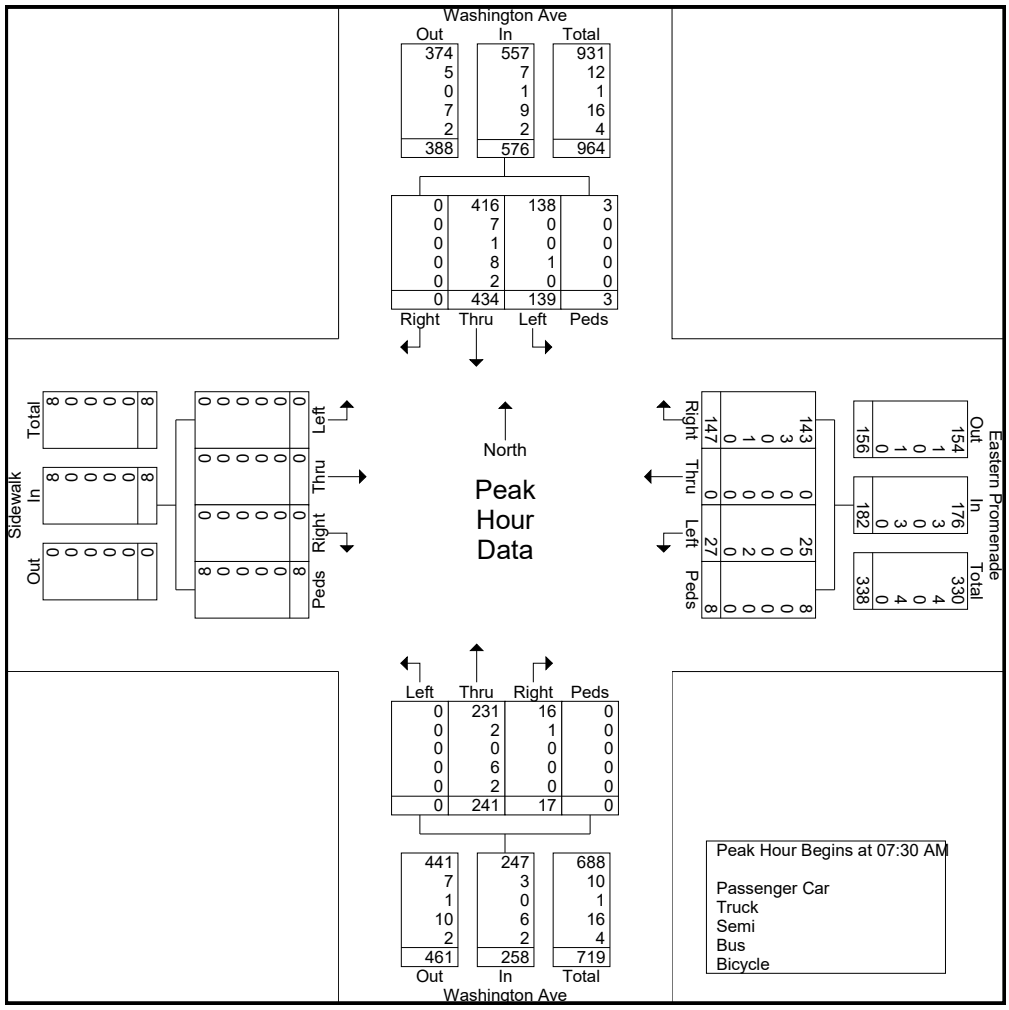
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Gorham, ME 04038

File Name : Portland Washington, Eastern Promenade 10-16-2024 AM
Site Code : 01016241
Start Date : 10/16/2024
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	Washington Ave From North					Eastern Promenade From East					Washington Ave From South					Sidewalk From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	79	35	**2**	116	**48**	0	**16**	**2**	**66**	**7**	60	0	0	67	0	0	0	**5**	**5**	254
07:45 AM	0	117	32	1	150	45	0	7	2	54	5	**87**	0	0	**92**	0	0	0	0	0	**296**
08:00 AM	0	**121**	31	0	152	30	0	3	2	35	1	55	0	0	56	0	0	0	2	2	245
08:15 AM	0	117	**41**	0	**158**	24	0	1	2	27	4	39	0	0	43	0	0	0	1	1	229
Total Volume	0	434	139	3	576	147	0	27	8	182	17	241	0	0	258	0	0	0	8	8	1024
% App. Total	0	75.3	24.1	0.5		80.8	0	14.8	4.4		6.6	93.4	0	0		0	0	0	100		
PHF	.000	.897	.848	.375	.911	.766	.000	.422	1.00	.689	.607	.693	.000	.000	.701	.000	.000	.000	.400	.400	.865
Passenger Car	0	416	138	3	557	143	0	25	8	176	16	231	0	0	247	0	0	0	8	8	988
% Passenger Car	0	95.9	99.3	100	96.7	97.3	0	92.6	100	96.7	94.1	95.9	0	0	95.7	0	0	0	100	100	96.5
Truck	0	7	0	0	7	3	0	0	0	3	1	2	0	0	3	0	0	0	0	0	13
% Truck	0	1.6	0	0	1.2	2.0	0	0	0	1.6	5.9	0.8	0	0	1.2	0	0	0	0	0	1.3
Semi	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Semi	0	0.2	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1
Bus	0	8	1	0	9	1	0	2	0	3	0	6	0	0	6	0	0	0	0	0	18
% Bus	0	1.8	0.7	0	1.6	0.7	0	7.4	0	1.6	0	2.5	0	0	2.3	0	0	0	0	0	1.8
Bicycle	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
% Bicycle	0	0.5	0	0	0.3	0	0	0	0	0	0	0.8	0	0	0.8	0	0	0	0	0	0.4

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Gorham, ME 04038

File Name : Portland Washington, Eastern Promenade 10-16-2024 AM
Site Code : 01016241
Start Date : 10/16/2024
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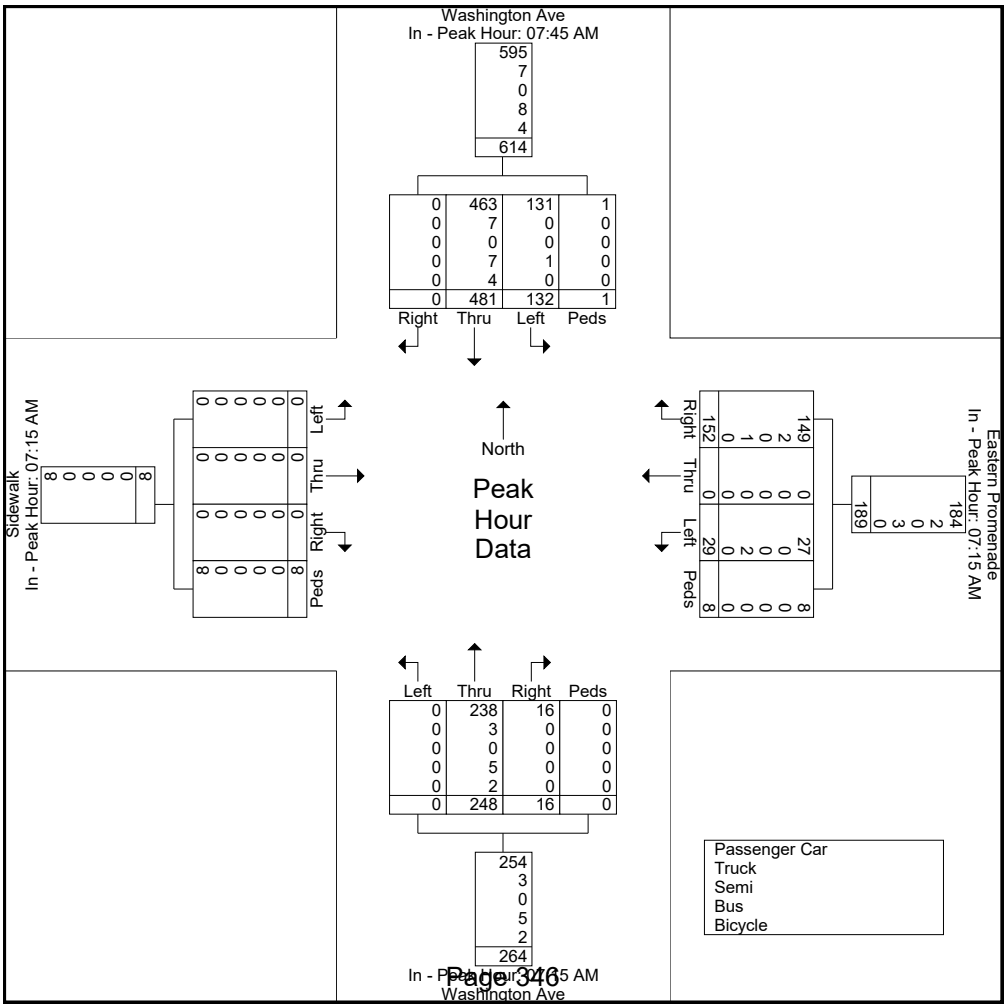


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Gorham, ME 04038

File Name : Portland Washington, Eastern Promenade 10-16-2024 AM
Site Code : 01016241
Start Date : 10/16/2024
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	Washington Ave From North					Eastern Promenade From East					Washington Ave From South					Sidewalk From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:45 AM					07:15 AM					07:15 AM					07:15 AM					
+0 mins.	0	117	32	**1**	150	29	0	3	**2**	34	3	46	0	0	49	0	0	0	1	1	
+15 mins.	0	121	31	0	152	**48**	0	**16**	2	**66**	**7**	60	0	0	67	0	0	0	**5**	**5**	
+30 mins.	0	117	**41**	0	**158**	45	0	7	2	54	5	**87**	0	0	**92**	0	0	0	0	0	
+45 mins.	0	**126**	28	0	154	30	0	3	2	35	1	55	0	0	56	0	0	0	2	2	
Total Volume	0	481	132	1	614	152	0	29	8	189	16	248	0	0	264	0	0	0	8	8	
% App. Total	0	78.3	21.5	0.2		80.4	0	15.3	4.2		6.1	93.9	0	0		0	0	0	100		
PHF	.000	.954	.805	.250	.972	.792	.000	.453	1.000	.716	.571	.713	.000	.000	.717	.000	.000	.000	.400	.400	
Passenger Car	0	463	131	1	595	149	0	27	8	184	16	238	0	0	254	0	0	0	8	8	
% Passenger Car	0	96.3	99.2	100	96.9	98	0	93.1	100	97.4	100	96	0	0	96.2	0	0	0	100	100	
Truck	0	7	0	0	7	2	0	0	0	2	0	3	0	0	3	0	0	0	0	0	
% Truck	0	1.5	0	0	1.1	1.3	0	0	0	1.1	0	1.2	0	0	1.1	0	0	0	0	0	
Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bus	0	7	1	0	8	1	0	2	0	3	0	5	0	0	5	0	0	0	0	0	
% Bus	0	1.5	0.8	0	1.3	0.7	0	6.9	0	1.6	0	2	0	0	1.9	0	0	0	0	0	
Bicycle	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	
% Bicycle	0	0.8	0	0	0.7	0	0	0	0	0	0	0.8	0	0	0.8	0	0	0	0	0	



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File Name : Portland Washington, Eastern Promenade 10-16-2024 AM
Site Code : 01016241
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Gorham, ME 04038

Portland Washington, Walnut, Fox
October 16, 2024 PM
Sunny
St.Clair Associates

File Name : Portland Washington, Walnut Fox 10-16-2024 PM
Site Code : 10172411
Start Date : 10/17/2024
Page No : 1

Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

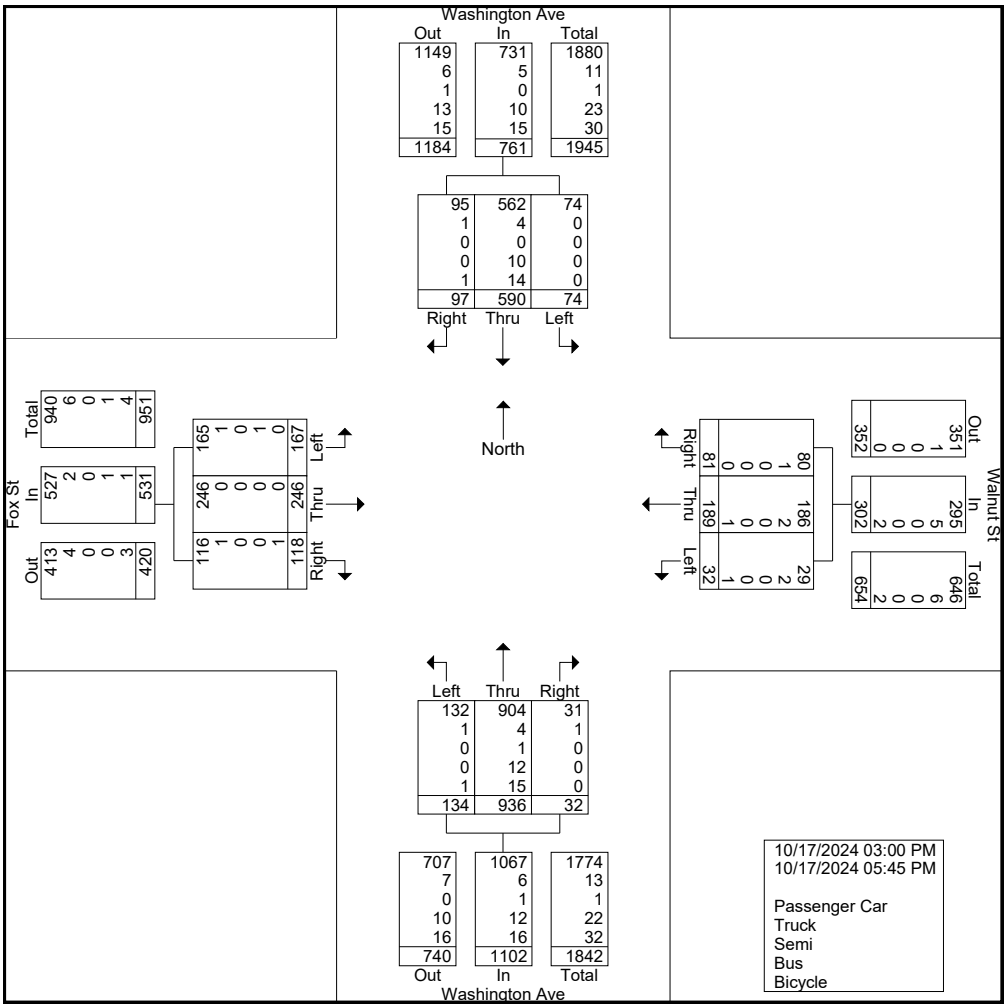
	Washington Ave From North					Walnut St From East					Washington Ave From South					Fox St From West							
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
03:00 PM	7	48	3	5	58	5	10	3	0	18	3	84	7	5	94	9	23	11	0	43	10	213	223
03:15 PM	9	48	8	5	65	8	23	4	2	35	2	83	9	8	94	9	23	9	0	41	15	235	250
03:30 PM	13	52	10	2	75	7	15	1	1	23	5	64	14	2	83	12	18	17	2	47	7	228	235
03:45 PM	12	60	6	4	78	2	24	5	0	31	4	63	18	3	85	13	15	21	1	49	8	243	251
Total	41	208	27	16	276	22	72	13	3	107	14	294	48	18	356	43	79	58	3	180	40	919	959
04:00 PM	12	62	8	0	82	7	15	3	1	25	2	91	16	3	109	8	14	18	2	40	6	256	262
04:15 PM	9	43	7	7	59	5	15	2	4	22	5	99	9	21	113	8	13	17	3	38	35	232	267
04:30 PM	6	53	3	11	62	7	17	3	0	27	2	93	11	18	106	11	34	24	9	69	38	264	302
04:45 PM	8	57	8	4	73	11	14	5	0	30	2	100	11	11	113	8	24	14	2	46	17	262	279
Total	35	215	26	22	276	30	61	13	5	104	11	383	47	53	441	35	85	73	16	193	96	1014	1110
05:00 PM	11	69	7	4	87	8	26	1	0	35	3	89	14	6	106	9	29	9	0	47	10	275	285
05:15 PM	8	50	8	7	66	10	16	3	0	29	4	90	11	7	105	12	23	18	2	53	16	253	269
05:30 PM	2	48	6	6	56	11	14	2	2	27	0	79	14	3	93	19	30	9	5	58	16	234	250
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1
Total	21	167	21	17	209	29	56	6	2	91	7	259	39	16	305	40	82	36	7	158	42	763	805

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17 Mountview Drive
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File Name : Portland Washington, Walnut Fox 10-16-2024 PM
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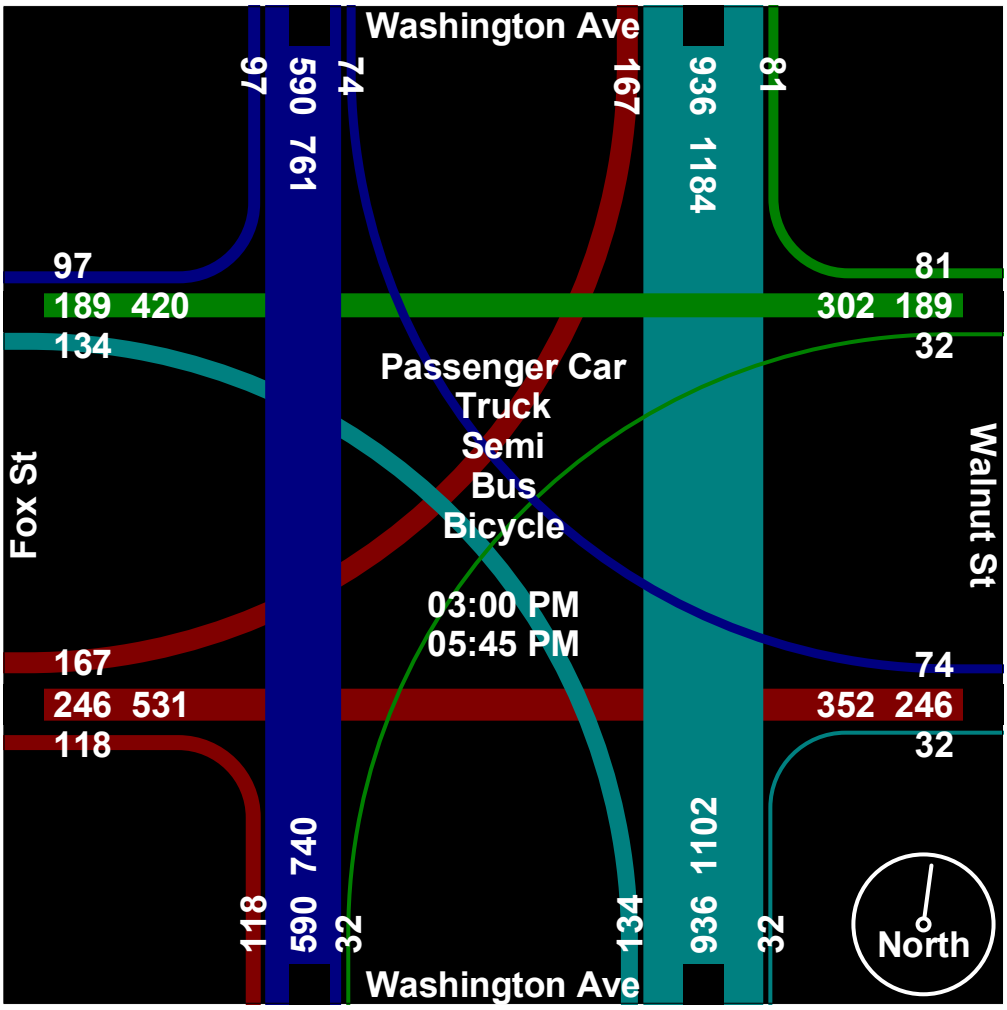
Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

	Washington Ave From North					Walnut St From East					Washington Ave From South					Fox St From West							
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
Grand Total	97	590	74	55	761	81	189	32	10	302	32	936	134	87	1102	118	246	167	26	531	178	2696	2874
Apprch %	12.7	77.5	9.7			26.8	62.6	10.6			2.9	84.9	12.2			22.2	46.3	31.5					
Total %	3.6	21.9	2.7		28.2	3	7	1.2		11.2	1.2	34.7	5		40.9	4.4	9.1	6.2		19.7	6.2	93.8	
Passenger Car	95	562	74		786	80	186	29		305	31	904	132		1154	116	246	165		553	0	0	2798
% Passenger Car	97.9	95.3	100	100	96.3	98.8	98.4	90.6	100	97.8	96.9	96.6	98.5	100	97.1	98.3	100	98.8	100	99.3	0	0	97.4
Truck	1	4	0		5	1	2	2		5	1	4	1		6	1	0	1		2	0	0	18
% Truck	1	0.7	0	0	0.6	1.2	1.1	6.2	0	1.6	3.1	0.4	0.7	0	0.5	0.8	0	0.6	0	0.4	0	0	0.6
Semi	0	0	0		0	0	0	0		0	0	1	0		1	0	0	0		0	0	0	1
% Semi	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0
Bus	0	10	0		10	0	0	0		0	0	12	0		12	0	0	1		1	0	0	23
% Bus	0	1.7	0	0	1.2	0	0	0	0	0	0	1.3	0	0	1	0	0	0.6	0	0.2	0	0	0.8
Bicycle	1	14	0		15	0	1	1		2	0	15	1		16	1	0	0		1	0	0	34
% Bicycle	1	2.4	0	0	1.8	0	0.5	3.1	0	0.6	0	1.6	0.7	0	1.3	0.8	0	0	0	0.2	0	0	1.2



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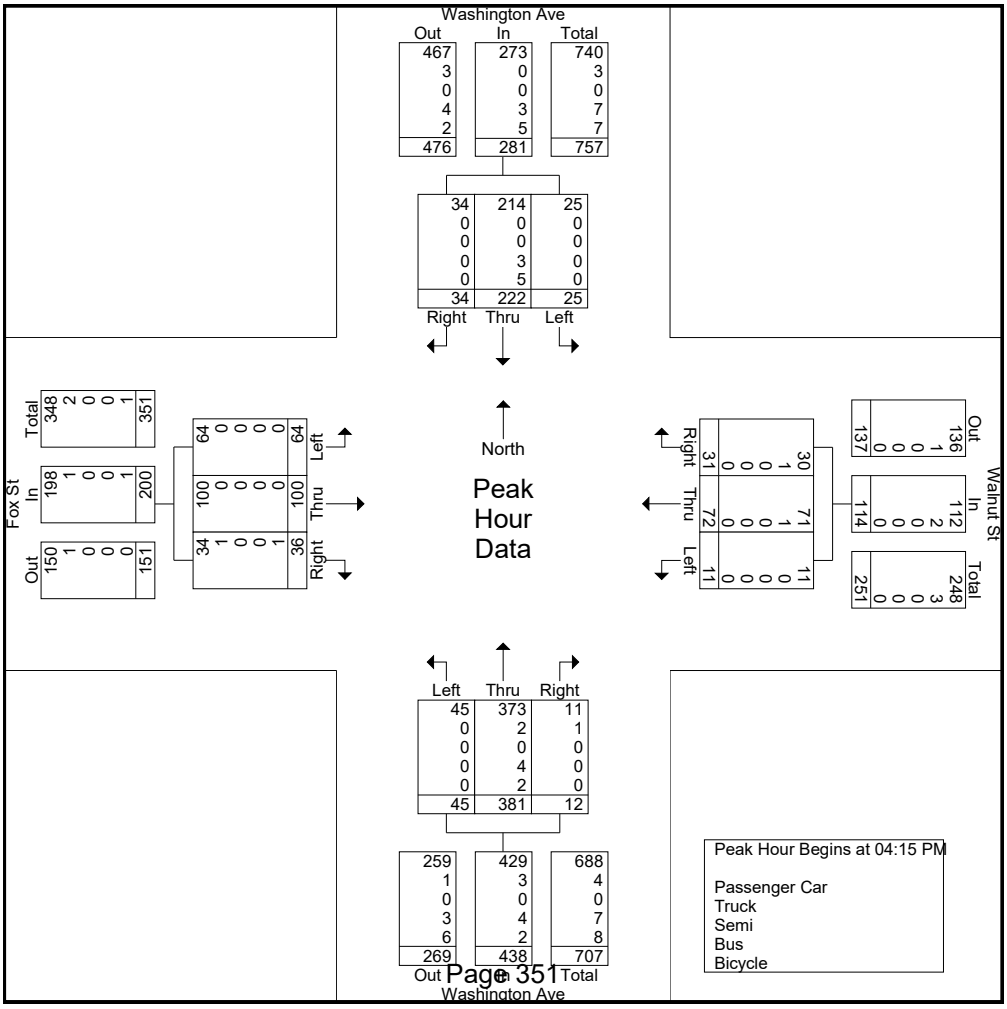
File Name : Portland Washington, Walnut Fox 10-16-2024 PM
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File Name : Portland Washington, Walnut Fox 10-16-2024 PM
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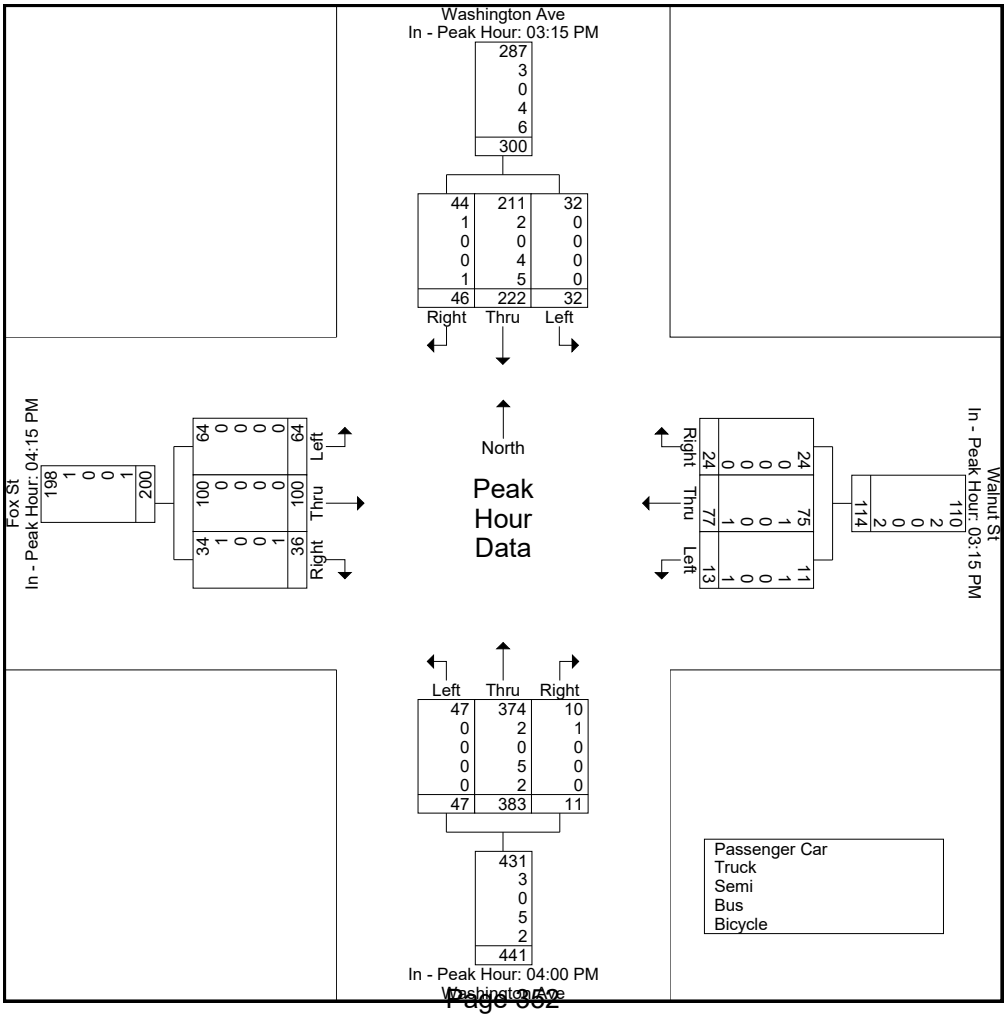
	Washington Ave From North				Walnut St From East				Washington Ave From South				Fox St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	9	43	7	59	5	15	2	22	**5**	99	9	**113**	8	13	17	38	232
04:30 PM	6	53	3	62	7	17	3	27	2	93	11	106	**11**	**34**	**24**	**69**	264
04:45 PM	8	57	**8**	73	**11**	14	**5**	30	2	**100**	11	113	8	24	14	46	262
05:00 PM	**11**	**69**	7	**87**	8	**26**	1	**35**	3	89	**14**	106	9	29	9	47	**275**
Total Volume	34	222	25	281	31	72	11	114	12	381	45	438	36	100	64	200	1033
% App. Total	12.1	79	8.9		27.2	63.2	9.6		2.7	87	10.3		18	50	32		
PHF	.773	.804	.781	.807	.705	.692	.550	.814	.600	.953	.804	.969	.818	.735	.667	.725	.939
Passenger Car	34	214	25	273	30	71	11	112	11	373	45	429	34	100	64	198	1012
% Passenger Car	100	96.4	100	97.2	96.8	98.6	100	98.2	91.7	97.9	100	97.9	94.4	100	100	99.0	98.0
Truck	0	0	0	0	1	1	0	2	1	2	0	3	1	0	0	1	6
% Truck	0	0	0	0	3.2	1.4	0	1.8	8.3	0.5	0	0.7	2.8	0	0	0.5	0.6
Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0	7
% Bus	0	1.4	0	1.1	0	0	0	0	0	1.0	0	0.9	0	0	0	0	0.7
Bicycle	0	5	0	5	0	0	0	0	0	2	0	2	1	0	0	1	8
% Bicycle	0	2.3	0	1.8	0	0	0	0	0	0.5	0	0.5	2.8	0	0	0.5	0.8



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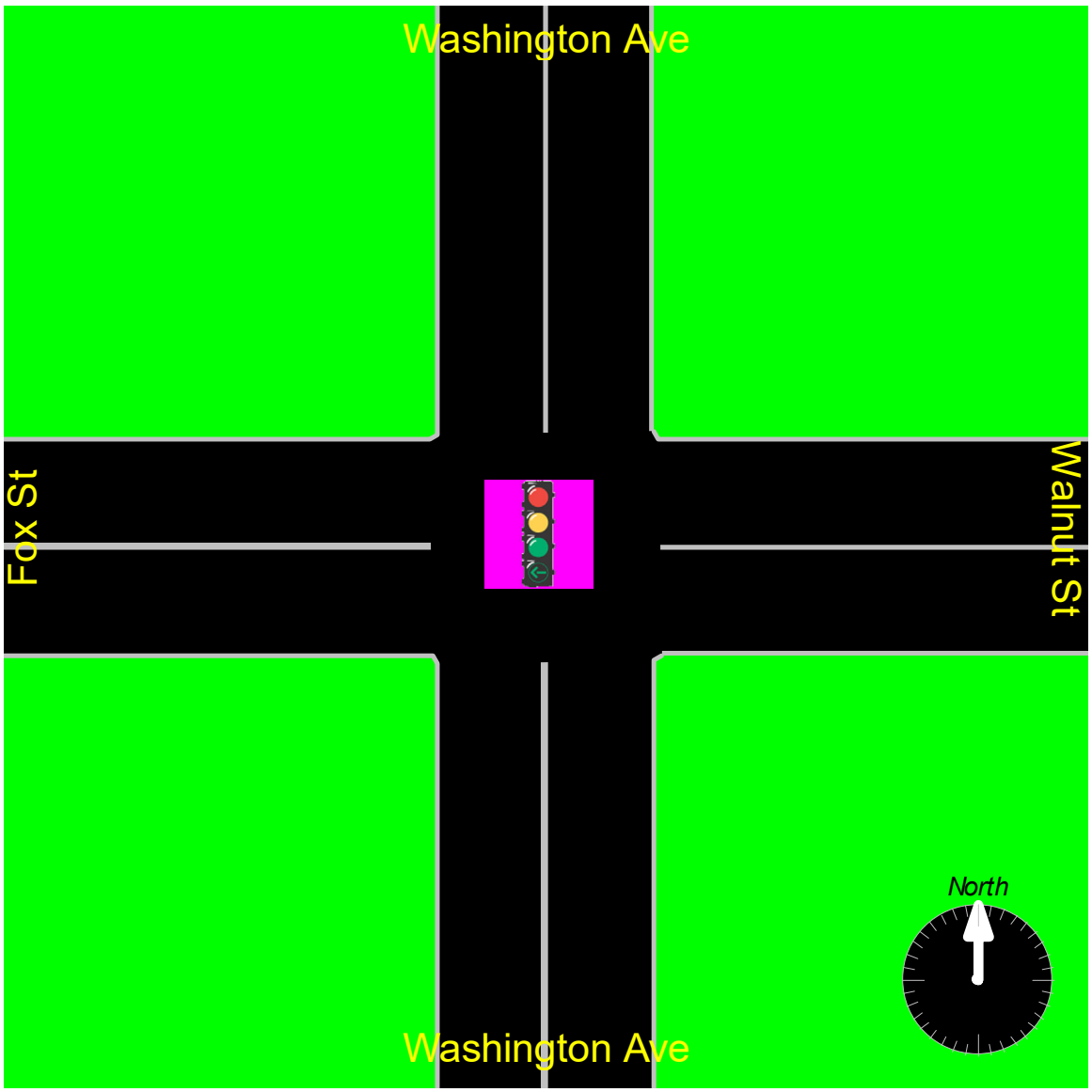
File Name : Portland Washington, Walnut Fox 10-16-2024 PM
Site Code : 10172411
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	Washington Ave From North				Walnut St From East				Washington Ave From South				Fox St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	03:15 PM				03:15 PM				04:00 PM				04:15 PM				
+0 mins.	9	48	8	65	**8**	23	4	**35**	2	91	**16**	109	8	13	17	38	
+15 mins.	**13**	52	**10**	75	7	15	1	23	**5**	99	9	**113**	**11**	**34**	**24**	**69**	
+30 mins.	12	60	6	78	2	**24**	**5**	31	2	93	11	106	8	24	14	46	
+45 mins.	12	**62**	8	**82**	7	15	3	25	2	**100**	11	113	9	29	9	47	
Total Volume	46	222	32	300	24	77	13	114	11	383	47	441	36	100	64	200	
% App. Total	15.3	74	10.7		21.1	67.5	11.4		2.5	86.8	10.7		18	50	32		
PHF	.885	.895	.800	.915	.750	.802	.650	.814	.550	.958	.734	.976	.818	.735	.667	.725	
Passenger Car	44	211	32	287	24	75	11	110	10	374	47	431	34	100	64	198	
% Passenger Car	95.7	95	100	95.7	100	97.4	84.6	96.5	90.9	97.7	100	97.7	94.4	100	100	99	
Truck	1	2	0	3	0	1	1	2	1	2	0	3	1	0	0	1	
% Truck	2.2	0.9	0	1	0	1.3	7.7	1.8	9.1	0.5	0	0.7	2.8	0	0	0.5	
Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bus	0	4	0	4	0	0	0	0	0	5	0	5	0	0	0	0	
% Bus	0	1.8	0	1.3	0	0	0	0	0	1.3	0	1.1	0	0	0	0	
Bicycle	1	5	0	6	0	1	1	2	0	2	0	2	1	0	0	1	
% Bicycle	2.2	2.3	0	2	0	1.3	7.7	1.8	0	0.5	0	0.5	2.8	0	0	0.5	



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Washington, Eastern Prom.
October 16, 2024 PM
Sunny
St.Clair Associates

File Name : Portland Washington, Eastern Promenade 10-16-2024 PM
Site Code : 01016242
Start Date : 10/16/2024
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Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

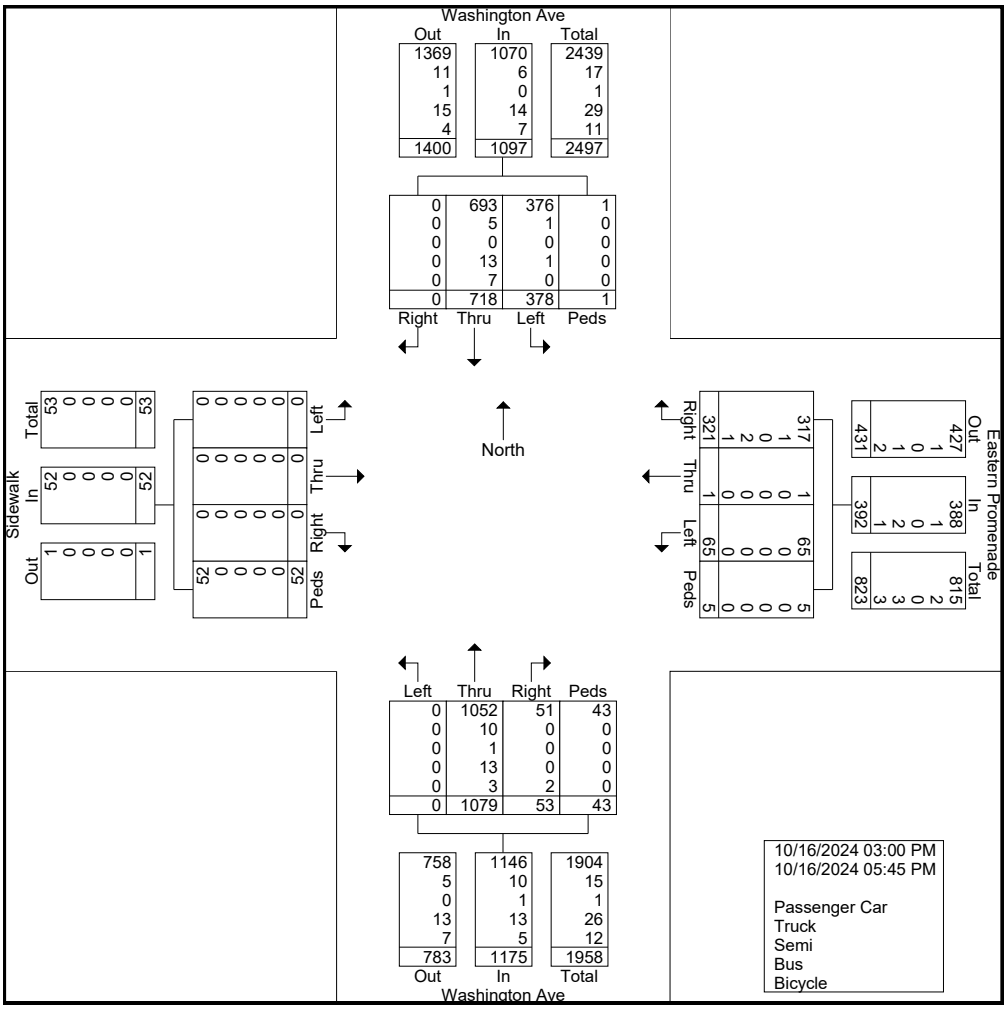
	Washington Ave From North					Eastern Promenade From East					Washington Ave From South					Sidewalk From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:00 PM	0	45	25	0	70	42	0	7	2	51	7	94	0	0	101	0	0	0	4	4	226
03:15 PM	0	53	18	1	72	15	0	3	0	18	4	82	0	1	87	0	0	0	4	4	181
03:30 PM	0	54	25	0	79	20	0	7	1	28	6	76	0	0	82	0	0	0	0	0	189
03:45 PM	0	66	35	0	101	28	0	7	1	36	4	76	0	0	80	0	0	0	3	3	220
Total	0	218	103	1	322	105	0	24	4	133	21	328	0	1	350	0	0	0	11	11	816
04:00 PM	0	67	26	0	93	13	0	7	0	20	4	101	0	2	107	0	0	0	2	2	222
04:15 PM	0	58	35	0	93	38	0	2	0	40	3	117	0	1	121	0	0	0	12	12	266
04:30 PM	0	55	23	0	78	32	0	4	0	36	2	106	0	1	109	0	0	0	5	5	228
04:45 PM	0	59	44	0	103	21	1	3	1	26	5	95	0	4	104	0	0	0	14	14	247
Total	0	239	128	0	367	104	1	16	1	122	14	419	0	8	441	0	0	0	33	33	963
05:00 PM	0	66	43	0	109	30	0	4	0	34	2	90	0	5	97	0	0	0	0	0	240
05:15 PM	0	55	36	0	91	19	0	6	0	25	3	101	0	7	111	0	0	0	2	2	229
05:30 PM	0	57	36	0	93	36	0	1	0	37	5	85	0	2	92	0	0	0	4	4	226
05:45 PM	0	83	32	0	115	27	0	14	0	41	8	56	0	20	84	0	0	0	2	2	242
Total	0	261	147	0	408	112	0	25	0	137	18	332	0	34	384	0	0	0	8	8	937

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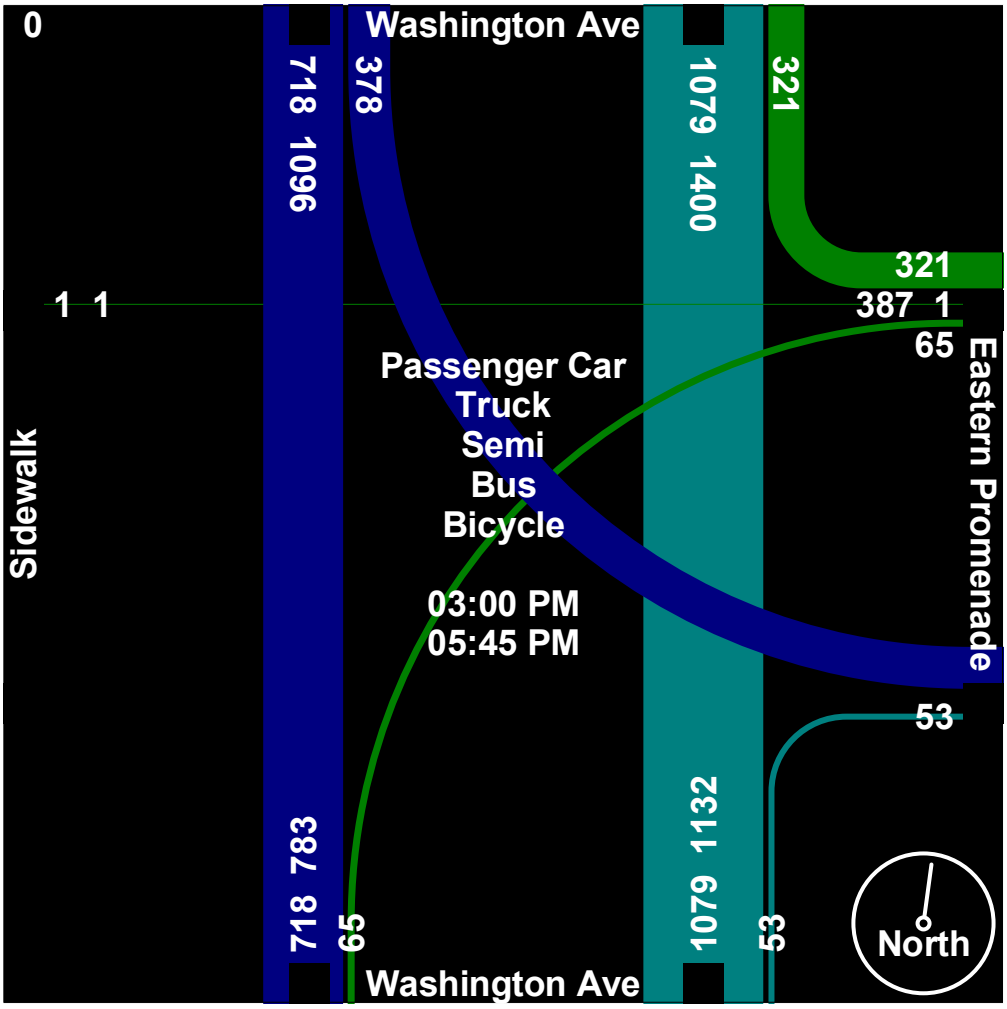
Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

	Washington Ave From North					Eastern Promenade From East					Washington Ave From South					Sidewalk From West					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Grand Total	0	718	378	1	1097	321	1	65	5	392	53	1079	0	43	1175	0	0	0	52	52	2716
Apprch %	0	65.5	34.5	0.1		81.9	0.3	16.6	1.3		4.5	91.8	0	3.7		0	0	0	100		
Total %	0	26.4	13.9	0	40.4	11.8	0	2.4	0.2	14.4	2	39.7	0	1.6	43.3	0	0	0	1.9	1.9	
Passenger Car	0	693	376	1	1070	317	1	65	5	388	51	1052	0	43	1146	0	0	0	52	52	2656
% Passenger Car	0	96.5	99.5	100	97.5	98.8	100	100	100	99	96.2	97.5	0	100	97.5	0	0	0	100	100	97.8
Truck	0	5	1	0	6	1	0	0	0	1	0	10	0	0	10	0	0	0	0	0	17
% Truck	0	0.7	0.3	0	0.5	0.3	0	0	0	0.3	0	0.9	0	0	0.9	0	0	0	0	0	0.6
Semi	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Semi	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0
Bus	0	13	1	0	14	2	0	0	0	2	0	13	0	0	13	0	0	0	0	0	29
% Bus	0	1.8	0.3	0	1.3	0.6	0	0	0	0.5	0	1.2	0	0	1.1	0	0	0	0	0	1.1
Bicycle	0	7	0	0	7	1	0	0	0	1	2	3	0	0	5	0	0	0	0	0	13
% Bicycle	0	1	0	0	0.6	0.3	0	0	0	0.3	3.8	0.3	0	0	0.4	0	0	0	0	0	0.5



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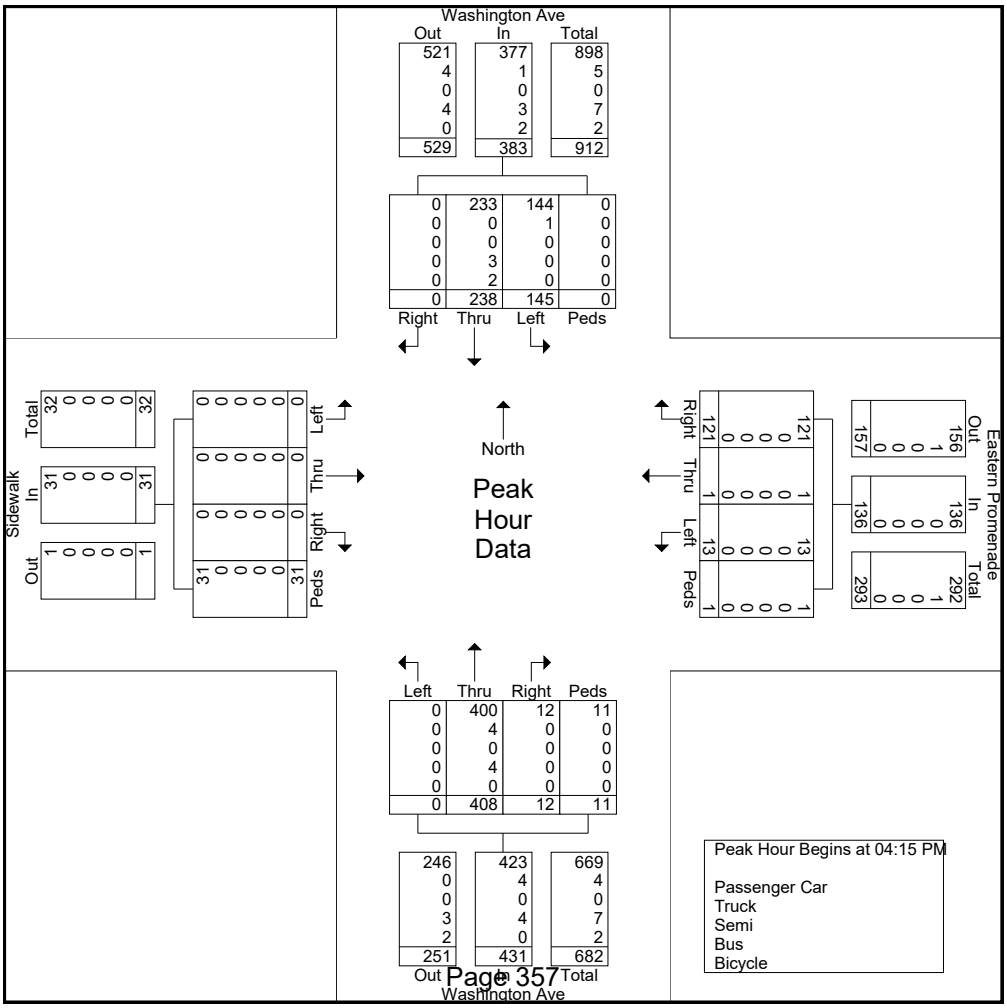


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	Washington Ave From North					Eastern Promenade From East					Washington Ave From South					Sidewalk From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	58	35	0	93	**38**	0	2	0	**40**	3	**117**	0	1	**121**	0	0	0	12	12	**266**
04:30 PM	0	55	23	0	78	32	0	**4**	0	36	2	106	0	1	109	0	0	0	5	5	228
04:45 PM	0	59	**44**	0	103	21	**1**	3	**1**	26	**5**	95	0	4	104	0	0	0	**14**	**14**	247
05:00 PM	0	**66**	43	0	**109**	30	0	4	0	34	2	90	0	**5**	97	0	0	0	0	0	240
Total Volume	0	238	145	0	383	121	1	13	1	136	12	408	0	11	431	0	0	0	31	31	981
% App. Total	0	62.1	37.9	0		89	0.7	9.6	0.7		2.8	94.7	0	2.6		0	0	0	100		
PHF	.000	.902	.824	.000	.878	.796	.250	.813	.250	.850	.600	.872	.000	.550	.890	.000	.000	.000	.554	.554	.922
Passenger Car	0	233	144	0	377	121	1	13	1	136	12	400	0	11	423	0	0	0	31	31	967
% Passenger Car	0	97.9	99.3	0	98.4	100	100	100	100	100	100	98.0	0	100	98.1	0	0	0	100	100	98.6
Truck	0	0	1	0	1	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	5
% Truck	0	0	0.7	0	0.3	0	0	0	0	0	0	1.0	0	0	0.9	0	0	0	0	0	0.5
Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	7
% Bus	0	1.3	0	0	0.8	0	0	0	0	0	0	1.0	0	0	0.9	0	0	0	0	0	0.7
Bicycle	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% Bicycle	0	0.8	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2

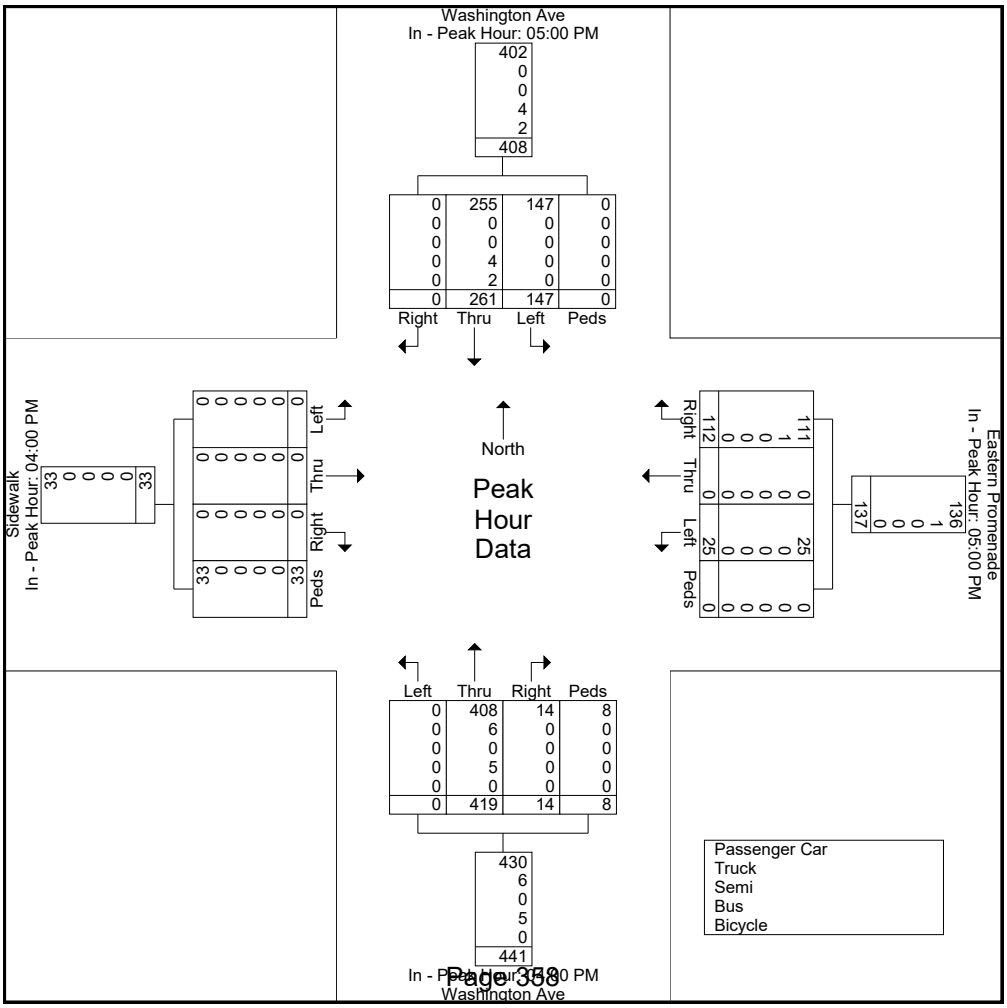


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File Name : Portland Washington, Eastern Promenade 10-16-2024 PM
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	Washington Ave From North					Eastern Promenade From East					Washington Ave From South					Sidewalk From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	05:00 PM					05:00 PM					04:00 PM					04:00 PM					
+0 mins.	0	66	**43**	0	109	30	0	4	0	34	4	101	0	2	107	0	0	0	2	2	
+15 mins.	0	55	36	0	91	19	0	6	0	25	3	**117**	0	1	**121**	0	0	0	12	12	
+30 mins.	0	57	36	0	93	**36**	0	1	0	37	2	106	0	1	109	0	0	0	5	5	
+45 mins.	0	**83**	32	0	**115**	27	0	**14**	0	**41**	**5**	95	0	**4**	104	0	0	0	**14**	**14**	
Total Volume	0	261	147	0	408	112	0	25	0	137	14	419	0	8	441	0	0	0	33	33	
% App. Total	0	64	36	0		81.8	0	18.2	0		3.2	95	0	1.8		0	0	0	100		
PHF	.000	.786	.855	.000	.887	.778	.000	.446	.000	.835	.700	.895	.000	.500	.911	.000	.000	.000	.589	.589	
Passenger Car	0	255	147	0	402	111	0	25	0	136	14	408	0	8	430	0	0	0	33	33	
% Passenger Car	0	97.7	100	0	98.5	99.1	0	100	0	99.3	100	97.4	0	100	97.5	0	0	0	100	100	
Truck	0	0	0	0	0	1	0	0	0	1	0	6	0	0	6	0	0	0	0	0	
% Truck	0	0	0	0	0	0.9	0	0	0	0.7	0	1.4	0	0	1.4	0	0	0	0	0	
Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bus	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	
% Bus	0	1.5	0	0	1	0	0	0	0	0	0	1.2	0	0	1.1	0	0	0	0	0	
Bicycle	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Bicycle	0	0.8	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



Traffic Solutions
17 Mountview Drive
Gorham, ME 04038

File Name : Portland Washington, Eastern Promenade 10-16-2024 PM
Site Code : 01016242
Start Date : 10/16/2024
Page No : 6



APPENDIX B

- **MAINEDOT CRASH DATA**


PORTLAND
EASTERN PROMENADE
Munjoy Hill
East End
Eastern Cemetery
FORT ALLEN PARK
Fish Point
BACK COVE TRAIL
CRF: 2.22
Crashes: 10
CRF: 2.57
Crashes: 12
CRF: 1.55
Crashes: 28
CRF: 1.52
Crashes: 11
CRF: 2.82
Crashes: 15
Scale: 1:9000
600ft

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ **Crash Summary I** ☐ **Section Detail** ☑ **Crash Summary II** ☐ **1320 Public** ☐ **1320 Private** ☐ **1320 Summary**

REPORT DESCRIPTION

Portland
Washington Ave-Fox St-Walnut St-Cumberland Ave area

REPORT PARAMETERS

Year 2021, Start Month 1 through Year 2023 End Month: 12

Route: **0561238**	Start Node: **63224**	Start Offset: **0**	☐ **Exclude First Node**
	End Node: **18909**	End Offset: **0**	☐ **Exclude Last Node**
Route: **0026X**	Start Node: **19042**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **18717**	End Offset: **0**	☐ **Exclude Last Node**
Route: **0560766**	Start Node: **18879**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **18877**	End Offset: **0**	☐ **Exclude Last Node**
Route: **0560293**	Start Node: **18521**	Start Offset: **0**	☐ **Exclude First Node**
	End Node: **18960**	End Offset: **0**	☑ **Exclude Last Node**
Route: **0026S**	Start Node: **18955**	Start Offset: **0**	☐ **Exclude First Node**
	End Node: **18717**	End Offset: **0**	☑ **Exclude Last Node**

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
18922	0561238 - 0.89	Int of CUMBERLAND AV MAYO ST	2	1	0	0	0	0	1	0.0	2.195	0.15	0.46	0.00
												Statewide Crash Rate:	0.15	
19042	0561238 - 1.04	Int of CUMBERLAND AV WASHINGTON AV	9	7	0	0	1	0	6	14.3	4.026	0.58	1.29	0.45
												Statewide Crash Rate:	0.71	
19463	0561238 - 0.98	Int of ANDERSON ST CUMBERLAND AV	2	2	0	0	0	0	2	0.0	2.031	0.33	0.47	0.00
												Statewide Crash Rate:	0.15	
18830	0561238 - 1.15	Int of CUMBERLAND AV SHERIDAN ST	2	2	0	0	0	0	2	0.0	1.896	0.35	0.43	0.00
												Statewide Crash Rate:	0.13	
18873	0561238 - 1.11	Int of CUMBERLAND AV ROMASCO ST	2	0	0	0	0	0	0	0.0	1.446	0.00	0.46	0.00
												Statewide Crash Rate:	0.13	
18909	0561238 - 1.25	Int of CUMBERLAND AV NORTH ST	2	1	0	0	0	0	1	0.0	1.413	0.24	0.46	0.00
												Statewide Crash Rate:	0.13	
18912	0561238 - 0.99	Int of CUMBERLAND AV MONTGOMERY ST	2	1	0	0	1	0	0	100.0	1.719	0.19	0.49	0.00
												Statewide Crash Rate:	0.15	
18915	0561238 - 0.94	Int of CUMBERLAND AV SMITH ST	2	4	0	0	0	1	3	25.0	2.207	0.60	0.46	1.31
												Statewide Crash Rate:	0.15	
18919	0561238 - 0.84	Int of BOYD ST CUMBERLAND AV	2	0	0	0	0	0	0	0.0	2.470	0.00	0.45	0.00
												Statewide Crash Rate:	0.15	
18937	0561238 - 1.01	Int of CLEEVE ST CUMBERLAND AV	2	0	0	0	0	0	0	0.0	1.736	0.00	0.49	0.00
												Statewide Crash Rate:	0.15	
18910	0561238 - 0.87	Int of CUMBERLAND AV, LOCUST ST	2	1	0	0	0	0	1	0.0	2.357	0.14	0.45	0.00
												Statewide Crash Rate:	0.15	
63224	0561238 - 0.80	Int of CUMBERLAND AV FRANKLIN ST	9	14	0	1	2	0	11	21.4	5.842	0.80	1.20	0.67
												Statewide Crash Rate:	0.71	
18941	0026X - 0.19	Int of MADISON ST WASHINGTON AV	2	0	0	0	0	0	0	0.0	3.584	0.00	0.41	0.00
												Statewide Crash Rate:	0.15	
18875	0026X - 0.17	Int of MARION ST, WASHINGTON AV	2	0	0	0	0	0	0	0.0	3.657	0.00	0.41	0.00
												Statewide Crash Rate:	0.15	
18717	0026X - 0.56	Int of WASH AV SB, WASHINGTON AV	2	1	1	0	0	0	0	100.0	3.301	0.10	0.31	0.00
												Statewide Crash Rate:	0.10	
18881	0026X - 0.41	Non Int WASHINGTON AV	2	0	0	0	0	0	0	0.0	3.142	0.00	0.42	0.00
												Statewide Crash Rate:	0.15	
18936	0026X - 0.10	Int of E OXFORD ST EXT, WASHINGTON AV	2	4	0	0	1	1	2	50.0	3.017	0.44	0.43	1.04
												Statewide Crash Rate:	0.15	
18940	0026X - 0.15	Int of MONROE ST WASHINGTON AV	2	1	0	0	0	0	1	0.0	3.359	0.10	0.41	0.00
												Statewide Crash Rate:	0.15	
18879	0026X - 0.28	Int of WALNUT ST, WASHINGTON AV	2	5	0	0	0	0	5	0.0	3.990	0.42	0.40	1.05
												Statewide Crash Rate:	0.15	
18962	0026X - 0.49	Int of EASTERN PROMENADE WASHINGTON AV	2	5	0	0	0	1	4	20.0	3.848	0.43	0.40	1.08
												Statewide Crash Rate:	0.15	
18960	0026X - 0.27	Int of FOX ST WASHINGTON AV	2	3	0	0	0	0	3	0.0	4.109	0.24	0.39	0.00
												Statewide Crash Rate:	0.15	
18831	0560766 - 0.06	Int of SHERIDAN ST WALNUT ST	2	0	0	0	0	0	0	0.0	1.034	0.00	0.50	0.00
												Statewide Crash Rate:	0.13	

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
19459	0560766 - 0.07	0509881 POR,WALNUT ST,POPLAR STREET	2	0	0	0	0	0	0	0.0	0.761	0.00	0.53	0.00
												Statewide Crash Rate:	0.13	
18878	0560766 - 0.12	0509298 POR,WALNUT,NORTH ST.	2	1	0	0	0	0	1	0.0	1.168	0.29	0.48	0.00
												Statewide Crash Rate:	0.13	
18880	0560766 - 0.20	Int of WALNUT ST WILLIS ST	2	0	0	0	0	0	0	0.0	0.291	0.00	0.55	0.00
												Statewide Crash Rate:	0.13	
18877	0560766 - 0.30	Int of EASTERN PROMENADE WALNUT ST	2	0	0	0	0	0	0	0.0	1.061	0.00	0.49	0.00
												Statewide Crash Rate:	0.13	
A18948	0560293 - 0.28	0509368 POR,FOX,HAMMOND ST.	2	0	0	0	0	0	0	0.0	0.000	0.00	0.00	0.00
												Statewide Crash Rate:	0.13	
18953	0560293 - 0.05	Int of FOX ST N BOYD ST	2	1	0	0	0	0	1	0.0	2.079	0.16	0.42	0.00
												Statewide Crash Rate:	0.13	
18521	0560293 - 0	Int of FOX ST FRANKLIN ST	9	25	0	0	5	3	17	32.0	10.487	0.79	1.08	0.74
												Statewide Crash Rate:	0.71	
18945	0560293 - 0.24	0509365 POR,FOX,N.GREENLEAF ST.	2	0	0	0	0	0	0	0.0	1.419	0.00	0.46	0.00
												Statewide Crash Rate:	0.13	
19466	0560293 - 0.23	Non Int FOX ST	2	0	0	0	0	0	0	0.0	1.533	0.00	0.45	0.00
												Statewide Crash Rate:	0.13	
18929	0560293 - 0.19	0509349 POR,ANDERSON,FOX ST.	2	4	0	0	0	0	4	0.0	2.759	0.48	0.39	1.23
												Statewide Crash Rate:	0.13	
P18946	0560293 - 0.29	Int of FOX ST WINTHROP ST	2	0	0	0	0	0	0	0.0	1.217	0.00	0.48	0.00
												Statewide Crash Rate:	0.13	
18952	0560293 - 0.14	Int of DIAMOND ST FOX ST	2	0	0	0	0	0	0	0.0	2.196	0.00	0.42	0.00
												Statewide Crash Rate:	0.13	
18955	0026S - 1.71	Int of ANDERSON ST WASH AV SB	2	2	0	0	0	0	2	0.0	2.201	0.30	0.34	0.00
												Statewide Crash Rate:	0.10	
Study Years:	3.00	**NODE TOTALS:**		85	1	1	10	6	67	21.2	89.551	0.32	0.35	0.91

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
63224	18919	3115972	0 - 0.04	0561238 - 0.80	0.04	2	1	0	0	0	0	1	0.0	0.00099	338.09	723.71	0.00
Int of CUMBERLAND AV FRANKLIN ST				RD INV 05 61238											Statewide Crash Rate: 208.62		
18910	18919	3129300	0 - 0.03	0561238 - 0.84	0.03	2	3	0	0	0	0	3	0.0	0.00069	1441.13	783.91	1.84
Int of CUMBERLAND AV, LOCUST ST				RD INV 05 61238											Statewide Crash Rate: 208.62		
18910	18922	3118713	0 - 0.02	0561238 - 0.87	0.02	2	0	0	0	0	0	0	0.0	0.00044	0.00	854.37	0.00
Int of CUMBERLAND AV, LOCUST ST				RD INV 05 61238											Statewide Crash Rate: 208.62		
18915	18922	3117967	0 - 0.05	0561238 - 0.89	0.05	2	1	0	0	0	0	1	0.0	0.00105	316.82	712.47	0.00
Int of CUMBERLAND AV SMITH ST				RD INV 05 61238											Statewide Crash Rate: 208.62		
18915	19463	3131702	0 - 0.04	0561238 - 0.94	0.04	2	6	0	0	0	0	4	0.0	0.00081	2455.39	756.68	3.24
Int of CUMBERLAND AV SMITH ST				RD INV 05 61238											Statewide Crash Rate: 208.62		
18912	19463	194577	0 - 0.01	0561238 - 0.98	0.01	2	0	0	0	0	0	0	0.0	0.00018	0.00	880.76	0.00
Int of CUMBERLAND AV MONTGOMERY ST				RD INV 05 61238											Statewide Crash Rate: 208.62		
18912	18937	3130202	0 - 0.02	0561238 - 0.99	0.02	2	0	0	0	0	0	0	0.0	0.00034	0.00	884.51	0.00
Int of CUMBERLAND AV MONTGOMERY ST				RD INV 05 61238											Statewide Crash Rate: 208.62		
18937	19042	3131703	0 - 0.03	0561238 - 1.01	0.03	2	2	0	1	0	0	0	100.0	0.00049	1351.75	837.97	1.61
Int of CLEEVE ST CUMBERLAND AV				RD INV 05 61238											Statewide Crash Rate: 208.62		
18873	19042	194519	0 - 0.07	0561238 - 1.04	0.07	2	2	0	0	0	0	2	0.0	0.00086	772.66	1153.26	0.00
Int of CUMBERLAND AV ROMASCO ST				RD INV 05 61238											Statewide Crash Rate: 371.08		
18830	18873	5080178	0 - 0.04	0561238 - 1.11	0.04	2	0	0	0	0	0	0	0.0	0.00063	0.00	1248.46	0.00
Int of CUMBERLAND AV SHERIDAN ST				RD INV 05 61238											Statewide Crash Rate: 371.08		
18830	18909	5080171	0 - 0.10	0561238 - 1.15	0.10	2	2	0	0	0	0	1	0.0	0.00123	541.82	1052.38	0.00
Int of CUMBERLAND AV SHERIDAN ST				RD INV 05 61238											Statewide Crash Rate: 371.08		
18936	19042	3117968	0 - 0.10	0026X - 0	0.10	2	12	0	0	1	0	11	8.3	0.00288	1388.08	550.95	2.52
Int of E OXFORD ST EXT, WASHINGTON AV				ST RTE 26											Statewide Crash Rate: 208.62		
18936	18940	3120759	0 - 0.05	0026X - 0.10	0.05	2	5	0	0	1	0	3	25.0	0.00148	1126.21	654.40	1.72
Int of E OXFORD ST EXT, WASHINGTON AV				ST RTE 26											Statewide Crash Rate: 208.62		
18875	18940	3106823	0 - 0.02	0026X - 0.15	0.02	2	3	0	0	0	0	2	0.0	0.00073	1362.37	774.44	1.76
Int of MARION ST, WASHINGTON AV				ST RTE 26											Statewide Crash Rate: 208.62		
18875	18941	3131701	0 - 0.02	0026X - 0.17	0.02	2	0	0	0	0	0	0	0.0	0.00071	0.00	779.20	0.00
Int of MARION ST, WASHINGTON AV				ST RTE 26											Statewide Crash Rate: 208.62		
18941	18960	3124003	0 - 0.08	0026X - 0.19	0.08	2	10	0	0	0	0	7	0.0	0.00266	1252.39	562.38	2.23
Int of MADISON ST WASHINGTON AV				ST RTE 26											Statewide Crash Rate: 208.62		
18879	18960	3123723	0 - 0.01	0026X - 0.27	0.01	2	0	0	0	0	0	0	0.0	0.00039	0.00	869.59	0.00
Int of WALNUT ST, WASHINGTON AV				ST RTE 26											Statewide Crash Rate: 208.62		
18879	18881	3129298	0 - 0.13	0026X - 0.28	0.13	2	6	0	0	0	1	4	20.0	0.00410	487.96	503.49	0.97
Int of WALNUT ST, WASHINGTON AV				ST RTE 26											Statewide Crash Rate: 208.62		
18881	18962	3117966	0 - 0.08	0026X - 0.41	0.08	2	2	0	0	0	0	2	0.0	0.00251	266.07	571.25	0.00
Non Int WASHINGTON AV				ST RTE 26											Statewide Crash Rate: 208.62		
18717	18962	3131691	0 - 0.07	0026X - 0.49	0.07	2	0	0	0	0	0	0	0.0	0.00235	0.00	581.07	0.00
Int of WASH AV SB, WASHINGTON AV				ST RTE 26											Statewide Crash Rate: 208.62		

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
18831	18879	194449	0 - 0.06	0560766 - 0	0.06	2	1	0	0	0	0	1	0.0	0.00057	587.67	1280.19	0.00
Int of SHERIDAN ST	WALNUT ST			RD INV 05 60766											Statewide Crash Rate: 371.08		
18831	19459	194450	0 - 0.01	0560766 - 0.06	0.01	2	0	0	0	0	0	0	0.0	0.00007	0.00	1439.33	0.00
Int of SHERIDAN ST	WALNUT ST			RD INV 05 60766											Statewide Crash Rate: 371.08		
18878	19459	194530	0 - 0.05	0560766 - 0.07	0.05	2	2	0	0	0	0	1	0.0	0.00039	1730.44	1398.10	1.24
0509298 POR,WALNUT,NORTH ST.				RD INV 05 60766											Statewide Crash Rate: 371.08		
18878	18880	194527	0 - 0.08	0560766 - 0.12	0.08	2	0	0	0	0	0	0	0.0	0.00025	0.00	1518.10	0.00
0509298 POR,WALNUT,NORTH ST.				RD INV 05 60766											Statewide Crash Rate: 371.08		
18877	18880	5080188	0 - 0.10	0560766 - 0.20	0.10	2	1	0	0	0	0	0	0.0	0.00022	1509.49	1544.28	0.00
Int of EASTERN PROMENADE	WALNUT ST			RD INV 05 60766											Statewide Crash Rate: 371.08		
18521	18953	5094285	0 - 0.05	0560293 - 0	0.05	2	1	0	0	0	0	1	0.0	0.00103	325.00	1103.16	0.00
Int of FOX ST	FRANKLIN ST			RD INV 05 60293											Statewide Crash Rate: 371.08		
18952	18953	5080207	0 - 0.09	0560293 - 0.05	0.09	2	4	0	0	1	0	1	50.0	0.00181	737.04	952.54	0.00
Int of DIAMOND ST	FOX ST			RD INV 05 60293											Statewide Crash Rate: 371.08		
18929	18952	194603	0 - 0.05	0560293 - 0.14	0.05	2	2	0	0	0	0	2	0.0	0.00102	653.95	1104.89	0.00
0509349 POR,ANDERSON,FOX ST.				RD INV 05 60293											Statewide Crash Rate: 371.08		
18929	19466	194604	0 - 0.04	0560293 - 0.19	0.04	2	3	0	0	0	0	3	0.0	0.00061	1630.79	1256.24	1.30
0509349 POR,ANDERSON,FOX ST.				RD INV 05 60293											Statewide Crash Rate: 371.08		
18945	19466	194628	0 - 0.01	0560293 - 0.23	0.01	2	0	0	0	0	0	0	0.0	0.00015	0.00	1597.80	0.00
0509365 POR,FOX,N.GREENLEAF ST.				RD INV 05 60293											Statewide Crash Rate: 371.08		
18945	18948	194627	0 - 0.04	0560293 - 0.24	0.04	2	0	0	0	0	0	0	0.0	0.00050	0.00	1317.18	0.00
0509365 POR,FOX,N.GREENLEAF ST.				RD INV 05 60293											Statewide Crash Rate: 371.08		
18946	18948	194629	0 - 0.01	0560293 - 0.28	0.01	2	0	0	0	0	0	0	0.0	0.00012	0.00	1599.56	0.00
Int of FOX ST	WINTHROP ST			RD INV 05 60293											Statewide Crash Rate: 371.08		
18946	18960	5080201	0 - 0.06	0560293 - 0.29	0.06	2	3	0	0	0	1	2	33.3	0.00061	1649.05	1259.66	1.31
Int of FOX ST	WINTHROP ST			RD INV 05 60293											Statewide Crash Rate: 371.08		
18717	18955	3106780	0 - 0.10	0026S - 1.71	0.10	2	0	0	0	0	0	0	0.0	0.00162	0.00	638.95	0.00
Int of WASH AV SB, WASHINGTON AV				ST RTE 26S											Statewide Crash Rate: 208.62		
Study Years: 3.00				**Section Totals:**	1.76		72	0	1	3	2	52	8.3	0.03449	695.76	379.35	1.83
				Grand Totals:	1.76		157	1	2	13	8	119	15.3	0.03449	1517.15	505.89	3.00

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
63224	18919	3115972	0 - 0.04	0561238 - 0.80	1	0	0	0	0	1	2021-17259	07/08/2021	0.81	PD
18910	18919	3129300	0 - 0.03	0561238 - 0.84	3	0	0	0	0	3	2022-22670	08/11/2022	0.85	PD
											2022-9212	03/22/2022	0.85	PD
											2022-38905	12/24/2022	0.86	PD
18910	18922	3118713	0 - 0.02	0561238 - 0.87	0	0	0	0	0	0				
18915	18922	3117967	0 - 0.05	0561238 - 0.89	1	0	0	0	0	1	2021-24162	09/11/2021	0.91	PD
18915	19463	3131702	0 - 0.04	0561238 - 0.94	6	0	0	0	0	4	2022-29951	10/15/2022	0.95	PD
											2023-9720	03/29/2023	0.96	PD
											2023-32208	11/03/2023	0.96	PD
											2023-7153	03/04/2023	0.97	
											2022-28379	10/05/2022	0.97	
											2023-7730	03/09/2023	0.97	PD
18912	19463	194577	0 - 0.01	0561238 - 0.98	0	0	0	0	0	0				
18912	18937	3130202	0 - 0.02	0561238 - 0.99	0	0	0	0	0	0				
18937	19042	3131703	0 - 0.03	0561238 - 1.01	2	0	1	0	0	0	2021-35533	12/15/2021	1.02	
											2022-25276	08/31/2022	1.03	A
18873	19042	194519	0 - 0.07	0561238 - 1.04	2	0	0	0	0	2	2021-21224	08/13/2021	1.06	PD
											2023-7972	03/11/2023	1.06	PD
18830	18873	5080178	0 - 0.04	0561238 - 1.11	0	0	0	0	0	0				
18830	18909	5080171	0 - 0.10	0561238 - 1.15	2	0	0	0	0	1	2023-17304	06/18/2023	1.19	
											2022-23251	08/17/2022	1.20	PD
18936	19042	3117968	0 - 0.10	0026X - 0	12	0	0	1	0	11	2023-27818	09/26/2023	0.02	PD
											2022-19694	07/14/2022	0.02	PD
											2023-15628	06/02/2023	0.04	PD
											2023-5646	02/22/2023	0.04	PD
											2022-38908	12/25/2022	0.04	PD
											2022-22552	07/29/2022	0.04	PD
											2021-9622	04/17/2021	0.05	PD
											2023-25792	09/06/2023	0.06	B
											2023-5500	02/18/2023	0.06	PD
											2023-4290	02/08/2023	0.07	PD
											2023-9516	03/27/2023	0.08	PD
											2022-18001	06/28/2022	0.09	PD

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
18936	18940	3120759	0 - 0.05	0026X - 0.10	5	0	0	1	0	3	2021-32542	11/22/2021	0.11	B
											2021-7928	03/26/2021	0.11	PD
											2021-21032	08/12/2021	0.11	PD
											2023-20164	07/17/2023	0.12	
											2021-37690	12/29/2021	0.13	PD
18875	18940	3106823	0 - 0.02	0026X - 0.15	3	0	0	0	0	2	2023-3892	02/05/2023	0.16	
											2022-26999	09/22/2022	0.16	PD
											2021-10543	04/30/2021	0.16	PD
18875	18941	3131701	0 - 0.02	0026X - 0.17	0	0	0	0	0	0				
18941	18960	3124003	0 - 0.08	0026X - 0.19	10	0	0	0	0	7	2022-19719	07/15/2022	0.20	
											2022-33553	11/16/2022	0.20	
											2023-21347	07/26/2023	0.20	PD
											2022-11146	04/15/2022	0.20	PD
											2021-7502	03/24/2021	0.20	PD
											2023-2541	01/25/2023	0.22	PD
											2021-21289	08/16/2021	0.23	PD
											2022-24776	08/31/2022	0.24	PD
											2022-16293	05/10/2022	0.24	PD
											2022-20849	07/25/2022	0.25	
18879	18960	3123723	0 - 0.01	0026X - 0.27	0	0	0	0	0	0				
18879	18881	3129298	0 - 0.13	0026X - 0.28	6	0	0	0	1	4	2022-24580	08/26/2022	0.31	PD
											2022-30661	10/24/2022	0.32	C
											2023-14630	05/23/2023	0.32	PD
											2021-24649	09/16/2021	0.39	PD
											2021-25327	09/22/2021	0.39	PD
											2022-38556	12/22/2022	0.40	
18881	18962	3117966	0 - 0.08	0026X - 0.41	2	0	0	0	0	2	2023-16468	06/12/2023	0.46	PD
											2022-7597	03/07/2022	0.48	PD
18717	18962	3131691	0 - 0.07	0026X - 0.49	0	0	0	0	0	0				
18831	18879	194449	0 - 0.06	0560766 - 0	1	0	0	0	0	1	2021-14575	06/13/2021	0.01	PD
18831	19459	194450	0 - 0.01	0560766 - 0.06	0	0	0	0	0	0				
18878	19459	194530	0 - 0.05	0560766 - 0.07	2	0	0	0	0	1	2021-30484	11/06/2021	0.10	
											2021-14568	06/12/2021	0.10	PD
18878	18880	194527	0 - 0.08	0560766 - 0.12	0	0	0	0	0	0				

Crash Summary

Section Details

Start Node	End Node	Element	Offset Begin - End	Route - MP	Total Crashes	Injury Crashes K	A	B	C	PD	Crash Report	Crash Date	Crash Mile Point	Injury Degree
18877	18880	5080188	0 - 0.10	0560766 - 0.20	1	0	0	0	0	0	2023-21255	07/22/2023	0.29	
18521	18953	5094285	0 - 0.05	0560293 - 0	1	0	0	0	0	1	2023-28576	10/02/2023	0.04	PD
18952	18953	5080207	0 - 0.09	0560293 - 0.05	4	0	0	1	0	1	2021-879	01/09/2021	0.07	
											2022-21575	07/31/2022	0.07	
											2023-19343	07/08/2023	0.09	PD
											2023-20452	06/30/2023	0.12	B
18929	18952	194603	0 - 0.05	0560293 - 0.14	2	0	0	0	0	2	2022-20692	07/22/2022	0.18	PD
											2021-17133	07/07/2021	0.18	PD
18929	19466	194604	0 - 0.04	0560293 - 0.19	3	0	0	0	0	3	2021-28754	10/25/2021	0.21	PD
											2021-16867	07/05/2021	0.21	PD
											2023-11848	04/19/2023	0.22	PD
18945	19466	194628	0 - 0.01	0560293 - 0.23	0	0	0	0	0	0				
18945	18948	194627	0 - 0.04	0560293 - 0.24	0	0	0	0	0	0				
18946	18948	194629	0 - 0.01	0560293 - 0.28	0	0	0	0	0	0				
18946	18960	5080201	0 - 0.06	0560293 - 0.29	3	0	0	0	1	2	2022-30165	10/20/2022	0.33	C
											2023-18818	07/03/2023	0.34	PD
											2023-9364	03/24/2023	0.34	PD
18717	18955	3106780	0 - 0.10	0026S - 1.71	0	0	0	0	0	0				
				Totals:	72	0	1	3	2	52				

Crash Summary II - Characteristics

Crashes by Day and Hour

	AM												Hour of Day PM												
Day Of Week	**12**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**Un**	**Tot**
SUNDAY	1	0	0	0	0	0	0	1	0	1	0	1	2	0	0	0	1	1	1	1	2	0	1	0	0	13
MONDAY	0	0	0	1	0	0	0	1	0	1	0	1	1	1	2	0	0	3	1	3	1	1	1	1	0	19
TUESDAY	0	0	0	0	0	0	0	2	1	1	1	1	1	2	1	1	2	1	0	0	0	0	1	0	0	15
WEDNESDAY	0	0	0	0	0	1	1	1	2	1	0	1	5	2	1	1	2	2	4	2	0	2	0	0	0	28
THURSDAY	0	0	0	0	0	1	0	1	0	0	2	1	1	2	0	4	2	4	0	2	2	1	2	0	0	25
FRIDAY	0	0	0	0	0	1	0	2	3	1	3	2	3	1	1	3	3	2	1	1	1	2	2	2	0	34
SATURDAY	2	2	0	0	0	1	0	0	0	0	1	1	3	2	2	0	3	2	1	1	1	0	0	1	0	23
Totals	3	2	0	1	0	4	1	8	6	5	7	8	16	10	7	9	13	15	8	10	7	6	7	4	0	**157**

Vehicle Counts by Type

Unit Type	Total
1-Passenger Car	144
2-(Sport) Utility Vehicle	92
3-Passenger Van	5
4-Cargo Van (10K lbs or Less)	6
5-Pickup	32
6-Motor Home	0
7-School Bus	0
8-Transit Bus	1
9-Motor Coach	0
10-Other Bus	1
11-Motorcycle	0
12-Moped	0
13-Low Speed Vehicle	0
14-Autocycle	0
15-Experimental	0
16-Other Light Trucks (10,000 lbs or Less)	3
17-Medium/Heavy Trucks (More than 10,000 lbs)	13
18-ATV - (4 wheel)	0
20-ATV - (2 wheel)	0
21-Snowmobile	0
22-Pedestrian	1
23-Bicyclist	2
24-Witness	20
25-Other	17
26-Construction	0
27-Farm Vehicle	0
28-Horse and Buggy	0
Total	**337**

Crash Summary II - Characteristics

Crashes by Driver Action at Time of Crash

Driver Action at Time of Crash	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
No Contributing Action	20	89	5	0	0	0	114
Ran Off Roadway	6	0	0	0	0	0	6
Failed to Yield Right-of-Way	29	5	0	0	0	0	34
Ran Red Light	5	0	0	0	0	0	5
Ran Stop Sign	0	1	0	0	0	0	1
Disregarded Other Traffic Sign	2	0	0	0	0	0	2
Disregarded Other Road Markings	0	0	0	0	0	0	0
Exceeded Posted Speed Limit	0	0	0	0	0	0	0
Drove Too Fast For Conditions	2	0	0	0	0	0	2
Improper Turn	9	0	0	0	0	0	9
Improper Backing	5	1	0	0	0	0	6
Improper Passing	3	0	0	0	0	0	3
Wrong Way	0	0	0	0	0	0	0
Followed Too Closely	20	2	0	0	0	0	22
Failed to Keep in Proper Lane	10	3	0	0	0	0	13
Operated Motor Vehicle in Erratic, Reckless, Careless, Negligent or Aggressive Manner	4	0	0	0	0	0	4
Swerved or Avoided Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway	3	0	0	0	0	0	3
Over-Correcting/Over-Steering	1	0	0	0	0	0	1
Other Contributing Action	10	4	0	0	0	0	14
Unknown	1	2	0	0	0	0	3
Total	**130**	**107**	**5**	**0**	**0**	**0**	**242**

Crashes by Apparent Physical Condition And Driver

Apparent Physical Condition	Dr 1	Dr 2	Dr 3	Dr 4	Dr 5	Other	Total
Apparently Normal	118	107	5	0	0	2	232
Physically Impaired	1	0	0	0	0	0	1
Emotional(Depressed, Angry, Disturbed, etc.)	0	0	0	0	0	0	0
Ill (Sick)	0	0	0	0	0	0	0
Asleep or Fatigued	1	0	0	0	0	0	1
Under the Influence of Medications/Drugs/Alcohol	7	0	0	0	0	1	8
Other	1	0	0	0	0	0	1
Total	**128**	**107**	**5**	**0**	**0**	**3**	**243**

Driver Age by Unit Type

Age	Driver	Bicycle	SnowMobile	Pedestrian	ATV	Total
09-Under	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	9	0	0	0	0	9
20-24	34	0	0	0	0	34
25-29	45	0	0	0	0	45
30-39	66	0	0	0	0	66
40-49	42	0	0	0	0	42
50-59	26	0	0	0	0	26
60-69	24	0	0	0	0	24
70-79	15	0	0	0	0	15
80-Over	1	0	0	0	0	1
Unknown	52	2	0	1	0	55
Total	**314**	**2**	**0**	**1**	**0**	**317**

Crash Summary II - Characteristics

Most Harmful Event

Most Harmful Event	Total	Most Harmful Event	Total
1-Overturn / Rollover	3	38-Other Fixed Object (wall, building, tunnel, etc.)	1
2-Fire / Explosion	0	39-Unknown	0
3-Immersion	0	40-Gate or Cable	1
4-Jackknife	0	41-Pressure Ridge	0
5-Cargo / Equipment Loss Or Shift	0	**Total**	**296**
6-Fell / Jumped from Motor Vehicle	0		
7-Thrown or Falling Object	0		
8-Other Non-Collision	0		
9-Pedestrian	0		
10-Pedalcycle	1		
11-Railway Vehicle - Train, Engine	0		
12-Animal	0		
13-Motor Vehicle in Transport	242		
14-Parked Motor Vehicle	44		
15-Struck by Falling, Shifting Cargo or Anything Set in Motion by Motor Vehicle	0		
16-Work Zone / Maintenance Equipment	0		
17-Other Non-Fixed Object	0		
18-Impact Attenuator / Crash Cushion	0		
19-Bridge Overhead Structure	0		
20-Bridge Pier or Support	0		
21-Bridge Rail	0		
22-Cable Barrier	0		
23-Culvert	0		
24-Curb	0		
25-Ditch	0		
26-Embankment	0		
27-Guardrail Face	0		
28-Guardrail End	0		
29-Concrete Traffic Barrier	0		
30-Other Traffic Barrier	0		
31-Tree (Standing)	1		
32-Utility Pole / Light Support	0		
33-Traffic Sign Support	2		
34-Traffic Signal Support	0		
35-Fence	0		
36-Mailbox	0		
37-Other Post, Pole, or Support	1		

Injury Data

Severity Code	Injury Crashes	Number Of Injuries
K	1	1
A	2	2
B	13	14
C	8	12
PD	119	0
Total	**143**	**29**

Road Character

Road Grade	Total
1-Level	127
2-On Grade	24
3-Top of Hill	5
4-Bottom of Hill	1
5-Other	0
Total	**157**

Traffic Control Devices

Traffic Control Device	Total
1-Traffic Signals (Stop & Go)	47
2-Traffic Signals (Flashing)	10
3-Advisory/Warning Sign	0
4-Stop Signs - All Approaches	7
5-Stop Signs - Other	16
6-Yield Sign	1
7-Curve Warning Sign	1
8-Officer, Flagman, School Patrol	0
9-School Bus Stop Arm	0
10-School Zone Sign	0
11-R.R. Crossing Device	0
12-No Passing Zone	2
13-None	73
14-Other	0
Total	**157**

Light

Light Condition	Total
1-Daylight	103
2-Dawn	0
3-Dusk	3
4-Dark - Lighted	42
5-Dark - Not Lighted	2
6-Dark - Unknown Lighting	2
7-Unknown	5
Total	**157**

Crash Summary II - Characteristics

Crashes by Year and Month

Month	2021	2022	2023	Total
JANUARY	2	3	2	7
FEBRUARY	1	3	4	8
MARCH	3	3	8	14
APRIL	5	3	4	12
MAY	4	3	4	11
JUNE	5	3	5	13
JULY	6	6	7	19
AUGUST	3	8	4	15
SEPTEMBER	5	2	4	11
OCTOBER	6	11	5	22
NOVEMBER	7	1	5	13
DECEMBER	5	4	3	12
Total	**52**	**50**	**55**	**157**

Report is limited to the last 10 years of data.

Crash Summary II - Characteristics

Crashes by Crash Type and Type of Location

Crash Type	Straight Road	Curved Road	Three Leg Intersection	Four Leg Intersection	Five or More Leg Intersection	Driveways	Bridges	Interchanges	Other	Parking Lot	Private Way	Cross Over	Railroad Crossing	Traffic Circle-Roundabout	Total
Object in Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rear End - Sideswipe	55	0	10	21	0	8	0	0	0	0	0	0	0	0	94
Head-on - Sideswipe	1	0	1	1	0	0	0	0	0	0	0	0	0	0	3
Intersection Movement	0	0	11	34	0	5	0	0	0	0	0	0	0	0	50
Pedestrians	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Train	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Went Off Road	1	0	5	0	0	0	0	0	0	0	0	0	0	0	6
All Other Animal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2
Other	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Jackknife	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rollover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thrown or Falling Object	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**58**	**0**	**27**	**58**	**0**	**14**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**157**

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather / Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Blowing Sand, Soil, Dirt												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Blowing Snow												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Clear												
Dark - Lighted	31	0	0	0	0	0	0	0	0	0	2	33
Dark - Not Lighted	1	0	0	0	0	0	0	0	0	0	1	2
Dark - Unknown Lighting	2	0	0	0	0	0	0	0	0	0	0	2
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	67	0	0	0	0	0	0	0	0	0	1	68
Dusk	2	0	0	0	0	0	0	0	0	0	0	2
Unknown	2	0	0	0	0	0	0	0	0	0	0	2
Cloudy												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	2	2
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	14	0	0	0	0	0	0	0	0	0	6	20
Dusk	1	0	0	0	0	0	0	0	0	0	0	1
Unknown	2	0	0	0	0	0	0	0	0	0	0	2

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Fog, Smog, Smoke												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	1	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	1	0	0	0	0	0	0	0	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Other												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Rain												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	5	5
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	13	13
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	1	1
Severe Crosswinds												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0

Crash Summary II - Characteristics

Crashes by Weather, Light Condition and Road Surface

Weather Light	Dry	Ice/Frost	Mud, Dirt, Gravel	Oil	Other	Sand	Slush	Snow	Unknown	Water (Standing, Moving)	Wet	Total
Sleet, Hail (Freezing Rain or Drizzle)												
Dark - Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	0	0	0	0	0
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Snow												
Dark - Lighted	0	0	0	0	0	0	0	1	0	0	0	1
Dark - Not Lighted	0	0	0	0	0	0	0	0	0	0	0	0
Dark - Unknown Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Dawn	0	0	0	0	0	0	0	0	0	0	0	0
Daylight	0	0	0	0	0	0	0	1	0	0	0	1
Dusk	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**123**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**32**	**157**

H. C. L.
CRASH COLLISION DIAGRAM
DATA PACKAGE

COUNTY: **CUMBERLAND** TOWN: **PORTLAND**

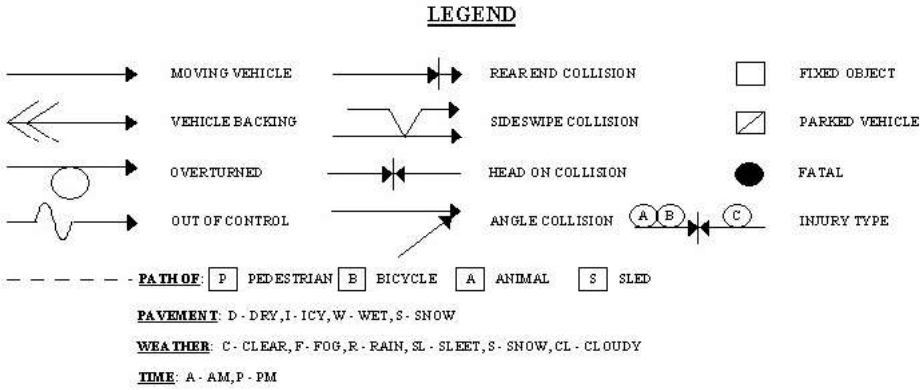
LOW NODE: **18936** HIGH NODE: **19042** REGION: **1** U/R: **URBAN**

DESCRIPTION: **Washington Ave from Oxford St to Cumberland Ave**

RTE # / RD #: **0026X** DATE DRAWN: **7/31/2024** DRAWN BY: **BOB K**

STUDY FROM: **1/10/2021** STUDY TO: **12/31/2023**

CRASH RATE: **1388.08** CRF: **2.51** % INJURY: **8.3** TOTAL CRASHES: **12**



Prepared by Office of Safety & Mobility

RFK3 7-31-24

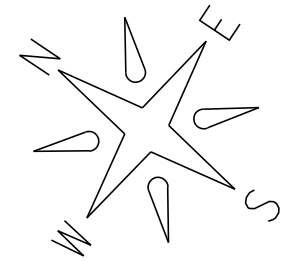
Portland

Link: 18936-19042

Element: 3117968

Study Period: 2021-2023

of Crashes: 12 / CRF: 2.51



#51

Maine Mead Works

#55

18936

#27

7-Eleven

19042

plow truck exiting

bike lock posts

delivery truck opened door hit vehicle passing by

18001 6-28-22 1:48P D/C Other

22552 7-29-22 10:22P D/C Improper turn

5546 2-22-23 6:25A D/C Fail to yield

15628 6-2-23 5:07P D/CL Hit and run

5500 2-18-23 2:00P D/C Unknown

38908 12-25-22 7:52P D/C Follow too close

9516 3-27-23 5:20P D/C Unknown

Washington Ave.

Rt 26

25792 9-6-23 5:29A D/C Fail to keep in lane

9622 4-17-21 1:45P

W/R Improper turn

19694 7-14-22 12:55P D/C

Served to Avoid

garbage truck stopped picking up trash

4290 2-8-23 9:32P D/C Driver inattention

27818 9-26-23 7:25A D/C Unknown

Silly's Restaurant

APPENDIX C

- **PURCHASE & SALE AGREEMENT**

PURCHASE AND SALE AGREEMENT

165 WASHINGTON AVENUE, PORTLAND, MAINE

THIS PURCHASE AND SALE AGREEMENT ("Contract" or "Agreement"), made and entered into as of this ~~31st day of May~~ 1st day of June, 2023 (the "Effective Date"), is by and between **RAYMOND H. WATERHOUSE and ALINA WATERHOUSE,** individuals having an address at 105 Partridge Circle, Portland, Maine 04102 (hereinafter collectively referred to as "Seller"), and **REDFERN PROPERTIES LLC,** a Maine limited liability company having an address at P.O. Box 8816, Portland, Maine 04104, or its assigns (hereinafter referred to as "Buyer").

W I T N E S S E T H

WHEREAS, Seller is the record owner of fee simple title to certain real property situated in Portland, Cumberland County, Maine known as 165 Washington Avenue, Portland, Maine, together with certain improvements constructed thereon including a commercial building, and related amenities, facilities, improvements, and appurtenances thereto; and

WHEREAS, the Seller wishes to sell and convey said real property and improvements to Buyer and Buyer wishes to purchase the same from Seller.

NOW THEREFORE, for and in consideration of the foregoing, the sums of money to be paid hereunder, the mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto covenant, stipulate and agree as follows:

1. Description of Property to be Conveyed. The property which is to be sold and conveyed by Seller and purchased and accepted by Buyer pursuant to this Contract shall consist of the following:

(a) That certain parcel of land lying and being in Portland, Maine, being the property comprised of a 1.53 +/- acre lot identified by the Portland Assessor as Map 10, Block D, Lot 1 and Map 12, Block F, Lot 2, and described in that certain deed to Seller dated September 14, 2007, and recorded in the Cumberland County Registry of Deeds at Book 25470, Page 272, but excepting premises conveyed to Redfern Munjoy, LLC, by deed recorded in Book 31302, Page 177 of said Registry, and being more particularly described in Exhibit A attached hereto and made a part hereof, including all, rights, privileges, easements, hereditaments and appurtenances thereto, and all right, title and interest of Seller in and to the land lying in the bed of any public street, road or avenue in front of or adjoining said property (hereinafter collectively referred to as the "Land");

(b) All buildings, structures, facilities, fixtures, installations and improvements of every kind and description located in, on, over and under the Land, together with the appurtenances thereto including, without limitation, paved parking areas and various drainage and utility structures and improvements (collectively, the "Improvements"); and

(c) All of Seller's right, title and interest, if any, in and to the following (to the extent assignable and to the extent in the Seller's possession or control) and without warranty or representation: (i) all assignable warranties or guaranties given or made in respect of the Improvements; and (ii) all transferable consents, authorizations, variances or waivers, licenses, permits and approvals from any governmental or quasi-governmental agency, department, board, commission, bureau or other entity or instrumentality solely in respect of the Land or the Improvements (collectively, the "Personal Property").

The Land and Improvements are sometimes referred to herein collectively as the "Real Property." The Real Property and the Personal Property are referred to herein collectively as the "Subject Property".

2. Agreement to Sell and Purchase. Seller hereby agrees to sell and convey the Subject Property to Buyer, upon the terms and subject to the conditions set forth in this Contract. Buyer hereby agrees to purchase and accept the Subject Property from Seller, upon the terms and subject to the conditions set forth in this Contract.

3. Earnest Money Deposit. Within three (3) business days after the Effective Date, Buyer shall deposit the sum of [redacted] as the earnest money deposit (which amount shall hereinafter be referred to as the "Initial Earnest Money Deposit") hereunder with The Boulos Company, whose address is One Canal Plaza, Suite 500, Portland, Maine 04101 (hereinafter referred to as the "Escrow Agent"). So much of the Initial Earnest Money Deposit and the Additional Earnest Money Deposit (as hereinafter defined) as may have from time to time been deposited with Escrow Agent hereunder, and any interest earned thereon, are collectively referred to as the "Deposit". Upon Buyer's written request, and subject to the receipt by Escrow Agent of a completed and executed IRS Form W-9 and any other forms or information reasonably requested by the Escrow Agent, the Deposit will be placed in an interest-bearing account. Any interest accrued or accruing on the Deposit shall be and become part of the Deposit. Escrow Agent shall not be responsible for the amount of interest earned on, or charges on, the Deposit. By its counter-execution of this Agreement, Escrow Agent hereby agrees to hold the Deposit in escrow, subject to disbursement in accordance with the terms and provisions of this Contract. In the event Buyer does not elect to timely terminate this Contract pursuant to the express terms herein, the Deposit shall become non-refundable and shall not be returnable to the Buyer under any circumstances except in the event Seller is not able to provide title to the Subject Property as provided in this Contract, or otherwise defaults hereunder, but such Deposit shall, however, be credited to and considered as payment of part of the total Purchase Price (as defined below) at the time of closing hereunder.

Escrow Agent, may, at its option, require the receipt, release and authorization in writing of all parties before releasing the Deposit or delivering or redelivering documents or property to any party or to third parties. In the event a controversy arises over the Deposit, Escrow Agent, at its sole discretion, may tender the funds into court for settlement, after deducting its attorney's fees, court costs, and escrow fees, if any, which have accrued, including any attorney's fees and court costs relating to the tender into court. Seller and Buyer indemnify and hold harmless Escrow Agent and its agents and representatives from all loss or damage they

may sustain in connection with Escrow Agent's performance of these instructions and do hereby jointly and severally release and waive any claims they may have against Escrow Agent, other than any claims a party may have due to the gross negligence, malfeasance or misconduct of Escrow Agent in the performance of its duties hereunder.

4. Purchase Price and Method of Payment. Subject to credits, adjustments and prorations for which provisions are hereinafter expressly made, the total purchase price to be paid by Buyer to Seller for the Subject Property (the "Purchase Price") shall be [redacted] The Purchase Price shall be paid by Buyer to Seller in the manner and at the times as follows:

(i) The Deposit, to the extent paid by Buyer to Escrow Agent hereunder, shall be credited to Seller and considered as payment of part of the Purchase Price for the Subject Property at the time and upon consummation of the closing of the sale and purchase transaction contemplated in this Contract.

(ii) The balance of the Purchase Price shall be paid to Seller by Buyer by wire transfer or other immediately available funds acceptable to Seller, at the time of closing hereunder, subject to credits, adjustments and prorations as expressly provided herein.

5. Title and Survey.

(a) Title Commitment. Buyer shall obtain from a nationally recognized title company (sometimes referred to herein as the "Title Company") a commitment for owner's title insurance for the Real Property (the "Title Commitment"). Within five (5) days after the Effective Date, Seller shall deliver to Buyer copies of surveys of the Land that Seller may have in its possession or control (collectively, the "Existing Survey"). Buyer may order an update of the Existing Survey, or if no Existing Survey exists, a new survey of the Land; provided, however, Buyer must notify Seller of any material objections to the update of the Existing Survey or the new survey prior to the expiration of the Due Diligence Termination Date (as defined below), otherwise Buyer shall be deemed to have waived any right to object to same and any such inconsistencies shall constitute Permitted Exceptions (as defined below).

(b) Buyer's Review of Title Matters. Buyer shall have until the Due Diligence Termination Date to notify Seller in writing of any objection which Buyer may have to any matters reported or shown in the Title Commitment or the exception documents ("Buyer's Objection Letter"). Any matters reported in or shown by the Title Commitment and not timely objected to by Buyer as provided above shall be deemed to be "Permitted Exceptions". On or before the fifth (5th) business day following receipt of Buyer's Objection Letter, Seller shall elect, by delivering written notice of such election to Buyer and Escrow Agent ("Seller's Response") whether or not to cause the Title Company to remove any matters objected to in Buyer's Objection Letter. If Seller fails to deliver Seller's Response within the time frame set forth above, it shall be deemed to be an election by Seller not to cause Title Company to so remove such objections. Notwithstanding the foregoing, Seller shall be obligated to cure and remove without need for a Buyer's Objection Letter all of the following

title exceptions or encumbrances, if any: (i) the liens of any mortgage; (ii) tax liens for delinquent ad valorem real estate taxes; (iii) mechanics liens, judgment liens or other monetary liens; and (iv) broker's liens ("Seller's Mandatory Cure Items"). Seller shall have until Closing to cure and remove any Seller Mandatory Cure Items. If either (a) Seller elects to cause the Title Company to so remove and, at least one (1) day prior to the Closing (the "Cure Deadline"), Seller is unable to remove any exceptions or matters objected to by Buyer; or (b) Seller elects not to cause Title Company to so remove, then Buyer must elect, by delivering written notice of such election to Seller and Escrow Agent on or before (i) the fifth (5^{th}) business day following Buyer's receipt of Seller's Response, or (ii) if no Seller's Response is received by Buyer, the fifth (5^{th}) business day following the date on which Seller shall have been deemed to have responded, as provided above, or (iii) in the event Seller elects to cause the Title Company to so remove and, prior to the Cure Deadline, Seller is unable to remove any exceptions or matters objected to by Buyer, on or before the Cure Deadline, to: (A) terminate this Agreement (in which case Escrow Agent shall return the Deposit to Buyer, and neither party shall thereafter have any rights or obligations to the others hereunder, other than pursuant to any provision hereof which expressly survives the termination of this Agreement); or (B) proceed to a timely Closing without liability to Seller whereupon such objected to exceptions or matters shall be deemed to be Permitted Exceptions. Seller shall be responsible for removing any exceptions or deficiencies to title which first arise between the date upon which Permitted Exceptions are established ("Permitted Exception Date") and Closing unless created by or with the consent of Buyer.

6. Buyer's Due Diligence.

(a) Seller Deliverables. Seller shall deliver to Buyer within five (5) days of the Effective Date the following, if any (the "Property Documents"): Seller's existing survey(s) and/or title reports with respect to the Subject Property; copies of service contracts or management agreements, any environmental reports (including Phase I or Phase II reports) in Seller's possession or control; floor plans and building specifications, insurance information (including a current certificate of insurance regarding property, casualty and general liability insurance for the Subject Property) and property tax statements for the previous two (2) years; copies of certificate(s) of occupancy and any property condition reports.

Buyer agrees to return the foregoing and all such other documents to Seller, without retaining copies, in the event the closing hereunder does not occur.

(b) Inspection Rights. At all reasonable times from and after the Effective Date, Buyer, its agents and representatives shall be entitled at Buyer's sole cost and expense to make investigations with respect to the compliance of the Real Property and the Improvements with all applicable laws, ordinances, rules and regulations; to review any documents or information Buyer has or may receive with respect to the Subject Property; to review any contracts and agreements affecting the Subject Property; to enter onto the Real Property during normal business hours to conduct such inspections and investigations of the condition of the Property as Buyer deems relevant with respect to the operating systems, structural components, and site conditions of the Real Property and Improvements, and perform Phase I and if necessary, Phase II environmental studies, which may include without limitation drilling and borings and the taking of soil samples. Buyer shall at its own expense restore the Real Property

to as close as reasonably possible to its present condition. All such inspections shall be done by qualified inspectors chosen and paid for by Buyer. Seller agrees to reasonably cooperate with Buyer in connection with Buyer's investigations, and shall grant Buyer access to the Real Property at reasonable times upon reasonable prior notice. Buyer shall indemnify, protect, defend and hold harmless Seller from all claims (including, without limitation, any claim for a mechanic's lien or materialman's lien), causes of action, costs, losses, damages and reasonable attorney's fees incurred by Seller in connection with or arising out of any inspections or investigations carried on, by or on behalf of Buyer pursuant to this Section. The foregoing indemnity shall not apply to any claims (including, without limitation, claims that the Real Property has declined in value) or liabilities to the extent the same arise out of or are incurred in connection with (i) the negligence or willful misconduct of the Seller or their agents, consultants or contractors; (ii) the discovery by Buyer or its agents, consultants or contractors of any or pre-existing conditions on the Real Property; (iii) the release (other than by Buyer, its agents, consultants, employees, contractors or representatives) or discovery by Buyer or presence of any pollutants, hazardous waste, hazardous substance or material located on or about the Real Property, except to the extent that Buyer or its agents, consultants, employees, contractors or representatives have exacerbated such condition; (iv) the results, findings, tests or analyses of Buyer's environmental or other physical investigation of the Real Property; or (v) any disclosure or notification made or given by Buyer or any its agents, consultants or contractors to any governmental agency or other party that is required by law based upon the results, findings, tests or analyses of Buyer's environmental or other physical investigation of the Real Property. The provisions of this Section shall survive the Closing or the earlier termination of this Agreement.

(c) Buyer's Termination Right. Buyer shall have the right at any time on or before ninety (90) days after the Effective Date (the "Due Diligence Termination Date") to terminate this Contract if Buyer determines for any reason that the Property Documents or all or any portion of the Subject Property is not acceptable to Buyer in its sole and absolute discretion. Notwithstanding the foregoing, if Buyer's environmental consultant determines that a Phase II report is warranted, the Due Diligence Termination Date shall be extended for up to an additional period of ninety (90) days provided Buyer gives Seller written notice of its intent to so extend prior to the initial Due Diligence Termination Date, and provided Buyer confirms that it has waived all other due diligence conditions, including title review (subject to any Buyer's Objection Letter that may have been sent). If Buyer exercises its right to extend the Due Diligence Termination Date, said extension shall last until the earlier of (i) five (5) business days after Buyer has received the final results of its Phase II testing; and (ii) ninety (90) days after the original Due Diligence Termination Date. If Buyer delivers a written notice to Seller and Escrow Agent exercising its termination right hereunder ("Buyer's Termination Notice") on or before the Due Diligence Termination Date (as it may be extended), then (a) Escrow Agent shall return the Deposit to Buyer; (b) this Contract shall automatically terminate and be of no further force or effect and neither party shall have any further rights or obligations hereunder, other than pursuant to any provision hereof which expressly survive the termination of this Contract; and (c) Buyer shall, upon Seller's request, deliver to Seller copies of all surveys, environmental and other reports undertaken by Buyer with respect to the Subject Property without any representation or warranty of any kind or nature whatsoever, express or implied, about the accuracy, reliability or usefulness of any information contained therein. If Buyer fails to deliver to Seller and Escrow Agent Buyer's Termination Notice on or before the Due Diligence Termination Date, Buyer shall be deemed to have waived its right to terminate this Contract

pursuant to this Section, and [redacted] of the Deposit shall become non-refundable to Buyer (but applicable to the Purchase Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract.

7. Approval Contingency. This Contract is contingent upon Buyer obtaining all permits and approvals from the City of Portland (the "City") for its proposed use and occupancy of the Subject Property acceptable to Buyer in its sole and absolute discretion (the "Approvals"). An Approval shall not be deemed to have been "obtained" until it has become final and non-appealable, and any periods for challenge to the same (or any conditions to its final effectiveness) shall have expired. Buyer shall use its best efforts to obtain the Approvals as expeditiously as reasonably possible. Seller shall reasonably cooperate with Buyer in connection with Buyer obtaining the Approvals and agrees to execute and deliver all documents reasonably requested by Buyer, at no cost or liability to Seller. Buyer shall have sixty (60) days from the expiration of the Due Diligence Termination Date (the "Approval Date") to obtain the Approvals. If Buyer has not received its Approvals by the Approval Date, then Buyer shall have the right to extend the Approval Date for up to six (6) additional sixty (60) day periods (each, an "Approval Extension Period"), by giving notice to Seller on or before the Approval Date, as it may be extended, on the follow terms and conditions:

(i) If Buyer exercises the first Approval Extension Period, an additional [redacted] of the Deposit (for a total of [redacted]) shall become non-refundable to Buyer (but applicable to the Purchase Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract;

(ii) If Buyer exercises the second Approval Extension Period, an additional [redacted] Dollars of the Deposit (for a total of [redacted]) shall become non-refundable to Buyer (but applicable to the Purchase Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract;

(iii) If Buyer exercises the third Approval Extension Period, an additional [redacted] Dollars of the Deposit (for a total of [redacted]) shall become non-refundable to Buyer (but applicable to the Purchase Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract;

(iv) If Buyer exercises the fourth Approval Extension Period, an additional [redacted] Dollars of the Deposit (for a total of [redacted] shall become non-refundable to Buyer (but applicable to the Purchase Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract;

(v) If Buyer exercises the fifth Approval Extension Period, Buyer shall deposit with the Escrow Agent an additional [redacted] Dollar deposit (the "Additional Earnest Money Deposit"), and the Deposit (for a total of [redacted]) shall become non-refundable to Buyer (but applicable to the Purchase

Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract;

(vi) If Buyer exercises the sixth Approval Extension Period, Buyer shall deposit with the Escrow Agent an additional [redacted] Dollar Additional Earnest Money Deposit, and the Deposit (for a total of [redacted] shall become non-refundable to Buyer (but applicable to the Purchase Price), except in the event of Seller default or inability or refusal to convey title as provided in this Contract.

Such portion of the Deposit that is non-refundable as set forth in Section 6(c) above [redacted] and in subparagraphs 7(i) through (vi) above is hereinafter referred to as the "Non-refundable Deposit". At Seller's request, which may be made at any time and from time to time, Escrow Agent shall release the Non-refundable Deposit available as of the date of Seller's request(s) to Seller to, among other things, pay carrying costs of the Real Property, such as taxes, insurance, utilities etc., provided that Seller at the time they first request a release of the Non-refundable Deposit delivers to Buyer a comfort letter or account statement from a financial institution or investment management firm reflecting that Seller maintains accounts with such financial institution or investment management firm in an amount sufficient to fund Seller's obligation to return to Buyer the Non-refundable Deposit (or so much as has been released to Seller from time to time) pursuant to the terms of this Contract. Buyer hereby authorizes Escrow Agent to release the Non-refundable Deposit to Seller from time to time provided such comfort letter or account statement has been received by Buyer.

The Additional Earnest Money Deposit shall be considered part of the Deposit for all purposes of this Contract. If Buyer does not receive the Approvals on or prior to the Approval Date, as it may be extended, or if Buyer at any time prior to the Approval Date, as it may be extended, determines in its sole and absolute discretion that the Approvals will not be suitable or satisfactory for Buyer's proposed use and occupancy of the Subject Property, then Buyer may terminate this Contract by delivering written notice to Seller and Escrow Agent ("Buyer's Approval Termination Notice") exercising its termination right hereunder on or before the Approval Date, as it may be extended, whereupon (a) Escrow Agent shall return so much of the Deposit that is refundable at that time, if any, to Buyer; (b) release so much of the Deposit that is non-refundable at that time, if any, to Seller; and (c) this Contract shall automatically terminate and be of no further force or effect and neither party shall have any further rights or obligations hereunder, other than pursuant to any provision hereof which expressly survive the termination of this Contract. If Buyer fails to deliver to Seller and Escrow Agent Buyer's Approval Termination Notice on or before the Approval Date, as it may be extended, Buyer shall be deemed to have waived its right to terminate this Contract pursuant to this Section.

8. Conveyance of Subject Property and Personal Property; Delivery Free of Tenants and Occupants. At the time of Closing hereunder, Seller shall convey its fee simple interest and estate in and title to the Subject Property by Quitclaim with Covenant Deed, free and clear of any and all liens, security interests, exceptions or encumbrances arising by or though Seller, other than Permitted Exceptions. Seller shall pay for personal property taxes through the Closing Date (as hereinafter defined). Seller agrees to terminate the tenancy and/or occupancy of the any current tenants or occupants of the Subject Property, and to deliver the Subject Property free and

clear of all personal property, inventory, equipment, free-standing shelving, tenants and occupants. If Seller is unable to provide the Subject Property to Buyer free and clear of personal property, inventory, equipment, free-standing shelving, tenants and occupants, by the Closing Date then Seller shall be deemed in default of this Contract and Buyer shall have the right to terminate this Contract whereupon notwithstanding anything in this Contract to the contrary (a) Escrow Agent shall return the entire Deposit to Buyer; and (b) this Contract shall automatically terminate and be of no further force or effect and neither party shall have any further rights or obligations hereunder, other than pursuant to any provision hereof which expressly survive the termination of this Contract.

9. Closing. The sale and purchase transaction contemplated in this Contract shall be closed, and the Purchase Price paid, on the date that is forty-five (45_days after the Approval Date (as it may be extended) (the "Closing Date"). Purchaser shall notify Seller in writing when all Approvals have been obtained. The following documents and items shall be delivered by Seller and Purchaser at Closing, as applicable:

(a) A Quitclaim Deed with Covenant from Seller in form reasonably acceptable to Seller and Buyer, together with applicable conveyance tax forms.

(b) An Owner's Affidavit executed by Seller in the form provided by the Title Company, provided such requested Affidavit does not expand the liability or representations of Seller hereunder beyond the terms of this Contract.

(c) An Affidavit stating that Seller is a Maine resident, or in the alternative, a Certificate of Exemption, Certificate of Reduction or REW-1 filing form.

(d) An Affidavit of Seller stating that Seller is not a "foreign person" as defined in Section 1445(B)(2) of the Internal Revenue Code of 1986, as amended.

(e) All transferable licenses, permits, certificates, approvals, authorizations, variances and consents held by Seller and issued by governmental and quasi-governmental bodies, officers and authorities in respect to the ownership, occupancy, use and operation of the Subject Property in the possession or control of Seller.

(f) Reserved.

(g) Keys.

(h) Appropriate evidence of authorization reasonably satisfactory to the Title Company regarding the consummation of the transaction contemplated by this Contract.

Seller shall pay the following closing costs (a) any and all costs incurred by Seller in performing its obligations under this Contract, and (b) the cost of recording the discharge of any existing mortgage on the Subject Property and any other documents required to be recorded or filed in order to transfer title as provided herein. Buyer shall pay the following closing costs (a) title search and examination charges, and the premium for the Commitment and Lender's and/or Owner's Title Insurance Policy, if any, to be issued pursuant thereto; (b) the cost of the update to the Survey or a new survey, if any; (c) the cost of the brokerage commission payable to The

Boulos Company, (d) the cost of any inspections or investigations of the Subject Property, (e) the cost of recording the Deed and any mortgages or other recorded documents relating to its purchase of the Subject Property, and (f) all costs associated with Buyer's financing of its acquisition, if applicable, it being understood and agreed that obtaining financing is not a condition to Purchaser's obligations hereunder. Seller and Buyer will each pay one-half of the transfer tax payable with respect to the Purchase Price. Each of the respective parties shall bear its own attorneys' fees.

10. Possession and Risk of Loss. Without limiting the provisions of Section 8 of this Contract, possession of the Subject Property shall be delivered by Seller to Buyer at the time of closing hereunder, free and clear of all tenants and occupants. Risk of Loss shall be on Seller until transfer of Property.

11. Prorations. Prorations shall be made as of the Closing Date as if Buyer were in title for the entire Closing Date. The following shall be prorated and adjusted between Seller and Buyer:

(a) Utilities and Operating Expenses. Water, electricity, sewer, gas, telephone and other utility charges based, to the extent practicable, on final meter readings and final invoices.

(b) Assessments. All assessments, general or special, assessed as of the date hereof shall be prorated as of the Closing Date, with Seller being responsible for any installments of assessments that are due and payable prior to the Closing Date and Buyer being responsible for any installments of assessments that are due and payable on or after the Closing Date. All such assessments assessed after the date hereof shall be the sole responsibility of Buyer.

(c) Taxes. All ad valorem real estate and personal property taxes with respect to the Real Property and the Improvements shall be prorated as of the Closing Date, based on the most currently available final tax bill and on a cash basis for the tax year in which the Closing occurs, regardless of the year for which such taxes are assessed.

(d) Other. Such other items as are customarily prorated in transactions of this nature in the county in which the Project is located shall be ratably prorated.

12. Representations, Warranties and Covenants of Seller.

12.1 Seller hereby makes the following representations and warranties to Buyer:

(a) Seller's execution and delivery and performance of this Contract by the undersigned and the performance of its obligations hereunder, including the closing of the sale and purchase transaction contemplated herein on the terms set forth herein, have been duly authorized and directed by Seller and no further consents or approvals are or shall be required as a condition precedent to the consummation and closing of the sale and purchase transaction contemplated herein except as expressly set forth in this

Contract. Seller has taken all necessary action to authorize the execution, delivery and performance of this Contract and upon the execution and delivery of any document to be delivered by Seller on or prior to the Closing, this Contract and such document shall constitute the valid and binding obligation and agreement of Seller, enforceable against Seller in accordance with its terms.

(b) The performance by the Seller of the terms, covenants and conditions contained herein will not conflict with, constitute an event of default under, any agreement or other instrument to which Seller is a party or by which its properties or assets are bound.

(c) Seller is not a party to any leases, agreements, contracts or licenses affecting the Real Property or any use of the Real Property that would not be terminable at will by Buyer without penalty from and after the Closing.

(d) Seller has not received any written notice from any governmental authority that the Real Property, or the present condition, operation or use thereof, violates any applicable laws, rules, regulations, restrictions, covenants, agreements, site plan approvals, zoning or subdivision regulations or any duly issued variances and Seller has no other actual knowledge of any such violation(s).

(e) Seller has received no written notice that there is any pending judicial, municipal or administrative proceedings affecting the Real Property or in which Seller is a party by reason of Seller's ownership of the Real Property or any portion thereof, including, without limitation, proceedings for or involving collections, condemnations, eminent domain, alleged building code, zoning or environmental violations, or personal injuries or property damage alleged to have occurred on the Real Property or by reason of the condition or use of the Real Property and Seller has no other actual knowledge of any such proceedings.

(f) Seller represents that, after the execution of this Contract and until such time as Closing occurs or the Contract expires without performance, it shall not enter into any leases, encumbrances or other arrangements pertaining to the Real Property which shall not be removed or terminated not later than the Closing.

(g) To the best of Seller's knowledge, the Real Property does not contain and has not contained, any Hazardous Substances, other than in amounts that do not violate any applicable law or regulation. "Hazardous Substances" means and refers to any "hazardous substance" as now or hereafter defined in §101(14) of CERCLA or any regulations promulgated under CERCLA; (ii) any "hazardous waste" as now or hereafter defined in the RCRA or regulations promulgated under RCRA; (iii) any substance regulated by the Toxic Substances Control Act (15 U.S.C. §2601 et seq.); (iv) gasoline, diesel fuel, or other petroleum hydrocarbons; (v) asbestos and asbestos containing materials, in any form, whether friable or non-friable; (vi) polychlorinated biphenyls; (vii) radon gas; (viii) lead paint; (ix) any additional substances or materials which are

now or hereafter classified or considered to be hazardous or toxic under local, state or federal environmental laws.

(h) Seller is the sole owner of good, fee simple, marketable and insurable title to all of the Real Property.

(i) There are no options to purchase or rights of first refusal with respect to all or any part of the Real Property and Seller has entered into no contracts for the sale, pledge, hypothecation, assignment, lease or other transfer of all or any part of the Real Property, other than the existing lease to Northern Burner Supply Co., Inc. or its successor tenant, which will be terminated prior to Closing.

(j) Seller has paid, or will pay at or prior to Closing, all taxes (including all real estate, personal property, sales and use taxes), assessments, charges, fees, levies and impositions associated with the Real Property, coming due prior to the Closing Date for periods prior to the Closing Date. Seller knows of no actual or pending imposition of any assessments for public improvements and, to the best of Seller's knowledge, no such improvements have been constructed or planned that would be paid for by means of assessments upon the Real Property.

(k) Seller has received no notice of any claims, demands, suits, or actions arising out of or relating in any way to any water damage, water intrusion, mold growth or mold infestation occurring in, on or about the Real Property.

Seller shall indemnify, defend and hold Buyer and Buyer's members, managers, partners, officers, shareholders, directors and employees harmless from all claims, demands, liabilities, costs or expenses (including, without limitation, reasonable attorneys' fees) arising from or attributable to any breach by Seller of any of its warranties or representations in this Section 12.1 or elsewhere in this Contract, and the representations and warranties set forth herein and this indemnification shall survive the Closing for a period of twelve (12) months.

12.2 Seller covenants and agrees with Buyer as follows:

(a) From the Effective Date until physical possession of the Real Property has been delivered to Buyer, Seller will keep and maintain all of the Real Property in good order and condition, will not permit any waste with respect thereto and shall operate the Real Property in accordance with its current good faith business practices, provided, however, that nothing herein shall require Seller to continue to lease the Real Property to Northern Burner Supply Co., Inc. until Closing.

(b) From the Effective Date until the Closing Date, Seller shall not enter into any new agreements affecting the Subject Property unless such agreements may be terminated not later than the Closing without penalty.

(c) Between the Effective Date and the Closing Date, Seller shall not grant or permit any new encumbrances on or about the Subject Property.

13. Representations and Warranties of Buyer. Buyer represents, covenants and warrants to and agrees with Seller that Buyer has the legal right, power and authority to enter into this Contract and to perform all of its obligations hereunder, and the execution and delivery of this Contract and the performance by Buyer of its obligations hereunder (i) have been duly authorized by all requisite limited liability company action; and (ii) will not conflict with, or result in a breach of, any of the terms, covenants and provisions of the by-laws or articles of organization of Buyer or any law or any regulation, order, judgment, writ, injunction or decree of any court or governmental authority, or any agreement or instrument to which Buyer is a party or by which it is bound. No further consents or approvals are or shall be required as a condition precedent to the consummation and Closing of the sale and purchase transaction contemplated herein except as expressly set forth in this Contract. Buyer has taken all necessary action to authorize the execution, delivery and performance of this Contract and upon the execution and delivery of any document to be delivered by Buyer on or prior to the Closing, this Contract and such document shall constitute the valid and binding obligation and agreement of Buyer, enforceable against Buyer in accordance with its terms.

14. Default

(a) Buyer Default. In the event of any material default on the part of Buyer under this Contract, the Seller shall be entitled, as its sole remedy hereunder, to either (i) retain the Deposit as consideration for its execution of this Contract and in full settlement of, and as liquidated damages for, any and all claims for damages occasioned by Buyer's default, and this Contract shall terminate, expire, cease and become null and void and, thereafter, all parties hereto shall be relieved of any and all further obligations and liabilities to each other under this Contract, other than as to those obligations which specifically survive the termination of this Contract; (ii) enforce specific performance of Buyer's obligations under this Contract.

(b) Seller Default. In the event of any default on the part of Seller under this Contract, the Buyer, as its sole remedy hereunder, may elect any of the following: (i) enforce specific performance of Seller's obligations under this Contract if the nature of Seller's default has not rendered specific performance unavailable, or (ii) if the nature of Seller's default has rendered specific performance unavailable or in Buyer's sole and absolute discretion not desirable or ineffective as a remedy, Buyer shall receive a return of the entire Deposit and Buyer may seek damages; or (iii) waive the breach, or default or other closing condition and proceed to consummate the transaction contemplated hereby without any adjustment of the Purchase Price in accordance with the provisions of this Agreement; or (iv) terminate this Contract, whereupon neither party hereto shall have any further rights or obligations hereunder (except as expressly set forth herein as surviving termination), and the Escrow Agent shall deliver the entire Deposit to Buyer, and Buyer shall recover from Seller all of Buyer's reasonable out-of-pocket expenses incurred to the date of such termination.

15. Litigation and Attorneys' Fees. In the event it shall be necessary for either party to this Contract to bring suit to enforce any provision hereof or for damages on account of any breach of this Contract, then the prevailing party in such suit shall be entitled to recover from the other party its attorney fees and costs in any such litigation and any appeals therefrom.

16. Time of Essence. It is expressly agreed by the parties hereto that time is of the essence of this Contract and in the performance of all conditions, covenants, requirements, obligations and warranties to be performed or satisfied by either party hereto. Waiver of performance or satisfaction of timely performance or satisfaction of any condition, covenant, requirement, obligation or warranty by one party shall not be deemed to be a waiver of the performance or satisfaction of any other condition, covenant, requirement, obligation or warranty unless specifically consented to in writing. Whenever a date specified herein shall fall on a Saturday, Sunday or legal holiday, the date shall be extended to the next business day.

17. Captions and Paragraph Headings. Captions and paragraph headings contained in this Contract are for convenience and reference only and in no way define, describe, extend or limit the scope or content of this Contract nor the intent of any provision hereof.

18. Notices. Any notice or other communication permitted or required to be given hereunder by one party to the other shall be in writing and shall be either (i) hand delivered, (ii) sent by Federal Express or other overnight delivery service, or (iii) sent by email, to the party entitled or required to receive the same at the address specified below or at such other address as may hereafter be designated in writing by any such party, provided that email notice is permitted as an accommodation only and must be followed immediately by other permitted delivery method hereunder.

TO SELLER:

Raymond H. and Alina Waterhouse
105 Partridge Circle
Portland, Maine 04102
Email: lori@northernburner.com

with a copy to:

Jensen, Baird, Gardner & Henry
10 Free Street
Portland, Maine 04101
Attention: Michael Quinlan
Email: mquinlan@jensenbaird.com

TO BUYER:

Redfern Properties, LLC
P.O. Box 8816
Portland, Maine 04104
Email: jonathan@redfernproperties.com

with a copy to:

Murray, Plumb & Murray
75 Pearl Street
Portland, Maine 04101
Attention: Drew A. Anderson
Email: danderson@mpmlaw.com

TO ESCROW AGENT:

The Boulos Company
One Canal Plaza, Suite 500
Portland, Maine 04101
Email: dsigfridson@boulos.com

The respective attorneys for Seller and Buyer are authorized to give notices with the same force and effect as if given by the parties.

19. Governing Law and Binding Effect. This Contract and the interpretation and enforcement of the same shall be governed by and construed in accordance with the laws of the State of Maine and shall be binding upon, inure to the benefit of, and be enforceable by the parties hereto as well as their respective successors, heirs, executors, personal representatives, agents, and assigns.

20. Integrated Contract, Waiver and Modification. This Contract represents the complete and entire understanding and agreement between and among the parties hereto with regard to all matters involved in the purchase and sale transaction contemplated in this Contract and supersedes any and all prior or contemporaneous agreements, whether written or oral. No covenants, agreements, terms, provisions, warranties, statements, representations or undertakings, whether written or oral, made or executed by any party hereto shall be binding on any party hereto, unless specifically set forth or incorporated in this Contract. This Contract may not be modified or amended, nor may any covenant, agreement, condition, requirement, provision, warranty or obligation contained herein be waived, except in writing signed by all parties, or in the event that such modification, amendment or waiver is for the benefit of one or more of the parties hereto and to the detriment of the other or others, then the same must be in writing signed by that party or those parties hereto to whose detriment such modification, amendment or waiver inures.

21. Brokerage. Seller and Buyer hereby acknowledge, represent and warrant to each other that, other than The Boulos Company, who shall be paid by Buyer at Closing pursuant to a separate agreement or agreements, no broker or finder has been employed by either Seller or Buyer in connection with the sale and purchase transaction contemplated in this Contract and that no commission, finder's fee or similar remuneration, by whatever name, is payable by Seller or Buyer or due to any broker or finder in connection with this Contract or the sale and purchase transaction contemplated herein. Seller and Buyer each, respectively, hereby agree to indemnify, defend, save and hold the other harmless from and against the payment of any commissions or fees or claims for commissions or fees as a result of any actions taken or agreements, respectively, made by them with respect to the sale and purchase transaction contemplated in this Contract. The provisions of this Paragraph shall expressly survive any closing or closings hereunder or the termination of this Contract for any reason.

22. Assignment. This Agreement is not assignable by Seller except for the purpose of a like-kind exchange. Buyer shall be entitled to assign its right, title and interest herein to any limited liability company, corporation, partnership or other entity, whether now existing or

hereafter formed, controlled by, controlling or under common control with Buyer (each an "Affiliate"), provided that Redfern Properties, LLC shall remain liable for all obligations of Buyer under this Agreement regardless of any such assignment.

23. Non-Disclosure. Subject at all time to the rights of the parties as set forth in this Contract, unless and until the transaction contemplated hereby is closed, Buyer and Seller shall make no public announcements regarding the terms of this transaction. In any event, Buyer and Seller shall hold all proprietary information obtained by them with respect to each other or the Subject Property in strict confidence and shall not disclose such information to any other person or entity except to the extent necessary to consummate the transaction contemplated hereby.

24. Condemnation. In the event the Subject Property or any material portion or portions thereof shall be taken or condemned or be the subject of a bona fide written threat of condemnation by any governmental authorities or other entity prior to the closing, then the Buyer shall have the option of either (a) terminating this Contract by giving written notice thereof to the Seller, whereupon the Earnest Money Deposit shall be immediately refunded to the Buyer, and this Contract and all rights and obligations created hereunder shall be null and void and of no further force and effect, except as otherwise specified herein, or (b) requiring the Seller to convey the remaining portion or portions of the Subject Property to the Buyer pursuant to the terms and provisions hereof and to transfer and assign to the Buyer at the closing all of the right, title and interest of the Seller in and to any award made or to be made by reason of such condemnation, less amounts expended by Seller in connection therewith prior to such time. The Seller and the Buyer hereby further agree that the Buyer shall have the right to be present in all negotiations with any governmental authorities relating to the Subject Property and to be apprised of the compensation to be paid for any portion or portions thereof condemned by such governmental authorities or other entity.

25. Casualty. Seller will promptly upon receiving actual notice of a casualty, notify Buyer of any fire or other casualty affecting the Subject Property between the date hereof and the Closing. Unless otherwise mutually agreed in writing by Buyer and Seller, as soon as reasonably possible thereafter, subject to Seller's actual receipt of the proceeds, and subject in any event to the terms of any existing mortgage on the Real Property, Seller will commence any necessary repairs as a result of such fire or other casualty, and will provide Buyer with current information concerning insurance coverage therefor (the "Casualty Notice"). Buyer will have the right to terminate this Contract by written notice to Seller within fifteen (15) days following receipt of the Casualty Notice. If Buyer so terminates this Contract then, notwithstanding any provision of this Contract to the contrary, the entire Deposit, other than the portion of the Deposit that has become non-refundable, will be returned to Buyer, and the parties will have no further obligations or liabilities hereunder, except as otherwise expressly provided herein. If Buyer elects not to terminate this Contract, the purchase contemplated herein will be consummated without reduction of the Purchase Price within the later of ten (10) days after the expiration of such fifteen (15) day period or on the Closing Date specified herein, in which event the insurance proceeds will be used for such repairs, to the extent necessary, and Seller will assign transfer and set over to Buyer all of Seller's right, title and interest in and to such insurance proceeds less any amounts actually expended by Seller towards the repair or restoration prior to the date thereof, and Buyer shall receive a credit at Closing in an amount equal to the amount of the insurance deductible under Seller's insurance policy.

26. Execution in Counterparts. This Contract may be executed in counterparts, each of which shall be deemed an original and all such counterparts together shall be deemed to constitute an original instrument. Electronic signatures shall be afforded the full force and effect of original ink signatures.

27. Exchange. At either party's request, the other party shall cooperate to structure the sale of the Subject Property as a tax-deferred exchange under Section 1031 of the Internal Revenue Code, provided that: (a) the requesting party shall reimburse the other party for all resultant additional expenses it pays or incurs, (b) the other party shall not be obligated to take title to any property other than the Subject Property for any period of time, (c) the other party shall not be obligated to execute any notes or mortgages or to incur any liabilities as a result of participating in the exchange, (d) the Closing is not delayed beyond the Closing Date, and (e) the requesting party shall indemnify, defend and hold harmless the other party against claims, costs, loss, or liability arising from or related to the exchange.

[*Signatures appear on following page.*]

IN WITNESS WHEREOF, the parties have caused these presents to be executed as of the day and year first above written.

"SELLER"

Name: Raymond H. Waterhouse

Alina Waterhouse

"BUYER"

Redfern Properties, LLC

By. _____
Name. Jonathan Culley
Its: Member

"ESCROW AGENT"

The Boulos Company

By: _____
Name: Nate Stevens
Its: Designated Broker

EXHIBIT "A"

A certain lot or parcel of land, with the building thereon, situated on the easterly side of Washington Avenue in the City of Portland, County of Cumberland and State of Maine and being further bounded and described as follows:

Beginning at an iron set in the ground on the easterly side of said Washington Avenue at land now or formerly of the City of Portland; thence running North 79° 11' 30" East by land now or formerly of said City of Portland 181.49 feet to an iron set in the ground; thence running South 15° 52' East by Poplar Street Ext. (so called) 213.20' to an iron set in the ground at land now or formerly of Dewer Rich; thence running South 74° 21' West by said Rich land 33.23 feet to an iron set in the ground, thence running South 15° 39' East by said Rich land 64.00 feet to an iron set in the ground; thence running North 74° 21' East by said Rich land 33.47 feet to an iron set in the ground on the westerly line of said Poplar Street Ext. (so called); thence running South 15° 52' East by said Poplar Street Ext. (so called) 63.00 feet to an iron set in the ground; thence running South 74° 21' West 115.91 feet to an iron set in the ground; thence running South 82° 30' West 111.71 feet to an iron set in the ground on the easterly side of said Washington Avenue; thence running North 7° 30' West by the Easterly line of said Washington Avenue 254.40 feet to an angle in the easterly line of said Washington Avenue; thence running North 10° 15' 30" West by the easterly line of said Washington Avenue 88.25 feet to an iron set in the ground at land now or formerly of the City of Portland and said point of beginning.

The triangular strip of land lying northwesterly of Lots no. 10 and 20 on the Little, Weeks & Moody Plan was conveyed by the City of Portland to Equipment Leasing Co., Inc. by deed recorded in Cumberland County Registry of Deeds in Book 2695, Page 281.

Also, excepting all those certain premises conveyed by Raymond H. Waterhouse and Alina Waterhouse to Redfern Munjoy, LLC, by deed dated January 14, 2014, recorded in Book 31302, Page 177.

APPENDIX D

- **SIMTRAFFIC CAPACITY ANALYSIS REPORTS**

Summary of All Intervals

Run Number	1	2	5	6	7	Avg
Start Time	7:55	7:55	7:55	7:55	7:55	7:55
End Time	9:00	9:00	9:00	9:00	9:00	9:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1504	1523	1491	1514	1549	1516
Vehs Exited	1507	1520	1486	1515	1551	1516
Starting Vehs	32	33	20	40	29	30
Ending Vehs	29	36	25	39	27	30
Travel Distance (mi)	546	552	546	554	566	553
Travel Time (hr)	30.2	31.4	30.8	31.1	31.0	30.9
Total Delay (hr)	8.5	9.5	9.2	9.1	8.5	8.9
Total Stops	1090	1132	1102	1124	1069	1103
Fuel Used (gal)	21.6	22.1	21.7	21.8	22.3	21.9

Interval #0 Information Seeding

Start Time	7:55
End Time	8:00
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	8:00
End Time	9:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	5	6	7	Avg
Vehs Entered	1504	1523	1491	1514	1549	1516
Vehs Exited	1507	1520	1486	1515	1551	1516
Starting Vehs	32	33	20	40	29	30
Ending Vehs	29	36	25	39	27	30
Travel Distance (mi)	546	552	546	554	566	553
Travel Time (hr)	30.2	31.4	30.8	31.1	31.0	30.9
Total Delay (hr)	8.5	9.5	9.2	9.1	8.5	8.9
Total Stops	1090	1132	1102	1124	1069	1103
Fuel Used (gal)	21.6	22.1	21.7	21.8	22.3	21.9

3: Fox St/Walnut st & Washington Ave Performance by lane

Lane	NB	NB	SB	SB	NE	NE	SW	SW	All
Movements Served	L	TR	L	TR	LT	R	LT	R	
Denied Del/Veh (s)									0.6
Total Del/Veh (s)	19.1	14.1	7.7	20.8	34.3	11.1	33.5	4.0	20.3

6: Washington Ave & Eastern Prom Performance by lane

Lane	WB	NB	SB	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.4
Total Del/Veh (s)	10.3	2.2	2.8	3.8

Total Network Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	20.1

Intersection: 3: Fox St/Walnut st & Washington Ave

Movement	NB	NB	SB	SB	NE	NE	SW	SW
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	58	199	54	389	169	109	217	66
Average Queue (ft)	22	82	10	204	58	35	75	41
95th Queue (ft)	54	164	37	327	114	77	147	79
Link Distance (ft)		561		1046	587		1023	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	30		30			90		40
Storage Blk Time (%)	4	21	1	41	4	0	26	3
Queuing Penalty (veh)	9	8	4	8	3	0	16	3

Intersection: 6: Washington Ave & Eastern Prom

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	144	9	216
Average Queue (ft)	60	0	58
95th Queue (ft)	108	5	142
Link Distance (ft)	530	1046	537
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 51

Intersection: 3: Fox St/Walnut st & Washington Ave

Phase	1	2	4	5	6	8
Movement(s) Served	NBL	SBTL	SWTL	SBL	NBTL	NETL
Maximum Green (s)	10.0	60.0	16.0	10.0	60.0	16.0
Minimum Green (s)	5.0	10.0	10.0	5.0	10.0	10.0
Recall	None	Min	None	None	Min	None
Avg. Green (s)	7.1	4.0	11.7	6.5	5.7	11.2
g/C Ratio	NA	NA	NA	NA	NA	NA
Cycles Skipped (%)	65	2	18	80	4	20
Cycles @ Minimum (%)	4	0	40	4	4	52
Cycles Maxed Out (%)	4	2	10	2	6	4
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary
Average Cycle Length (s): -7.8

Number of Complete Cycles : 50

Summary of All Intervals

Run Number	1	2	4	6	7	Avg
Start Time	3:55	3:55	3:55	3:55	3:55	3:55
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1584	1558	1573	1599	1567	1576
Vehs Exited	1573	1558	1579	1588	1569	1573
Starting Vehs	31	34	32	31	32	31
Ending Vehs	42	34	26	42	30	34
Travel Distance (mi)	573	567	570	577	574	572
Travel Time (hr)	33.5	33.2	33.8	34.0	33.5	33.6
Total Delay (hr)	10.7	10.6	11.1	11.1	10.7	10.8
Total Stops	1229	1205	1249	1230	1215	1225
Fuel Used (gal)	23.2	23.0	23.1	23.2	23.1	23.1

Interval #0 Information Seeding

Start Time	3:55
End Time	4:00
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	4	6	7	Avg
Vehs Entered	1584	1558	1573	1599	1567	1576
Vehs Exited	1573	1558	1579	1588	1569	1573
Starting Vehs	31	34	32	31	32	31
Ending Vehs	42	34	26	42	30	34
Travel Distance (mi)	573	567	570	577	574	572
Travel Time (hr)	33.5	33.2	33.8	34.0	33.5	33.6
Total Delay (hr)	10.7	10.6	11.1	11.1	10.7	10.8
Total Stops	1229	1205	1249	1230	1215	1225
Fuel Used (gal)	23.2	23.0	23.1	23.2	23.1	23.1

3: Fox St/Walnut st & Washington Ave Performance by lane

Lane	NB	NB	SB	SB	NE	NE	SW	SW	All
Movements Served	L	TR	L	TR	LT	R	LT	R	
Denied Del/Veh (s)									0.7
Total Del/Veh (s)	17.8	21.9	23.5	20.7	33.6	5.5	34.6	7.6	23.1

6: Washington Ave & Eastern Prom Performance by lane

Lane	WB	NB	SB	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.2
Total Del/Veh (s)	11.5	3.2	4.6	4.8

Total Network Performance

Denied Del/Veh (s)	0.7
Total Del/Veh (s)	23.6

Intersection: 3: Fox St/Walnut st & Washington Ave

Movement	NB	NB	SB	SB	NE	NE	SW	SW
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	54	343	54	282	220	115	132	65
Average Queue (ft)	28	194	23	131	102	35	59	28
95th Queue (ft)	57	307	57	229	184	91	110	70
Link Distance (ft)		561		1046	587		1023	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	30		30			90		40
Storage Blk Time (%)	6	41	5	36	16	0	22	2
Queuing Penalty (veh)	31	22	17	11	7	0	8	1

Intersection: 6: Washington Ave & Eastern Prom

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	129	13	204
Average Queue (ft)	51	0	76
95th Queue (ft)	97	5	161
Link Distance (ft)	530	1046	537
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 98

Intersection: 3: Fox St/Walnut st & Washington Ave

Phase	1	2	4	5	6	8
Movement(s) Served	NBL	SBTL	SWTL	SBL	NBTL	NETL
Maximum Green (s)	10.0	60.0	16.0	10.0	60.0	16.0
Minimum Green (s)	5.0	10.0	10.0	5.0	10.0	10.0
Recall	None	Min	None	None	Min	None
Avg. Green (s)	6.9	2.2	11.2	6.7	4.0	13.3
g/C Ratio	NA	NA	NA	NA	NA	NA
Cycles Skipped (%)	51	0	15	64	0	5
Cycles @ Minimum (%)	0	2	50	2	0	25
Cycles Maxed Out (%)	7	2	4	2	2	27
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary
Average Cycle Length (s): -10.0

Number of Complete Cycles : 45

Summary of All Intervals

Run Number	2	4	5	6	7	Avg
Start Time	7:55	7:55	7:55	7:55	7:55	7:55
End Time	9:00	9:00	9:00	9:00	9:00	9:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1656	1646	1559	1662	1674	1639
Vehs Exited	1652	1643	1567	1657	1662	1636
Starting Vehs	28	29	37	31	22	30
Ending Vehs	32	32	29	36	34	33
Travel Distance (mi)	596	586	556	589	593	584
Travel Time (hr)	34.4	34.3	32.5	33.8	34.8	34.0
Total Delay (hr)	10.6	10.9	10.3	10.2	11.1	10.6
Total Stops	1262	1307	1179	1330	1305	1275
Fuel Used (gal)	24.1	24.1	22.6	23.9	24.1	23.8

Interval #0 Information Seeding

Start Time	7:55
End Time	8:00
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	8:00
End Time	9:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	2	4	5	6	7	Avg
Vehs Entered	1656	1646	1559	1662	1674	1639
Vehs Exited	1652	1643	1567	1657	1662	1636
Starting Vehs	28	29	37	31	22	30
Ending Vehs	32	32	29	36	34	33
Travel Distance (mi)	596	586	556	589	593	584
Travel Time (hr)	34.4	34.3	32.5	33.8	34.8	34.0
Total Delay (hr)	10.6	10.9	10.3	10.2	11.1	10.6
Total Stops	1262	1307	1179	1330	1305	1275
Fuel Used (gal)	24.1	24.1	22.6	23.9	24.1	23.8

3: Fox St/Walnut st & Washington Ave Performance by lane

Lane	NB	NB	SB	SB	NE	NE	SW	SW	All
Movements Served	L	TR	L	TR	LT	R	LT	R	
Denied Del/Veh (s)									0.8
Total Del/Veh (s)	25.4	14.7	8.4	22.2	36.0	11.6	34.7	3.6	21.5

6: Washington Ave & Eastern Prom Performance by lane

Lane	WB	NB	SB	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.4
Total Del/Veh (s)	11.8	1.1	2.9	3.8

8: Washington Ave & Site Performance by lane

Lane	WB	NB	SB	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	11.4	1.3	1.6	2.4

Total Network Performance

Denied Del/Veh (s)	0.9
Total Del/Veh (s)	22.1

Intersection: 3: Fox St/Walnut st & Washington Ave

Movement	NB	NB	SB	SB	NE	NE	SW	SW
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	55	198	54	378	155	111	174	67
Average Queue (ft)	24	82	11	235	64	39	74	42
95th Queue (ft)	55	162	40	373	124	88	137	81
Link Distance (ft)		561		367	587		1021	
Upstream Blk Time (%)				1				
Queuing Penalty (veh)				7				
Storage Bay Dist (ft)	30		30			90		40
Storage Blk Time (%)	5	22	1	42	6	0	29	2
Queuing Penalty (veh)	13	9	4	10	4	0	18	3

Intersection: 6: Washington Ave & Eastern Prom

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	157	17	192
Average Queue (ft)	67	1	59
95th Queue (ft)	125	7	133
Link Distance (ft)	536	620	538
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 8: Washington Ave & Site

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	92	119
Average Queue (ft)	38	13
95th Queue (ft)	70	67
Link Distance (ft)	270	620
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 67

Intersection: 3: Fox St/Walnut st & Washington Ave

Phase	1	2	4	5	6	8
Movement(s) Served	NBL	SBTL	SWTL	SBL	NBTL	NETL
Maximum Green (s)	10.0	60.0	16.0	10.0	60.0	16.0
Minimum Green (s)	5.0	10.0	10.0	5.0	10.0	10.0
Recall	None	Min	None	None	Min	None
Avg. Green (s)	7.0	6.4	11.8	6.9	8.5	11.4
g/C Ratio	NA	NA	NA	NA	NA	NA
Cycles Skipped (%)	62	0	9	77	0	18
Cycles @ Minimum (%)	2	0	44	2	2	44
Cycles Maxed Out (%)	4	9	9	2	14	4
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary
Average Cycle Length (s): -8.9

Number of Complete Cycles : 44

Summary of All Intervals

Run Number	1	2	3	5	7	Avg
Start Time	3:55	3:55	3:55	3:55	3:55	3:55
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1696	1680	1666	1649	1693	1677
Vehs Exited	1692	1678	1660	1644	1699	1674
Starting Vehs	31	33	34	25	30	32
Ending Vehs	35	35	40	30	24	32
Travel Distance (mi)	600	593	587	589	605	595
Travel Time (hr)	36.2	35.1	34.3	35.4	35.9	35.4
Total Delay (hr)	12.2	11.5	10.9	11.9	11.7	11.6
Total Stops	1363	1327	1260	1352	1323	1321
Fuel Used (gal)	24.8	24.4	23.8	24.1	24.8	24.4

Interval #0 Information Seeding

Start Time	3:55
End Time	4:00
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	5	7	Avg
Vehs Entered	1696	1680	1666	1649	1693	1677
Vehs Exited	1692	1678	1660	1644	1699	1674
Starting Vehs	31	33	34	25	30	32
Ending Vehs	35	35	40	30	24	32
Travel Distance (mi)	600	593	587	589	605	595
Travel Time (hr)	36.2	35.1	34.3	35.4	35.9	35.4
Total Delay (hr)	12.2	11.5	10.9	11.9	11.7	11.6
Total Stops	1363	1327	1260	1352	1323	1321
Fuel Used (gal)	24.8	24.4	23.8	24.1	24.8	24.4

3: Fox St/Walnut st & Washington Ave Performance by lane

Lane	NB	NB	SB	SB	NE	NE	SW	SW	All
Movements Served	L	TR	L	TR	LT	R	LT	R	
Denied Del/Veh (s)									0.7
Total Del/Veh (s)	15.8	22.7	23.2	18.7	36.7	5.5	34.6	7.1	23.2

6: Washington Ave & Eastern Prom Performance by lane

Lane	WB	NB	SB	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.2
Total Del/Veh (s)	11.7	1.6	4.2	4.0

8: Washington Ave & Site Performance by lane

Lane	WB	NB	SB	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	9.7	2.1	1.9	2.2

Total Network Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	23.8

Intersection: 3: Fox St/Walnut st & Washington Ave

Movement	NB	NB	SB	SB	NE	NE	SW	SW
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	55	425	54	313	242	114	131	65
Average Queue (ft)	28	209	23	134	114	38	59	32
95th Queue (ft)	61	347	54	244	212	103	115	72
Link Distance (ft)		561		367	587		1021	
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				0				
Storage Bay Dist (ft)	30		30			90		40
Storage Blk Time (%)	6	41	5	33	20	0	22	1
Queuing Penalty (veh)	30	22	18	11	9	0	9	1

Intersection: 6: Washington Ave & Eastern Prom

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	133	193
Average Queue (ft)	53	69
95th Queue (ft)	98	150
Link Distance (ft)	536	538
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Washington Ave & Site

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	53	10	121
Average Queue (ft)	21	0	19
95th Queue (ft)	47	7	71
Link Distance (ft)	266	367	620
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 101

Intersection: 3: Fox St/Walnut st & Washington Ave

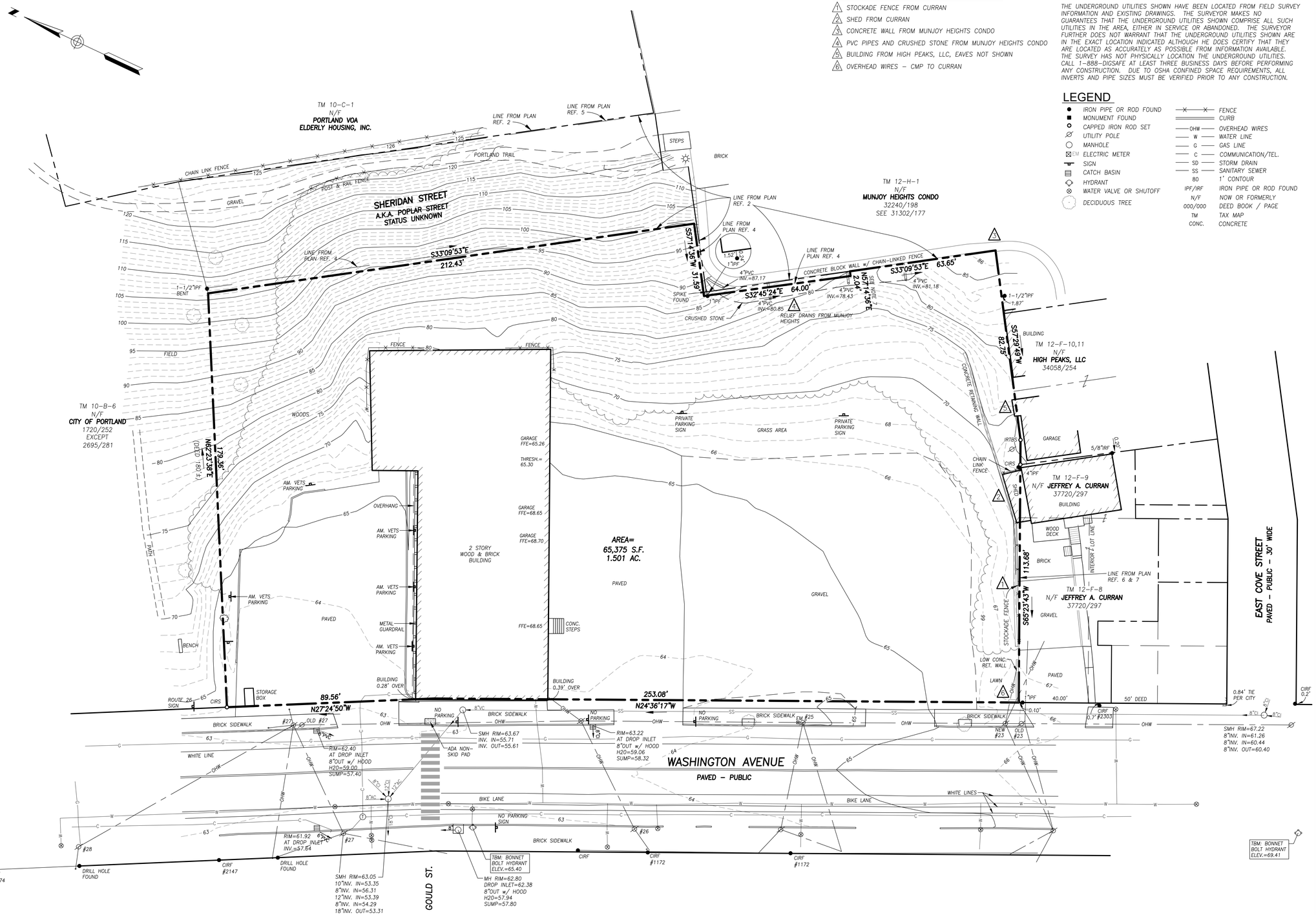
Phase	1	2	4	5	6	8
Movement(s) Served	NBL	SBTL	SWTL	SBL	NBTL	NETL
Maximum Green (s)	10.0	60.0	16.0	10.0	60.0	16.0
Minimum Green (s)	5.0	10.0	10.0	5.0	10.0	10.0
Recall	None	Min	None	None	Min	None
Avg. Green (s)	6.9	4.4	11.6	6.6	4.6	13.3
g/C Ratio	NA	NA	NA	NA	NA	NA
Cycles Skipped (%)	62	0	22	62	2	7
Cycles @ Minimum (%)	0	2	41	2	0	22
Cycles Maxed Out (%)	4	7	4	2	4	33
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary
Average Cycle Length (s): -9.5

Number of Complete Cycles : 45

APPENDIX E

- **BOUNDARY & TOPOGRAPHIC SURVEY PLAN**
- **SITE PLAN**



POSSIBLE ENCROACHMENTS

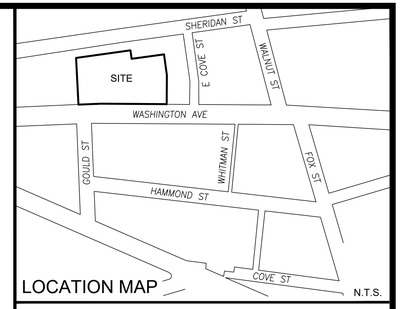
1. STOCKADE FENCE FROM CURRAN
2. SHED FROM CURRAN
3. CONCRETE WALL FROM MUNJOY HEIGHTS CONDO
4. PVC PIPES AND CRUSHED STONE FROM MUNJOY HEIGHTS CONDO
5. BUILDING FROM HIGH PEAKS, LLC, EAVES NOT SHOWN
6. OVERHEAD WIRES – CMP TO CURRAN

UTILITY NOTE

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEY HAS NOT PHYSICALLY LOCATION THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

LEGEND

IRON PIPE OR ROD FOUND	FENCE
MONUMENT FOUND	CURB
CAPPED IRON ROD SET	OHW OVERHEAD WIRES
UTILITY POLE	W WATER LINE
MANHOLE	G GAS LINE
EM ELECTRIC METER	C COMMUNICATION/TEL.
SIGN	SD STORM DRAIN
CATCH BASIN	SS SANITARY SEWER
HYDRANT	80 1' CONTOUR
WATER VALVE OR SHUTOFF	IPF/IRF IRON PIPE OR ROD FOUND
DECIDUOUS TREE	N/F NOW OR FORMERLY
	000/000 DEED BOOK / PAGE
	TM TAX MAP
	CONC. CONCRETE



PLAN REFERENCES

1. "PLAN OF PROPERTY OF W.H. BAXTER ESQ. BY ANDERSON BONNELL & CO. JULY 1866" RECORDED IN PLAN BOOK 2 PAGE 54.
2. "PLAN DEPICTING A PROPOSED SUBDIVISION MADE FOR REDFERN MUNJOY, LLC MUNJOY HEIGHTS SHERIDAN STREET, EAST COVE STREET, AND WALNUT STREET PORTLAND, MAINE 12/6/2013 NADEAU LAND SURVEYS" RECORDED IN PLAN BOOK 214 PAGE 48.
3. SUBDIVISION OF LOT 1 ON MUNJOY'S NECK FOR LITTLE, WEEKS AND MOODY DATED FEB. 17, 1802 AND RECORDED IN DEED BOOK 36, PAGE 247.
4. "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR DEAD RIVER LEASING, INC. 11-10-1969 H.I. & E.C. JORDAN – SURVEYORS"
5. "LAND TITLE SURVEY FOR VOLUNTEERS OF AMERICA PORTLAND, MAINE 12-18-92 H.I. & E.C. JORDAN – SURVEYORS" REVISED AUG. 29, 1995
6. "BOUNDARY SURVEY AT 163 WASHINGTON AVENUE, PORTLAND, MAINE MADE FOR OWNER OF RECORD JEFFREY A. CURRAN MAY 26, 2021 OWEN HASKELL, INC. JOB NO. 2021-075 P" REVISED 12-18-2022.
7. "PLAN OF PROPERTY OF W.H. BAXTER ESQ. BY ANDERSON BONNELL & CO. JULY 1866" RECORDED IN PLAN BOOK 2, PAGE 56.

GENERAL NOTES

1. OWNER OF RECORD: RAYMOND H. AND ALINA WATERHOUSE, 105 PARTRIDGE CIRCLE, PORTLAND, ME; CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 25470, PAGE 272.
2. LOCUS IS SHOWN AT LOT 1 IN BLOCK D ON PORTLAND PROPERTY MAP 10.
3. BEARINGS ARE GRID NORTH AS BASED ON CITY MONUMENTS L749-78-3002, CORNER WASHINGTON AVENUE AND NORTH SIDE OF WALNUT STREET, AND T112-18-107, CORNER EAST SIDE OF NORTH STREET AND NORTH SIDE OF WALNUT STREET, AS SURVEYED BY THIS FIRM IN 2014. THESE ARE THE SAME TWO MONUMENTS USED FOR PLAN REFERENCE 2 IN 2013. BOTH OF THESE MONUMENTS HAVE BEEN MOVED OR DISTURBED, APPARENTLY DURING SIDEWALK RECONSTRUCTION SINCE 2014.
4. ELEVATIONS ARE CITY DATUM AS BASED ON PK IN POLE #11, CORNER ANDERSON AND EVERETT STREETS, ELEVATION 12.42 CITY LEVEL BOOK 737, PAGE 77.
5. LINES ALONG CURRAN, HIGH PEAKS, LLC, AND A PORTION OF MUNJOY HEIGHTS CONDO ARE BASED ON DIMENSIONS SHOWN ON PLAN REFERENCE 7.
6. THE EXACT STATUS OF SHERIDAN STREET, FORMERLY KNOWN AS POPLAR STREET, HAS NOT BEEN DETERMINED. IT IS PRESUMED TO HAVE BEEN VACATED AND OWNERSHIP MAY EXTEND TO THE CENTER OF THE PAPER STREET. THE WESTERLY LINE OF SHERIDAN HEREON IS THE SAME AS SHOWN ON PLAN REFERENCE 2. THIS MATCHES REASONABLY WELL WITH THE LINE OF SHERIDAN STREET AS SHOWN ON PLAN REFERENCE 5 BUT NOT WITH THE LINE ON PLAN REFERENCE 4. THIS STREET WAS ORIGINALLY SHOWN ON PLAN REFERENCE 3 IN 1802 WHICH PLAN IS VERY DIFFICULT TO RECREATE.
7. THE SKETCH IN DEED BOOK 31302, PAGE 177, FROM WATERHOUSE TO REDFERN MUNJOY, LLC, DOES NOT INDICATE A JOG IN THE CURRENT EAST LINE OF WATERHOUSE. THE SOUTH SIDE OF THE ORIGINAL WATERHOUSE LAND, ON THE WEST SIDE OF SHERIDAN STREET, ON PLAN REFERENCE 4 HAS A DISTANCE OF 33.47 FEET. THE SAME LINE ON THE RECENT SKETCH HAS A DISTANCE OF 30.00 FEET. THIS SURVEYOR BELIEVES THAT THE LINE OF SHERIDAN STREET ON PLAN REFERENCE 4 IS NOT ACCURATE. A BOUNDARY AGREEMENT WITH MUNJOY HEIGHTS CONDO WOULD RESOLVE ANY CONFLICT.
8. UNDERGROUND UTILITIES MARKED BY PROMARK UTILITY LOCATING, INC. SEWER PIPE SIZES AND MATERIALS FROM CITY GIS.

CERTIFICATE

OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

JOHN C. SCHWANDA, PLS #1252

7/25/2023
DATE

STATE OF MAINE
JOHN C. SCHWANDA
1252
PROFESSIONAL LAND SURVEYOR

Boundary & Topographic Survey

At

185 Washington Avenue, Portland, Maine

Made for

Acorn Engineering

Owner of Record

Raymond H. & Alina Waterhouse

105 Partridge Circle, Portland, Maine

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 US ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0424

DRAWN BY: NM / JLW	DATE: JULY 25, 2023	JOB NO. 2023-117 P	
CHECKED BY: JCS	SCALE: 1" = 20'	DRWG. NO. 1	

GENERAL NOTES:

1. ALL BRICK SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF PORTLAND STANDARD.
2. ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF PORTLAND STANDARDS.
3. ANY ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
4. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
6. ALL SITE SIGNAGE TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.
8. CONTRACTOR SHALL VERIFY BOTTOM AND TOP OF CURB ELEVATIONS ALONG BUILDING FRONTAGES PRIOR TO CONSTRUCTION OF THE FOUNDATIONS. CONTACT ENGINEER PRIOR TO CONSTRUCTION IF DISCREPANCIES ARE FOUND.
9. 20% OF PARKING SPACES TO HAVE LEVEL 2 OR GREATER EV CHARGING STATIONS. 50% OF PARKING SPACES TO BE EV READY WITH CONDUITS INSTALLED FOR FUTURE USE.

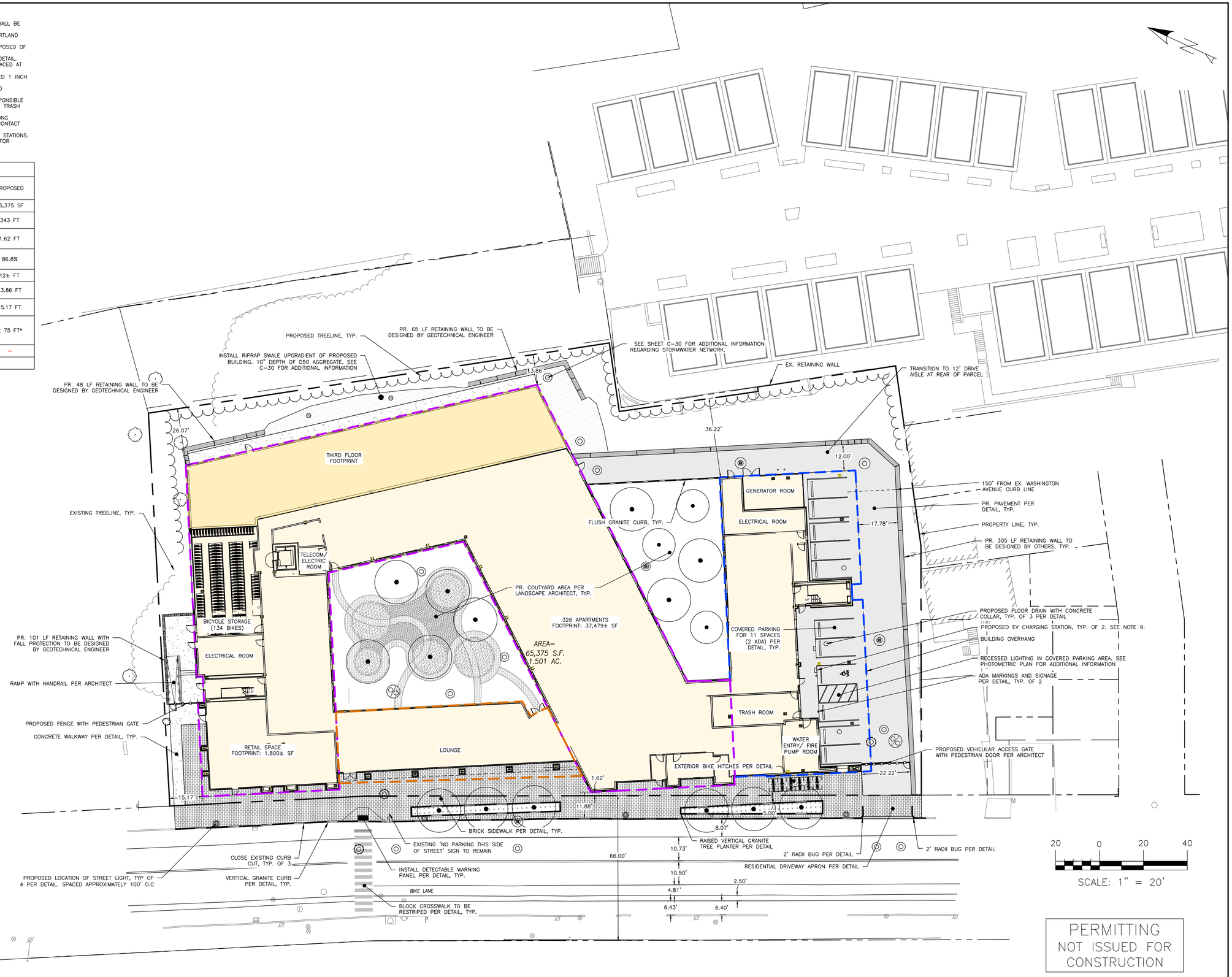
SPACE AND BULK STANDARDS		
ZONING DISTRICT B2B	REQUIRED	PROPOSED
MINIMUM LOT AREA	N/A	65,375 SF
STREET FRONTAGE	N/A	343 FT
BUILD TO ZONE	0–10 FT	1.62 FT
MINIMUM BUILDING LENGTH AS PERCENTAGE OF STREET FRONTAGE	60%	86.8%
MAX BLANK WALL AREA	20 FT	12± FT
MINIMUM REAR YARD SETBACK	NONE (10 FT ONLY WHEN ABUTTING RESIDENTIAL)	13.86 FT
MINIMUM SIDE YARD SETBACK	NONE (5 FT ONLY WHEN ABUTTING RESIDENTIAL)	15.17 FT
MAXIMUM BUILDING HEIGHT	75* FT (50 FT IF WITHIN 15' OF RN1,RN2,RN3,RN4,OS–R,OS–P ZONES)	< 75 FT*
IMPERVIOUS SURFACE RATIO	NONE	–
* SEE AVERAGE GRADE CALCULATION ON C–30		

LEGEND

- FIRST FLOOR FOOTPRINT
- THIRD FLOOR FOOTPRINT
- 3 STORY BUILDING HEIGHT
- 4 STORY BUILDING HEIGHT
- 7 STORY BUILDING HEIGHT

PARKING SUMMARY		
	MAX	PROPOSED
RESIDENTIAL	2 SPACES PER DWELLING UNIT (326 UNITS) = 652 PARKING SPACES	
RETAIL	1 SPACE PER 300 SF OF FLOOR AREA (1,800 SF) = 6 SPACES	
STANDARD (9'X18')	–	9
ADA (8'X18')	–	2
TOTAL SPACES	658 SPACES	11

BICYCLE PARKING SUMMARY		
	MAX	PROPOSED
RESIDENTIAL	1 SPACES PER 2 DWELLING UNITS (326 UNITS) 163 SPACES	
RETAIL	OVER 5,000 SF OF FLOOR AREA ONLY	
INTERIOR	–	–
EXTERIOR		
TOTAL SPACES	163 SPACES	–



PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY	DATE
SITE PLAN	PFH	11/20/24

DRAWING NAME: SITE PLAN

PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101

CLIENT: REDFERN PROPERTIES P.O. BOX 8816, PORTLAND, MAINE 04104

THESE PLANS SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY MODIFICATIONS MADE BY ANYONE OTHER THAN ACORN ENGINEERING, INC. SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
CIVIL • SURVEY • PLANNING
P.O. BOX 3437 PORTLAND, MAINE 04104
(207) 775-2655

FILE:	1202_CIVIL
JN:	1202
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE PETER F. HEIL 15318 LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-10

Barton & Loguidice

Preliminary Transportation Demand Management Plan (TDM)

Prepared For: **Redfern Properties LLC.**

Project: **165 Washington Avenue**
Portland Maine
Proposed Multi-Family & Commercial Space Mixed Use Building

Prepared By: **Barton & Loguidice. LLC.**
383 US Route 1
Suite E, Box 4
Scarborough, Maine, 04074

Traffic Demand Management (TDM) 14-14.6.1 (E)

The following types of development shall design and implement a Transportation Demand Management (TDM) plan:

a. All major site plan triggering development in the B-7 zone.

b. All commercial, institutional, or mixed-use developments of 50,000 square feet or more total floor area.

c. All commercial or institutional uses designed to accommodate 100 or more employees or, for educational institutions, 100 or more students.

The TDM Plan shall comply with the transportation systems and street design standards of the Technical Manual.

A Traffic Demand Management Plan is enclosed.

Transportation Narrative

The proposed project by Redfern Properties LLC, will be a construction of a mixed-use residential and commercial building on the 1.31-acre parcel addressed 165 Washington Avenue in the City of Portland. Of the total acreage, 1.31 acres are developable. The project will construct a 7-floor multi-use building with 326 apartment units, and 1,800sf of retail space on the ground level. Access to the site is provided via a single driveway entrance, which intersects with the eastern side of Washington Avenue 120 feet north of East Cove Street.

The project will provide storage for 163 bicycles and 11 vehicle parking spaces, 2 of which will be signed and striped as handicapped.

Redfern Properties LLC, is a part of the Portland community and has developed several projects within the city, and as such is committed to the City's goals of reducing single occupancy vehicle usage and encouraging and providing opportunities, programs and infrastructure to promote use of other modes of transportation.

Existing

The existing development parcel is occupied by a vacant facility, which formerly housed Northern Burner Supply, a wholesale distributor of heating and electrical supplies. Access to the existing site is provided by two driveway entrances, which intersect with the eastern side of Washington Avenue, both of which will be removed with the development of the project.

Proposed

The proposed will construct a 7-floor multi-use building with 326 apartment units, and 1,800sf of retail space (potential restaurant / market use) on the ground level. Access to the site is provided via a single driveway entrance, which intersects with the eastern side of Washington Avenue, 120 feet north of East Cove Street.

The project will provide eleven (11) vehicle surface parking spaces on-site, two (2) of which will be signed and striped as handicapped and are ADA Van Accessible. The project will also provide two (2) EV charging stations, which will include one of the ADA parking spaces. In addition, at least three (3) parking spaces will be EV ready for potential future use.

Internal and external to the building, one hundred and sixty-three (163) bike racks are provided.

Area / Neighborhood Existing Conditions

The City of Portland has made investments in this area of Portland in recent years. These investments have made the neighborhoods surrounding the proposed development a more welcoming community to other modes of traffic especially pedestrian and bicycle traffic, and has made efforts to provide more complete streets with traffic calming elements to assist with slowing motorized modes of transportation. Recently a project was completed which replaced and widened (in some places) brick sidewalks, added new granite curbing, better defined parking zones on Washington Avenue, narrowed the road in several places, added curb extensions, and removed traffic signals that were not warranted on Washington Avenue at the intersections with Congress Street and Cumberland Avenue.

This area of Portland is known for its many and various restaurants shops and other retail establishments.

Site Access

The location of the project site on Washington Avenue gives vehicular traffic access to regional routes in and out of the greater Portland area as well as to local destinations within Portland. Access to the north on Interstate 295 is provided by heading northbound on Washington Avenue approximately 1,000 ft., which leads directly onto I-295 North.

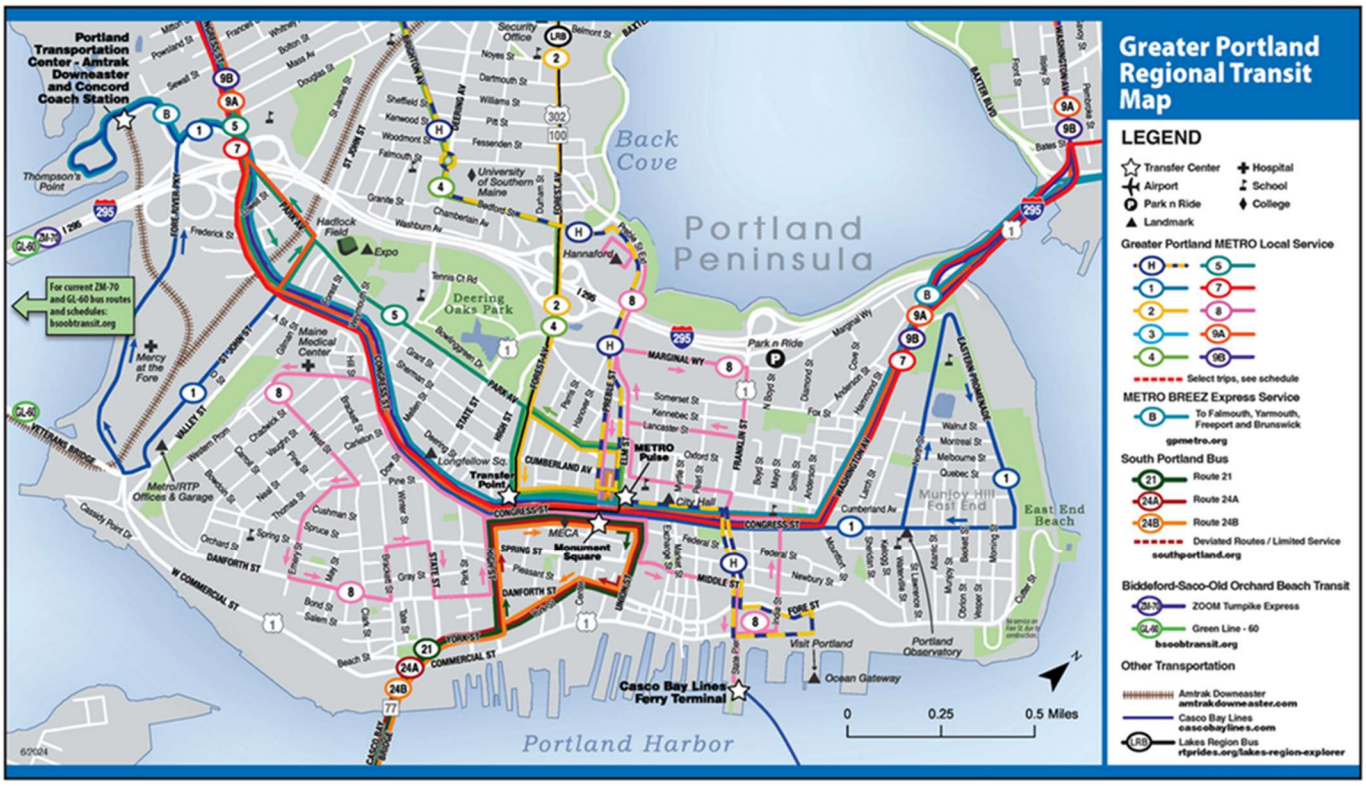
Access to I-295 southbound from the site is provided via Franklin Street, which has access from Washington Avenue using several alternative connecting streets such as Fox Street, Cumberland Avenue and Congress Street.

Access to other local City destinations such as the Eastern Promenade, Old Port, Downtown District, and the City's Transportation Center are also easily access from this neighborhood utilizing Congress Street, Cumberland Avenue, Franklin Street and the Eastern Promenade roadway which intersections Washington Avenue approximately 500 ft. north of our project site.

Transit Access / Connections

This area of Portland and Washington Avenue are well served by public transit. Washington Avenue is currently served by three routes of the Greater Portland Metro routes, 7, 9A, and 9B. In addition, the "B" line of the Metro Breez serves Washington Avenue.

See Transit Route Map below.



Effective June 16, 2024

Further details of the routes are included below:

Metro Route 7 - Provides transportation between Falmouth, Downtown Portland, and the Portland Jetport, DHHS, and Outer Congress Street.

Metro Route 9 (9B & 9B) – Provides the following routes

- Route 9A travels in a clockwise direction from downtown Portland to North Deering.
- Route 9B travels in a counterclockwise direction along the same route.
- Service to all three Portland Public High Schools, Congress Street locations, Westgate, PTC, Stevens Ave, Northgate, West Falmouth, Washington Avenue, and Eastern Prom/Munjoy Hill.

Metro Breez – The Metro Breez provides a route which runs between the Portland Transportation Center, and then to Falmouth, Yarmouth, Freeport and Brunswick, via Fore River Parkway, Congress Street, Washington Avenue and I-295.

These routes also provide access to Transfer Centers along Congress Street at Elm Street (Downtown Transportation Center), Monument Square, and at Forest Avenue, as well as access to the Portland Transportation Center, which provides access to the Downeaster train and Concord Trailways Regional/National Bus service. These Transfer Centers also provide access to the other Metro routes, Metro Pulse, at Elm Street (Downtown Transportation Center), the hub for METRO where bus routes, #2, #4, #5, #7, and the Husky Line begin and end their routes. METRO bus routes #1, #8, and the Biddeford Saco Old Orchard Beach (BSOOB) Transit 60 Green line can be accessed along Congress Street. South Portland Bus routes 21, 24A, and 24B can be accessed along Congress Street. METRO bus route 8 is located along Cumberland Avenue.

See additional detail of Transit Routes in the Metro graphic below.



TDM Coordinator

This development has designated Haynes Johnston, Director of Development, Redfern Properties LLC, to initially serve as the TDM Coordinator. His contact info is:

Haynes Johnston
Redfern Properties LLC.
P.O. Box 8816
Portland, Maine 04104
haynes@redfernproerties.com

Mr. Johnston will actively promote and educate on alternative forms of transportation for both residents and employees. As the Coordinator, he will be responsible for monitoring and updating the TDM Plan. At some point after a property management firm is in place to manage the property for Redfern Properties LLC., Haynes Johnston will designate a staff member from the property management firm to assume the role of TDM Coordinator. When this happens the TDM plan will be updated and a copy submitted to the City. Mr. Johnston will assist the new TDM Coordinator during the transition to both maintain the effectiveness of the plans and to update the new Coordinator on status of existing TDM programs and current initiatives.

Resident, Customer & Employee Survey

The TDM Plan will include a transportation survey prior to implementation and on an annual basis. The survey will consist of questions to gain an understanding of resident/employee commuting means and effectiveness of the TDM strategies. The survey will include questions such as:

1. Vehicle ownership and parking location
2. Mode of transportation (car, bus, walking, taxi/rideshare, bicycle, etc.) to travel to and from the apartment complex.
3. Reason for selected transportation mode
4. Ease of use of selected transportation mode
5. Concerns with using other transportation modes
6. Barriers to vehicle trip reductions such as transit ridership and bicycle use
7. Use of personal vehicles
8. Interest in carpooling to share in transportation expenses.

This survey will be conducted annually for residents of the apartments and employees of the restaurant and will be electronically tabulated. This information will be used to develop specific strategies and adjust the TDM plan as needed.

Parking and Trip Reduction Targets

Trip Generation

As part of the Applicant's traffic study for this development, trip generation was calculated using the ITE Trip Generation Manual 11th Edition. See summary tables below for the expected trip generation. Trip generation for the proposed 326 apartment units and 1,800sf of commercial spaces was determined based on the trip generation rates provided in the 11th edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. The ITE Manual provides numerous land use codes (LUC) and the average volume of site generated trips produced by each category.

Trip generation calculations for the 326 apartment units were prepared using *LUC #221—Multi-Family Housing (Mid-Rise)*, which ITE describes as "*apartments and condominiums located in a building that has between four and 10 floors of living space. Access to individual dwelling units is through an outside building entrance, a lobby, elevator, and set of hallways.*"

Trip generation calculations for the 1,800sf of commercial spaces were prepared using *LUC #932 – High-Turnover (Sit-Down)* *Restaurant*, defined by ITE as "*full-service eating establishments with a typical duration of stay of 60 minutes or less. This restaurant is usually moderately priced, frequently belongs to a restaurant chain, and is commonly referred to as casual dining. Generally the restaurants serve lunch and dinner; they may also be open for breakfast and are sometimes open 24 hours a day.*"

In the *Trip Generation Manual*, for LUC #221 and LUC #932, ITE provides the *Average* trip generation rate, and the *Fitted Curve* trip generation rate. MaineDOT guidelines state that when $R^2 \geq 0.80$, the *Fitted Curve* trip generation rate shall be used. The trip generation calculations for the apartment units and commercial space are provided below in Table 1.1 and Table 1.2:

Table 1.1
ITE Trip Generation Calculations (Dense Multi-Use Urban)

Land Use	Multifamily Housing (Mid-Rise) Not Close to Rail Transit - LUC 221						
Time Period	**Dwelling Units (X)**	**R^2**	**Fitted Curve Equation/ Avg. Rate**	**Trips Generated (T)**	**Distribution Entering / Exiting**	**Enter**	**Exit**
Weekday	326	n/a	2.93	955	50% / 50%	478	477
AM Weekday Peak Hour (Street)	326	0.96	T = 0.25(X) + 5.35	87	15% / 85%	13	74
PM Weekday Peak Hour (Street)	326	0.97	T = 0.29(X) - 6.26	88	73% / 27%	64	24
AM Weekday Peak Hour (Generator)	326	0.69	0.23	75	17% / 83%	13	62
PM Weekday Peak Hour (Generator)	326	0.78	0.24	78	63% / 37%	49	29
Saturday Peak Hour*	326	n/a	0.27	88	50% / 50%	44	44

*ITE does not provide trip distribution for Saturday peak hour. Assumed to be 50/50.

Table 1.2
ITE Trip Generation Calculations (General Urban/Suburban)

Land Use	High-Turnover (Sit-Down) Restaurant - LUC 932					
Time Period	**Sq. Footage (1k)**	**Avg. Trip Generation Rate (Trips Per 1k Sf)**	**Trips Generated**	**Distribution Entering / Exiting**	**Enter**	**Exit**
Weekday	1.8	107.20	193	50% / 50%	97	96
AM Weekday Peak Hour (Street)	1.8	9.57	18	55% / 45%	10	8
PM Weekday Peak Hour (Street)	1.8	9.05	17	61% / 39%	11	6
AM Weekday Peak Hour (Generator)	1.8	13.68	25	57% / 43%	15	10
PM Weekday Peak Hour (Generator)	1.8	16.35	30	51% / 49%	16	14
Saturday Peak Hour	1.8	11.19	21	51% / 49%	11	10

Summarizing the trip generation calculations shown in the preceding tables, Table 1.3, following, provides the trip generation calculations for the proposed development:

Table 1.3
ITE Trip Generation Summary

Time Period	Total Trips	Enter	Exit
Weekday	1148	575	573
AM Weekday Peak Hour (Street)	105	23	82
PM Weekday Peak Hour (Street)	105	75	30
AM Weekday Peak Hour (Generator)	100	28	72
PM Weekday Peak Hour (Generator)	108	65	43
Saturday Peak Hour	109	55	54

The preceding table shows that the proposed multi-use building is expected to generate 105 trips during the AM peak hour of the adjacent street, and 105 trips during the PM peak hour of the adjacent street. During the peak hours of the generator, the site is expected to produce 100 trips in the AM and 108 trips in the PM. During the Saturday peak hour, the development is expected to generate 109 trips.

Net New Trips

MaineDOT Traffic Movement Permit Regulations allow trip generation credits to be taken for on-site uses that are displaced by the development of a site which were operational within the past 10 years. Within the past 10 years, the site was occupied by Northern Burner Supply Company, a heating and air conditioning/HVAC wholesale distributer store. The development was located in a 9,500sf building, which will be removed with the development of the project. The trip generation estimates for Northern Burner Supply Co., which were prepared using ITE's LUC #110 – General Light Industrial, are provided below in Table 1.4:

Table 1.4
ITE Trip Generation Calculations (General Urban /Suburban)

Land Use	General Light Industrial - LUC 110					
Time Period	**Sq. Footage (1k)**	**Avg. Trip Generation Rate (Trips Per 1k Sf)**	**Trips Generated**	**Distribution Entering / Exiting**	**Enter**	**Exit**
Weekday	9.5	4.87	46	50% / 50%	23	23
AM Weekday Peak Hour (Street)	9.5	0.74	7	88% / 12%	6	1
PM Weekday Peak Hour (Street)	9.5	0.65	6	14% / 86%	1	5
AM Weekday Peak Hour (Generator)	9.5	0.91	9	87% / 13%	8	1
PM Weekday Peak Hour (Generator)	9.5	0.80	8	18% / 82%	1	7
Saturday Peak Hour		Closed				

Table 1.4 shows that the site's prior use generated 7 trips during the AM peak hour of the adjacent street and 6 trips during the PM peak hour of the adjacent street. During the AM and PM peak hours of the generator, the site produced 9 trips and 8 trips, respectively.

Taking credit for the site's prior use, Table 1.5, following, presents the net new site trip generation:

Table 1.5
Net New Trip Generation Calculations

Time Period	Proposed Trip Generation			Existing Trip Generation			Net New Trip Generation		
	Total	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**	**Enter**	**Exit**
Weekday	1148	575	573	-46	-23	-23	1102	552	550
AM Weekday Peak Hour (Street)	105	23	82	-7	-6	-1	98	17	81
PM Weekday Peak Hour (Street)	105	75	30	-6	-1	-5	99	74	25
AM Weekday Peak Hour (Generator)	100	28	72	-9	-8	-1	91	20	71
PM Weekday Peak Hour (Generator)	108	65	43	-8	-1	-7	100	64	36
Saturday Peak Hour	109	55	54	0	0	0	109	55	54

The preceding table shows that the proposed multi-use building is expected to generate 98 net new trips during the AM peak hour of the adjacent street, and 99 net new trips during the PM peak hour of the adjacent street. During the peak hours of the generator, the site is expected to produce 91 net new trips in the AM and 100 net new trips in the PM. During the Saturday peak hour, the development is expected to generate 109 net new trips.

Trip Adjustments

It is assumed that a certain number of trips generated by the proposed apartment units will also visit the proposed restaurant located on the ground floor. We have calculated the internally captured (shared) trips for proposed developments using the approach recommended by the ITE *Trip Generation Handbook*, which recommends using the NCHRP Report 684 methodology. The NCHRP Report 684 determines the internally captured trips between office, retail, restaurant, cinema/entertainment, residential, and hotel land uses.

The NCHRP spreadsheets, *attached in Section A of the appendix*, have been prepared by inputting the net new trips generated by the proposed residential and restaurant uses. The outputs of the spreadsheets are summarized below in Table 1.6:

Table 1.6
NCHRP Report 684 Summary

Time Period	Internal Capture Percentages			External Vehicle Trips		
	Total	Enter	Exit	Total	Enter	Exit
AM Weekday Peak Hour (Street)	4%	12%	2%	94	15	79
PM Weekday Peak Hour (Street)	6%	4%	12%	93	71	22
Saturday Peak Hour	7%	7%	7%	101	51	50

Table 1.6 shows that with the internally captured trips accounted for, the site is expected to produce 94 net new trips in the AM peak hour, 93 net new trips in the PM peak hour, and 101 net new trips in the PM peak hour.

Expected Parking Generation

It should be noted that based on City Ordinance, on-site parking is not required to be provided. However, as part of this TDM Plan, we are estimating parking demand based on the two proposed uses of the site. The uses included 326 units of mid-rise multifamily housing, LUC 221, and a ground level high turnover restaurant, LUC 932. Based on the Institute of Transportation Engineers (ITE) Parking Generation Manual, 5th Edition, we have estimated parking demand for the proposed development.

For LUC 221, we have used the best-fit curve equation (as the $R^2 > 0.80$) for the Dense Multi-Use Urban condition, which is $P = 1.04(X) – 15.22$, with 326 units this corresponds to 324.9 spaces.

For LUC 932, we have used the average rate for a weekday because there was no best-fit equation provided. With the average weekday rate of 6.47 Parking Spaces per 1000 sf of LUC 932, this equates to 11.6 spaces.

However, with this type of development being more of a transit-oriented development in an area of Portland that is heavily serviced by transit services with connections to other transit services it is expected that this development will not as heavily rely on single occupancy vehicles by its residents. In addition, the existing pedestrian and bicycle infrastructure on this area of Washington Avenue will encourage bicycle and pedestrian activity for local and neighborhood trips.

Parking & Trip Rate Reduction Targets

It has been shown that typical reduction rates of up to 10% can be reasonably achieved through implementation of an effective TDM plan. The start of implementing this effective TDM plan will be a thorough initial survey period, gaining information of travel mode splits, and making observations during this time of travel patterns to and from the residential and restaurant portions of the development.

Customize Parking and Trip Reduction Strategies

The strategy to reduce parking and trip demand will be aimed at residents and staff. Resident and staff strategies will seek to reduce employee vehicle trips to the site, especially during normal peak traffic hours. Ridesharing will be coordinated and promoted amongst staff. Information regarding the Metro, Metro Breez, South Portland and the Biddeford, Saco and Old Orchard Beach Transit Service, and a program to discount passes will be made available to residents and staff. As mentioned above bicycle parking will also be provided inside of the building with additional bike racks outside to encourage bicycle commuting.

For residents, strategies will focus on both initially travelling to and from the building for work and pleasure trips, especially those within the greater Portland area. Information will be provided and readily available regarding desirable walking routes to transit and nearby attractions, such as restaurants and shops and other nearby destinations such as the Eastern Promenade and the Old Port.

Education

Transit Maps and Schedules:

The METRO has six (6) bus stops on Washington Avenue with two in close proximity to this project (less than 300 ft north and south). As discussed above there are three Metros line and one Metro Breez line that run on Washington Avenue, which have connections to other transfer centers. Information on routes, schedules, and payment methods for buses will be available for residents via a kiosk and bulletin board in the building lobby. Information will also be posted on the services available at the Portland Transportation Center, which include the Amtrak Downeaster and Concord Coach Bus Lines for intercity and regional service.

Suggestions for the most convenient pedestrian routes to relevant local bus stops will be made available. All intersection crossings along the route have crosswalks and include pedestrian signals at signalized intersections. There is a crosswalk with an RRFB where the Eastern Promenade intersects Washington Avenue and a midblock crosswalk at this site's frontage on Washington Avenue.

Resident and employee orientation will include information related to discount programs for the Metro, Metro Breez, South Portland Bus Service, and Biddeford/Saco/Old Orchard Beach Bus service.

Ridesharing:

The TDM Coordinator will actively promote and coordinate ridesharing amongst residents and employees. This will be done through bulletin boards in the lobby and employee areas, and

employee email lists. Residents and employees who actively rideshare/carpool will be recognized for their efforts on newsletter announcements and/or bulletin board postings in the employee areas.

Monitoring

The TDM Plan will be monitored over time to determine its ongoing effectiveness. The TDM Coordinator will be responsible for this monitoring and making changes as necessary to better meet the TDM goals.

After an initial startup period, the Applicant, through the TDM Coordinator, will submit a status report to the City of Portland containing the following information:

- Occupancy figures for the multifamily housing
- Vehicle ownership of tenants
- Usage / Transaction data for the restaurant use
- Summary and analysis of completed TDM Surveys
- Usage data for TDM programs initiated
- Mode Split by trip type
- Suggestions for improvements to bicycle, pedestrian and transit infrastructure.
- Comparison to previous surveys (after initial survey)
- Proposed changes to TDM Plan (Education, Infrastructure, and Incentive) after each subsequent survey
- Updated TDM usage data from year to year and noted updated programs.

The development may not be at or near full occupancy at opening, an annual report will be filed with the City, however, it will be important to note how the TDM plan is functioning and how effective it is as the project nears full capacity.

Project Specific Standards

Infrastructure

The following onsite infrastructure improvements are currently proposed:

- Bicycle parking racks will be located within the first floor and exterior to the building. Number of spaces (163 total) will meet minimum according to Article 14 of the Land Use Code.
- A TDM kiosk will be provided in the main lobby area of the building, nearby transit stops will be one of thing items noted, there are currently bust stop location north and south for the project on Washington Avenue, both less than.
- A bulletin board or monitor will be provided in the lobby area of the building and one will be provided in the employee area. The employee and public information areas will contain the relevant information to each. The TDM Coordinator will be responsible for keeping material current and available.
- An option for a Monitor in the lobby will be further investigated, for implementing real-time tracking of buses along their routes on Washington Avenue and other adjacent areas of the City.
- Reconstruction of brick sidewalks and granite curbs per the City Technical Standards, as well as adding street lighting long the projects frontage along Washington Avenue.

- Improvements to the existing mid-block crossing along the site's frontage on Washington Avenue, which will include a new ramp and detectable warning field and restriping a bar type crosswalk per City Technical Standards.

Incentives

The following incentives will be provided to residents and employees to encourage their active participation in the TDM plan:

A. Effective Parking "Cash Out": With no parking provided on-site or included in the rent, tenants will be provided with a choice as to whether to pay for a parking space off site. Those who choose not to own their own vehicle will be able to reduce their housing costs through this decoupling of parking cost and rent.

B. Transit Incentives: Research has shown that moving into a new home is a chance for residents to try new transportation options. In order to make sure that new tenants are aware of, and have incentives to try, transit, Redfern will provide new tenants with a $30 credit on the DiriGo app. That app can be used for trips on METRO, BSOOB Transit and/or South Portland Bus Service. This loaded amount will make trying transit very easy and ensure that tenants have loaded the DiriGo app on their phones. This credit will be provided to new tenants for at least five years after building occupancy. Should tenants not own a phone, Redfern will provide them with a DiriGo Pass (formerly a DiriGo TouchPass) loaded with $30.

C. Car and Bike Sharing: While Portland currently does not have a car-sharing vendor, should one become available, Redfern commits to working with the City to provide a car-sharing vehicle nearby. Similarly, Redfern is interested in working with the City and any bike-sharing systems it may have, including assisting with sponsorship of some of the system.

D. Telecommuting: This building will be set-up and wired with the best internet access currently available in this location, to encourage telecommuting as a trip reduction strategy.

Conclusions

This preliminary TDM plan has been prepared in conjunction with Redfern Properties LLC, and will continue to be detailed during the Site Plan Approval process. We anticipate there will be comments from City staff and we look forward to working with the City to arrive at a TDM plan that best fits this type of development and its location within the City of Portland. To that end, this project is supportive of the City's goals of reducing single occupancy usage, increasing transit ridership and increasing pedestrian and bicycle activity.

Att. T3

SECTION 7
TRAFFIC IMPACT STUDY

FOR PROPOSED

165 Washington Avenue
RESIDENTIAL & COMMERCIAL REDEVELOPMENT

165 Washington Ave, Portland, Maine

Prepared For: **Redfern Properties, LLC**
Prepared By: Barton & Loguidice

February 11, 2025

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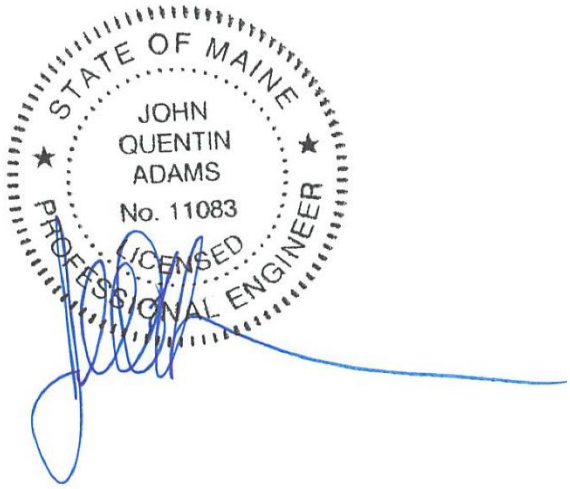
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APPENDIX 11



John Q, Adams, P.E., P.T.O.E
Date: 2/11/2025

Section 7

7A EXISTING & PROJECTED TRAFFIC VOLUMES

7A-1. Existing Traffic Volumes

Manual turning movement traffic counts were conducted at the signalized intersection of Washington Avenue at Fox Street/Walnut Street and the unsignalized intersection of Washington Avenue at Eastern Promenade on October 16, 2024, during the weekday AM and PM peak hours.

All vehicular traffic entering the study intersections was recorded in 15-minute intervals; the AM traffic data was recorded between 7:00 and 9:00 AM, and the PM traffic data was recorded between 3:00 and 6:00 PM. From a summary of the data, peak hour time periods were established for the *"peak"* commuter travel periods. At the intersection of Washington Avenue at Fox Street/Walnut Street, the AM peak hour begins at 7:45 AM, and the PM peak hour begins at 4:15 PM. At the intersection of Washington Avenue and Eastern Promenade, the AM peak hour begins at 7:30 AM, and the PM peak hour begins at 4:15 PM. The turning movement count reports are attached in *Section A of the appendix*.

The 2024 traffic volumes are illustrated in Figure 1, attached in *Section A of the appendix*.

7A-2. Seasonal Adjustments

Traffic data collected during the month of October requires a seasonal adjustment to reflect the "*peak*" travel conditions found during the summer months of July and August. MaineDOT provides Weekly Mean Factors for adjusting traffic volumes collected outside of the peak time periods.

MaineDOT utilizes highway classifications of I, II, or III for all State and Local roadways. MaineDOT's 2023 Count Book classifies Washington Avenue, Eastern Promenade, Walnut Street, and Fox Street as Group I roadways. **Group I** *roadways or urban roads are those which carry commuter traffic and exhibit little seasonal change in traffic volumes.* The Group I classification indicates that the roadways at the study intersections will experience minimal seasonal fluctuation.

In accordance with MaineDOT's 2023 Weekly Group Mean Factors, we have applied a seasonal adjustment factor of 1.046 to the traffic volumes recorded at both study intersections.

7A-3. Annual Adjustments

This traffic study has been prepared based on a projected build-out year of 2027. MaineDOT's traffic counts recorded on Washington Avenue southeast of Anderson Street show that traffic volumes on Washington Avenue have experienced negative annual growth between 2014 (AADT 5,623) and 2022 (AADT 4680). To be conservative in this study, we will apply a 1% annual growth rate to the recorded traffic volumes (factor of 1.0303).

Figure 3, attached in *Section A of the appendix*, depicts the 2027 design hour traffic volumes, including the seasonal and annual adjustments.

7A-4. Other Development Trips

Traffic generated by projects that have been approved by the Local Planning Board and/or the Maine Department of Transportation, yet are not opened, must be included in the estimate of pre-development traffic. The City of Portland has been consulted to identify any and all development projects whose trips may impact the study area. The City has identified 5 projects which may impact the study area:

- Roux Institute – 1 Bean Pot Circle
- St. Lawrence Performing Arts Center
- 70 Thames Street
- 385 Congress Street
- 58 Fore Street

Project and traffic information for each of the five identified projects is provided below:

Roux Institute
Traffic estimates prepared for the Roux Institute show that **18** AM peak hour trips and **21** PM peak hour trips will travel north on Washington Avenue to I-295, and **1** AM peak hour trip and **19** PM peak hour trips will travel from I-295 south on Washington Avenue.

St. Lawrence Performing Arts Center
Friends of St. Lawrence Church are proposing a 401-seat building expansion to the existing St. Lawrence Arts Center located at 76 Congress Street. Site trip assignments, prepared by Traffic Solutions in support of the proposed project, estimate **10** trips will travel directionally on Walnut Street to the proposed St. Lawrence Arts Center site from the Washington Avenue corridor in the "pre-event" peak hour, assumed to be the PM peak hour.

70 Thames Street is a 3-story mixed-use building composed of 43,730sf of office space, 2,00sf of retail space, and 8,315sf (300 seats) of restaurant space. Gorrill Palmer's traffic estimates show that the site produces **63 trips** in the AM peak hour and **129** trips in the PM peak hour. The approximate entry and exit trips, based on the data provided in ITE, are provided below:

AM Peak Hour:	**PM Peak Hour:**
Enter = 51	Enter = 56
Exit = 12	Exit = 73

385 Congress Street provides 156 hotel rooms and 9 residential condominiums. The TDM prepared for the project shows that the site will generate **49 trips** in the AM peak hour and **34 trips** in the PM peak hour. The trips are broken down into entry and exit trips below:

AM Peak Hour:	**PM Peak Hour:**
Enter = 19	Enter = 15
Exit = 30	Exit = 19

58 Fore Street is composed of a 128-room hotel, 43 condominium units, 4,928sf of retail space, 18,083sf of food & beverage, and a 19,697sf spa. Gorrill Palmer's traffic estimates show that the site is expected to generate **419 trips** in the AM peak hour and **565 trips** in the PM peak hour. The approximate entry and exit trips, which have been prepared based on the data provided in the TDM plan, are provided below:

AM Peak Hour:	**PM Peak Hour:**
Enter = 226	Enter = 283
Exit = 193	Exit = 282

7A-5. Other Development Site Trip Assignment

Traffic generated by the other development sites has been assigned through the study intersections following the existing traffic patterns and/or the assumptions listed below:

Roux Institute

The trips traveling north and south on Washington Avenue have been assigned through the study intersections following the traffic patterns illustrated in Figure 1. The Roux Institute's site trip assignment is provided in **Figure 4**, attached in *Section A of the appendix*.

St. Lawrence Performing Arts Center

The traffic figure, prepared by Traffic Solutions and *attached in Section A of the appendix*, shows that 10 trips will travel east, via Walnut Street, from Washington Avenue during the PM peak hour. We have assigned the trips through the study intersections following the traffic patterns illustrated in Figure 1. The St. Lawrence site trip assignment is depicted in **Figure 5**, attached in *Section A of the appendix*.

70 Thames Street & 58 Fore Street

Based on the roadway network adjacent to these sites and the easiest routes to I-295, we have assumed that 20% of the sites entering and exiting trips will travel through the intersection of Washington Avenue, Fox Street, and Walnut Street. We have then assigned them through the study intersections following the existing traffic patterns shown in Figure 1. The 70 Thames Street and 58 Fore Street other development site trip assignments are provided in **Figure 6** and **Figure 7**, respectively, attached in *Section A of the appendix*.

385 Congress Street

Based on the adjacent roadway network and the most convenient route to I-295, we have assumed that 10% of the sites entering and exiting trips will travel through the intersection of Washington Avenue, Fox Street, and Walnut Street. We have then assigned them through the study intersections following the existing traffic patterns shown in Figure 1. The 385 Congress Street site trip assignment is provided in **Figure 8**, attached in *Section A of the appendix*.

7A-6. 2027 Pre-Development Traffic

2027 pre-development traffic estimates, illustrated in **Figure 9** and *attached in Section A of the appendix*, have been prepared by combining the 2027 design hour traffic volumes shown in Figure 3 with the other development trips shown in Figures 4, 5, 6, 7, and 8.

7A-7. 2027 Post-Development Traffic

The 2027 post-development traffic volumes are provided in **Figure 10**, attached in *Section A of the appendix*. This figure has been prepared by combining the 2027 pre-development traffic volumes shown in Figure 9 with the site trip assignment shown in Figure 2.

7B Analysis

7B-1. Capacity Analysis

A capacity analysis of the 2027 pre- and post-development traffic conditions has been performed for the 3 identified study intersections listed below:

1. Washington Avenue @ Eastern Promenade
2. Washington Avenue @ Walnut Street/Fox Street

3. Washington Avenue @ Site Entrance

Within the capacity analysis, we review the level of service (LOS) for the vehicle movements at each of the study intersections. LOS is a measurement of the delay experienced by stopped vehicles at an intersection. LOS rankings are similar to the academic grading system, where an "A" is very good with little delay, and an "F" represents very poor conditions. The following chart presents the relationship between delay and LOS for signalized and unsignalized intersections.

Level of Service Criteria for Signalized Intersections		Level of Service Criteria for Unsignalized Intersections	
Level of Service	**Total Control Delay (sec/veh)**	**Level of Service**	**Total Control Delay (sec/veh)**
A	Up to 10.0	A	Up to 10.0
B	10.1 to 20.0	B	10.1 to 15.0
C	20.1 to 35.0	C	15.1 to 25.0
D	35.1 to 55.0	D	25.1 to 35.0
E	55.1 to 80.0	E	35.1 to 50.0
F	Greater Than 80.0	F	Greater Than 50.0

The capacity analysis was performed using Synchro 12 inputs and SimTraffic 12 reporting outputs. The results are based upon 7 SimTraffic runs, averaging 5 runs with the lowest and highest run removed. The SimTraffic reports are included in *Section B of the appendix.*

Table B1, following, summarizes the results of the capacity analysis completed for the AM and PM peak hours of the 2027 pre- and post-development conditions.

Table B2 Level of Service Summary								
Approach/Lane	2027 Pre-Development				2027 Post-Development			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay (sec./veh.)	LOS	Delay (sec./veh.)	LOS	Delay (sec./veh.)	LOS	Delay (sec./veh.)	LOS
Washington Ave at Fox Street/Walnut Street								
Washington Ave - NB Left	19.1	B	17.8	B	25.4	C	15.8	B
Washington Ave - NB Thru/Right	14.1	B	21.9	C	14.7	B	22.7	C
Washington Ave - SB Left	7.7	A	23.5	C	8.4	A	23.2	C
Washington Ave - SB Thru/Right	20.8	C	20.7	C	22.2	C	18.7	B
Fox St - NE Left/Thru	34.3	C	33.6	C	36.0	D	36.7	D
Fox St - NE Right	11.1	B	5.5	A	11.6	B	5.5	A
Walnut St - Left/Thru	33.5	C	34.6	C	34.7	C	34.6	C
Walnut St - Right	4.0	A	7.6	A	3.6	A	7.1	A
Overall	***20.3***	***C***	***23.1***	***C***	***21.5***	***C***	***23.2***	***C***
Washington Ave at Eastern Prom								
Eastern Prom - WB Left/Right	10.3	B	11.5	B	11.8	B	11.7	B
Washington Ave - NB Thru/Right	2.2	A	3.2	A	1.1	A	1.6	A
Washington Ave - SB Left/Thru	2.8	A	4.6	A	2.9	A	4.2	A
Overall	***3.8***	***A***	***4.8***	***A***	***3.8***	***A***	***4.0***	***A***
Washington Ave at Site								
Site - WB Left/Right	-	n/a	-	n/a	11.4	B	9.7	A
Washington Ave - NB Thru/Right	-	n/a	-	n/a	1.3	A	2.1	A
Washington Ave - SB Left/Thru	-	n/a	-	n/a	1.6	A	1.9	A
Overall	***-***	***n/a***	***-***	***n/a***	***2.4***	***A***	***2.2***	***A***

1. Washington Ave @ Fox St/Walnut St

The capacity analysis shows that the proposed development has minimal impact on the signalized intersection of Washington Avenue, Fox Street, and Walnut Street. In the pre-development and post-development peak hours, the level of delay at the intersection of Washington Avenue, Fox Street, and Walnut Street is expected to remain similar.

Overall, the intersection will continue to operate at LOS C in the AM and PM peak hours, with minor increases in the overall intersection delay.

2. Washington Ave @ Eastern Prom

The analysis shows that during the pre- and post-development peak hours, the Eastern Promenade approach will continue operating at LOS B, while the Washington Avenue approaches will remain at LOS A. Overall, the intersection is projected to operate at LOS A with very minor changes in LOS.

3. Washington Ave @ Site

At the site's intersection with Washington Avenue, the capacity analysis shows that Washington Avenue approaches will operate at LOS A while the site entrance will operate at LOS B in the AM peak hour and LOS A in the PM peak hour.

Overall, the intersection will operate at LOS A with an average delay of 2.4 seconds and 2.2 seconds in the AM and PM peak hours, respectively.

7B-2. Vehicle Queuing Analysis

In addition to outputting the vehicle delay, SimTraffic also provides vehicle queue reports, which show the expected average queue, 95th percentile queue, and maximum queue. For the 2027 pre- and post-development conditions, the 95th percentile vehicle queue results are summarized in Table B2, below, while the average and maximum vehicle queues are included in the SimTraffic reports provided in *Section B of the appendix*.

Table B2
95th Percentile Vehicle Queue Summary

Approach/Lane	Storage Length (ft.)	2027 Pre-Development		2027 Post-Development	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
		Queue Length (ft)	Queue Length (ft)	Queue Length (ft)	Queue Length (ft)
Washington Ave at Fox Street/Walnut Street					
Washington Ave - NB Left	30	54	57	55	61
Washington Ave - NB Thru/Right	n/a	164	307	162	347
Washington Ave - SB Left	30	37	57	40	54
Washington Ave - SB Thru/Right	n/a	327	229	373	134
Fox St - NE Left/Thru	n/a	114	184	124	114
Fox St - NE Right	90	77	91	88	38
Walnut St - Left/Thru	n/a	147	110	137	59
Walnut St - Right	40	79	70	81	32
Washington Ave at Eastern Prom					
Eastern Prom - WB Left/Right	n/a	108	97	125	98
Washington Ave - NB Thru/Right	n/a	5	5	7	-
Washington Ave - SB Left/Thru	n/a	142	161	133	150
Washington Ave at Site					
Site - WB Left/Right	n/a	-	-	70	47
Washington Ave - NB Thru/Right	n/a	-	-	-	7
Washington Ave - SB Left/Thru	n/a	-	-	67	71

1. Washington Ave @ Fox St/Walnut St

The vehicle queuing analysis shows the 30-foot Washington Avenue left-turn lanes are exceeded by 1-2 vehicle lengths (25’ per vehicle) in the pre-development and post-development peak hours.

2. Washington Ave @ Eastern Prom

The vehicle queuing analysis shows that the vehicle queues at the intersection of Washington Avenue and Eastern Promenade will remain similar in the pre- and post-development peak hours.

3. Washington Ave @ Site

At the site's intersection with Washington Avenue, the queuing analysis shows that vehicle queues of 67 and 65 feet are anticipated in the post-development AM and PM peak hours, respectively.

7B-3. Capacity Analysis Confirmation

To check the capacity analysis results completed for the intersection of Washington Avenue, Fox Street, and Walnut Street, and confirm that they are representative of traffic operations at the intersection, we have collected vehicle queuing data at the intersection within the AM and PM peak hour time periods.

The analysis was completed on February 4th and 5th, 2025. For the analysis, we recorded the maximum vehicle queue in each lane during each cycle of the traffic signal for 30 minutes during both the AM and PM peak hours. The results of the analysis are summarized in Table B4, and the vehicle queue count sheets are provided in *Section B of the appendix*.

Table B3
95th Percentile Vehicle Queue Summary

Approach/Lane	Storage Length (ft.)	2027 Pre-Development (SimTraffic)		2025 Pre-Development (Field Survey)	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
		Queue Length (ft)	Queue Length (ft)	Queue Length (ft)	Queue Length (ft)
Washington Ave at Fox Street/Walnut Street					
Washington Ave - NB Left	30	54	57	50	25
Washington Ave - NB Thru/Right	n/a	164	307	125	249
Washington Ave - SB Left	30	37	57	25	50
Washington Ave - SB Thru/Right	n/a	327	229	400	224
Fox St - NE Left/Thru	n/a	114	184	125	125
Fox St - NE Right	90	77	91	50	25
Walnut St - Left/Thru	n/a	147	110	95	148
Walnut St - Right	40	79	70	45	25

The results of the field survey show that the traffic operations observed at the signalized intersection are very similar to the results of the SimTraffic capacity analysis. Accordingly, it is our opinion that the capacity analysis prepared using Synchro and SimTraffic is representative of the pre- and post-development traffic operations at the intersection of Washington Avenue, Fox Street, and Walnut Street.

7B-4. ADA Compliance Review

During the Scoping Meeting, the City requested that pedestrian curb ramps within a ¼-mile radius of the site be evaluated for ADA compliance. In total, we reviewed approximately 43 intersection/midblock crosswalk locations consisting of approximately 114 pedestrian curb ramps.

The inventory of ADA-compliant and non-ADA-compliant pedestrian curb ramps is attached in *Section C of the appendix*. Also attached is a plan identifying each of the studied crosswalks/intersections and the individual ramp field note sheets, which include the ramp orientation, measurements, notes, etc.

As identified in the summary sheet, the majority of the evaluated curb ramps were not ADA-compliant. This was typically due to the ramp slopes and/or missing or non-compliant detectable warning fields (DWF).

7C Summary

7C-1. Capacity Analysis

A capacity of the 2027 pre- and post-development traffic conditions has been performed for the 3 identified study intersections: Washington Avenue @ Eastern Promenade, Washington Avenue @ Walnut Street/Fox Street, and Washington Avenue @ Site.

1. Washington Ave @ Fox St/Walnut St

The capacity analysis shows that the proposed development has minimal impact on the signalized intersection of Washington Avenue, Fox Street, and Walnut Street. In the pre-development and post-development peak hours, the level of delay at the intersection of Washington Avenue, Fox Street, and Walnut Street is expected to remain similar.

Overall, the intersection will continue to operate at LOS C in the AM and PM peak hours, with minor increases in the overall intersection delay.

2. Washington Ave @ Eastern Prom

The analysis shows that during the pre- and post-development peak hours, the Eastern Promenade approach will continue operating at LOS B, while the Washington Avenue approaches will remain at LOS A. Overall, the intersection is projected to operate at LOS A with very minor changes in LOS.

3. Washington Ave @ Site

At the site's intersection with Washington Avenue, the capacity analysis shows that Washington Avenue approaches will operate at LOS A while the site entrance will operate at LOS B in the AM peak hour and LOS A in the PM peak hour.

Overall, the intersection will operate at LOS A with an average delay of 2.4 seconds and 2.2 seconds in the AM and PM peak hours, respectively.

7C-2. Vehicle Queuing Analysis

A vehicle queueing analysis was completed for the 2027 pre- and post-development conditions at each of the three study intersections.

1. Washington Ave @ Fox St/Walnut St

The vehicle queuing analysis shows the 30-foot Washington Avenue left-turn lanes are exceeded by 1-2 vehicle lengths (25’ per vehicle) in the pre-development and post-development peak hours.

2. Washington Ave @ Eastern Prom

The vehicle queuing analysis shows that the vehicle queues at the intersection of Washington Avenue and Eastern Promenade will remain similar in the pre- and post-development peak hours.

3. Washington Ave @ Site

At the site's intersection with Washington Avenue, the queuing analysis shows that vehicle queues of 67 and 65 feet are anticipated in the post-development AM and PM peak hours, respectively.

APPENDIX

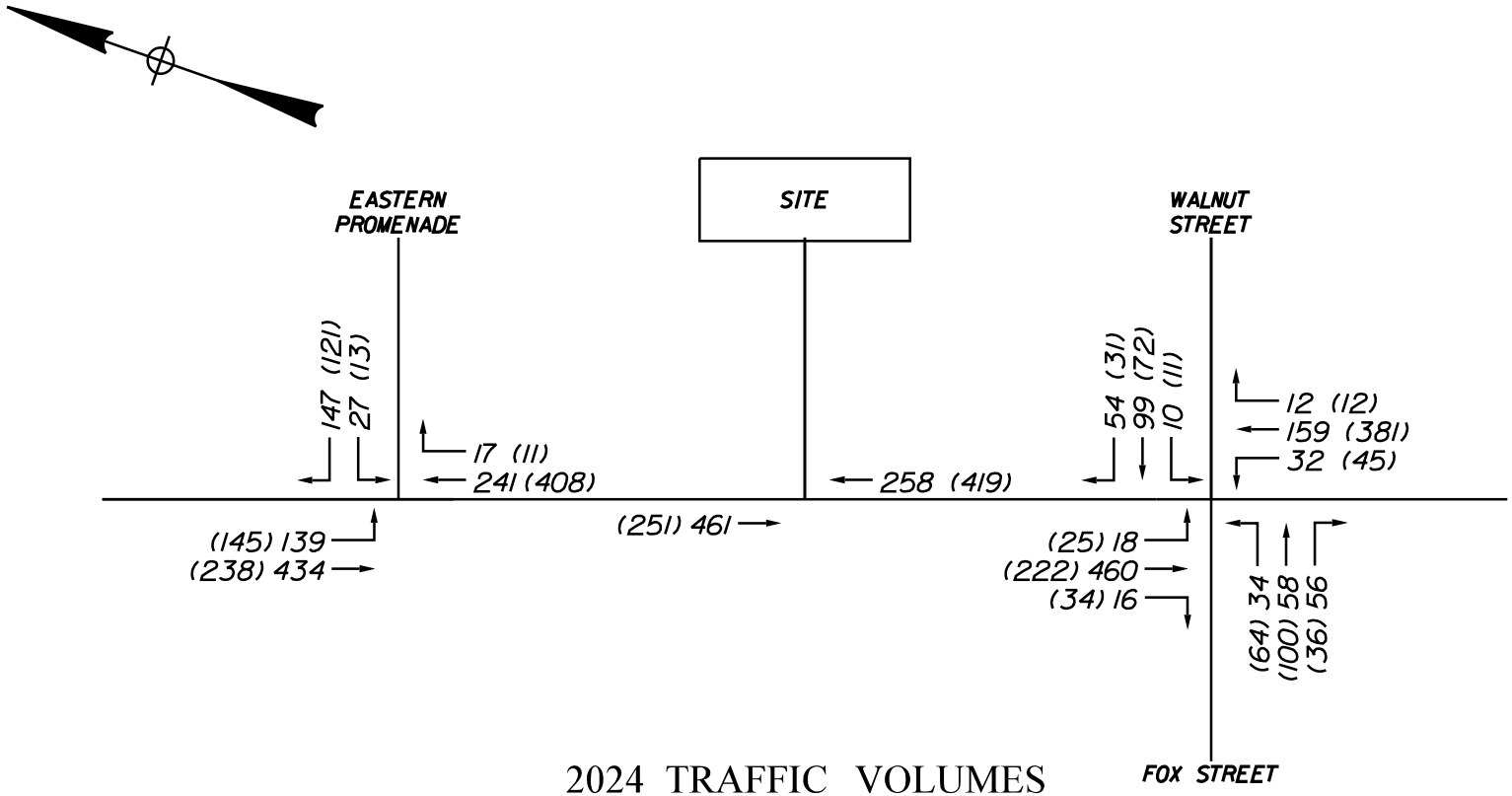
A. TRAFFIC FIGURES, TRAFFIC SOLUTIONS ST. LAWRENCE TRAFFIC FIGURE, & TRAFFIC COUNTS

B. SIMTRAFFIC CAPACITY ANALYSIS REPORTS, FIELD OBSERVATION COUNT SHEETS

C. ADA COMPLIANCE STUDY MAP, INVENTORY SHEETS & FIELD NOTES

APPENDIX A

- TRAFFIC FIGURES
- TRAFFIC SOLUTIONS ST. LAWRENCE TRAFFIC FIGURE
- TRAFFIC COUNTS



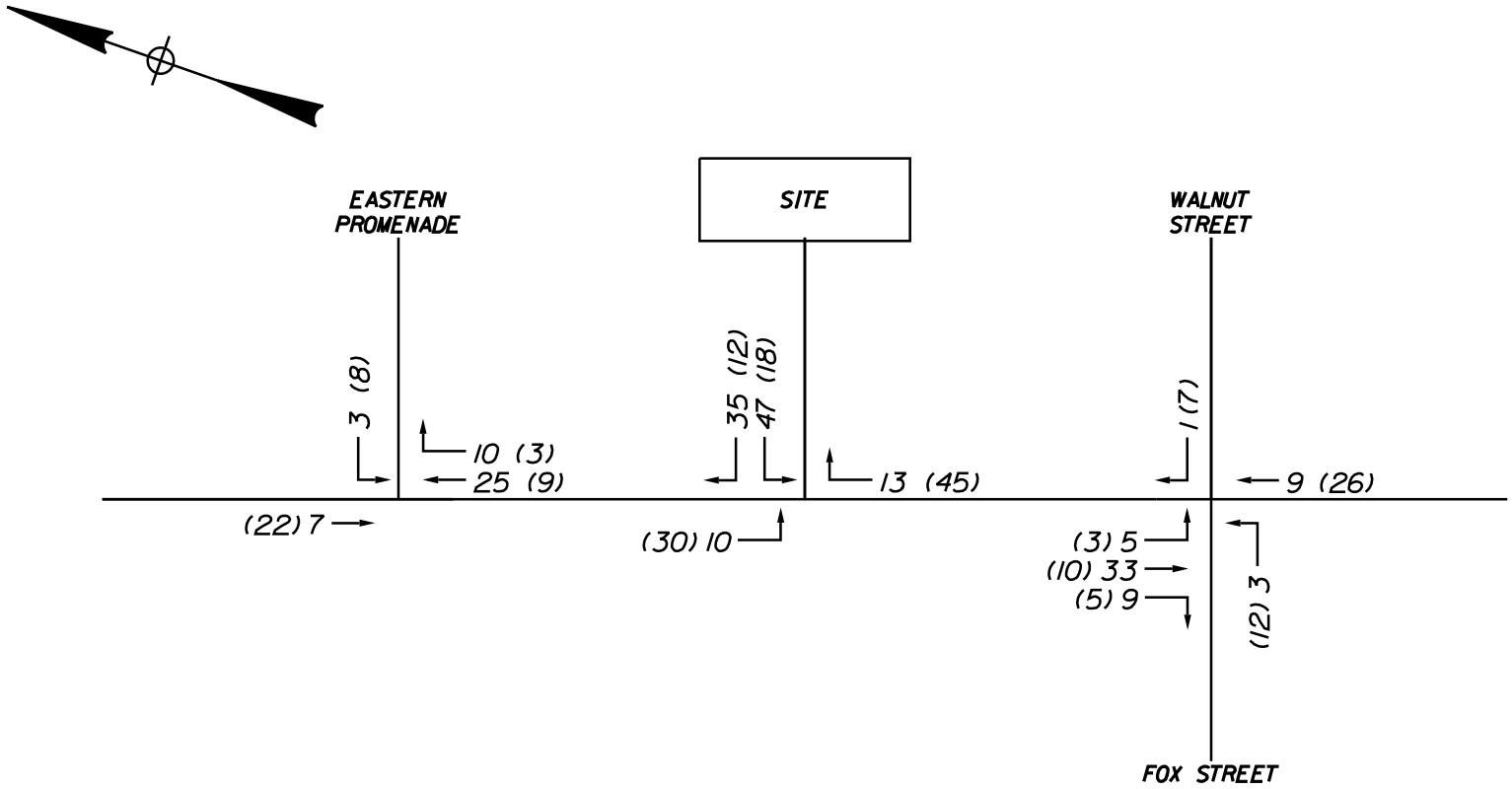
2024 TRAFFIC VOLUMES

FIGURE 1

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

165 WASHINGTON AVE DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



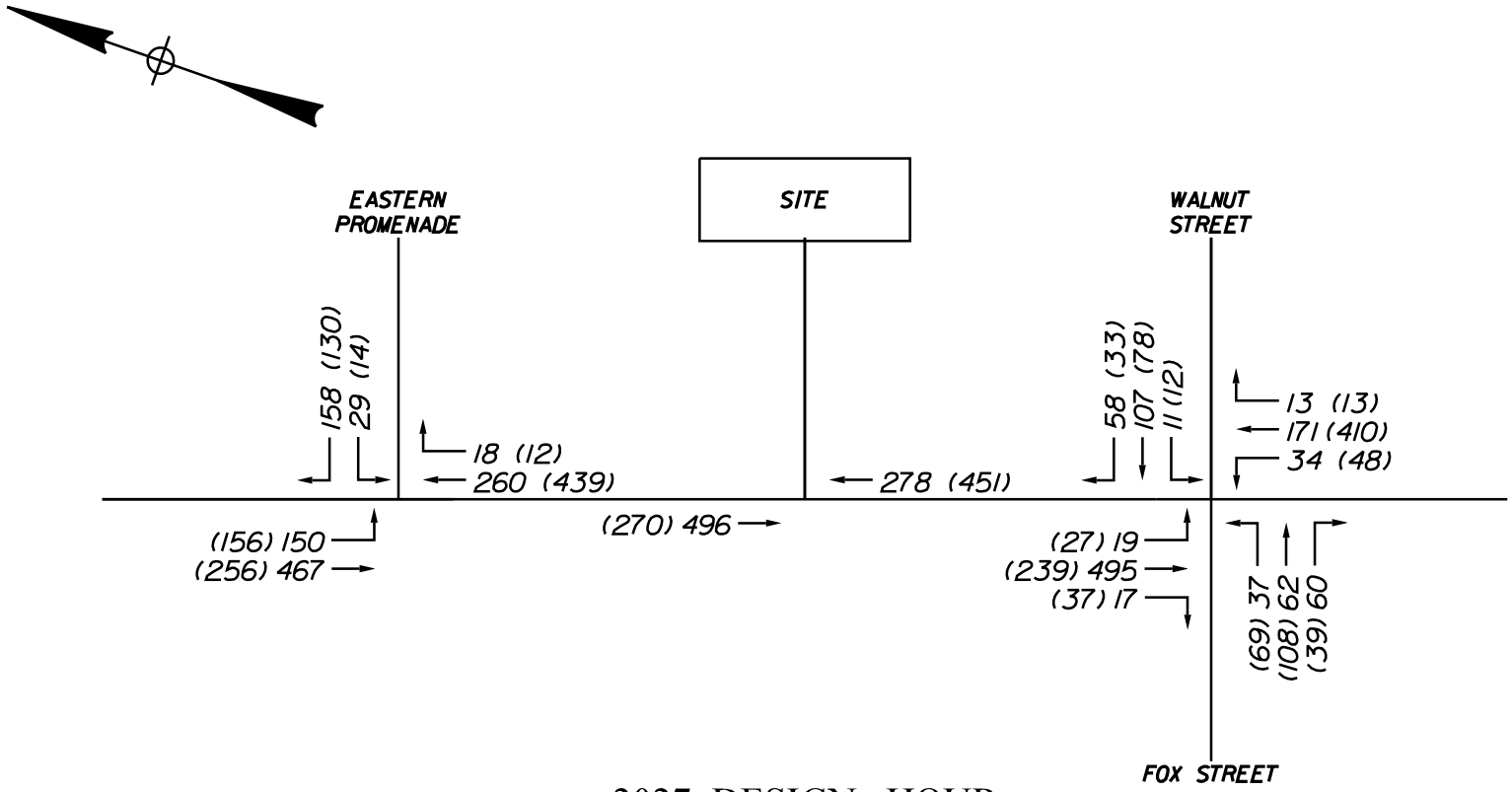
SITE TRIP ASSIGNMENT

FIGURE 2

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

165 WASHINGTON AVE DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



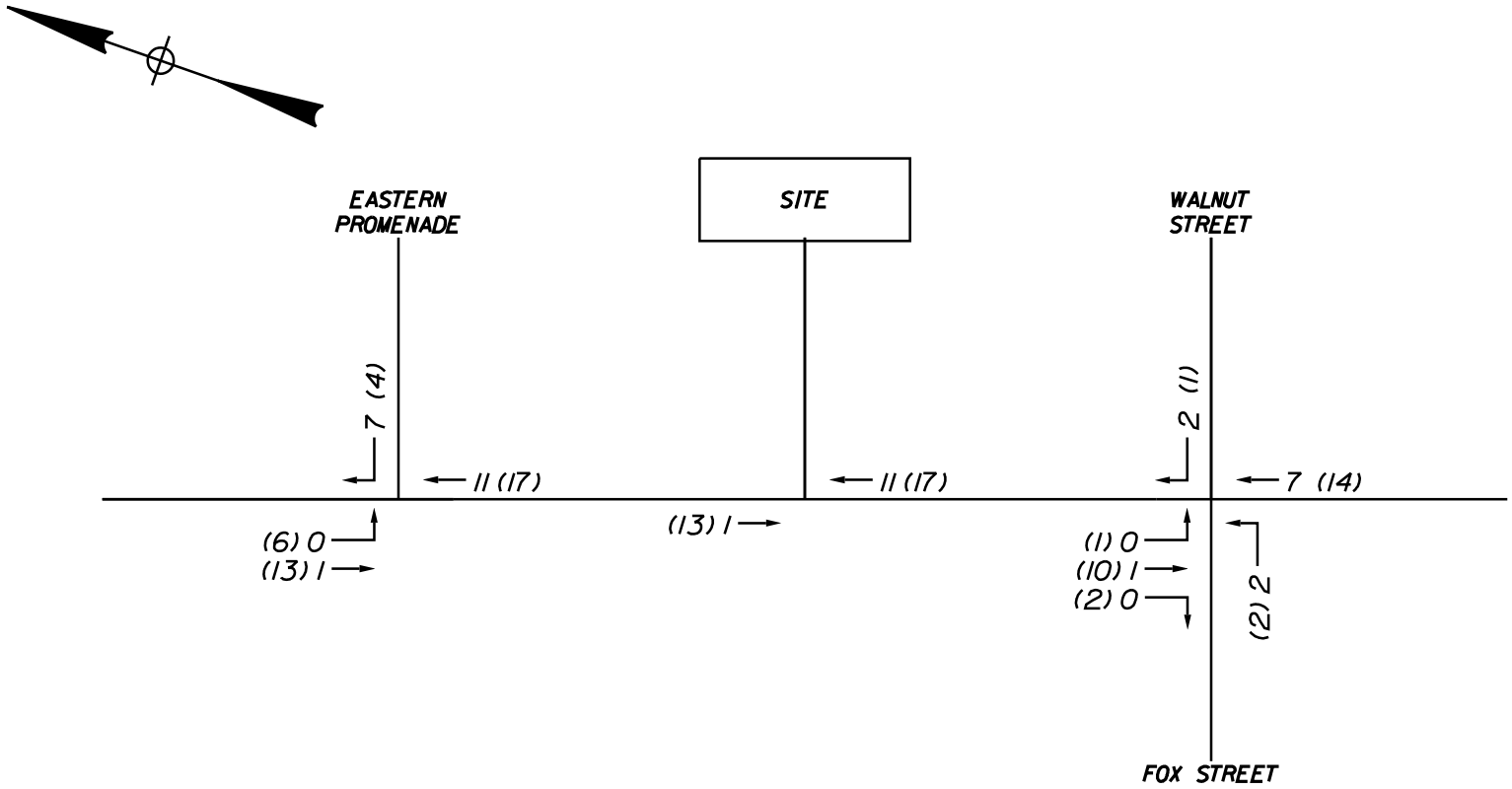
2027 DESIGN HOUR
TRAFFIC VOLUMES

FIGURE 3

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

165 WASHINGTON AVE DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



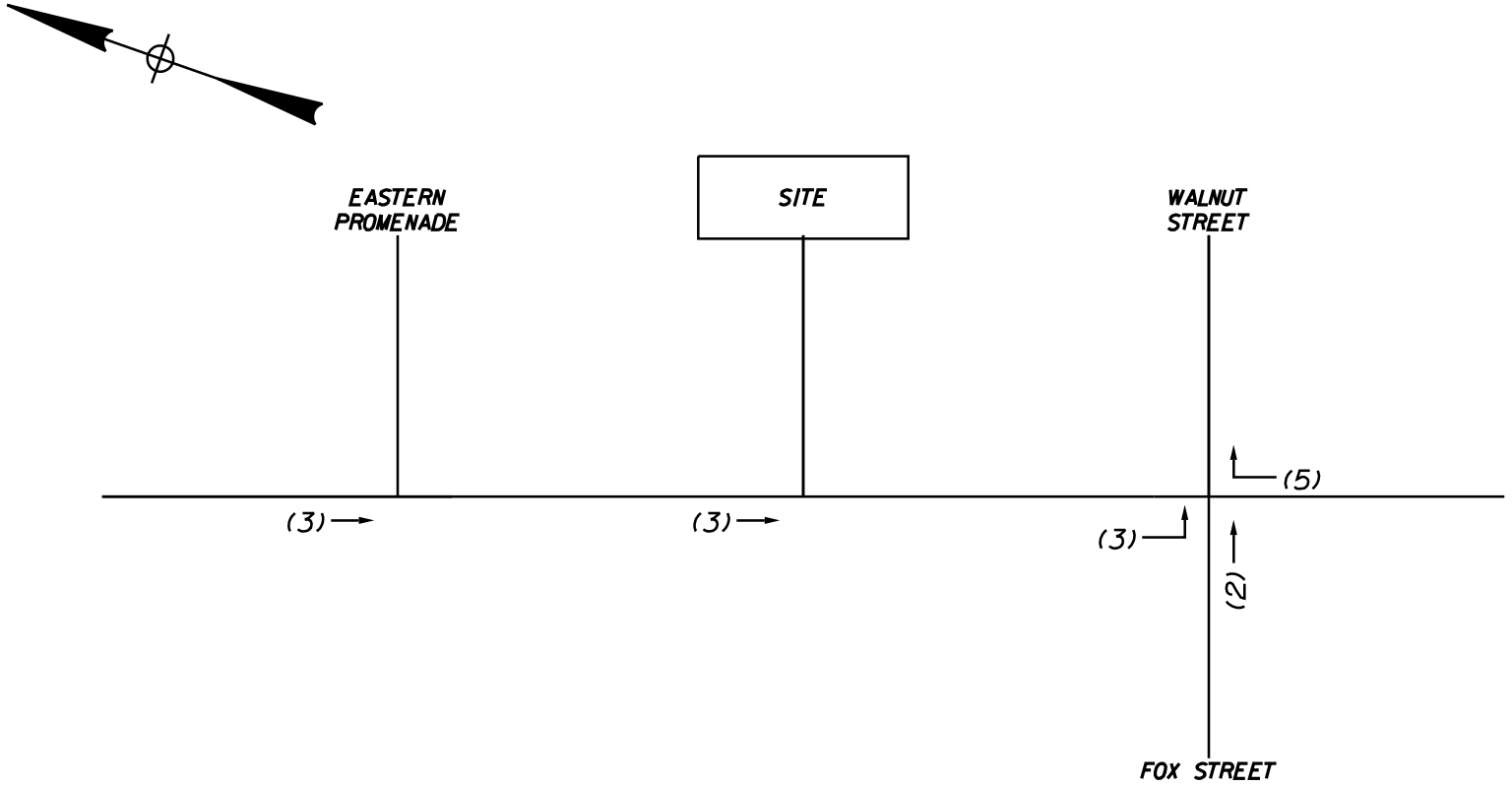
ROUX INSTITUTE
OTHER DEVELOPMENT
TRIP ASSIGNMENT

FIGURE 4

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

165 WASHINGTON AVE
DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



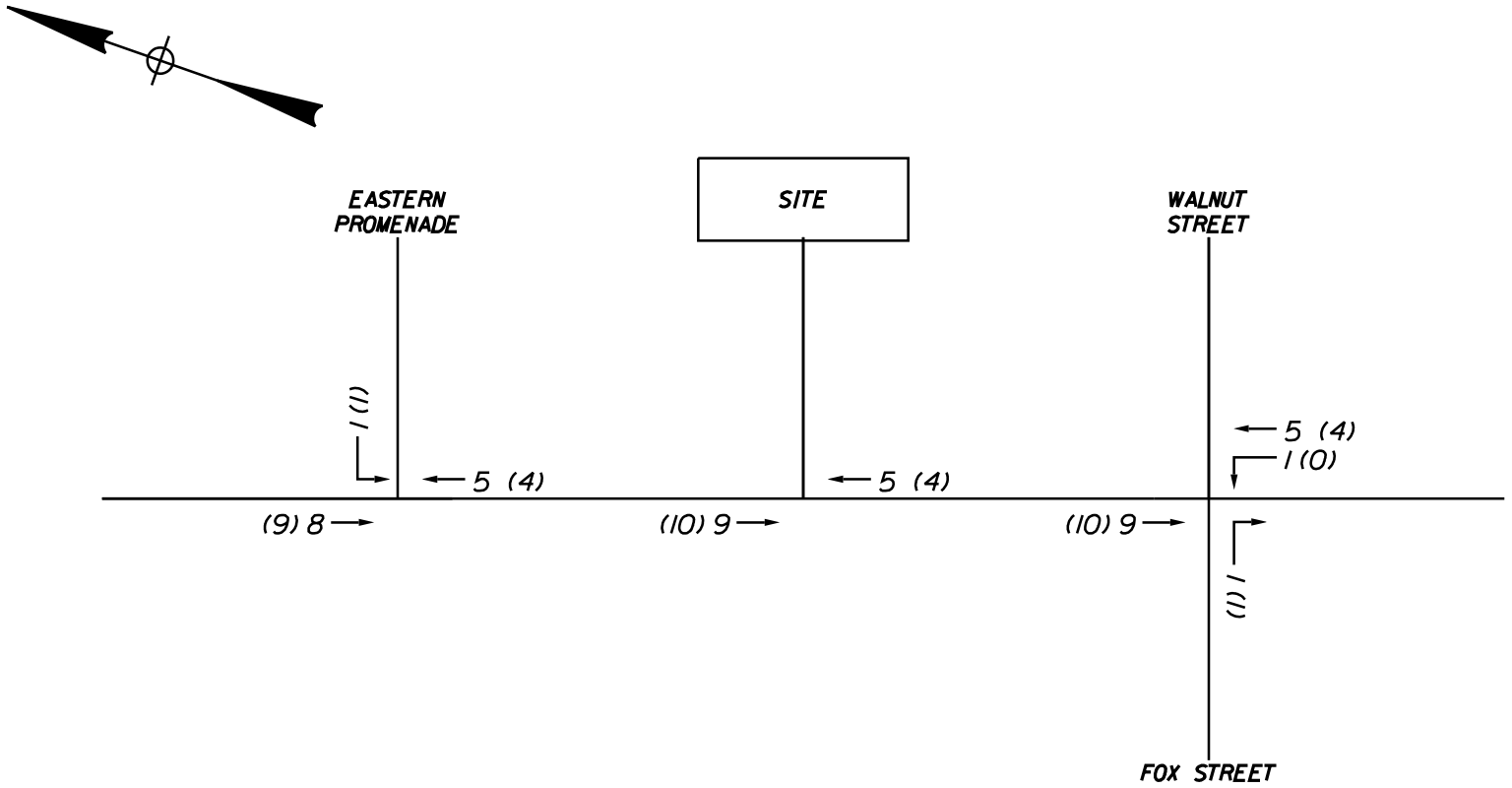
ST. LAWRENCE
OTHER DEVELOPMENT
TRIP ASSIGNMENT

FIGURE 5

LEGEND:
(XX) = PM PEAK HOUR

165 WASHINGTON AVE
DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



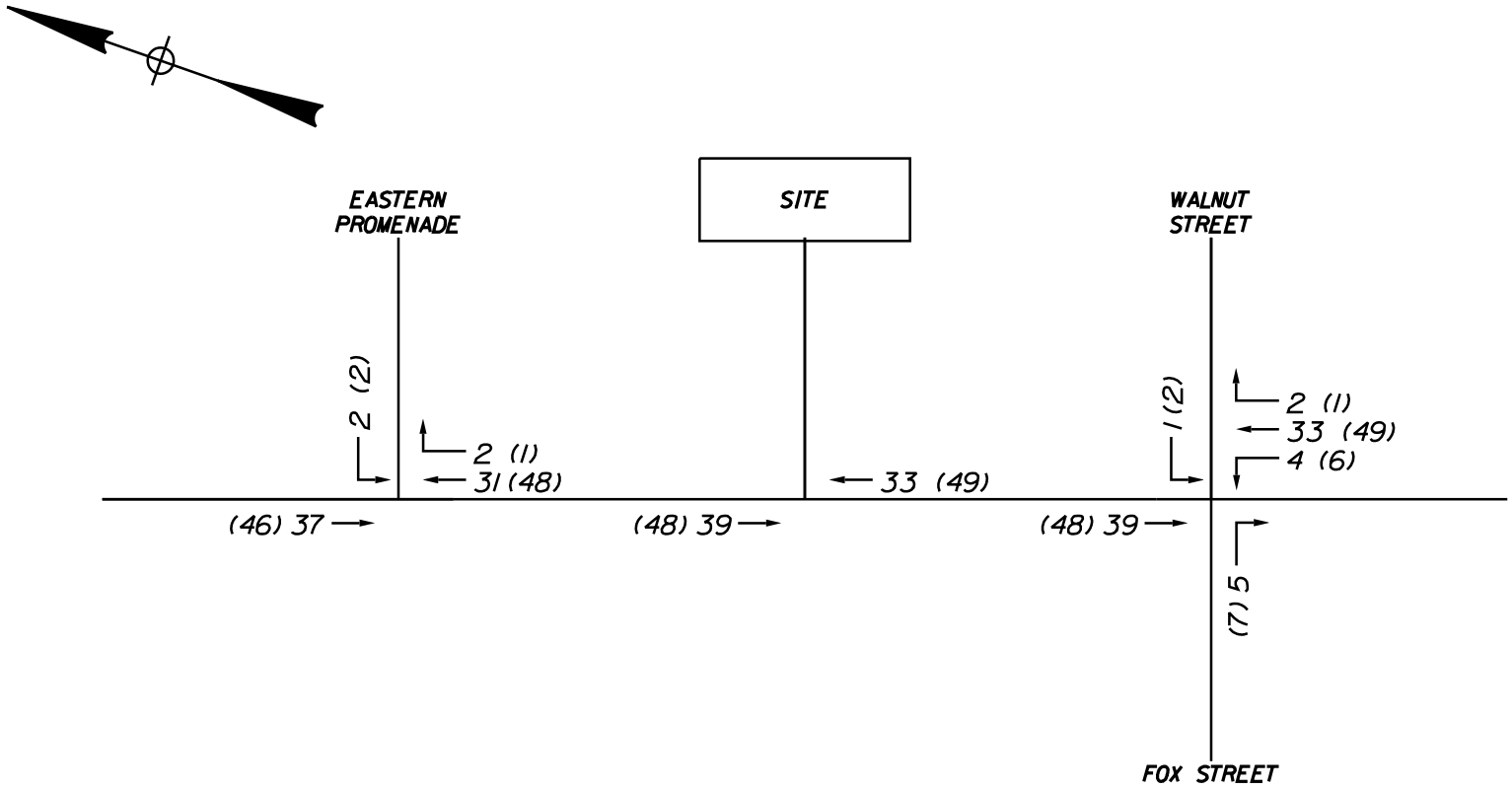
70 THAMES STREET
OTHER DEVELOPMENT
TRIP ASSIGNMENT

FIGURE 6

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

165 WASHINGTON AVE
DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



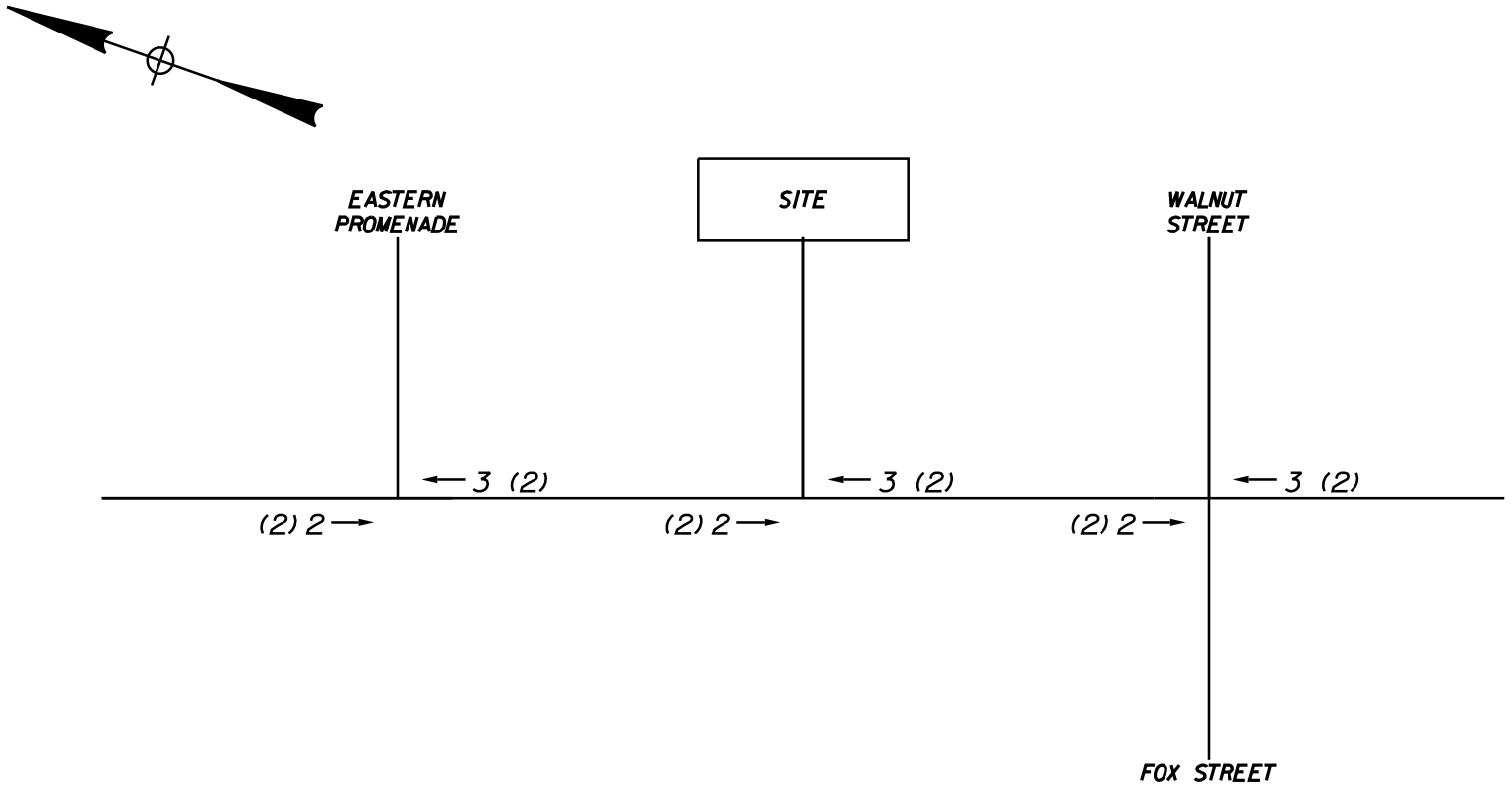
58 FORE STREET
OTHER DEVELOPMENT
TRIP ASSIGNMENT

FIGURE 7

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

165 WASHINGTON AVE DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



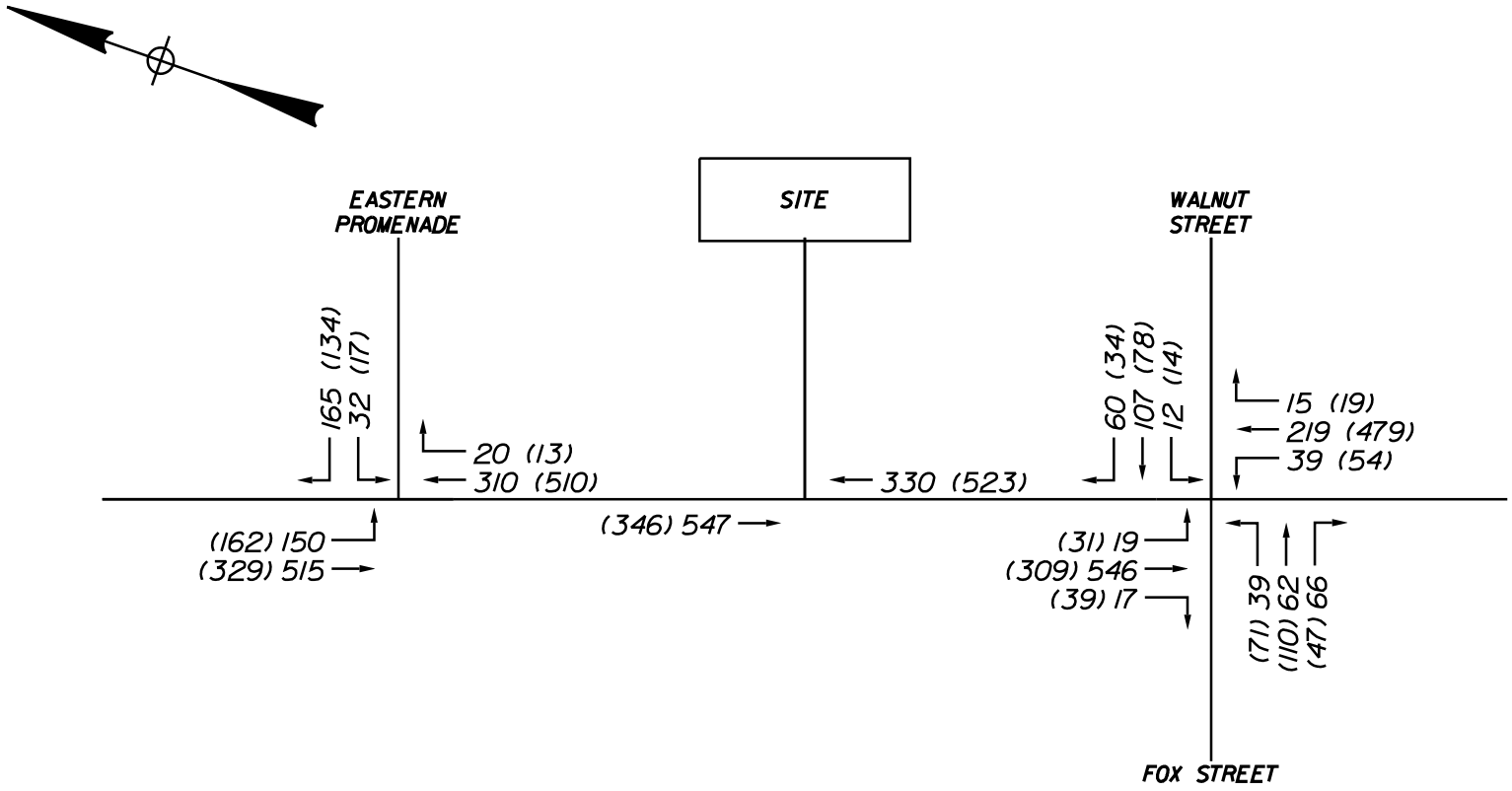
385 CONGRESS STREET
OTHER DEVELOPMENT
TRIP ASSSIGNMENT

FIGURE 8

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

165 WASHINGTON AVE
DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



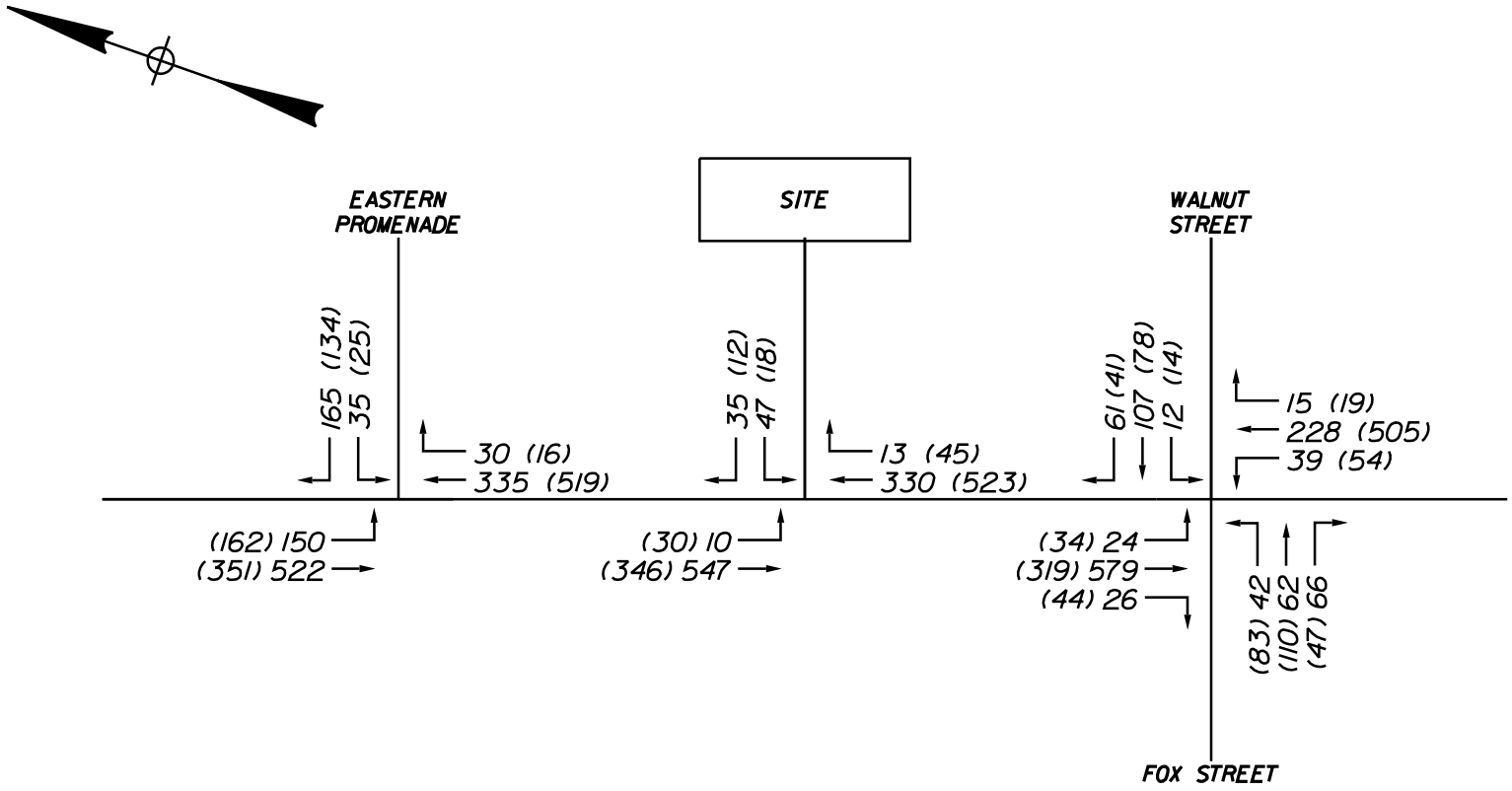
2027 PRE-DEVELOPMENT
TRAFFIC VOLUMES

FIGURE 9

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

165 WASHINGTON AVE DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



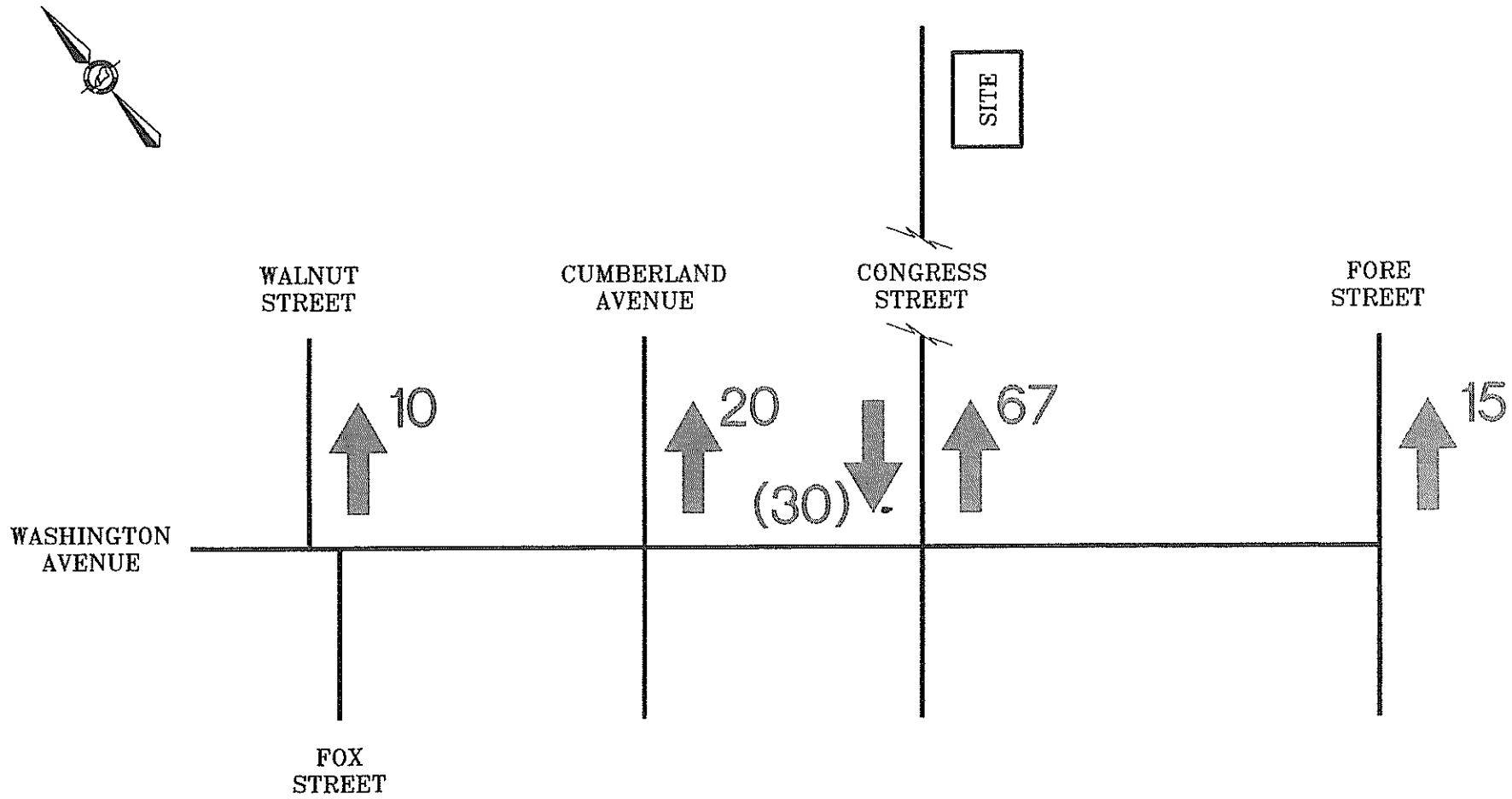
2027 POST-DEVELOPMENT
TRAFFIC VOLUMES

FIGURE 10

LEGEND:
XX = AM PEAK HOUR
(XX) = PM PEAK HOUR

165 WASHINGTON AVE DEVELOPMENT
PORTLAND, MAINE
DATE: NOV., 2024

Barton & Loguidice



LEGEND

XX = EVENT VEHICLE TRIPS

(XX) = OFF-SITE VALET VEHICLE STORAGE TRIPS

SITE TRIP ASSIGNMENT (PRE-EVENT PEAK)

FIGURE 1

E:\LAND PROJECTS\34000\34439 TRAFFIC SOLUTIONS\ST. LAWRENCE ART CENTER\PLANSET\ST. LAWRENCE ART CENTER FIG 1.DWG

ST. LAWRENCE ART CENTER PORTLAND, MAINE	TRAFFIC SOLUTIONS 235 BANCROFT STREET, PORTLAND, MAINE 04102-1753
DATE: JULY, 2017	FIGURE: 1

Traffic Solutions
17 Mountview Drive
Gorham, ME 04038

Washington, Eastern Prom.
October 16, 2024 AM
Sunny
St.Clair Associates

File Name : Portland Washington, Eastern Promenade 10-16-2024 AM
Site Code : 01016241
Start Date : 10/16/2024
Page No : 1

Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

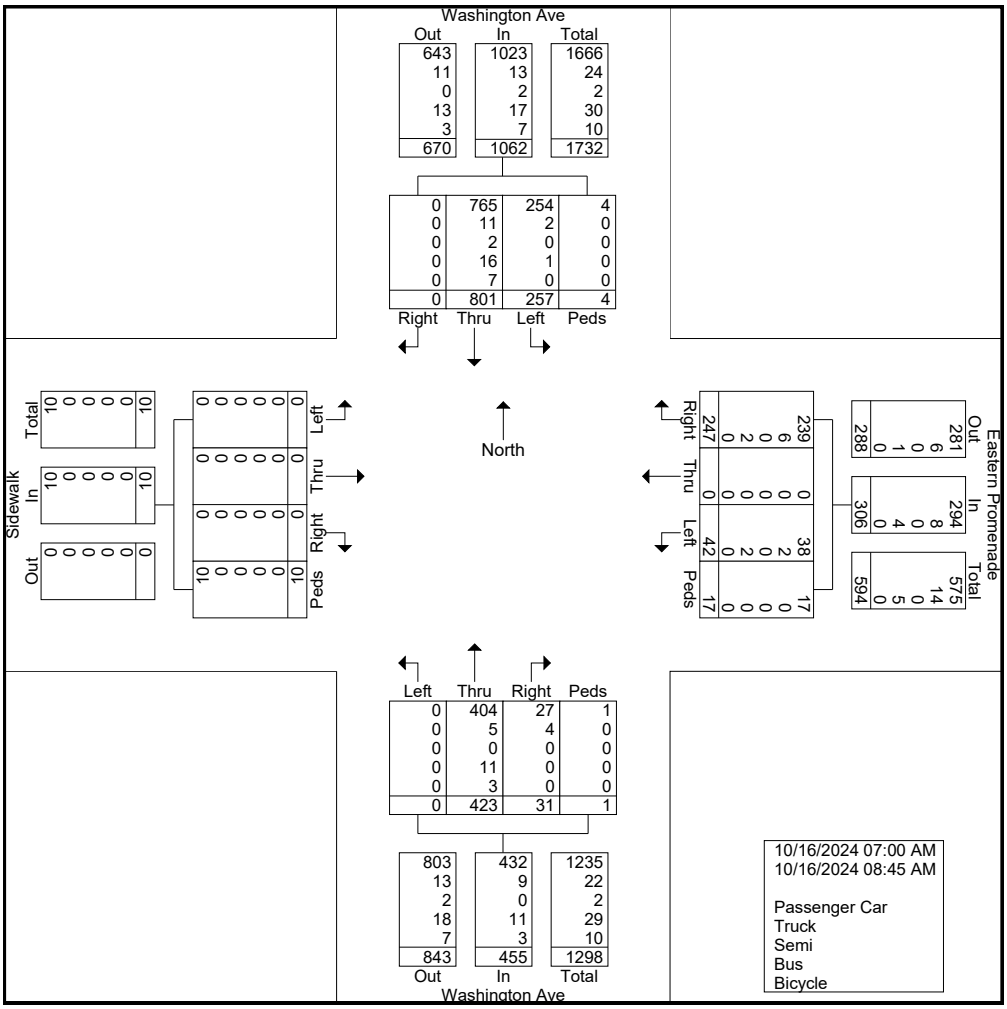
	Washington Ave From North					Eastern Promenade From East					Washington Ave From South					Sidewalk From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	66	33	1	100	22	0	1	3	26	4	38	0	0	42	0	0	0	0	0	168
07:15 AM	0	71	32	0	103	29	0	3	2	34	3	46	0	0	49	0	0	0	1	1	187
07:30 AM	0	79	35	2	116	48	0	16	2	66	7	60	0	0	67	0	0	0	5	5	254
07:45 AM	0	117	32	1	150	45	0	7	2	54	5	87	0	0	92	0	0	0	0	0	296
Total	0	333	132	4	469	144	0	27	9	180	19	231	0	0	250	0	0	0	6	6	905
08:00 AM	0	121	31	0	152	30	0	3	2	35	1	55	0	0	56	0	0	0	2	2	245
08:15 AM	0	117	41	0	158	24	0	1	2	27	4	39	0	0	43	0	0	0	1	1	229
08:30 AM	0	126	28	0	154	27	0	5	2	34	7	45	0	0	52	0	0	0	0	0	240
08:45 AM	0	104	25	0	129	22	0	6	2	30	0	53	0	1	54	0	0	0	1	1	214
Total	0	468	125	0	593	103	0	15	8	126	12	192	0	1	205	0	0	0	4	4	928

Traffic Solutions
17 Mountview Drive
Gorham, ME 04038

File Name : Portland Washington, Eastern Promenade 10-16-2024 AM
Site Code : 01016241
Start Date : 10/16/2024
Page No : 2

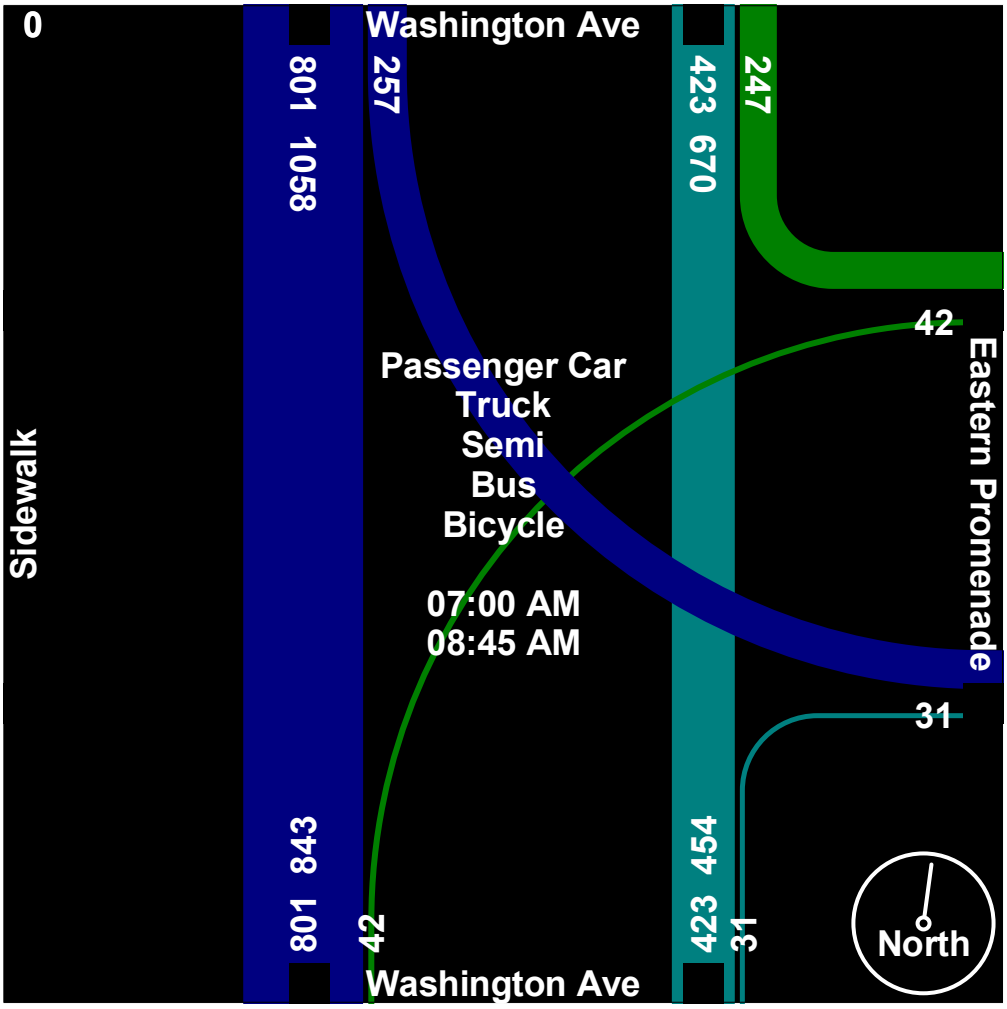
Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

	Washington Ave From North					Eastern Promenade From East					Washington Ave From South					Sidewalk From West					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Grand Total	0	801	257	4	1062	247	0	42	17	306	31	423	0	1	455	0	0	0	10	10	1833
Apprch %	0	75.4	24.2	0.4		80.7	0	13.7	5.6		6.8	93	0	0.2		0	0	0	100		
Total %	0	43.7	14	0.2	57.9	13.5	0	2.3	0.9	16.7	1.7	23.1	0	0.1	24.8	0	0	0	0.5	0.5	
Passenger Car	0	765	254	4	1023	239	0	38	17	294	27	404	0	1	432	0	0	0	10	10	1759
% Passenger Car	0	95.5	98.8	100	96.3	96.8	0	90.5	100	96.1	87.1	95.5	0	100	94.9	0	0	0	100	100	96
Truck	0	11	2	0	13	6	0	2	0	8	4	5	0	0	9	0	0	0	0	0	30
% Truck	0	1.4	0.8	0	1.2	2.4	0	4.8	0	2.6	12.9	1.2	0	0	2	0	0	0	0	0	1.6
Semi	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% Semi	0	0.2	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1
Bus	0	16	1	0	17	2	0	2	0	4	0	11	0	0	11	0	0	0	0	0	32
% Bus	0	2	0.4	0	1.6	0.8	0	4.8	0	1.3	0	2.6	0	0	2.4	0	0	0	0	0	1.7
Bicycle	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	10
% Bicycle	0	0.9	0	0	0.7	0	0	0	0	0	0	0.7	0	0	0.7	0	0	0	0	0	0.5



Traffic Solutions
17 Mountview Drive
Gorham, ME 04038

File Name : Portland Washington, Eastern Promenade 10-16-2024 AM
Site Code : 01016241
Start Date : 10/16/2024
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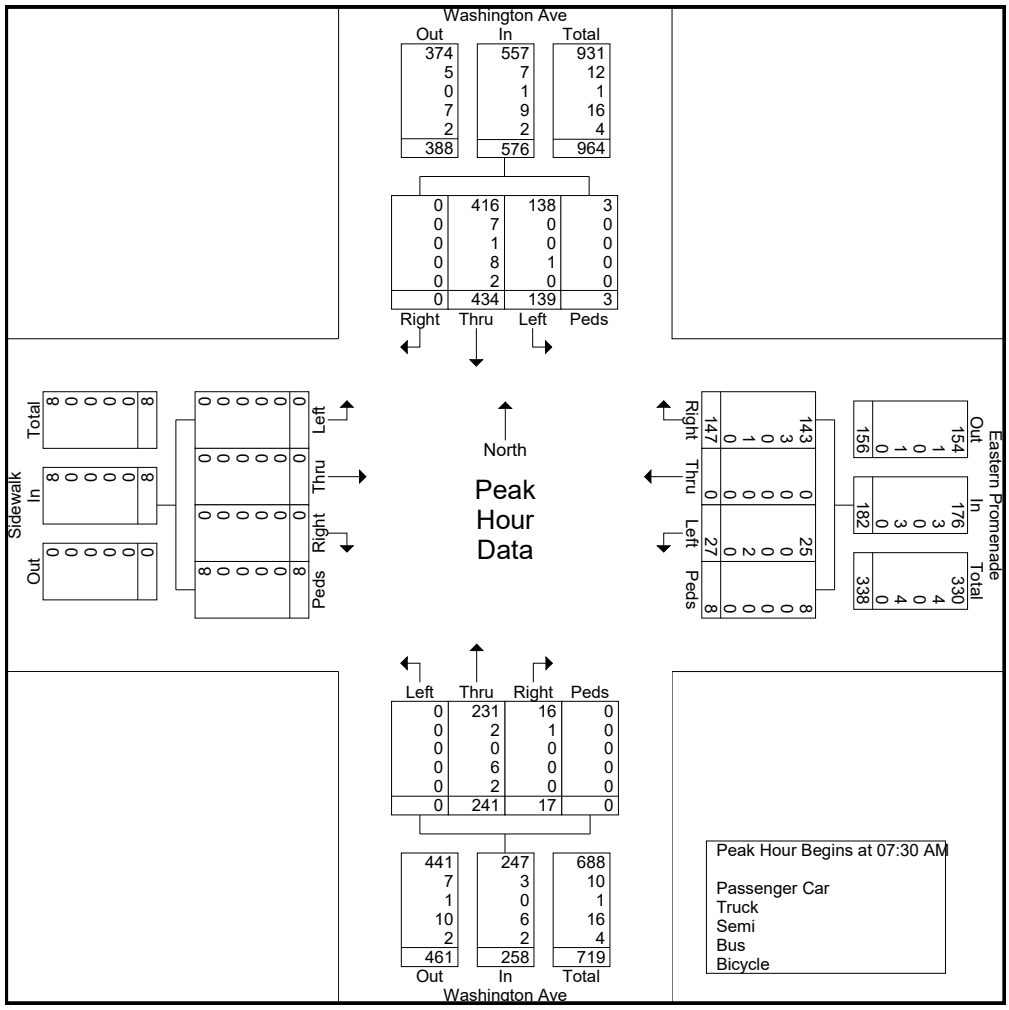
Traffic Solutions
17 Mountview Drive
Gorham, ME 04038

File Name : Portland Washington, Eastern Promenade 10-16-2024 AM
Site Code : 01016241
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	Washington Ave From North					Eastern Promenade From East					Washington Ave From South					Sidewalk From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	79	35	**2**	116	**48**	0	**16**	**2**	**66**	**7**	60	0	0	67	0	0	0	**5**	**5**	254
07:45 AM	0	117	32	1	150	45	0	7	2	54	5	**87**	0	0	**92**	0	0	0	0	0	**296**
08:00 AM	0	**121**	31	0	152	30	0	3	2	35	1	55	0	0	56	0	0	0	2	2	245
08:15 AM	0	117	**41**	0	**158**	24	0	1	2	27	4	39	0	0	43	0	0	0	1	1	229
Total Volume	0	434	139	3	576	147	0	27	8	182	17	241	0	0	258	0	0	0	8	8	1024
% App. Total	0	75.3	24.1	0.5		80.8	0	14.8	4.4		6.6	93.4	0	0		0	0	0	100		
PHF	.000	.897	.848	.375	.911	.766	.000	.422	1.00	.689	.607	.693	.000	.000	.701	.000	.000	.000	.400	.400	.865
Passenger Car	0	416	138	3	557	143	0	25	8	176	16	231	0	0	247	0	0	0	8	8	988
% Passenger Car	0	95.9	99.3	100	96.7	97.3	0	92.6	100	96.7	94.1	95.9	0	0	95.7	0	0	0	100	100	96.5
Truck	0	7	0	0	7	3	0	0	0	3	1	2	0	0	3	0	0	0	0	0	13
% Truck	0	1.6	0	0	1.2	2.0	0	0	0	1.6	5.9	0.8	0	0	1.2	0	0	0	0	0	1.3
Semi	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Semi	0	0.2	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1
Bus	0	8	1	0	9	1	0	2	0	3	0	6	0	0	6	0	0	0	0	0	18
% Bus	0	1.8	0.7	0	1.6	0.7	0	7.4	0	1.6	0	2.5	0	0	2.3	0	0	0	0	0	1.8
Bicycle	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
% Bicycle	0	0.5	0	0	0.3	0	0	0	0	0	0	0.8	0	0	0.8	0	0	0	0	0	0.4

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File Name : Portland Washington, Eastern Promenade 10-16-2024 AM
Site Code : 01016241
Start Date : 10/16/2024
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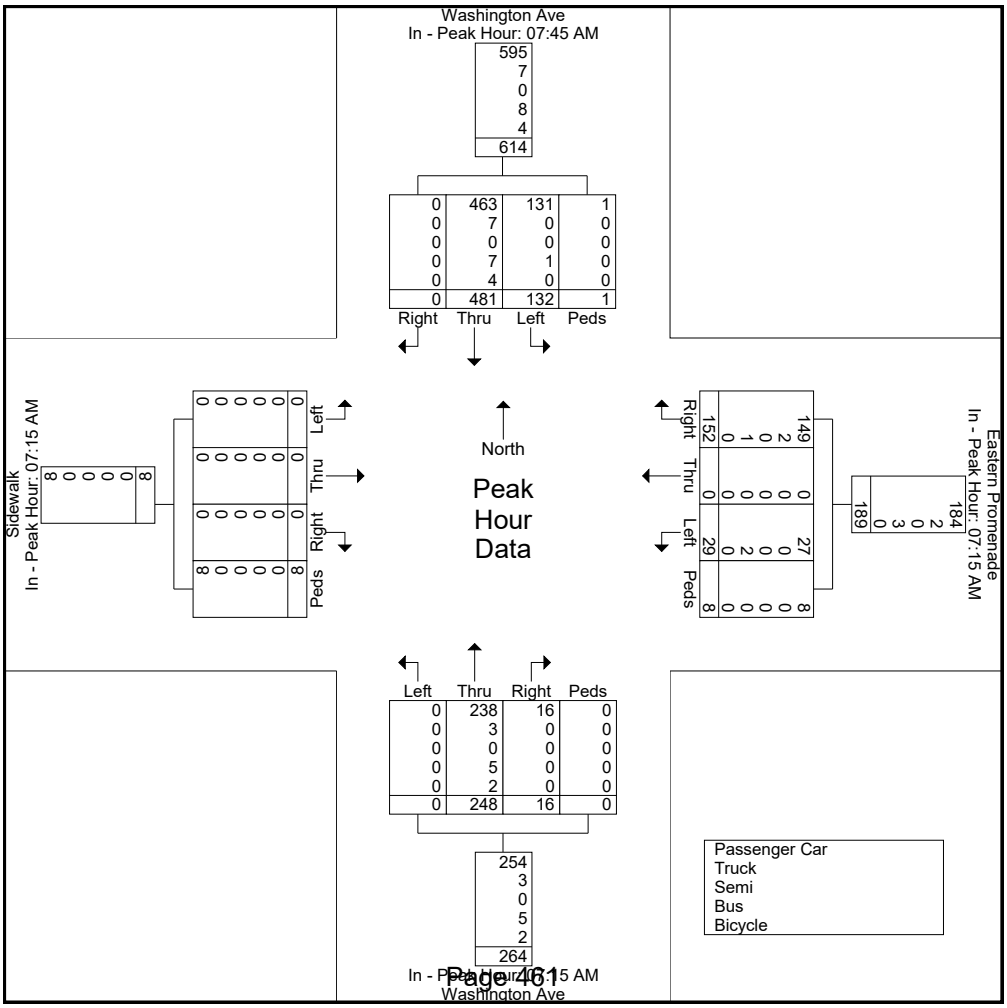


Traffic Solutions

17 Mountview Drive
Gorham, ME 04038

File Name : Portland Washington, Eastern Promenade 10-16-2024 AM
Site Code : 01016241
Start Date : 10/16/2024
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	Washington Ave From North					Eastern Promenade From East					Washington Ave From South					Sidewalk From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:45 AM					07:15 AM					07:15 AM					07:15 AM					
+0 mins.	0	117	32	**1**	150	29	0	3	**2**	34	3	46	0	0	49	0	0	0	1	1	
+15 mins.	0	121	31	0	152	**48**	0	**16**	2	**66**	**7**	60	0	0	67	0	0	0	**5**	**5**	
+30 mins.	0	117	**41**	0	**158**	45	0	7	2	54	5	**87**	0	0	**92**	0	0	0	0	0	
+45 mins.	0	**126**	28	0	154	30	0	3	2	35	1	55	0	0	56	0	0	0	2	2	
Total Volume	0	481	132	1	614	152	0	29	8	189	16	248	0	0	264	0	0	0	8	8	
% App. Total	0	78.3	21.5	0.2		80.4	0	15.3	4.2		6.1	93.9	0	0		0	0	0	100		
PHF	.000	.954	.805	.250	.972	.792	.000	.453	1.000	.716	.571	.713	.000	.000	.717	.000	.000	.000	.400	.400	
Passenger Car	0	463	131	1	595	149	0	27	8	184	16	238	0	0	254	0	0	0	8	8	
% Passenger Car	0	96.3	99.2	100	96.9	98	0	93.1	100	97.4	100	96	0	0	96.2	0	0	0	100	100	
Truck	0	7	0	0	7	2	0	0	0	2	0	3	0	0	3	0	0	0	0	0	
% Truck	0	1.5	0	0	1.1	1.3	0	0	0	1.1	0	1.2	0	0	1.1	0	0	0	0	0	
Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bus	0	7	1	0	8	1	0	2	0	3	0	5	0	0	5	0	0	0	0	0	
% Bus	0	1.5	0.8	0	1.3	0.7	0	6.9	0	1.6	0	2	0	0	1.9	0	0	0	0	0	
Bicycle	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	
% Bicycle	0	0.8	0	0	0.7	0	0	0	0	0	0	0.8	0	0	0.8	0	0	0	0	0	



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File Name : Portland Washington, Eastern Promenade 10-16-2024 AM
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Traffic Solutions
17 Mountview Drive
Gorham, ME 04038

Washington, Eastern Prom.
October 16, 2024 PM
Sunny
St.Clair Associates

File Name : Portland Washington, Eastern Promenade 10-16-2024 PM
Site Code : 01016242
Start Date : 10/16/2024
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Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

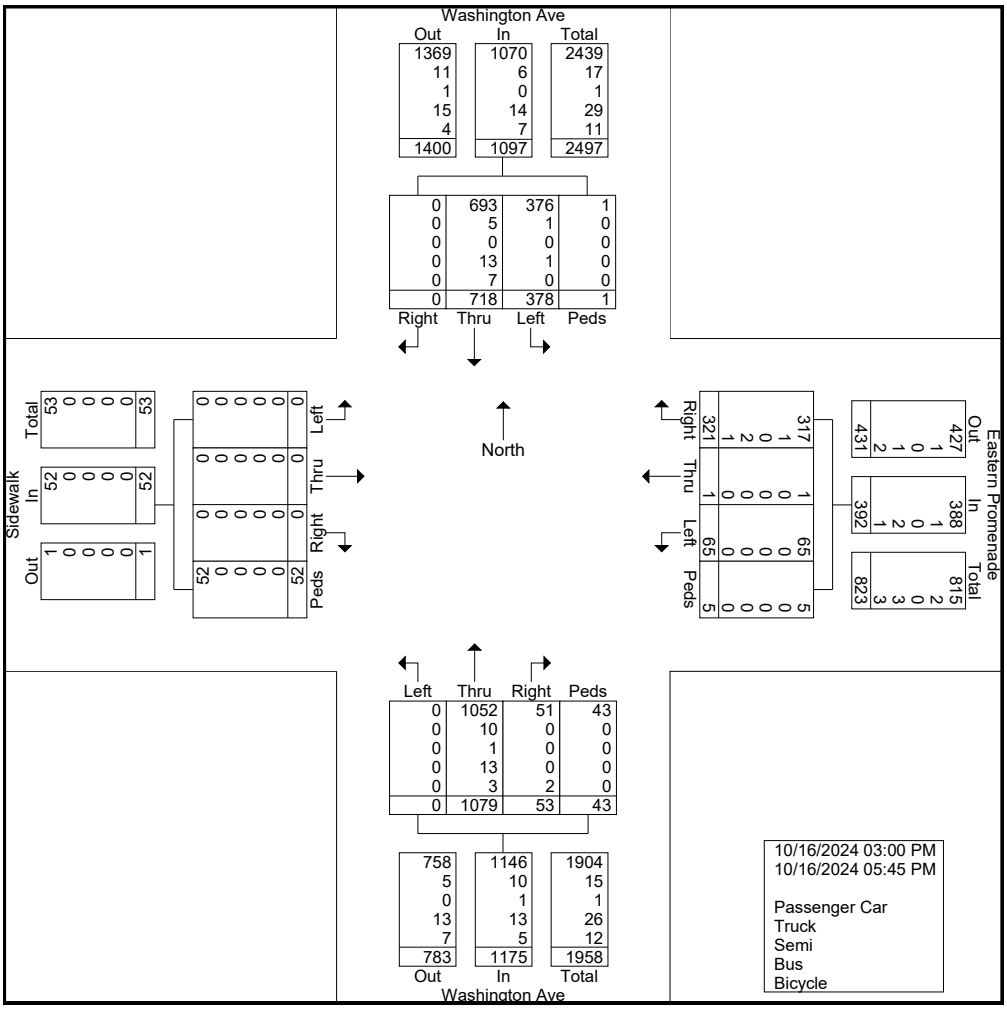
	Washington Ave From North					Eastern Promenade From East					Washington Ave From South					Sidewalk From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:00 PM	0	45	25	0	70	42	0	7	2	51	7	94	0	0	101	0	0	0	4	4	226
03:15 PM	0	53	18	1	72	15	0	3	0	18	4	82	0	1	87	0	0	0	4	4	181
03:30 PM	0	54	25	0	79	20	0	7	1	28	6	76	0	0	82	0	0	0	0	0	189
03:45 PM	0	66	35	0	101	28	0	7	1	36	4	76	0	0	80	0	0	0	3	3	220
Total	0	218	103	1	322	105	0	24	4	133	21	328	0	1	350	0	0	0	11	11	816
04:00 PM	0	67	26	0	93	13	0	7	0	20	4	101	0	2	107	0	0	0	2	2	222
04:15 PM	0	58	35	0	93	38	0	2	0	40	3	117	0	1	121	0	0	0	12	12	266
04:30 PM	0	55	23	0	78	32	0	4	0	36	2	106	0	1	109	0	0	0	5	5	228
04:45 PM	0	59	44	0	103	21	1	3	1	26	5	95	0	4	104	0	0	0	14	14	247
Total	0	239	128	0	367	104	1	16	1	122	14	419	0	8	441	0	0	0	33	33	963
05:00 PM	0	66	43	0	109	30	0	4	0	34	2	90	0	5	97	0	0	0	0	0	240
05:15 PM	0	55	36	0	91	19	0	6	0	25	3	101	0	7	111	0	0	0	2	2	229
05:30 PM	0	57	36	0	93	36	0	1	0	37	5	85	0	2	92	0	0	0	4	4	226
05:45 PM	0	83	32	0	115	27	0	14	0	41	8	56	0	20	84	0	0	0	2	2	242
Total	0	261	147	0	408	112	0	25	0	137	18	332	0	34	384	0	0	0	8	8	937

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File Name : Portland Washington, Eastern Promenade 10-16-2024 PM
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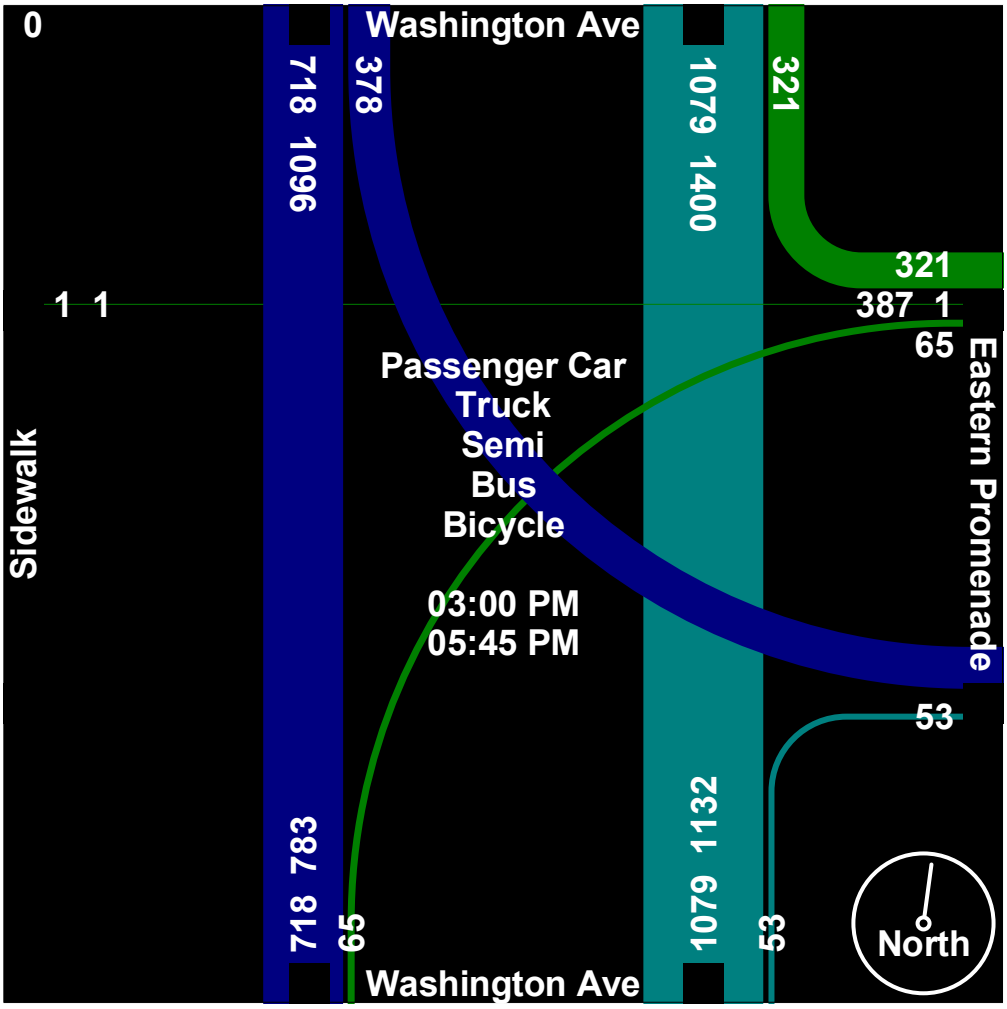
Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

	Washington Ave From North					Eastern Promenade From East					Washington Ave From South					Sidewalk From West					
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Grand Total	0	718	378	1	1097	321	1	65	5	392	53	1079	0	43	1175	0	0	0	52	52	2716
Apprch %	0	65.5	34.5	0.1		81.9	0.3	16.6	1.3		4.5	91.8	0	3.7		0	0	0	100		
Total %	0	26.4	13.9	0	40.4	11.8	0	2.4	0.2	14.4	2	39.7	0	1.6	43.3	0	0	0	1.9	1.9	
Passenger Car	0	693	376	1	1070	317	1	65	5	388	51	1052	0	43	1146	0	0	0	52	52	2656
% Passenger Car	0	96.5	99.5	100	97.5	98.8	100	100	100	99	96.2	97.5	0	100	97.5	0	0	0	100	100	97.8
Truck	0	5	1	0	6	1	0	0	0	1	0	10	0	0	10	0	0	0	0	0	17
% Truck	0	0.7	0.3	0	0.5	0.3	0	0	0	0.3	0	0.9	0	0	0.9	0	0	0	0	0	0.6
Semi	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Semi	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0
Bus	0	13	1	0	14	2	0	0	0	2	0	13	0	0	13	0	0	0	0	0	29
% Bus	0	1.8	0.3	0	1.3	0.6	0	0	0	0.5	0	1.2	0	0	1.1	0	0	0	0	0	1.1
Bicycle	0	7	0	0	7	1	0	0	0	1	2	3	0	0	5	0	0	0	0	0	13
% Bicycle	0	1	0	0	0.6	0.3	0	0	0	0.3	3.8	0.3	0	0	0.4	0	0	0	0	0	0.5



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File Name : Portland Washington, Eastern Promenade 10-16-2024 PM
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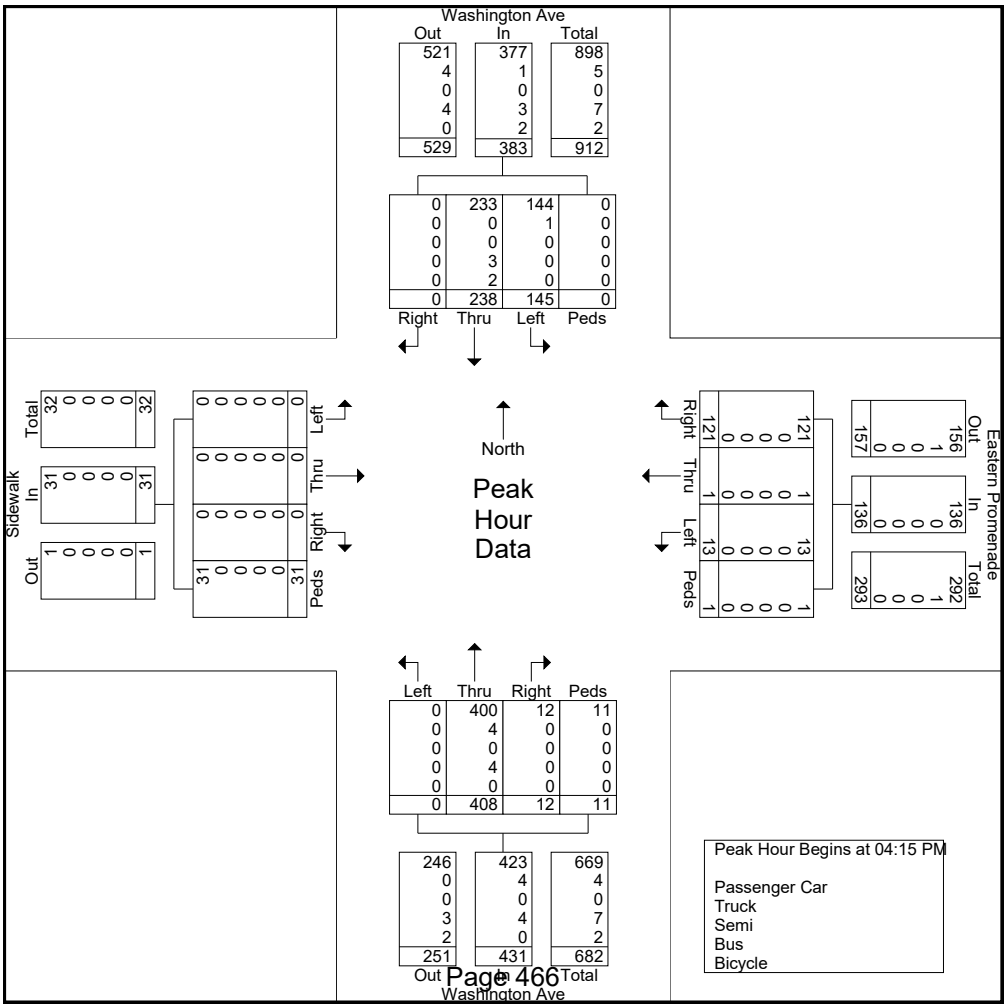


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File Name : Portland Washington, Eastern Promenade 10-16-2024 PM
Site Code : 01016242
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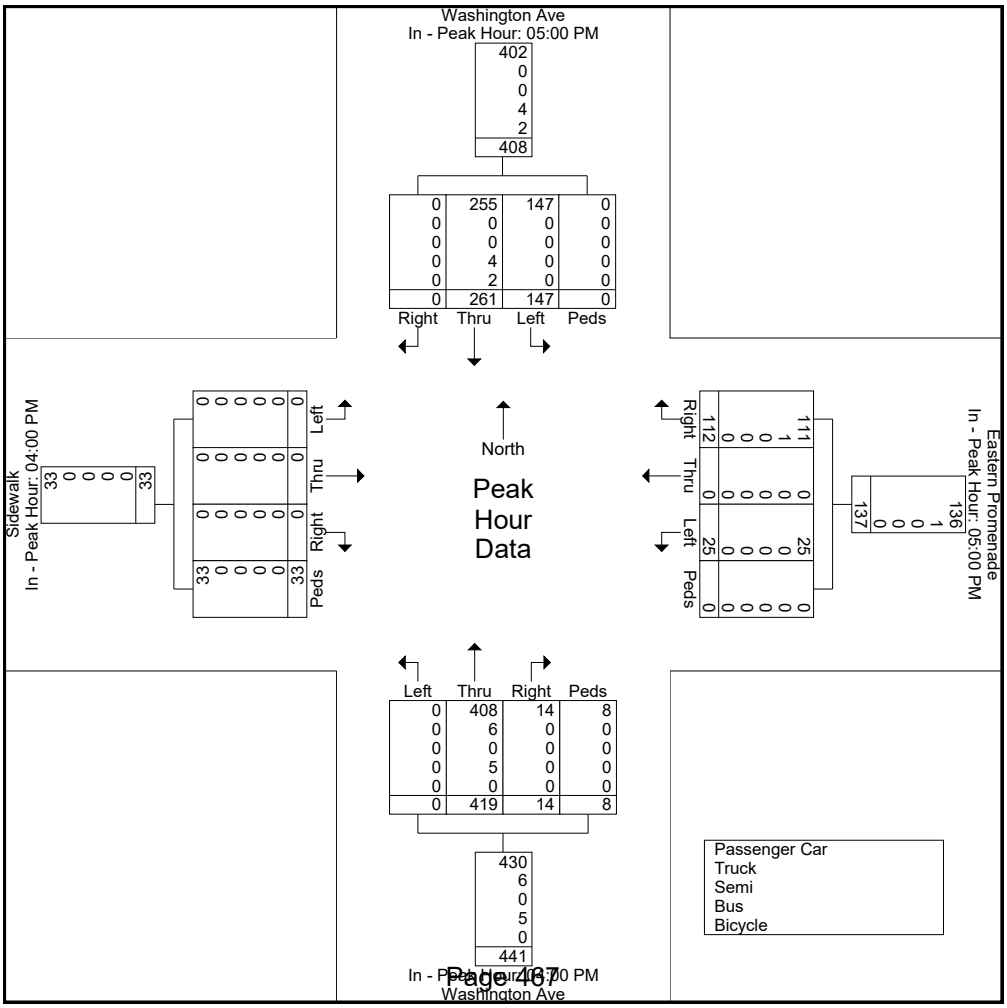
	Washington Ave From North					Eastern Promenade From East					Washington Ave From South					Sidewalk From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	58	35	0	93	**38**	0	2	0	**40**	3	**117**	0	1	**121**	0	0	0	12	12	**266**
04:30 PM	0	55	23	0	78	32	0	**4**	0	36	2	106	0	1	109	0	0	0	5	5	228
04:45 PM	0	59	**44**	0	103	21	**1**	3	**1**	26	**5**	95	0	4	104	0	0	0	**14**	**14**	247
05:00 PM	0	**66**	43	0	**109**	30	0	4	0	34	2	90	0	**5**	97	0	0	0	0	0	240
Total Volume	0	238	145	0	383	121	1	13	1	136	12	408	0	11	431	0	0	0	31	31	981
% App. Total	0	62.1	37.9	0		89	0.7	9.6	0.7		2.8	94.7	0	2.6		0	0	0	100		
PHF	.000	.902	.824	.000	.878	.796	.250	.813	.250	.850	.600	.872	.000	.550	.890	.000	.000	.000	.554	.554	.922
Passenger Car	0	233	144	0	377	121	1	13	1	136	12	400	0	11	423	0	0	0	31	31	967
% Passenger Car	0	97.9	99.3	0	98.4	100	100	100	100	100	100	98.0	0	100	98.1	0	0	0	100	100	98.6
Truck	0	0	1	0	1	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	5
% Truck	0	0	0.7	0	0.3	0	0	0	0	0	0	1.0	0	0	0.9	0	0	0	0	0	0.5
Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	7
% Bus	0	1.3	0	0	0.8	0	0	0	0	0	0	1.0	0	0	0.9	0	0	0	0	0	0.7
Bicycle	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% Bicycle	0	0.8	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2



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File Name : Portland Washington, Eastern Promenade 10-16-2024 PM
Site Code : 01016242
Start Date : 10/16/2024
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	Washington Ave From North					Eastern Promenade From East					Washington Ave From South					Sidewalk From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	05:00 PM					05:00 PM					04:00 PM					04:00 PM					
+0 mins.	0	66	**43**	0	109	30	0	4	0	34	4	101	0	2	107	0	0	0	2	2	
+15 mins.	0	55	36	0	91	19	0	6	0	25	3	**117**	0	1	**121**	0	0	0	12	12	
+30 mins.	0	57	36	0	93	**36**	0	1	0	37	2	106	0	1	109	0	0	0	5	5	
+45 mins.	0	**83**	32	0	**115**	27	0	**14**	0	**41**	**5**	95	0	**4**	104	0	0	0	**14**	**14**	
Total Volume	0	261	147	0	408	112	0	25	0	137	14	419	0	8	441	0	0	0	33	33	
% App. Total	0	64	36	0		81.8	0	18.2	0		3.2	95	0	1.8		0	0	0	100		
PHF	.000	.786	.855	.000	.887	.778	.000	.446	.000	.835	.700	.895	.000	.500	.911	.000	.000	.000	.589	.589	
Passenger Car	0	255	147	0	402	111	0	25	0	136	14	408	0	8	430	0	0	0	33	33	
% Passenger Car	0	97.7	100	0	98.5	99.1	0	100	0	99.3	100	97.4	0	100	97.5	0	0	0	100	100	
Truck	0	0	0	0	0	1	0	0	0	1	0	6	0	0	6	0	0	0	0	0	
% Truck	0	0	0	0	0	0.9	0	0	0	0.7	0	1.4	0	0	1.4	0	0	0	0	0	
Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bus	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	
% Bus	0	1.5	0	0	1	0	0	0	0	0	0	1.2	0	0	1.1	0	0	0	0	0	
Bicycle	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Bicycle	0	0.8	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



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File Name : Portland Washington, Eastern Promenade 10-16-2024 PM
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Portland Washington, Walnut, Fox
October 16, 2024 AM
Sunny
St.Clair Associates

File Name : Portland Washington, Walnut, Fox 10-16-2024 AM
Site Code : 10162411
Start Date : 10/16/2024
Page No : 1

Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

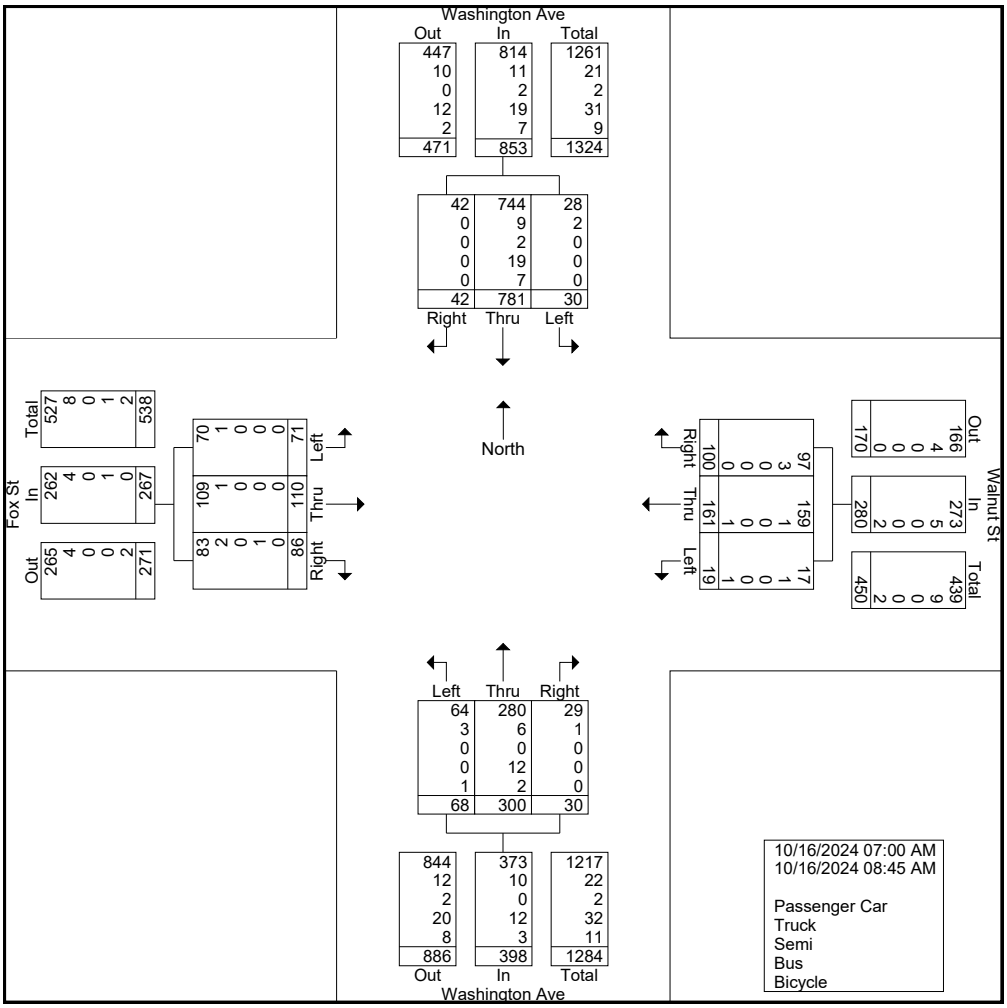
	Washington Ave From North					Walnut St From East					Washington Ave From South					Fox St From West							
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	56	5	1	62	13	12	0	0	25	3	25	5	1	33	3	13	7	0	23	2	143	145
07:15 AM	3	73	3	1	79	10	12	3	0	25	2	31	9	1	42	7	13	9	2	29	4	175	179
07:30 AM	13	82	2	2	97	12	24	6	3	42	10	47	9	0	66	10	11	9	2	30	7	235	242
07:45 AM	7	118	2	2	127	21	39	5	0	65	8	53	10	1	71	11	15	7	0	33	3	296	299
Total	24	329	12	6	365	56	87	14	3	157	23	156	33	3	212	31	52	32	4	115	16	849	865
08:00 AM	0	120	3	1	123	15	17	2	0	34	1	33	8	1	42	7	12	8	1	27	3	226	229
08:15 AM	4	108	6	3	118	5	18	2	0	25	1	38	8	0	47	21	19	10	0	50	3	240	243
08:30 AM	5	114	7	0	126	13	25	1	1	39	2	35	6	1	43	17	12	9	2	38	4	246	250
08:45 AM	9	110	2	2	121	11	14	0	2	25	3	38	13	3	54	10	15	12	4	37	11	237	248
Total	18	452	18	6	488	44	74	5	3	123	7	144	35	5	186	55	58	39	7	152	21	949	970

Traffic Solutions
17 Mountview Drive
Gorham, ME 04038

File Name : Portland Washington, Walnut, Fox 10-16-2024 AM
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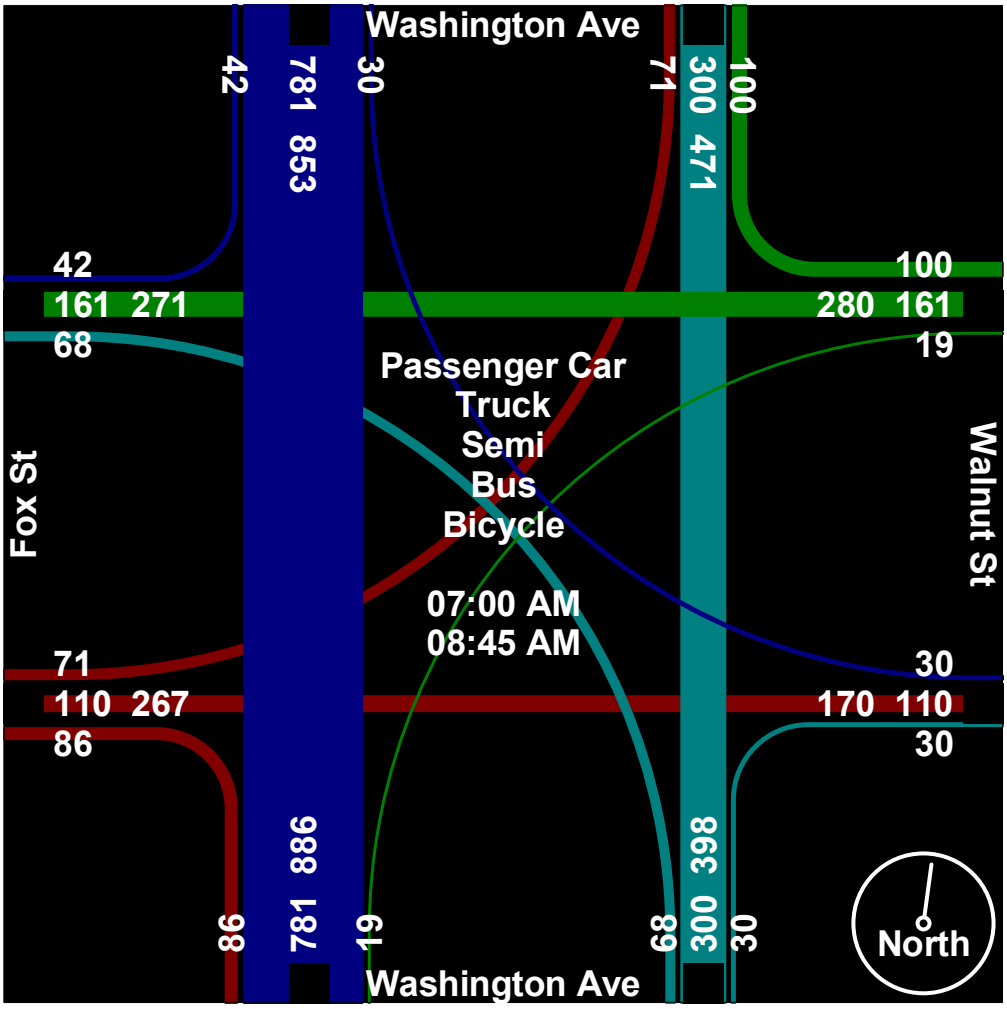
Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

	Washington Ave From North					Walnut St From East					Washington Ave From South					Fox St From West							
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
Grand Total	42	781	30	12	853	100	161	19	6	280	30	300	68	8	398	86	110	71	11	267	37	1798	1835
Apprch %	4.9	91.6	3.5			35.7	57.5	6.8			7.5	75.4	17.1			32.2	41.2	26.6					
Total %	2.3	43.4	1.7		47.4	5.6	9	1.1		15.6	1.7	16.7	3.8		22.1	4.8	6.1	3.9		14.8	2	98	
Passenger Car	42	744	28		826	97	159	17		279	29	280	64		381	83	109	70		273	0	0	1759
% Passenger Car	100	95.3	93.3	100	95.5	97	98.8	89.5	100	97.6	96.7	93.3	94.1	100	93.8	96.5	99.1	98.6	100	98.2	0	0	95.9
Truck	0	9	2		11	3	1	1		5	1	6	3		10	2	1	1		4	0	0	30
% Truck	0	1.2	6.7	0	1.3	3	0.6	5.3	0	1.7	3.3	2	4.4	0	2.5	2.3	0.9	1.4	0	1.4	0	0	1.6
Semi	0	2	0		2	0	0	0		0	0	0	0		0	0	0	0		0	0	0	2
% Semi	0	0.3	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1
Bus	0	19	0		19	0	0	0		0	0	12	0		12	1	0	0		1	0	0	32
% Bus	0	2.4	0	0	2.2	0	0	0	0	0	0	4	0	0	3	1.2	0	0	0	0.4	0	0	1.7
Bicycle	0	7	0		7	0	1	1		2	0	2	1		3	0	0	0		0	0	0	12
% Bicycle	0	0.9	0	0	0.8	0	0.6	5.3	0	0.7	0	0.7	1.5	0	0.7	0	0	0	0	0	0	0	0.7



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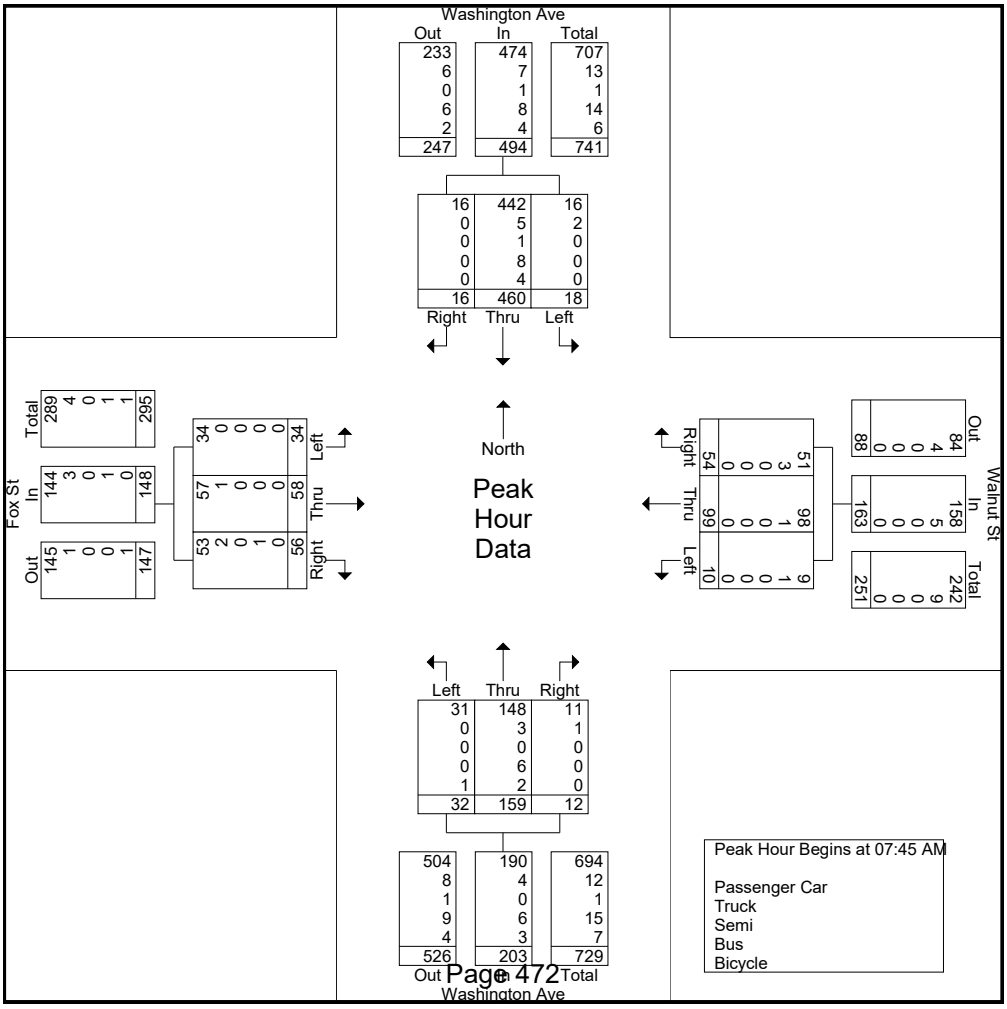
File Name : Portland Washington, Walnut, Fox 10-16-2024 AM
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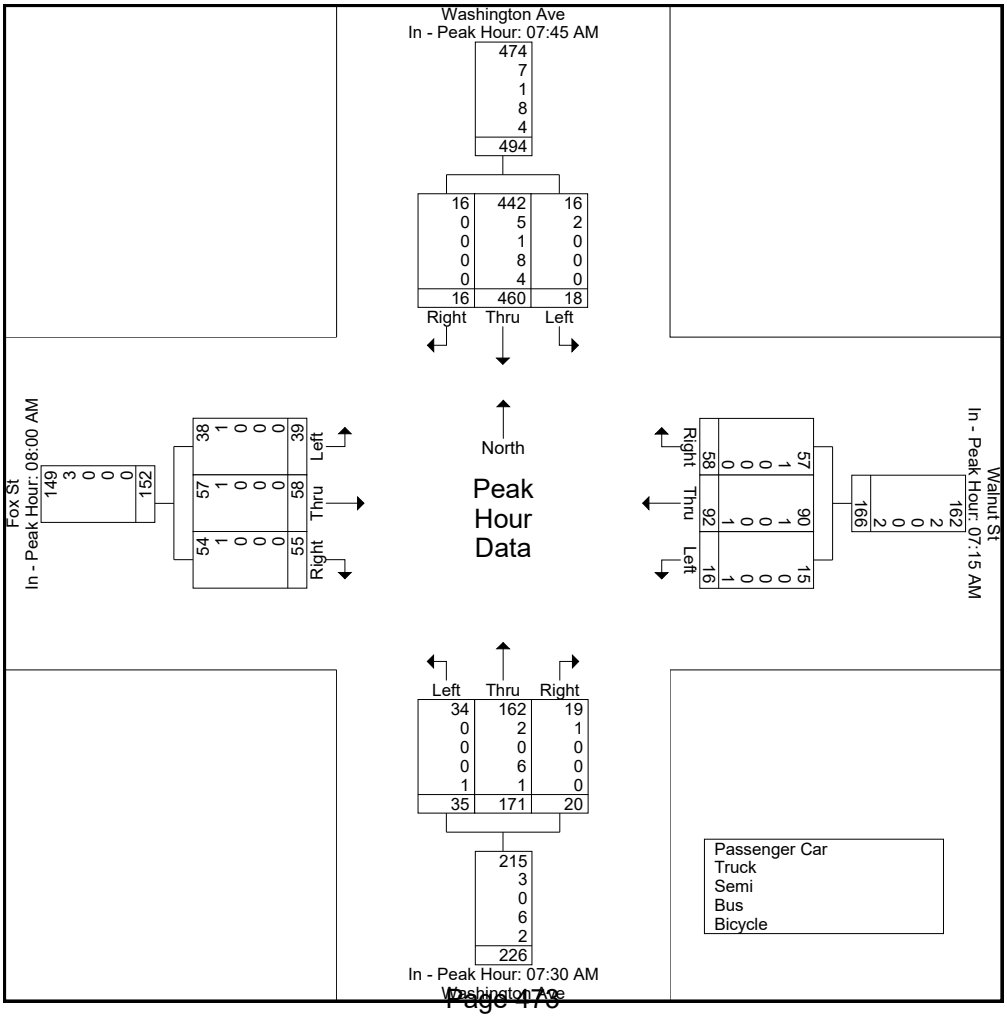
	Washington Ave From North				Walnut St From East				Washington Ave From South				Fox St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**7**	118	2	**127**	**21**	**39**	**5**	**65**	**8**	**53**	**10**	**71**	11	15	7	33	**296**
08:00 AM	0	**120**	3	123	15	17	2	34	1	33	8	42	7	12	8	27	226
08:15 AM	4	108	6	118	5	18	2	25	1	38	8	47	**21**	**19**	**10**	**50**	240
08:30 AM	5	114	**7**	126	13	25	1	39	2	35	6	43	17	12	9	38	246
Total Volume	16	460	18	494	54	99	10	163	12	159	32	203	56	58	34	148	1008
% App. Total	3.2	93.1	3.6		33.1	60.7	6.1		5.9	78.3	15.8		37.8	39.2	23		
PHF	.571	.958	.643	.972	.643	.635	.500	.627	.375	.750	.800	.715	.667	.763	.850	.740	.851
Passenger Car	16	442	16	474	51	98	9	158	11	148	31	190	53	57	34	144	966
% Passenger Car	100	96.1	88.9	96.0	94.4	99.0	90.0	96.9	91.7	93.1	96.9	93.6	94.6	98.3	100	97.3	95.8
Truck	0	5	2	7	3	1	1	5	1	3	0	4	2	1	0	3	19
% Truck	0	1.1	11.1	1.4	5.6	1.0	10.0	3.1	8.3	1.9	0	2.0	3.6	1.7	0	2.0	1.9
Semi	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% Semi	0	0.2	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0.1
Bus	0	8	0	8	0	0	0	0	0	6	0	6	1	0	0	1	15
% Bus	0	1.7	0	1.6	0	0	0	0	0	3.8	0	3.0	1.8	0	0	0.7	1.5
Bicycle	0	4	0	4	0	0	0	0	0	2	1	3	0	0	0	0	7
% Bicycle	0	0.9	0	0.8	0	0	0	0	0	1.3	3.1	1.5	0	0	0	0	0.7



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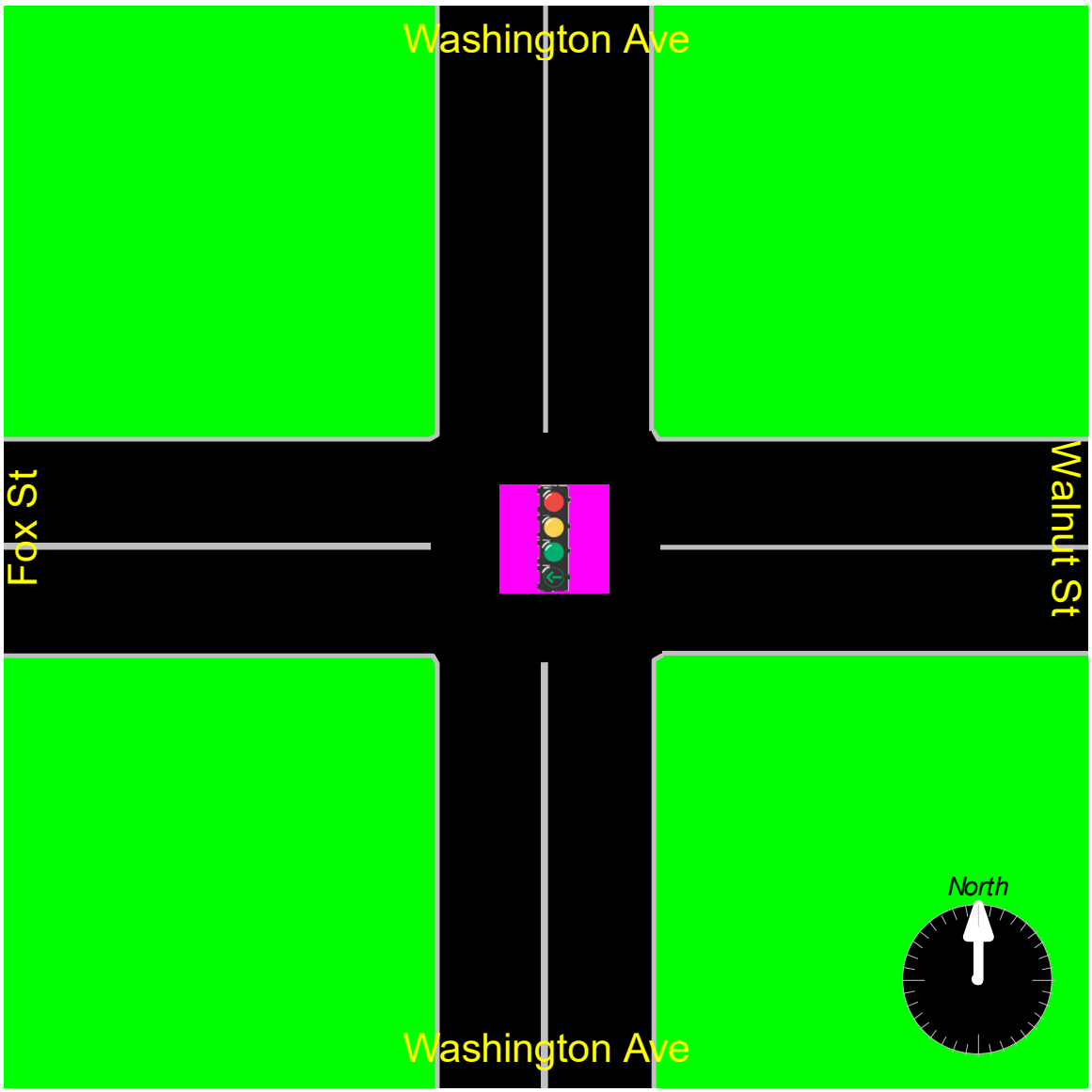
File Name : Portland Washington, Walnut, Fox 10-16-2024 AM
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	Washington Ave From North				Walnut St From East				Washington Ave From South				Fox St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:45 AM				07:15 AM				07:30 AM				08:00 AM				
+0 mins.	**7**	118	2	**127**	10	12	3	25	**10**	47	9	66	7	12	8	27	
+15 mins.	0	**120**	3	123	12	24	**6**	42	8	**53**	**10**	**71**	**21**	**19**	10	**50**	
+30 mins.	4	108	6	118	**21**	**39**	5	**65**	1	33	8	42	17	12	9	38	
+45 mins.	5	114	**7**	126	15	17	2	34	1	38	8	47	10	15	**12**	37	
Total Volume	16	460	18	494	58	92	16	166	20	171	35	226	55	58	39	152	
% App. Total	3.2	93.1	3.6		34.9	55.4	9.6		8.8	75.7	15.5		36.2	38.2	25.7		
PHF	.571	.958	.643	.972	.690	.590	.667	.638	.500	.807	.875	.796	.655	.763	.813	.760	
Passenger Car	16	442	16	474	57	90	15	162	19	162	34	215	54	57	38	149	
% Passenger Car	100	96.1	88.9	96	98.3	97.8	93.8	97.6	95	94.7	97.1	95.1	98.2	98.3	97.4	98	
Truck	0	5	2	7	1	1	0	2	1	2	0	3	1	1	1	3	
% Truck	0	1.1	11.1	1.4	1.7	1.1	0	1.2	5	1.2	0	1.3	1.8	1.7	2.6	2	
Semi	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
% Semi	0	0.2	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	
Bus	0	8	0	8	0	0	0	0	0	6	0	6	0	0	0	0	
% Bus	0	1.7	0	1.6	0	0	0	0	0	3.5	0	2.7	0	0	0	0	
Bicycle	0	4	0	4	0	1	1	2	0	1	1	2	0	0	0	0	
% Bicycle	0	0.9	0	0.8	0	1.1	6.2	1.2	0	0.6	2.9	0.9	0	0	0	0	



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Portland Washington, Walnut, Fox
October 16, 2024 PM
Sunny
St.Clair Associates

File Name : Portland Washington, Walnut Fox 10-16-2024 PM
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Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

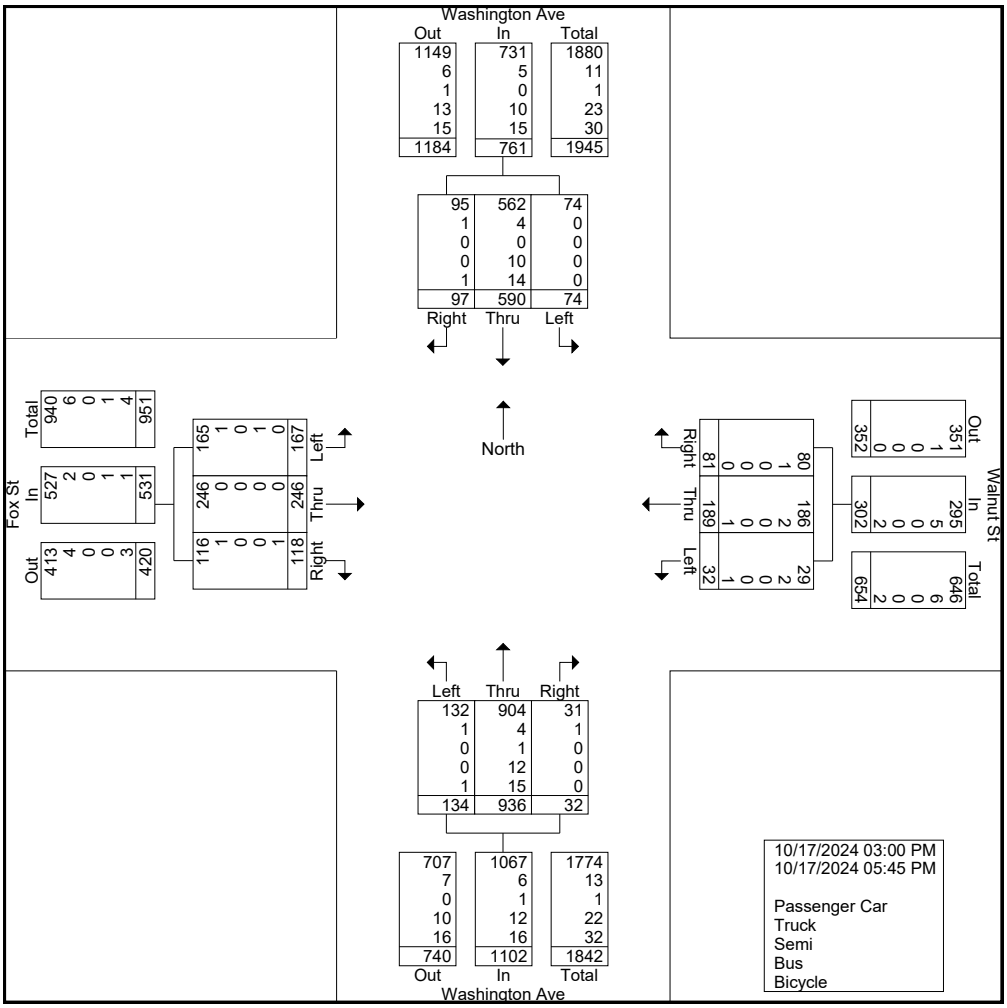
	Washington Ave From North					Walnut St From East					Washington Ave From South					Fox St From West							
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
03:00 PM	7	48	3	5	58	5	10	3	0	18	3	84	7	5	94	9	23	11	0	43	10	213	223
03:15 PM	9	48	8	5	65	8	23	4	2	35	2	83	9	8	94	9	23	9	0	41	15	235	250
03:30 PM	13	52	10	2	75	7	15	1	1	23	5	64	14	2	83	12	18	17	2	47	7	228	235
03:45 PM	12	60	6	4	78	2	24	5	0	31	4	63	18	3	85	13	15	21	1	49	8	243	251
Total	41	208	27	16	276	22	72	13	3	107	14	294	48	18	356	43	79	58	3	180	40	919	959
04:00 PM	12	62	8	0	82	7	15	3	1	25	2	91	16	3	109	8	14	18	2	40	6	256	262
04:15 PM	9	43	7	7	59	5	15	2	4	22	5	99	9	21	113	8	13	17	3	38	35	232	267
04:30 PM	6	53	3	11	62	7	17	3	0	27	2	93	11	18	106	11	34	24	9	69	38	264	302
04:45 PM	8	57	8	4	73	11	14	5	0	30	2	100	11	11	113	8	24	14	2	46	17	262	279
Total	35	215	26	22	276	30	61	13	5	104	11	383	47	53	441	35	85	73	16	193	96	1014	1110
05:00 PM	11	69	7	4	87	8	26	1	0	35	3	89	14	6	106	9	29	9	0	47	10	275	285
05:15 PM	8	50	8	7	66	10	16	3	0	29	4	90	11	7	105	12	23	18	2	53	16	253	269
05:30 PM	2	48	6	6	56	11	14	2	2	27	0	79	14	3	93	19	30	9	5	58	16	234	250
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1
Total	21	167	21	17	209	29	56	6	2	91	7	259	39	16	305	40	82	36	7	158	42	763	805

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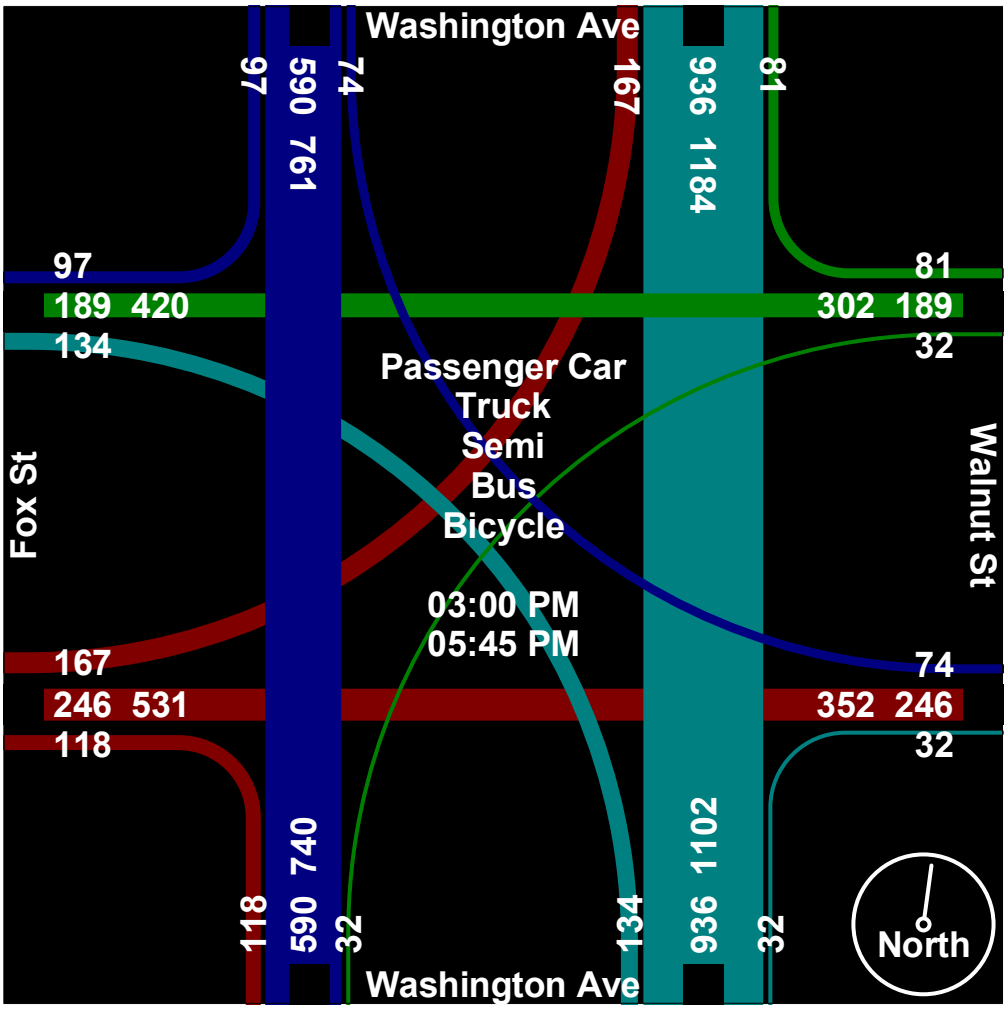
Groups Printed- Passenger Car - Truck - Semi - Bus - Bicycle

	Washington Ave From North					Walnut St From East					Washington Ave From South					Fox St From West							
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Exclu. Total	Inclu. Total	Int. Total
Grand Total	97	590	74	55	761	81	189	32	10	302	32	936	134	87	1102	118	246	167	26	531	178	2696	2874
Apprch %	12.7	77.5	9.7			26.8	62.6	10.6			2.9	84.9	12.2			22.2	46.3	31.5					
Total %	3.6	21.9	2.7		28.2	3	7	1.2		11.2	1.2	34.7	5		40.9	4.4	9.1	6.2		19.7	6.2	93.8	
Passenger Car	95	562	74		786	80	186	29		305	31	904	132		1154	116	246	165		553	0	0	2798
% Passenger Car	97.9	95.3	100	100	96.3	98.8	98.4	90.6	100	97.8	96.9	96.6	98.5	100	97.1	98.3	100	98.8	100	99.3	0	0	97.4
Truck	1	4	0		5	1	2	2		5	1	4	1		6	1	0	1		2	0	0	18
% Truck	1	0.7	0	0	0.6	1.2	1.1	6.2	0	1.6	3.1	0.4	0.7	0	0.5	0.8	0	0.6	0	0.4	0	0	0.6
Semi	0	0	0		0	0	0	0		0	0	1	0		1	0	0	0		0	0	0	1
% Semi	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0
Bus	0	10	0		10	0	0	0		0	0	12	0		12	0	0	1		1	0	0	23
% Bus	0	1.7	0	0	1.2	0	0	0	0	0	0	1.3	0	0	1	0	0	0.6	0	0.2	0	0	0.8
Bicycle	1	14	0		15	0	1	1		2	0	15	1		16	1	0	0		1	0	0	34
% Bicycle	1	2.4	0	0	1.8	0	0.5	3.1	0	0.6	0	1.6	0.7	0	1.3	0.8	0	0	0	0.2	0	0	1.2



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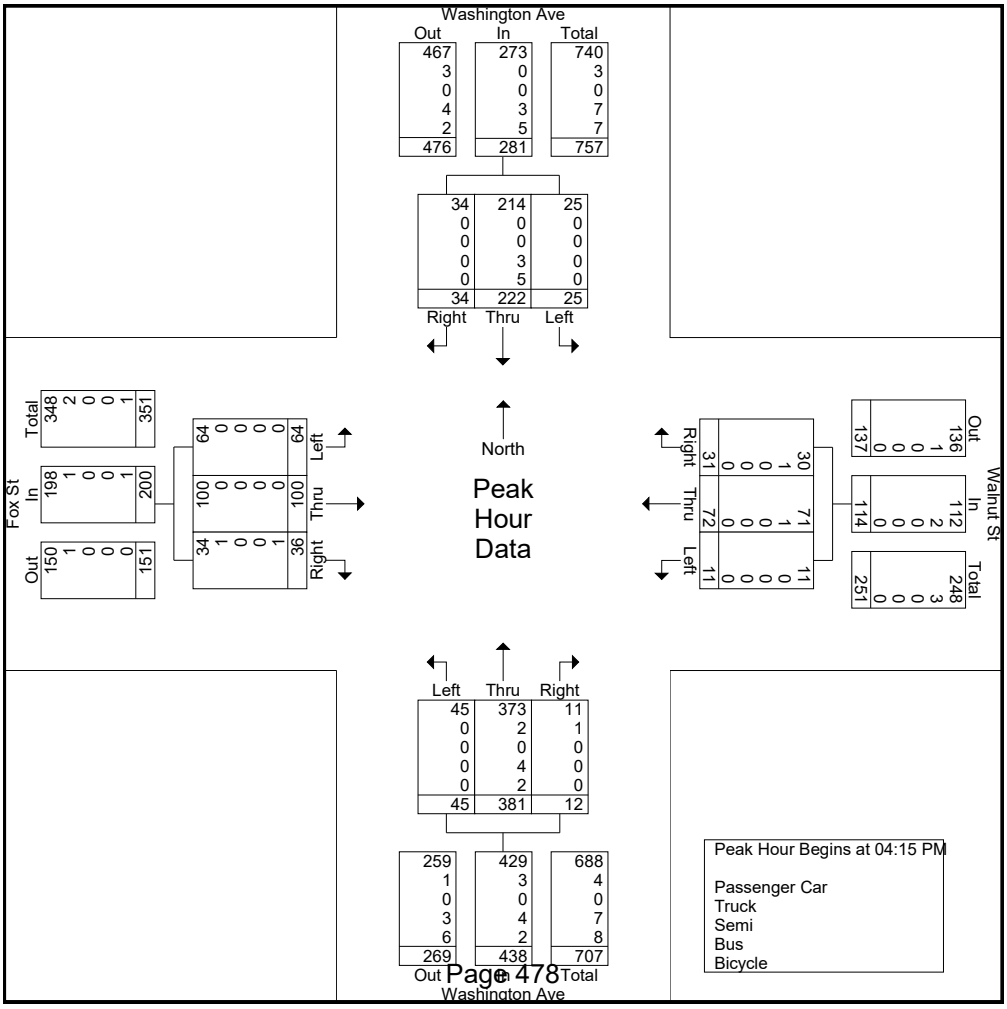


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File Name : Portland Washington, Walnut Fox 10-16-2024 PM
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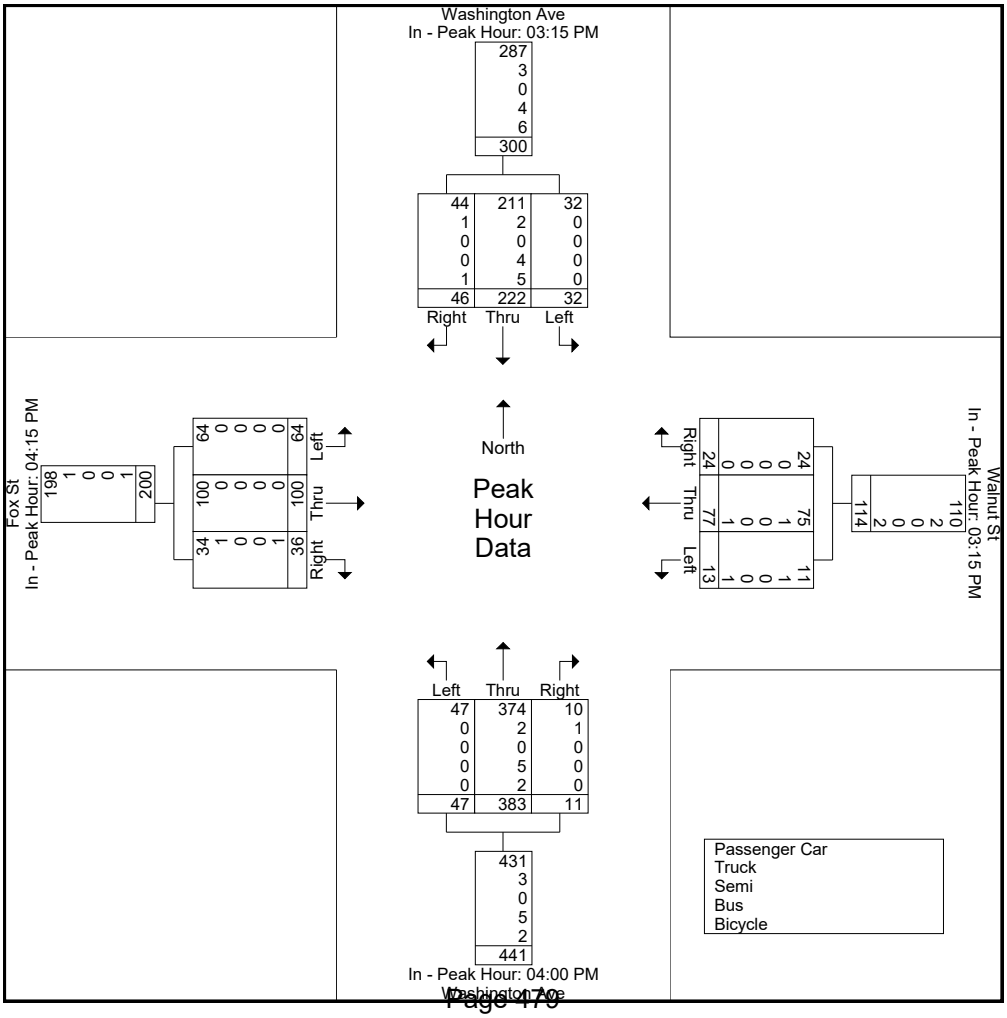
	Washington Ave From North				Walnut St From East				Washington Ave From South				Fox St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	9	43	7	59	5	15	2	22	**5**	99	9	**113**	8	13	17	38	232
04:30 PM	6	53	3	62	7	17	3	27	2	93	11	106	**11**	**34**	**24**	**69**	264
04:45 PM	8	57	**8**	73	**11**	14	**5**	30	2	**100**	11	113	8	24	14	46	262
05:00 PM	**11**	**69**	7	**87**	8	**26**	1	**35**	3	89	**14**	106	9	29	9	47	**275**
Total Volume	34	222	25	281	31	72	11	114	12	381	45	438	36	100	64	200	1033
% App. Total	12.1	79	8.9		27.2	63.2	9.6		2.7	87	10.3		18	50	32		
PHF	.773	.804	.781	.807	.705	.692	.550	.814	.600	.953	.804	.969	.818	.735	.667	.725	.939
Passenger Car	34	214	25	273	30	71	11	112	11	373	45	429	34	100	64	198	1012
% Passenger Car	100	96.4	100	97.2	96.8	98.6	100	98.2	91.7	97.9	100	97.9	94.4	100	100	99.0	98.0
Truck	0	0	0	0	1	1	0	2	1	2	0	3	1	0	0	1	6
% Truck	0	0	0	0	3.2	1.4	0	1.8	8.3	0.5	0	0.7	2.8	0	0	0.5	0.6
Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0	7
% Bus	0	1.4	0	1.1	0	0	0	0	0	1.0	0	0.9	0	0	0	0	0.7
Bicycle	0	5	0	5	0	0	0	0	0	2	0	2	1	0	0	1	8
% Bicycle	0	2.3	0	1.8	0	0	0	0	0	0.5	0	0.5	2.8	0	0	0.5	0.8



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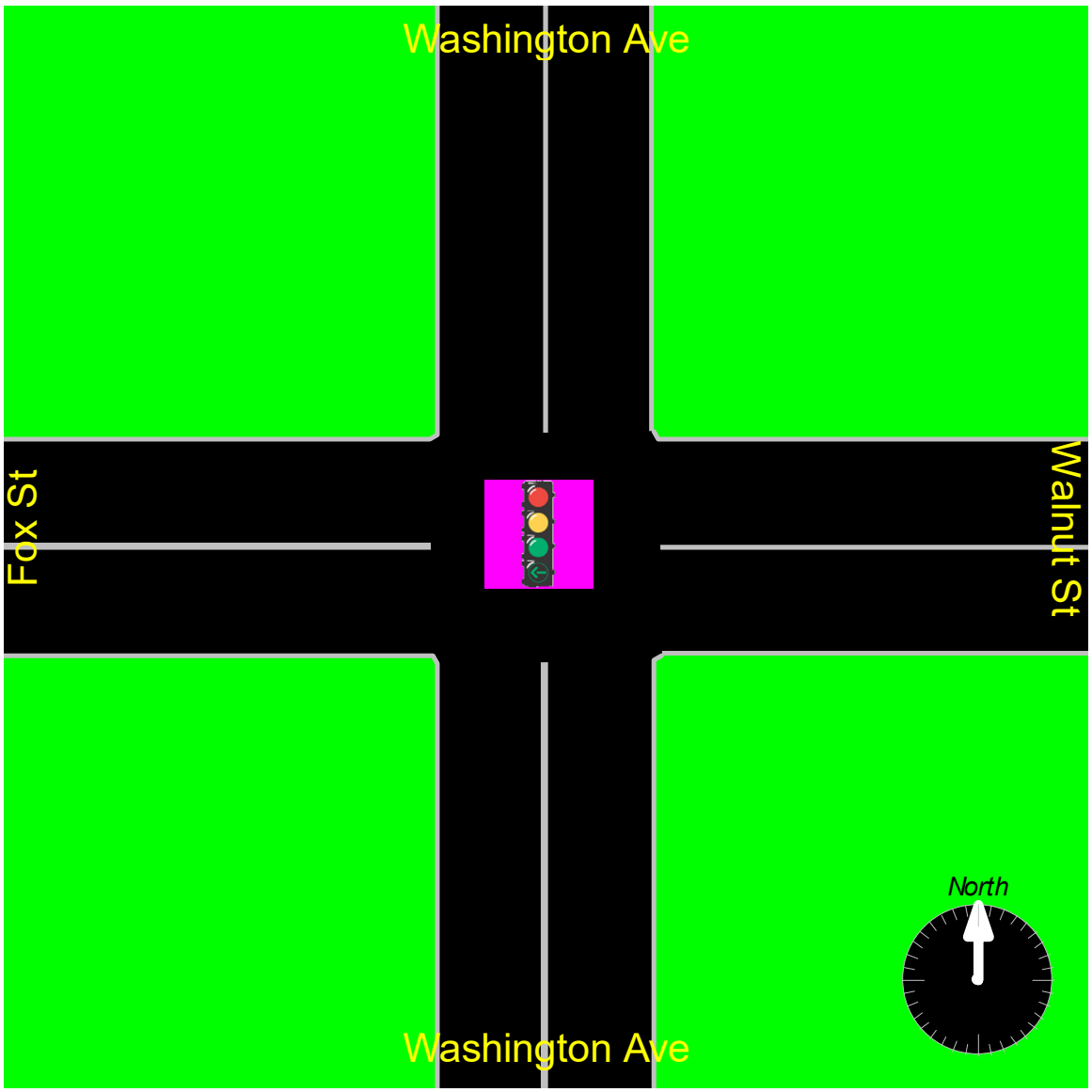
File Name : Portland Washington, Walnut Fox 10-16-2024 PM
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	Washington Ave From North				Walnut St From East				Washington Ave From South				Fox St From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	03:15 PM				03:15 PM				04:00 PM				04:15 PM				
+0 mins.	9	48	8	65	**8**	23	4	**35**	2	91	**16**	109	8	13	17	38	
+15 mins.	**13**	52	**10**	75	7	15	1	23	**5**	99	9	**113**	**11**	**34**	**24**	**69**	
+30 mins.	12	60	6	78	2	**24**	**5**	31	2	93	11	106	8	24	14	46	
+45 mins.	12	**62**	8	**82**	7	15	3	25	2	**100**	11	113	9	29	9	47	
Total Volume	46	222	32	300	24	77	13	114	11	383	47	441	36	100	64	200	
% App. Total	15.3	74	10.7		21.1	67.5	11.4		2.5	86.8	10.7		18	50	32		
PHF	.885	.895	.800	.915	.750	.802	.650	.814	.550	.958	.734	.976	.818	.735	.667	.725	
Passenger Car	44	211	32	287	24	75	11	110	10	374	47	431	34	100	64	198	
% Passenger Car	95.7	95	100	95.7	100	97.4	84.6	96.5	90.9	97.7	100	97.7	94.4	100	100	99	
Truck	1	2	0	3	0	1	1	2	1	2	0	3	1	0	0	1	
% Truck	2.2	0.9	0	1	0	1.3	7.7	1.8	9.1	0.5	0	0.7	2.8	0	0	0.5	
Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Semi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bus	0	4	0	4	0	0	0	0	0	5	0	5	0	0	0	0	
% Bus	0	1.8	0	1.3	0	0	0	0	0	1.3	0	1.1	0	0	0	0	
Bicycle	1	5	0	6	0	1	1	2	0	2	0	2	1	0	0	1	
% Bicycle	2.2	2.3	0	2	0	1.3	7.7	1.8	0	0.5	0	0.5	2.8	0	0	0.5	



Traffic Solutions
17 Mountview Drive
Gorham, ME 04038

File Name : Portland Washington, Walnut Fox 10-16-2024 PM
Site Code : 10172411
Start Date : 10/17/2024
Page No : 6



APPENDIX B

- SIMTRAFFIC CAPACITY ANALYSIS REPORTS
- FIELD OBSERVATION COUNT SHEETS

Summary of All Intervals

Run Number	1	2	5	6	7	Avg
Start Time	7:55	7:55	7:55	7:55	7:55	7:55
End Time	9:00	9:00	9:00	9:00	9:00	9:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1504	1523	1491	1514	1549	1516
Vehs Exited	1507	1520	1486	1515	1551	1516
Starting Vehs	32	33	20	40	29	30
Ending Vehs	29	36	25	39	27	30
Travel Distance (mi)	546	552	546	554	566	553
Travel Time (hr)	30.2	31.4	30.8	31.1	31.0	30.9
Total Delay (hr)	8.5	9.5	9.2	9.1	8.5	8.9
Total Stops	1090	1132	1102	1124	1069	1103
Fuel Used (gal)	21.6	22.1	21.7	21.8	22.3	21.9

Interval #0 Information Seeding

Start Time	7:55
End Time	8:00
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	8:00
End Time	9:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	5	6	7	Avg
Vehs Entered	1504	1523	1491	1514	1549	1516
Vehs Exited	1507	1520	1486	1515	1551	1516
Starting Vehs	32	33	20	40	29	30
Ending Vehs	29	36	25	39	27	30
Travel Distance (mi)	546	552	546	554	566	553
Travel Time (hr)	30.2	31.4	30.8	31.1	31.0	30.9
Total Delay (hr)	8.5	9.5	9.2	9.1	8.5	8.9
Total Stops	1090	1132	1102	1124	1069	1103
Fuel Used (gal)	21.6	22.1	21.7	21.8	22.3	21.9

3: Fox St/Walnut st & Washington Ave Performance by lane

Lane	NB	NB	SB	SB	NE	NE	SW	SW	All
Movements Served	L	TR	L	TR	LT	R	LT	R	
Denied Del/Veh (s)									0.6
Total Del/Veh (s)	19.1	14.1	7.7	20.8	34.3	11.1	33.5	4.0	20.3

6: Washington Ave & Eastern Prom Performance by lane

Lane	WB	NB	SB	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.4
Total Del/Veh (s)	10.3	2.2	2.8	3.8

Total Network Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	20.1

Intersection: 3: Fox St/Walnut st & Washington Ave

Movement	NB	NB	SB	SB	NE	NE	SW	SW
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	58	199	54	389	169	109	217	66
Average Queue (ft)	22	82	10	204	58	35	75	41
95th Queue (ft)	54	164	37	327	114	77	147	79
Link Distance (ft)		561		1046	587		1023	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	30		30			90		40
Storage Blk Time (%)	4	21	1	41	4	0	26	3
Queuing Penalty (veh)	9	8	4	8	3	0	16	3

Intersection: 6: Washington Ave & Eastern Prom

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	144	9	216
Average Queue (ft)	60	0	58
95th Queue (ft)	108	5	142
Link Distance (ft)	530	1046	537
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 51

Intersection: 3: Fox St/Walnut st & Washington Ave

Phase	1	2	4	5	6	8
Movement(s) Served	NBL	SBTL	SWTL	SBL	NBTL	NETL
Maximum Green (s)	10.0	60.0	16.0	10.0	60.0	16.0
Minimum Green (s)	5.0	10.0	10.0	5.0	10.0	10.0
Recall	None	Min	None	None	Min	None
Avg. Green (s)	7.1	4.0	11.7	6.5	5.7	11.2
g/C Ratio	NA	NA	NA	NA	NA	NA
Cycles Skipped (%)	65	2	18	80	4	20
Cycles @ Minimum (%)	4	0	40	4	4	52
Cycles Maxed Out (%)	4	2	10	2	6	4
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary
Average Cycle Length (s): -7.8

Number of Complete Cycles : 50

Summary of All Intervals

Run Number	1	2	4	6	7	Avg
Start Time	3:55	3:55	3:55	3:55	3:55	3:55
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1584	1558	1573	1599	1567	1576
Vehs Exited	1573	1558	1579	1588	1569	1573
Starting Vehs	31	34	32	31	32	31
Ending Vehs	42	34	26	42	30	34
Travel Distance (mi)	573	567	570	577	574	572
Travel Time (hr)	33.5	33.2	33.8	34.0	33.5	33.6
Total Delay (hr)	10.7	10.6	11.1	11.1	10.7	10.8
Total Stops	1229	1205	1249	1230	1215	1225
Fuel Used (gal)	23.2	23.0	23.1	23.2	23.1	23.1

Interval #0 Information Seeding

Start Time	3:55
End Time	4:00
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	4	6	7	Avg
Vehs Entered	1584	1558	1573	1599	1567	1576
Vehs Exited	1573	1558	1579	1588	1569	1573
Starting Vehs	31	34	32	31	32	31
Ending Vehs	42	34	26	42	30	34
Travel Distance (mi)	573	567	570	577	574	572
Travel Time (hr)	33.5	33.2	33.8	34.0	33.5	33.6
Total Delay (hr)	10.7	10.6	11.1	11.1	10.7	10.8
Total Stops	1229	1205	1249	1230	1215	1225
Fuel Used (gal)	23.2	23.0	23.1	23.2	23.1	23.1

3: Fox St/Walnut st & Washington Ave Performance by lane

Lane	NB	NB	SB	SB	NE	NE	SW	SW	All
Movements Served	L	TR	L	TR	LT	R	LT	R	
Denied Del/Veh (s)									0.7
Total Del/Veh (s)	17.8	21.9	23.5	20.7	33.6	5.5	34.6	7.6	23.1

6: Washington Ave & Eastern Prom Performance by lane

Lane	WB	NB	SB	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.2
Total Del/Veh (s)	11.5	3.2	4.6	4.8

Total Network Performance

Denied Del/Veh (s)	0.7
Total Del/Veh (s)	23.6

Intersection: 3: Fox St/Walnut st & Washington Ave

Movement	NB	NB	SB	SB	NE	NE	SW	SW
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	54	343	54	282	220	115	132	65
Average Queue (ft)	28	194	23	131	102	35	59	28
95th Queue (ft)	57	307	57	229	184	91	110	70
Link Distance (ft)		561		1046	587		1023	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	30		30			90		40
Storage Blk Time (%)	6	41	5	36	16	0	22	2
Queuing Penalty (veh)	31	22	17	11	7	0	8	1

Intersection: 6: Washington Ave & Eastern Prom

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	129	13	204
Average Queue (ft)	51	0	76
95th Queue (ft)	97	5	161
Link Distance (ft)	530	1046	537
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 98

Intersection: 3: Fox St/Walnut st & Washington Ave

Phase	1	2	4	5	6	8
Movement(s) Served	NBL	SBTL	SWTL	SBL	NBTL	NETL
Maximum Green (s)	10.0	60.0	16.0	10.0	60.0	16.0
Minimum Green (s)	5.0	10.0	10.0	5.0	10.0	10.0
Recall	None	Min	None	None	Min	None
Avg. Green (s)	6.9	2.2	11.2	6.7	4.0	13.3
g/C Ratio	NA	NA	NA	NA	NA	NA
Cycles Skipped (%)	51	0	15	64	0	5
Cycles @ Minimum (%)	0	2	50	2	0	25
Cycles Maxed Out (%)	7	2	4	2	2	27
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary
Average Cycle Length (s): -10.0

Number of Complete Cycles : 45

Summary of All Intervals

Run Number	2	4	5	6	7	Avg
Start Time	7:55	7:55	7:55	7:55	7:55	7:55
End Time	9:00	9:00	9:00	9:00	9:00	9:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1656	1646	1559	1662	1674	1639
Vehs Exited	1652	1643	1567	1657	1662	1636
Starting Vehs	28	29	37	31	22	30
Ending Vehs	32	32	29	36	34	33
Travel Distance (mi)	596	586	556	589	593	584
Travel Time (hr)	34.4	34.3	32.5	33.8	34.8	34.0
Total Delay (hr)	10.6	10.9	10.3	10.2	11.1	10.6
Total Stops	1262	1307	1179	1330	1305	1275
Fuel Used (gal)	24.1	24.1	22.6	23.9	24.1	23.8

Interval #0 Information Seeding

Start Time	7:55
End Time	8:00
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	8:00
End Time	9:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	2	4	5	6	7	Avg
Vehs Entered	1656	1646	1559	1662	1674	1639
Vehs Exited	1652	1643	1567	1657	1662	1636
Starting Vehs	28	29	37	31	22	30
Ending Vehs	32	32	29	36	34	33
Travel Distance (mi)	596	586	556	589	593	584
Travel Time (hr)	34.4	34.3	32.5	33.8	34.8	34.0
Total Delay (hr)	10.6	10.9	10.3	10.2	11.1	10.6
Total Stops	1262	1307	1179	1330	1305	1275
Fuel Used (gal)	24.1	24.1	22.6	23.9	24.1	23.8

3: Fox St/Walnut st & Washington Ave Performance by lane

Lane	NB	NB	SB	SB	NE	NE	SW	SW	All
Movements Served	L	TR	L	TR	LT	R	LT	R	
Denied Del/Veh (s)									0.8
Total Del/Veh (s)	25.4	14.7	8.4	22.2	36.0	11.6	34.7	3.6	21.5

6: Washington Ave & Eastern Prom Performance by lane

Lane	WB	NB	SB	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.4
Total Del/Veh (s)	11.8	1.1	2.9	3.8

8: Washington Ave & Site Performance by lane

Lane	WB	NB	SB	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	11.4	1.3	1.6	2.4

Total Network Performance

Denied Del/Veh (s)	0.9
Total Del/Veh (s)	22.1

Intersection: 3: Fox St/Walnut st & Washington Ave

Movement	NB	NB	SB	SB	NE	NE	SW	SW
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	55	198	54	378	155	111	174	67
Average Queue (ft)	24	82	11	235	64	39	74	42
95th Queue (ft)	55	162	40	373	124	88	137	81
Link Distance (ft)		561		367	587		1021	
Upstream Blk Time (%)				1				
Queuing Penalty (veh)				7				
Storage Bay Dist (ft)	30		30			90		40
Storage Blk Time (%)	5	22	1	42	6	0	29	2
Queuing Penalty (veh)	13	9	4	10	4	0	18	3

Intersection: 6: Washington Ave & Eastern Prom

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	157	17	192
Average Queue (ft)	67	1	59
95th Queue (ft)	125	7	133
Link Distance (ft)	536	620	538
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 8: Washington Ave & Site

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	92	119
Average Queue (ft)	38	13
95th Queue (ft)	70	67
Link Distance (ft)	270	620
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 67

Intersection: 3: Fox St/Walnut st & Washington Ave

Phase	1	2	4	5	6	8
Movement(s) Served	NBL	SBTL	SWTL	SBL	NBTL	NETL
Maximum Green (s)	10.0	60.0	16.0	10.0	60.0	16.0
Minimum Green (s)	5.0	10.0	10.0	5.0	10.0	10.0
Recall	None	Min	None	None	Min	None
Avg. Green (s)	7.0	6.4	11.8	6.9	8.5	11.4
g/C Ratio	NA	NA	NA	NA	NA	NA
Cycles Skipped (%)	62	0	9	77	0	18
Cycles @ Minimum (%)	2	0	44	2	2	44
Cycles Maxed Out (%)	4	9	9	2	14	4
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary
Average Cycle Length (s): -8.9

Number of Complete Cycles : 44

Summary of All Intervals

Run Number	1	2	3	5	7	Avg
Start Time	3:55	3:55	3:55	3:55	3:55	3:55
End Time	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1696	1680	1666	1649	1693	1677
Vehs Exited	1692	1678	1660	1644	1699	1674
Starting Vehs	31	33	34	25	30	32
Ending Vehs	35	35	40	30	24	32
Travel Distance (mi)	600	593	587	589	605	595
Travel Time (hr)	36.2	35.1	34.3	35.4	35.9	35.4
Total Delay (hr)	12.2	11.5	10.9	11.9	11.7	11.6
Total Stops	1363	1327	1260	1352	1323	1321
Fuel Used (gal)	24.8	24.4	23.8	24.1	24.8	24.4

Interval #0 Information Seeding

Start Time	3:55
End Time	4:00
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	5	7	Avg
Vehs Entered	1696	1680	1666	1649	1693	1677
Vehs Exited	1692	1678	1660	1644	1699	1674
Starting Vehs	31	33	34	25	30	32
Ending Vehs	35	35	40	30	24	32
Travel Distance (mi)	600	593	587	589	605	595
Travel Time (hr)	36.2	35.1	34.3	35.4	35.9	35.4
Total Delay (hr)	12.2	11.5	10.9	11.9	11.7	11.6
Total Stops	1363	1327	1260	1352	1323	1321
Fuel Used (gal)	24.8	24.4	23.8	24.1	24.8	24.4

3: Fox St/Walnut st & Washington Ave Performance by lane

Lane	NB	NB	SB	SB	NE	NE	SW	SW	All
Movements Served	L	TR	L	TR	LT	R	LT	R	
Denied Del/Veh (s)									0.7
Total Del/Veh (s)	15.8	22.7	23.2	18.7	36.7	5.5	34.6	7.1	23.2

6: Washington Ave & Eastern Prom Performance by lane

Lane	WB	NB	SB	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.2
Total Del/Veh (s)	11.7	1.6	4.2	4.0

8: Washington Ave & Site Performance by lane

Lane	WB	NB	SB	All
Movements Served	LR	TR	LT	
Denied Del/Veh (s)				0.0
Total Del/Veh (s)	9.7	2.1	1.9	2.2

Total Network Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	23.8

Intersection: 3: Fox St/Walnut st & Washington Ave

Movement	NB	NB	SB	SB	NE	NE	SW	SW
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	55	425	54	313	242	114	131	65
Average Queue (ft)	28	209	23	134	114	38	59	32
95th Queue (ft)	61	347	54	244	212	103	115	72
Link Distance (ft)		561		367	587		1021	
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				0				
Storage Bay Dist (ft)	30		30			90		40
Storage Blk Time (%)	6	41	5	33	20	0	22	1
Queuing Penalty (veh)	30	22	18	11	9	0	9	1

Intersection: 6: Washington Ave & Eastern Prom

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	133	193
Average Queue (ft)	53	69
95th Queue (ft)	98	150
Link Distance (ft)	536	538
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: Washington Ave & Site

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	53	10	121
Average Queue (ft)	21	0	19
95th Queue (ft)	47	7	71
Link Distance (ft)	266	367	620
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 101

Intersection: 3: Fox St/Walnut st & Washington Ave

Phase	1	2	4	5	6	8
Movement(s) Served	NBL	SBTL	SWTL	SBL	NBTL	NETL
Maximum Green (s)	10.0	60.0	16.0	10.0	60.0	16.0
Minimum Green (s)	5.0	10.0	10.0	5.0	10.0	10.0
Recall	None	Min	None	None	Min	None
Avg. Green (s)	6.9	4.4	11.6	6.6	4.6	13.3
g/C Ratio	NA	NA	NA	NA	NA	NA
Cycles Skipped (%)	62	0	22	62	2	7
Cycles @ Minimum (%)	0	2	41	2	0	22
Cycles Maxed Out (%)	4	7	4	2	4	33
Cycles with Peds (%)	0	0	0	0	0	0

Controller Summary
Average Cycle Length (s): -9.5

Number of Complete Cycles : 45

Washington Ave @ Walnut/Fox | Vehicle Queuing Observations | 2/4/2024

Portland | 8:00 to 8:30 PM

Cycle #	Washington Ave		Walnut St		Washington Ave		Fox St	
	SB Left	SB Thru	WB Left	WB Right	NB Left	NB Thru	EB Left	EB Right
1	0	22	2	0	1	2	0	2
2	1	3	4	0	0	2	1	1
3	0	10	5	0	0	2	0	0
4	0	6	1	1	0	3	1	0
5	1	5	0	0	0	0	3	2
6	0	10	1	0	1	2	1	0
7	0	4	0	0	0	3	2	0
8	0	3	0	0	1	0	0	3
9	0	0	0	2	0	1	1	0
10	0	16	2	0	1	0	2	2
11	0	14	3	1	0	2	0	0
12	0	12	3	1	0	2	1	2
13	0	0	2	0	0	0	3	0
14	0	3	2	0	1	5	5	1
15	0	5	0	0	3	0	2	1
16	0	2	1	0	0	2	0	0
17	0	6	1	0	1	1	1	2
18	0	9	3	0	0	2	0	0
19	1	6	0	0	2	2	3	0
20	0	4	1	1	2	1	2	1
21	1	9	3	1	2	4	1	0
22	0	8	1	0	1	6	6	1
23	0	16	2	2	1	2	5	1
24	0	5	0	0	0	1	3	1
25	0	12	1	0	1	5	1	2
AVG	***0.0***	***8.0***	***2.0***	***0.0***	***1.0***	***2.0***	***2.0***	***1.0***
95th %ile	***1.0***	***16.0***	***3.8***	***1.8***	***2.0***	***5.0***	***5.0***	***2.0***
MAX	***1.0***	***22.0***	***5.0***	***2.0***	***3.0***	***6.0***	***6.0***	***3.0***

Vehicle Queue Lengths (25' per Vehicle)								
AVG	*0*	*200*	*50*	*0*	*25*	*50*	*50*	*25*
95th %ile	*25*	*400*	*95*	*45*	*50*	*125*	*125*	*50*
MAX	*25*	*550*	*125*	*50*	*75*	*150*	*150*	*75*

Cycle #	Washington Ave		Walnut St		Washington Ave		Fox St	
	SB Left	SB Thru	WB Left	WB Right	NB Left	NB Thru	EB Left	EB Right
1	0	1	1	0	0	3	0	1
2	0	5	2	0	0	5	0	0
3	0	5	1	0	0	7	3	2
4	0	4	1	1	1	4	0	0
5	0	6	0	0	1	3	1	0
6	0	2	1	1	1	4	0	1
7	0	2	2	1	0	9	1	1
8	2	2	6	1	0	12	4	1
9	1	7	1	0	1	4	3	1
10	0	3	3	0	0	6	3	0
11	0	4	2	0	0	6	4	1
12	2	2	3	0	0	9	3	0
13	2	4	2	1	2	10	8	0
14	1	7	4	1	1	5	3	0
15	1	9	1	1	1	8	5	0
16	0	8	0	0	1	5	5	1
17	0	1	0	0	1	4	1	0
18	1	1	3	0	0	1	3	0
19	1	10	1	0	0	6	1	0
20	1	5	0	1	0	7	2	0
21	0	3	1	1	1	4	3	1
22	0	6	6	0	0	3	1	1
AVG	***1.0***	***4.0***	***2.0***	***0.0***	***1.0***	***6.0***	***2.0***	***1.0***
95th %ile	***2.0***	***9.0***	***5.9***	***1.0***	***1.0***	***10.0***	***5.0***	***1.0***
MAX	***2.0***	***10.0***	***6.0***	***1.0***	***2.0***	***12.0***	***8.0***	***2.0***

Vehicle Queue Lengths (25' per Vehicle)								
AVG	*25.0*	*100.0*	*50.0*	*0.0*	*25.0*	*150.0*	*50.0*	*25.0*
95th %ile	*50*	*224*	*148*	*25*	*25*	*249*	*125*	*25*
MAX	*50*	*250*	*150*	*25*	*50*	*300*	*200*	*50*

Barton & Loguidice

APPENDIX C

- ADA COMPLIANCE STUDY MAP
- ADA COMPLIANCE INVENTORY SHEETS
- FIELD NOTES



PLAN

150 0 150 300

Scale of Feet

LEGEND

= SITE

= SIDEWALK/MULTIUSE PATH

Barton & Loguidice

PROJ. MANAGER	JOHN Q. ADAMS	BY	DATE
DESIGN-DETAILED	JWS	JWS	2/2025
CHECKED-REVIEWED	JQA		
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PORTLAND
165 WASHINGTON AVE

ADA COMPLIANCE STUDY AREA

SHEET NUMBER

1

OF 1

165 Washington Ave
Portland

ADA Compliance Summary

Intersection #	Intersection	Ramp Location	ADA Compliant?
1	Eastern Prom Midblock	South	Y
2	North @ Walnut	North	Y
2	North @ Walnut	East	N
2	North @ Walnut	South	Y
2	North @ Walnut	South	N
2	North @ Walnut	West	N
3	North @ Montreal	northeast	N
3	North @ Montreal	southeast	N
4	Melbourne @ Willis	southwest	N
4	Melbourne @ Willis	northwest	N
5	Melbourne @ Merrill	southeast	N
5	Melbourne @ Merrill	northeast	N
6	North @ Melbourne	southeast	N
6	North @ Melbourne	northeast	N
7	North @ Quebec	northwest	N
7	North @ Quebec	northeast	Y
7	North @ Quebec	northeast	Y
7	North @ Quebec	southeast	N
8	Eastern Prom Midblock	north	N
8	Eastern Prom Midblock	south	N
9	Eastern Prom Midblock	south	N
9	Eastern Prom Midblock	south	N
10	Eastern Prom @ North	north	N
10	Eastern Prom @ North	south	N
11	North @ School	northeast	N
11	North @ School	southeast	N
12	North @ School	northwest	N
12	North @ School	northeast	N
12	North @ School	southeast	N
13	North @ School	northeast	N
13	North @ School	southeast	N
14	North @ School	west	N
14	North @ School	east	N
15	North @ School Lot	northeast	Y
15	North @ School Lot	northeast	N
15	North @ School Lot	southeast	N
16	Washington @ E Cove	northeast	Y
16	Washington @ E Cove	southeast	N
17	Walnut @ Willis	northeast	N
17	Walnut @ Willis	southeast	N
18	Montreal @ Willis	north	N
18	Montreal @ Willis	west	N
18	Montreal @ Willis	south	N
18	Montreal @ Willis	east	N
19	Quebec @ Lafayette	northeast	Y
19	Quebec @ Lafayette	southeast	N

ADA Compliance Summary

Intersection #	Intersection	Ramp Location	ADA Compliant?
20	Walnut @ Sheridan	northeast	N
20	Walnut @ Sheridan	southwest	N
21	Washington @ Eastern Prom	west	Y
21	Washington @ Eastern Prom	east	Y
22	Washington @ Site	west	Y
23	Washington @ Walnut	northwest	N
23	Washington @ Walnut	northeast	N
23	Washington @ Walnut	northeast	N
23	Washington @ Walnut	southeast	N
23	Washington @ Fox	southeast	Y
23	Washington @ Fox	southwest	N
23	Washington @ Fox	northwest	N
24	Washington @ Madison	northwest	N
24	Washington @ Madison	southwest	Y
25	Washington @ Marion	northeast	N
25	Washington @ Marion	southeast	N
26	Washington @ Monroe	northwest	Y
26	Washington @ Monroe	southwest	Y
27	Washington @ Monroe	southwest	Y
27	Washington @ Monroe	southeast	N
28	Madison @ Winthrop	north	N
28	Madison @ Winthrop	west	N
29	Winthrop @ Everett	southwest	N
29	Winthrop @ Everett	southeast	N
30	Everett @ Greenleaf	south	Y
30	Everett @ Greenleaf	north	N
30	Everett @ Greenleaf	west	N
30	Everett @ Greenleaf	east	N
30	Everett @ Greenleaf	east	N
31	Madison @ Greenleaf	north	N
31	Madison @ Greenleaf	west	N
31	Madison @ Greenleaf	south	N
32	Anderson @ Madison	northeast	N
32	Anderson @ Madison	northwest	N
32	Anderson @ Madison	southeast	N
33	Anderson @ Everett	northeast	N
33	Anderson @ Everett	northwest	N
34	Fox @ Hammond & Winthrop	northwest	Y
34	Fox @ Hammond & Winthrop	southwest	N
34	Fox @ Hammond & Winthrop	southeast	N
34	Fox @ Hammond & Winthrop	northeast	N
35	Fox @ Greenleaf	northeast	N
35	Fox @ Greenleaf	southeast	N
36	Fox @ Anderson	north	N
36	Fox @ Anderson	northwest	Y
36	Fox @ Anderson	southwest	N

165 Washington Ave
Portland

ADA Compliance Summary

Intersection #	Intersection	Ramp Location	ADA Compliant?
36	Fox @ Anderson	south	N
36	Fox @ Anderson	south	N
36	Fox @ Anderson	southeast	N
36	Fox @ ANderson	northeast	N
37	Anderson @ Cove	southwest	N
37	Anderson @ Cove	northwest	Y
37	Anderson @ Cove	northwest	Y
37	Anderson @ Cove	northeast	N
38	Gould @ Hammond	southwest	N
39	Anderson @ Gould	southwest	Y
39	Anderson @ Gould	Southeast	Y
40	Plowman @ Bayside Trail	north	N
40	Plowman @ Bayside Trail	south	N
41	Cove @ Bayside Trail	north	N
41	Cove @ Bayside Trail	south	Y
42	Diamond @ Bayside Trail	north	N
42	Diamond @ Bayside Trail	south	Y

Note: The curb ramp locations and field data are provided in the field data sheets.

Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	1/27/2025		
Intersection	#1 Eastern Prom Midblock		
Curb Ramp Present	Yes	No	
Orientaton	south		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	6.3		
Cross Slope	2.4		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	2.1		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	1/27/2025		
Intersection	#2 North @ Walnut		
Curb Ramp Present	Yes	No	
Orientaton	North Quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	5.8		
Cross Slope	0.5		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	3.5		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	1/27/2025		
Intersection	#2 North @ Walnut		
Curb Ramp Present	Yes	No	
Orientaton	east quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	8.4		
Cross Slope	1.6		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope	2.1		
Parallel Ramp Cross Slope	7.5		
Counter Slope	0		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	1/27/2025		
Intersection	#2 North @ Walnut		
Curb Ramp Present	Yes	No	
Orientaton	south quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	4.7		
Cross Slope	1.4		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	4.9		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	1/27/2025		
Intersection	#2 North @ Walnut		
Curb Ramp Present	Yes	No	
Orientaton	Southwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	7		
Cross Slope	4.4		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	0		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name			
Date	2/4/2025		
Intersection	#2 North @ Walnut		
Curb Ramp Present	Yes	No	
Orientaton	Northwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	2.6		
Cross Slope	2.3		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.7		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	1/27/2025		
Intersection	#3 North @ Montreal		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	8.7		
Cross Slope	0		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	2.1		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	1/27/2025		
Intersection	#3 North @ Montreal		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	16.7		
Cross Slope	1.6		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	0.3		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	1/27/2025		
Intersection	#4 Melbourne @ Willis		
Curb Ramp Present	Yes	No	
Orientaton	southwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>=4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	14.6		
Cross Slope	4.2		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	5.6		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	1/27/2025		
Intersection	#4 Melbourne @ Willis		
Curb Ramp Present	Yes	No	
Orientaton	northwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>=4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	16		
Cross Slope	9		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	5.2		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	1/27/2025		
Intersection	#5 Melbourne @ Merrill		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	6.6		
Cross Slope	2.1		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.4		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	1/27/2025		
Intersection	#5 Melbourne @ Merrill		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	6.1		
Cross Slope	2.1		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	4.7		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	1/27/2025		
Intersection	#6 North @ Melbourne		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>=4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	13		
Cross Slope	0		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	4		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	1/27/2025		
Intersection	#6 North @ Melbourne		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	7.2		
Cross Slope	1.9		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	4.4		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	1/27/2025		
Intersection	#7 North @ Quebec		
Curb Ramp Present	Yes	No	
Orientaton	northwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	10.5		
Cross Slope	0.3		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	7		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	1/27/2025		
Intersection	#7 North @ Quebec		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	3.5		
Cross Slope	0.5		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	2.6		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	1/27/2025		
Intersection	#7 North @ Quebec		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	2.1		
Cross Slope	1.6		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	2.8		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	1/27/2025		
Intersection	#7 North @ Quebec		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	3.1		
Cross Slope	0.7		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#8 Eastern Prom Midblock		
Curb Ramp Present	Yes	No	
Orientaton	North quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	N/A		
Cross Slope	6.3		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	N/A		
Level Landing	Yes	No	

NOTES:

Ramp concrete has disintegrated - slushy/wet

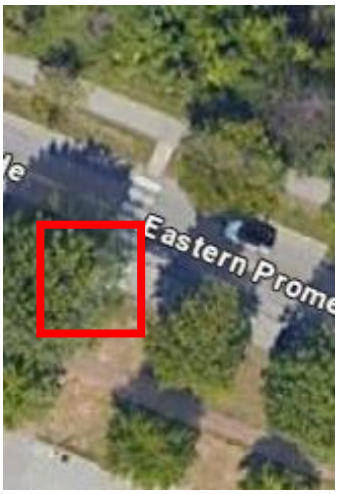


Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#8 Eastern Prom Midblock		
Curb Ramp Present	Yes	No	
Orientaton	South quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width			
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	27.4		
Cross Slope	0.3		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	6.3		
Level Landing	Yes	No	

NOTES:

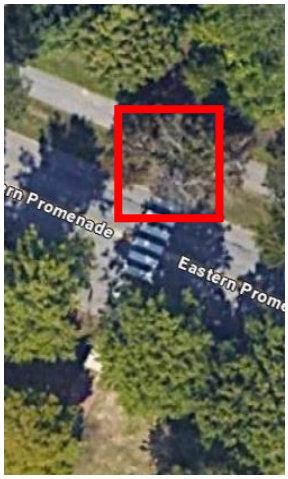


Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#9 Eastern Prom Midblock		
Curb Ramp Present	Yes	No	
Orientaton	North quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width			
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope			
Cross Slope			
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope			
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name JWS

Date 2/4/2024

Intersection #9 Eastern Prom Midblock

Curb Ramp Present Yes No

Orientaton South quadrant

Midblock Curb Ramp Yes No

Traffic Signal Present Yes No

APS Signal Present Yes No

CR Flush With Pavement Yes No

Curb Ramp Width

DW Compliant Compliant Not Compliant Not Present

Curb Ramp Slope

Cross Slope

Parrallel Ramp? Yes No

Parallel Ramp Slope

Parallel Ramp Cross Slope

Counter Slope

Level Landing Yes No



NOTES:

Stairs leading to curb cut

Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#10 Eastern Prom @ North		
Curb Ramp Present	Yes	No	
Orientaton	North quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	5.6		
Cross Slope	3.1		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.2		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#10 Eastern Prom @ North		
Curb Ramp Present	Yes	No	
Orientaton	South quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width			
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	5.2		
Cross Slope	0.9		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	2.8		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#11 School @ North		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	1.6		
Cross Slope	4		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.6		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#11 School @ North		
Curb Ramp Present	Yes	No	
Orientaton	southeast Quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	6.1		
Cross Slope	0.7		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	7.9		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#12 North @ School		
Curb Ramp Present	Yes	No	
Orientaton	northwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	3.5		
Cross Slope	3.1		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	3.3		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#12 North @ School		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width			
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	4.9		
Cross Slope	1.7		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.2		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#12 North @ School		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	11.4		
Cross Slope	11.2		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	5.8		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#13 School @ North		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	2.1		
Cross Slope	2.8		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	0.9		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#13 School @ North		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	4.5		
Cross Slope	4.4		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	3.7		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#14 North @ School		
Curb Ramp Present	Yes	No	
Orientaton	west quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	12.3		
Cross Slope	3.5		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	3.7		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#14 North @ School		
Curb Ramp Present	Yes	No	
Orientaton	east quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	2.4		
Cross Slope	4.5		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	6.5		
Level Landing	Yes	No	

NOTES:

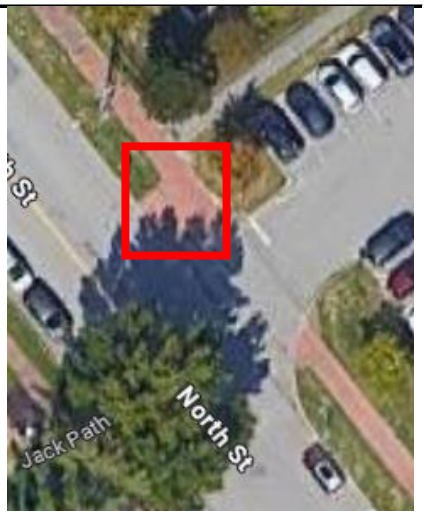


Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#15 North @ School Lot, WB Ramp		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	2.6		
Cross Slope	0.9		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	3.5		
Level Landing	Yes	No	

NOTES:

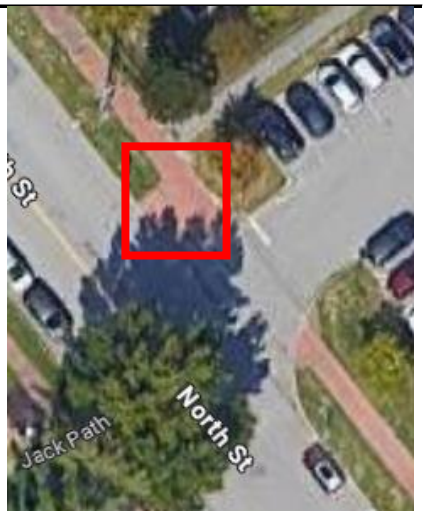


Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#15 North @ School Lot, SB Ramp		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	5.6		
Cross Slope	5.2		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	4		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#15 North @ School Lot		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	6.6		
Cross Slope	3.3		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	0		
Level Landing	Yes	No	

NOTES:

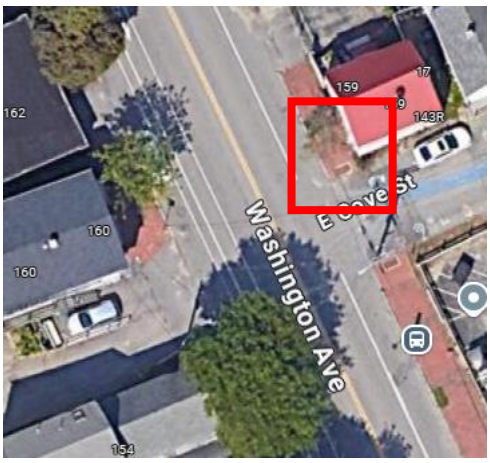


Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#16 Washington @ E Cove		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	4.2		
Cross Slope	0.3		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	0		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#16 Washington @ E Cove		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	6.3		
Cross Slope	3.7		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.7		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#17 Walnut @ Willis		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	0.7		
Cross Slope	4.2		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	5.1		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#17 Walnut @ Willis		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width			
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	10.2		
Cross Slope	1.6		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	7		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#18 Montreal @ Willis		
Curb Ramp Present	Yes	No	
Orientaton	north quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	9.1		
Cross Slope	7.9		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	7.3		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#18 Montreal @ Willis		
Curb Ramp Present	Yes	No	
Orientaton	west quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4,		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	16.7		
Cross Slope	1.2		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.4		
Level Landing	Yes	No	

NOTES:

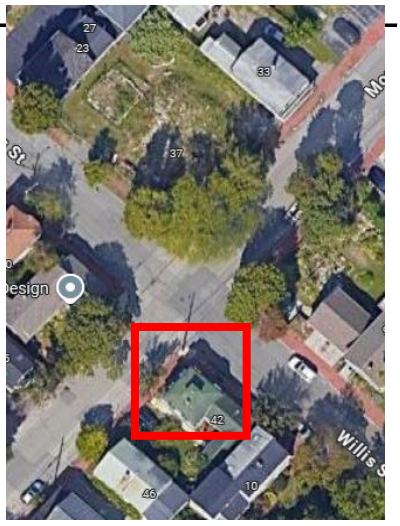


Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#18 Montreal @ Willis		
Curb Ramp Present	Yes	No	
Orientaton	south quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	13.5		
Cross Slope	5.6		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	6.2		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS			
Date	2/4/2024			
Intersection	#18 Montreal @ Willis			
Curb Ramp Present	Yes	No		
Orientaton	east quadrant			
Midblock Curb Ramp	Yes	No		
Traffic Signal Present	Yes	No		
APS Signal Present	Yes	No		
CR Flush With Pavement	Yes	No		
Curb Ramp Width	>4'			
DW Compliant	Compliant	Not Compliant	Not Present	
Curb Ramp Slope	14.2			25.3
Cross Slope	8			14.1
Parrallel Ramp?	Yes	No		
Parallel Ramp Slope				
Parallel Ramp Cross Slope				
Counter Slope	8.7			
Level Landing	Yes	No		

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#19 Quebec @ Lafayette		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	2.4		
Cross Slope	0.2		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	3.5		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#19 Quebec @ Lafayette		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	9.5		
Cross Slope	0.5		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.2		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#20 Walnut @ Sheridan		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	6.6		
Cross Slope	2.3		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	13.2		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#20 Walnut @ Sheridan		
Curb Ramp Present	Yes	No	
Orientaton	southwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	4		
Cross Slope	5.8		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	9.8		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#21 Washington @ Eastern Pr		
Curb Ramp Present	Yes	No	
Orientaton	west quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	6.6		
Cross Slope	1.2		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	0.5		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#21 Washington @ Eastern Prom		
Curb Ramp Present	Yes	No	
Orientaton	east quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	7		
Cross Slope	1.6		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.4		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name

Date

Intersection #22 Washington @ Site

Curb Ramp Present Yes No

Orientaton east quadrant

Midblock Curb Ramp Yes No

Traffic Signal Present Yes No

APS Signal Present Yes No

CR Flush With Pavement Yes No

Curb Ramp Width

DW Compliant Compliant Not Compliant Not Present

Curb Ramp Slope

Cross Slope

Parrallel Ramp? Yes No

Parallel Ramp Slope

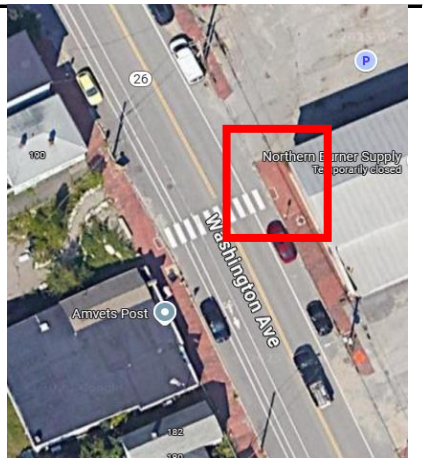
Parallel Ramp Cross Slope

Counter Slope

Level Landing Yes No

NOTES:

Sidewalk section will be redeveloped by project

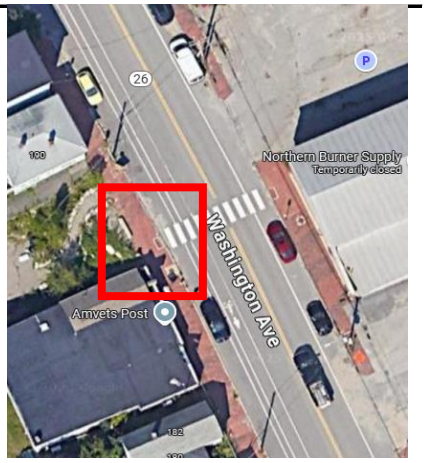


Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#22 Washington @ Site		
Curb Ramp Present	Yes	No	
Orientaton	west quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	5.8		
Cross Slope	1.9		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	5.2		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2024		
Intersection	#23 Washington @ Walnut		
Curb Ramp Present	Yes	No	
Orientaton	northwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	4.7		
Cross Slope	0.7		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	3.1		
Level Landing	Yes	No	

NOTES:

APS Signal has no audible tone



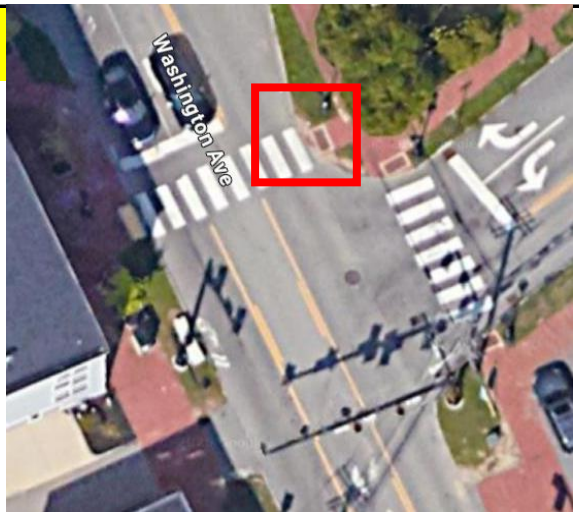
Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#23 Washington @ Walnut		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	12.5		
Cross Slope	1		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1		
Level Landing	Yes	No	

NOTES:

APS Signal has no audible tone



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#23 Washington @ Walnut		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	5.2		
Cross Slope	3.8		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	0.3		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#23 Washington @ Walnut		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	7.3		
Cross Slope	5.2		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.2		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#23 Washington @ Fox		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	7.7		
Cross Slope	0.3		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#23 Washington @ Fox		
Curb Ramp Present	Yes	No	
Orientaton	southwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	3.3		
Cross Slope	7.3		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.4		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#23 Washington @ Fox		
Curb Ramp Present	Yes	No	
Orientaton	northwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	8.9		
Cross Slope	7		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	0.2		
Level Landing	Yes	No	

NOTES:

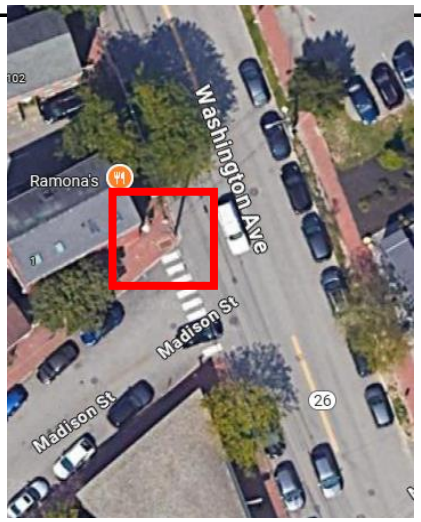


Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#24 Washington @ Madison		
Curb Ramp Present	Yes	No	
Orientaton	northwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	9.8		
Cross Slope	1.7		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.7		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#24 Washington @ Madison		
Curb Ramp Present	Yes	No	
Orientaton	southwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	6.1		
Cross Slope	0.5		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.2		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#25 Washington @ Marion		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	1		
Cross Slope	8.2		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.3		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#25 Washington @ Marion		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	5.6		
Cross Slope	1.5		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope	11		
Parallel Ramp Cross Slope	0.9		
Counter Slope	0		
Level Landing	Yes	No	

NOTES:

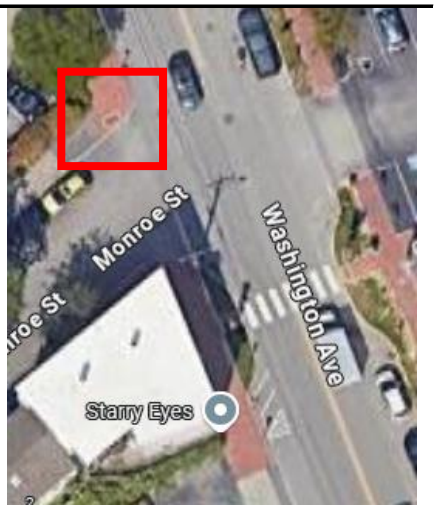


Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#26 Washington @ Monroe		
Curb Ramp Present	Yes	No	
Orientaton	northwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	3.8		
Cross Slope	1.6		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope	1.9		
Parallel Ramp Cross Slope	3.5		
Counter Slope	0		
Level Landing	Yes	No	

NOTES:

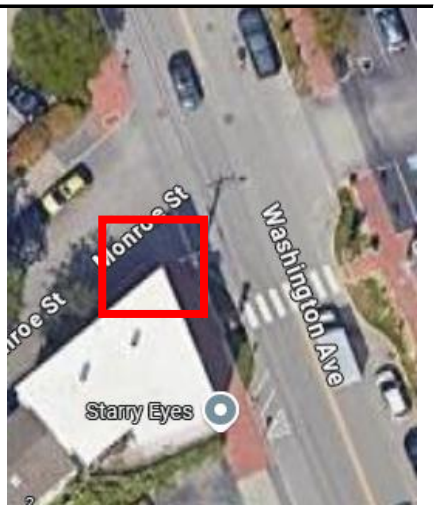


Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#26 Washington @ Monroe		
Curb Ramp Present	Yes	No	
Orientaton	southwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	1.2		
Cross Slope	1.5		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	0.5		
Level Landing	Yes	No	

NOTES:

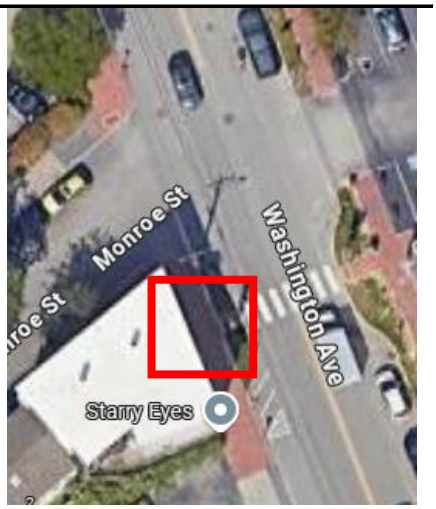


Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#27 Washington @ Monroe		
Curb Ramp Present	Yes	No	
Orientaton	southwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	1.4		
Cross Slope	2.4		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.6		
Level Landing	Yes	No	

NOTES:

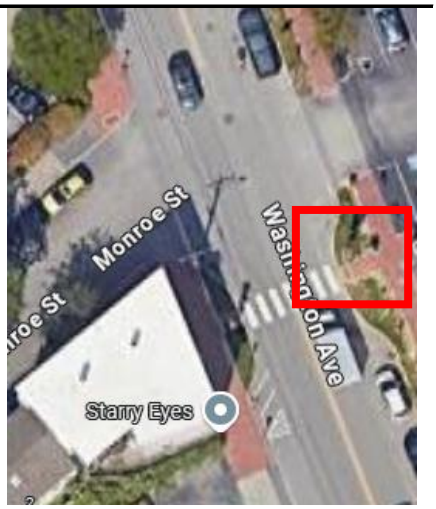


Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#27 Washington @ Monroe		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	6.5		
Cross Slope	0		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	0.2		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS			
Date	2/5/2024			
Intersection	#28 Madison @ Winthrop			
Curb Ramp Present	Yes	No		
Orientaton	north quadrant			
Midblock Curb Ramp	Yes	No		
Traffic Signal Present	Yes	No		
APS Signal Present	Yes	No		
CR Flush With Pavement	Yes	No		
Curb Ramp Width	>4'			
DW Compliant	Compliant	Not Compliant	Not Present	
Curb Ramp Slope	14.8			
Cross Slope	0.3			
Parrallel Ramp?	Yes	No		
Parallel Ramp Slope				
Parallel Ramp Cross Slope				
Counter Slope	10.9			
Level Landing	Yes	No		

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#28 Madison @ Winthrop		
Curb Ramp Present	Yes	No	
Orientaton	west quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	2.6		
Cross Slope	7.5		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	9.6		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#29 Winthrop @ Everett		
Curb Ramp Present	Yes	No	
Orientaton	southwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	16		
Cross Slope	1.9		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope	1.9		
Parallel Ramp Cross Slope	0.2		
Counter Slope	6.6		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#29 Winthrop @ Everett		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	11.7		
Cross Slope	4.2		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope	11		
Parallel Ramp Cross Slope	5.8		
Counter Slope	3.7		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#30 Everett @ Greenleaf		
Curb Ramp Present	Yes	No	
Orientaton	SOUTH quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	8		
Cross Slope	0.7		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.4		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#30 Everett @ Greenleaf		
Curb Ramp Present	Yes	No	
Orientaton	NORTH quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	10.2		
Cross Slope	4.7		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	7		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#30 Everett @ Greenleaf		
Curb Ramp Present	Yes	No	
Orientaton	WEST quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	1		
Cross Slope	0.7		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	6.8		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#30 Everett @ Greenleaf		
Curb Ramp Present	Yes	No	
Orientaton	east quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	12.3		
Cross Slope	3.3		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	3.5		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#30 Everett @ Greenleaf		
Curb Ramp Present	Yes	No	
Orientaton	east quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	7.5		
Cross Slope	3.3		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	2.1		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#31 Madison @ Greenleaf		
Curb Ramp Present	Yes	No	
Orientaton	north quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	11.6		
Cross Slope	2.8		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	4.5		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#31 Madison @ Greenleaf		
Curb Ramp Present	Yes	No	
Orientaton	west quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width			
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	7		
Cross Slope	3.5		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	8.7		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#31 Madison @ Greenleaf		
Curb Ramp Present	Yes	No	
Orientaton	SOUTH quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	5.4		
Cross Slope	7.9		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	0		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name

Date

Intersection #31 Madison @ Greenleaf

Curb Ramp Present Yes No

Orientaton EAST quadrant

Midblock Curb Ramp Yes No

Traffic Signal Present Yes No

APS Signal Present Yes No

CR Flush With Pavement Yes No

Curb Ramp Width

DW Compliant Compliant Not Compliant Not Present

Curb Ramp Slope

Cross Slope

Parrallel Ramp? Yes No

Parallel Ramp Slope

Parallel Ramp Cross Slope

Counter Slope

Level Landing Yes No

NOTES:

COULD NOT REVIEW DUE TO ICE OBSTRUCTIONS



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#32 Anderson @ Madison		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	5.3		
Cross Slope	1.4		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope	6.1		
Parallel Ramp Cross Slope	0.7		
Counter Slope	3		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#32 Anderson @ Madison		
Curb Ramp Present	Yes	No	
Orientaton	northwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	14.9		
Cross Slope	3.8		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope	2.5		
Parallel Ramp Cross Slope	1.7		
Counter Slope	1		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#32 Anderson @ Madison		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	3		
Cross Slope	2.3		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.9		
Level Landing	Yes	No	

NOTES:

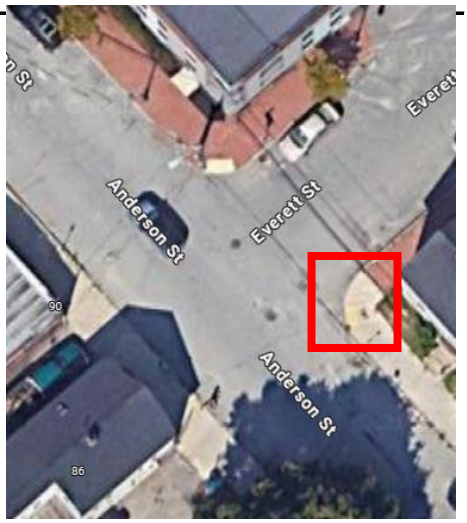


Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#33 Anderson @ Everett		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	9.8		
Cross Slope	3		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.9		
Level Landing	Yes	No	

NOTES:

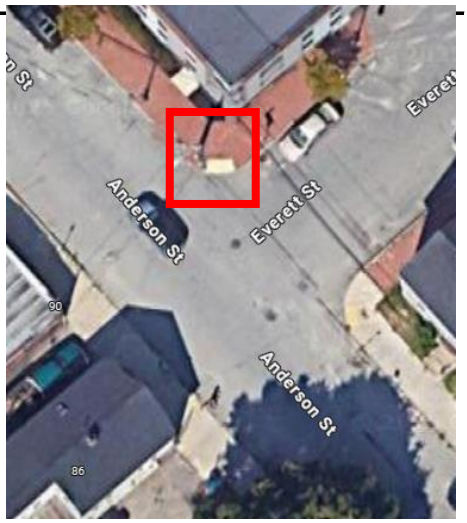


Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name			
Date			
Intersection	#33 Anderson @ Everett		
Curb Ramp Present	Yes	No	
Orientaton	northwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	6.1		
Cross Slope	2.1		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope	8.2		
Parallel Ramp Cross Slope	3.7		
Counter Slope	1.9		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#34 Fox @ Hammond & Winthrop		
Curb Ramp Present	Yes	No	
Orientaton	northwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	1.4		
Cross Slope	1.6		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	15.8		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#34 Fox @ Hammond & Winthrop		
Curb Ramp Present	Yes	No	
Orientaton	southwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	2.1		
Cross Slope	2.4		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	11		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#34 Fox @ Hammond & Winthrop		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	3		
Cross Slope	1.4		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	5.8		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#34 Fox @ Hammond & Winthrop		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	18		
Cross Slope	2.3		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	8.2		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#35 Fox @ Greenleaf		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	13.7		
Cross Slope	1		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	8.4		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS			
Date	2/5/2025			
Intersection	#35 Fox @ Greenleaf			
Curb Ramp Present	Yes	No		
Orientaton	southeast quadrant			
Midblock Curb Ramp	Yes	No		
Traffic Signal Present	Yes	No		
APS Signal Present	Yes	No		
CR Flush With Pavement	Yes	No		
Curb Ramp Width	>4'			
DW Compliant	Compliant	Not Compliant	Not Present	
Curb Ramp Slope	5.1			
Cross Slope	3.5			
Parrallel Ramp?	Yes	No		
Parallel Ramp Slope				
Parallel Ramp Cross Slope				
Counter Slope	0.3			
Level Landing	Yes	No		

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#36 Fox @ Anderson		
Curb Ramp Present	Yes	No	
Orientaton	North quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	12.5		
Cross Slope	0.3		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	0.5		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#36 Fox @ Anderson		
Curb Ramp Present	Yes	No	
Orientaton	northwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	3.8		
Cross Slope	0.3		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.2		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#36 Fox @ Anderson		
Curb Ramp Present	Yes	No	
Orientaton	southwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	11.2		
Cross Slope	0.9		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.6		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#36 Fox @ Anderson		
Curb Ramp Present	Yes	No	
Orientaton	south quadrant, wb ramp		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	9.5		
Cross Slope	1		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.9		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#36 Fox @ Anderson		
Curb Ramp Present	Yes	No	
Orientaton	south quadrant, NB ramp		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	6.6		
Cross Slope	2.1		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.6		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#36 Fox @ Anderson		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant, NB ramp		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	7.2		
Cross Slope	1.4		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	0.2		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#36 Fox @ Anderson		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant, NB ramp		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	8.6		
Cross Slope	0.9		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	3.8		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#37 Anderson @ Cove		
Curb Ramp Present	Yes	No	
Orientaton	southwest qaudrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	4.2		
Cross Slope	2.6		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.2		
Level Landing	Yes	No	

NOTES:

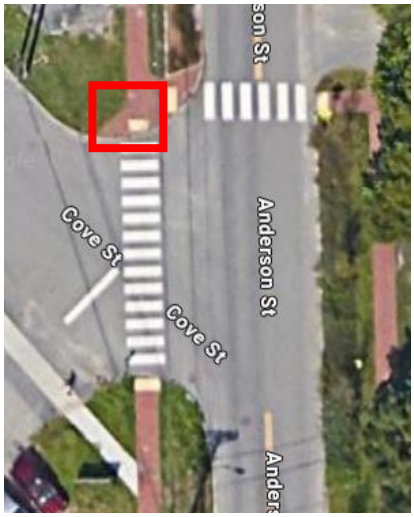


Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS			
Date	2/4/2025			
Intersection	#37 Anderson @ Cove			
Curb Ramp Present	Yes	No		
Orientaton	northwest quadrant, SB ramp			
Midblock Curb Ramp	Yes	No		
Traffic Signal Present	Yes	No		
APS Signal Present	Yes	No		
CR Flush With Pavement	Yes	No		
Curb Ramp Width	>4'			
DW Compliant	Compliant	Not Compliant	Not Present	
Curb Ramp Slope	3.1			
Cross Slope	1.4			
Parrallel Ramp?	Yes	No		
Parallel Ramp Slope				
Parallel Ramp Cross Slope				
Counter Slope	2.3			
Level Landing	Yes	No		

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#37 Anderson @ Cove		
Curb Ramp Present	Yes	No	
Orientaton	northwest quadrant, EB ramp		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	7.9		
Cross Slope	1.6		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#37 Anderson @ Cove		
Curb Ramp Present	Yes	No	
Orientaton	northeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	9.1		
Cross Slope	3.7		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	3.5		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name			
Date			
Intersection	#38 Gould @ Hammond		
Curb Ramp Present	Yes	No	
Orientaton	southwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	1.9		
Cross Slope	13		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.4		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name

Date

Intersection #38 Gould @ Hammond

Curb Ramp Present	Yes	No
Orientaton	southeast quadrant	
Midblock Curb Ramp	Yes	No
Traffic Signal Present	Yes	No
APS Signal Present	Yes	No
CR Flush With Pavement	Yes	No

Curb Ramp Width

DW Compliant	Compliant	Not Compliant	Not Present

Curb Ramp Slope 0.0

Cross Slope 0.0

Parrallel Ramp?	Yes	No

Parallel Ramp Slope

Parallel Ramp Cross Slope

Counter Slope

Level Landing	Yes	No

NOTES:

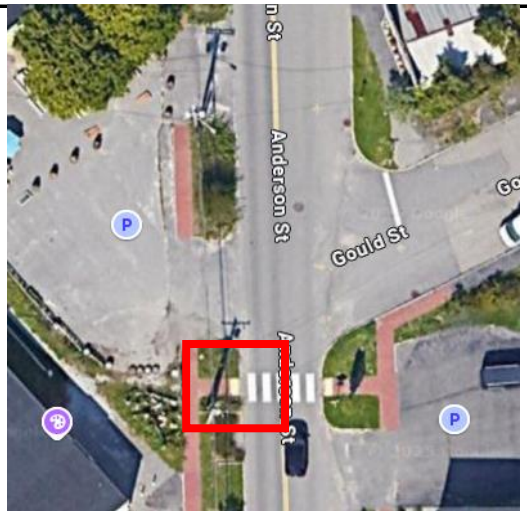


Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#39 Anderson @ Gould		
Curb Ramp Present	Yes	No	
Orientaton	southwest quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	2.4		
Cross Slope	1.2		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	3.1		
Level Landing	Yes	No	

NOTES:

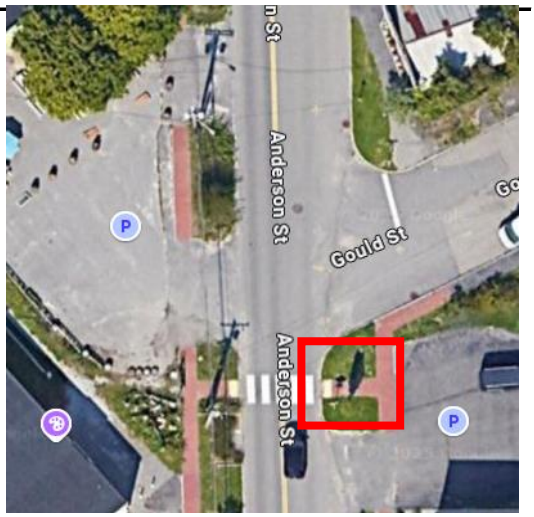


Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#39 Anderson @ Gould		
Curb Ramp Present	Yes	No	
Orientaton	southeast quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	4.9		
Cross Slope	1		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	0.5		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#40 Plowman St @ Bayside Trail		
Curb Ramp Present	Yes	No	
Orientaton	north quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width			
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	0.2		
Cross Slope	1.7		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	2.1		
Level Landing	Yes	No	

NOTES:

LOOSE/MISSING DWF TILES



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#40 Plowman St @ Bayside Trail		
Curb Ramp Present	Yes	No	
Orientaton	south quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	5.6		
Cross Slope	2.6		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	4.7		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#41 Cove @ Bayside		
Curb Ramp Present	Yes	No	
Orientaton	north quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	2.8		
Cross Slope	2.4		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.7		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/4/2025		
Intersection	#41 Cove @ Bayside		
Curb Ramp Present	Yes	No	
Orientaton	south quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	0.9		
Cross Slope	0.2		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.6		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#42 Diamond @ Bayside		
Curb Ramp Present	Yes	No	
Orientaton	north quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	1		
Cross Slope	1.7		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	1.2		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name	JWS		
Date	2/5/2025		
Intersection	#42 Diamond @ Bayside		
Curb Ramp Present	Yes	No	
Orientaton	south quadrant		
Midblock Curb Ramp	Yes	No	
Traffic Signal Present	Yes	No	
APS Signal Present	Yes	No	
CR Flush With Pavement	Yes	No	
Curb Ramp Width	>4'		
DW Compliant	Compliant	Not Compliant	Not Present
Curb Ramp Slope	1.9		
Cross Slope	0.9		
Parrallel Ramp?	Yes	No	
Parallel Ramp Slope			
Parallel Ramp Cross Slope			
Counter Slope	0.2		
Level Landing	Yes	No	

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name

Date

Intersection #43 Marginal @ Diamond

Curb Ramp Present	Yes	No
Orientaton	east quadrant	
Midblock Curb Ramp	Yes	No
Traffic Signal Present	Yes	No
APS Signal Present	Yes	No
CR Flush With Pavement	Yes	No

Curb Ramp Width

DW Compliant Compliant Not Compliant Not Present

Curb Ramp Slope

Cross Slope

Parrallel Ramp?	Yes	No

Parallel Ramp Slope

Parallel Ramp Cross Slope

Counter Slope

Level Landing	Yes	No

NOTES:



Portland
165 Washington Avenue

ADA Compliance
Field Notes

Name

Date

Intersection #43 Marginal @ Diamond

Curb Ramp Present	Yes	No
Orientaton	west quadrant	
Midblock Curb Ramp	Yes	No
Traffic Signal Present	Yes	No
APS Signal Present	Yes	No
CR Flush With Pavement	Yes	No

Curb Ramp Width

DW Compliant Compliant Not Compliant Not Present

Curb Ramp Slope

Cross Slope

Parrallel Ramp?	Yes	No

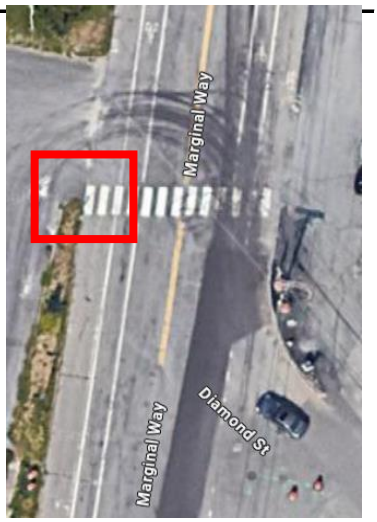
Parallel Ramp Slope

Parallel Ramp Cross Slope

Counter Slope

Level Landing	Yes	No

NOTES:



ACORN ENGINEERING, INC.

Planning Division
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

December 20th, 2024

Subject: 165 Washington Avenue – Major Site Plan Application neighborhood meeting certification

I, Peter Heil, hereby certify that a neighborhood meeting was held on December 19th, 2024 at East End Community Center Cafeteria – 195 North Street, Portland Maine, 04101 at 5:30 pm.

I also certify that on December 6th, 2024, invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development.
2. Residents on the "interested parties" list.

Sincerely,

Peter F. Heil, P.E.
Project Manager
Acorn Engineering, Inc.

Included with this certification are:

1. Copy of the invitation sent
2. Sign-in sheet
3. Meeting minutes

ACORN ENGINEERING, INC.

Dear Neighbor: December 6, 2024

On behalf of Redfern Properties, we are pleased to invite you to a neighborhood meeting to discuss the Major Site Plan Application for the proposed redevelopment of 165 Washington Avenue. The parcel is currently vacant and located within the B2b Neighborhood Business zoning district. The project proposes to construct a 7 floor multi-family apartment building with 326 dwelling units and a ground floor commercial space. The project will include additional internal residential amenity areas, two exterior courtyard amenity spaces, structured parking below the building, and various infrastructure upgrades.

A sign-in sheet will be circulated, and a record of the meeting will be taken. Both the sign-in sheet and record will be submitted to the Planning Board. If you have any questions, please call (207) 775-2655.

Meeting Location: East End Community School - Cafeteria
195 North Street, Portland, ME 04101

Meeting Date/Time: Thursday, December 19, 2024, at 5:30 p.m.

Under the City of Portland land use code, an applicant for a major site plan, master development plan, subdivision of over five lots, or zoning map amendment is required to hold a neighborhood meeting within 30 days of an application being deemed complete and no less than seven calendar days before a public hearing. Should you wish to offer additional comments on this proposed development, you may forward them by e-mail to planning@portlandmaine.gov or by mail to the Planning and Urban Development Department, Planning Division, 4th Floor, 389 Congress Street Portland, ME 04101

Sign-in Sheet

Name (Please Print)	Email
Deborah Bates	-
Ann Casady	Anncasady@yahoo.com
Peter Pitegoff	Pitegoff@maine.edu
Beverly Bookin	Bookin43@comcast.net
John Whitaker	Jwhitaker7216@gmail.com
Wayne Valzania	Wayne@redhookdesignalliance.com
Diane Cunha	Dianecunha50@gmail.com
George Cunha	georgecunha@yahoo.com
David McFadden	dnwhnry@gmail.com
Peggy Shaffer	shaffems@gmail.com
Ben Jacks	Benmj223@gmail.com
Paul Oviatt	Oviattpaul70@gmail.com
Walt	-
Lindsay Matranga	lindsaymatronga@gmail.com
Laura Ballador	lauraballadur@gmail.com

Brent Adler	Brentadler@gmail.com
Seth Brayton	Sethbrayton@gmail.com
Nick Skhterman	Nickolas.skhterman@gmail.com
Phyllis Reames	Phyllisreames@yahoo.com
Peter Comas	Pcomas12@gmail.com
Project Team Below	
Jonathan Culley	jonathan@redfernproperties.com
Haynes Johnston	haynes@redfernproperties.com
Zach Stevens, P.E. – Acorn Engineering	Zstevens@acorn-engineering.com
Pete Heil, P.E. – Acorn Engineering	Pheil@acorn-engineering.com
Ryan Senatore	ryan@senatorearchitecture.com
See attached for the handwritten sign in sheet. Names and emails were copied over to the best of our ability.	

Sign-in Sheet

Name (Please Print)	Email
NIDRIND	
Deborah Bates.	
ANN CASADY	ANNCASADY@YAHOO.COM
Peter Pitegoff	pitegoff@maine.edu
Beverly Bookin	bookin@bookingroup.com
Stephen Bookin	bookin43@comcast.net
John Whitaker	jwhitaker7216@gmail.com
WAYNE VALZANIA	WAYNE@RedHookDesignAlliance.com
Diane Cunha	dianecunha50@gmail.com
George Cunha	georgecunha@yahoo.com
David McFadden	dnwbnrye@gmail.com
PEGGY STAFFER	STAFFEMS@GMAIL.COM
BEN JACKS	BENMJ223@GMAIL.COM
Paul Smiatt	oviattpaul70@gmail.com
Lindsay Matranga	lindsaymatranga@gmail.com

Redfern Properties – 165 Washington Avenue, Portland
12/19/24 | 5:30 pm

Sign-in Sheet

Name (Please Print)	Email
LAURA BALLADUR	laurahalladur@gmail.com
Brent Adler	Brentadler@gmail
Seth Brayton	sethlbrayton@gmail.com
NICK SICHERMAN	Nicholas.sicherman@gmail.com
Phyllis Reames	phyllisreames@yahoo.com
Peter Comas	pcomas12@gmail

ACORN ENGINEERING, INC.

Redfern Properties – 165 Washington Avenue
Major Site Plan Application

Neighborhood Meeting Minutes
December 19, 2024 / 5:30 pm
East End Community Center
195 North Street, Portland Maine, 04101

Project Team Attendees:

Jonathan Culley (JC): Applicant/Presenter (Redfern Properties)

Haynes Johnston (HJ): Applicant/Presenter (Redfern Properties)

Ryan Senatore (RS): Architect (Ryan Senatore Architecture)

Pete Heil (PH): Civil Engineer/Presenter (Acorn Engineering)

Zach Stevens (ZS): Civil Engineer/Note Taker (Acorn Engineering)

The meeting started at approximately 5:35 pm.

Presentation:

Jonathan Culley:

- Welcome to the Neighborhood Meeting
- Overview of Project and Renderings
- Project Overview:
  - The project is proposing a 7-story multi-family apartment building with 325 rooms and a ground floor commercial space.
- Introduction to Project Team
  - Holst Architecture
  - Ryan Senatore Architecture
  - Acorn Engineering
  - Soren Deniord Landscape Architecture
  - Summit Geoengineering
  - Structural Integrity
  - TRC
  - Barton & Loguidice
  - Penobscot General Contractors

- There is an existing housing crisis in Portland, and it is projected to get worse in the upcoming years. Portland is a desirable place to live, and we are looking to help fill that need.
- Overview of building programming including elevations
    - Part of the target tenants are anticipated to include the future Roux Institute Campus students.
    - 25% of units will be deed restricted for medium income earners as required by City Code.
        - This will be the largest project in Portland to meet these demands

Peter Heil:

- Neighborhood Meeting is a city requirement for the Major Site Plan Application.
- A sign-in sheet is available for everyone which will be submitted to the City and becomes public record along with the meeting minutes.
- The Site Plan application has been submitted to the City at the end of November. We are hopeful for a mid-January (1/14/25) planning board workshop. The agenda has not yet been released but can be found on the City's website, typically the Friday before.
- Programming overview
    - The covered parking area includes 11 spaces
    - The bike room and exterior bike racks include 164 bike spaces
    - Overview of proposed retaining walls and site grading implications
    - The building finish floor elevations will have a step to reduce excavation in the existing slope at the rear of the site
- New Utility infrastructure is proposed
    - The overhead electric will be relocated underground along the project frontage
    - Working in coordination with DPW to relocated existing sanitary sewer lines within Washington Ave.
    - New services to development, including water, sewer, storm, power, communications, and natural gas.
- Landscape Architecture – Soren Deniord is the Landscape Architect
    - Two internal courtyards will contain vegetation and will be designed by a landscape architect.
    - Street trees and programming within the right of way along Washington Avenue will be designed by the landscape architect.
- Stormwater design
    - There is an existing steep slope at the rear of the site that sends water toward the proposed building. The site will be engineered to pick up this stormwater and direct it away from the building.
    - We are proposing to maintain various vegetation to the rear of the lot and preserve trees that can be preserved.
    - New stormwater treatment subsurface BMP installed in internal courtyard to collect and treat roof runoff, with an additional stormwater detention system under the drive aisle to accommodate 100-year storm event.
- Parking
    - To provide some background, the City recode now has a maximum parking requirement. Not a minimum parking requirement. That is why we are proposing 11

parking spaces. The project is relying on multimodal transportation as part of this project. There are two bus stops currently on either side of the project frontage.

Jonathan:

- Parking is a market issue, and we recognize that. The reason this design works (with minimal parking) is because the Roux Institute, which has international students attending school for approximately 18 months, will likely not have cars. We have had preliminary conversations with Roux Development and due to the close proximity of the two projects we are designing a portion of this building with those students in mind.

Comments, Questions & Answers:

Please note that the following questions and answers were not recorded verbatim and aim to represent and summarize the actual questions, answers, and discussion that took place at the meeting.

Neighbor (couldn't stay for meeting, but prior to meeting at 5:13 asking to be on record): I want to show my support for more housing in the neighborhood. There is a housing shortage, and the current Northern Burner lot is vacant and seems like a great place to fill the housing need.

Response: Thank you for your comment.

Neighbor: Will the Roux Institute provide parking as part of their development?

Response: Yes, there will be a garage.

Neighbor: How big is the garage?

Response: I believe approximately 600 parking spaces for phase 1. There may be phase 2 to add additional parking if there is a need.

Neighbor: Where is the garage located.

Response: The vacant B&M Baked Beans Building is the location of the proposed Roux institute.

Neighbor: What kind of school is it? Who is the owner?

Response: The Roux Institute is part of Northeastern University, and I believe the focus is advanced technologies, such as Life Science and AI.

Neighbor: I've heard the Roux is proposing a daycare center. What about units for families?

Response: International students cannot get a family visa to come as a student. They need to prove they are making a certain amount of money annually to maintain their visa as an individual. Others who may attend the Roux may be existing residents of the area with families, that may work part time.

Neighbor: Can you further clarify what you mean by clear zones on each side of the building?

Response: We are in discussion about having a potential bus stop or relocating a bus stop in front of the building, which clear zones or loading zones would be required. The building is setback from each side property line to allow access and ease for construction. We are proposing to construct the sidewalk beyond the right of way into our private lot along the building frontage, which will include a public license agreement for public use.

Neighbor: Why is Washington Avenue shown so wide on your presentation slides?

Response: We are not proposing any improvements to Washington Avenue. Our slide shows the existing condition of Washington avenue. The image is the most recent geolocated image from Maine Geolibrary.

Neighbor: Seems like you are highly dependent on Roux students as part of this project, and you do not have a formal agreement, this seems risky. Are there 100 total students that attend this school?

Response: I believe they currently have 1,000 existing students, with an anticipated 3,000 to attend the new campus and a significant number are already living in our apartments. We strongly believe the demand already exists.

Neighbor: Northeastern is known for co-ops for their students. How will they get to work? It seems like you are heavily dependent on public transportation.

Response: This is very different than the mold our country was built on. We are taking the risk of adding additional housing with minimal parking.

Neighbor: Regarding the wide sidewalk. Where is the main entrance and how wide is the sidewalk at this location?

Response: Let's show our architecture slides in a minute and circle back to this.

Neighbor: Will the affordable housing units be for Roux students? If not, how will they survive without a car? They are going to overwhelm the existing public street parking.

Response: The workforce restricted units would not be for the Roux students. We have other buildings in Portland that do not provide parking, and this approach does work. It simply is not convenient to own a car when you live in the city.

Haynes:

- Overview of elevations & renderings
    - The proposed building has three portions with different heights
        - 7 story housing section
        - 4 story housing section located over the covered parking
        - 3 story central bar location – this programming is still being finalized.
    - Materials used and architectural finish overview
    - Façade
        - View into Retail Space

- View into Central Bar area

Jonathan:

- Overview of project schedule
  - An additional neighborhood meeting will be held on January 8th, 2025, same place at 5:30pm.
  - Potential planning board workshop, tentatively scheduled for January 14th. Please keep your eye on the planning board. agenda as this meeting is not confirmed.
  - Planning Board approval is anticipated around March 2025 and hopeful construction start in July 2025.
  - Construction will likely take two years to complete.

Neighbor: What is the width of the building along Washington Avenue?

Response: Approximately 320 feet.

Neighbor: The existing signs on the Northern Burner lot say the existing parking lot is reserved for Amvets Post.

Response: Their property is for sale, and they are looking for alternate locations to relocate.

Neighbor: How wide is the sidewalk at the entrance?

Response: Approximately 12 feet.

Neighbor: I understand why you want wide sidewalks. I think the spirit of the recode is to have buildings closer to the street in the B2b Zone to activate the street frontage.

Response: There will be some furnishings in the wide sidewalk. This is a good question. We talked about putting some type of seating in this location to create a pedestrian friendly location.

Neighbor: I thought the B2b Zone spirit is to create a more commercial space that is fitting in the neighborhood. Given the size of this building it does not seem like this building fits that mold apart from the small retail space.

Response: In the past, projects construct housing with retail below due to the city code requirement. A lot of commercial spaces remain empty, so the city recode allows that standard to be relaxed and give this project opportunity to activate the frontage with residents.

Neighbor: Have you considered allowing the public into the activated communal space.

Response: There are security and logistical obstacles that need to be considered, but we will investigate it further.

Neighbor: Is there a laundry room in the building?

Response: There is a combined washing machine and dryer in each unit.

Neighbor: What will be above the first-floor central bar area?

Response: It will be a public space for relaxing, networking, etc. We have not finalized programming at this location.

Neighbor: With the extra sidewalk space, it makes sense to put the retail in the center.

Response: That's an interesting idea. We located the retail space at the corner to act as the gateway as you enter Portland and provide a welcoming public amenity as you would drive off 295.

Neighbor: Looking at the street trees, is there an opportunity to add more? Or change the tree species?

Response: We are working with our landscape architect to activate this area with trees.

Neighbor: Are these slides available?

Response: Yes. We can provide this presentation to everyone on the sign in sheet who provided their email.

Neighbor: Is this building requesting a height variance.

Response: No, this building is conforming to the City's adopted recode in the B2b district.

Neighbor: The bar that you have. If the first floor was open air directly into the courtyard that would be nice.

Response: Interesting idea. In Maine with our weather and changing seasons this can be difficult to accomplish.

Neighbor: There is street parking on both sides of the road on Washington Avenue. Will street parking be allowed along the project frontage?

Response: We are consolidating the existing three curb cuts and proposing one curb cut. We are not reducing street parking and may open space for additional street parking on the frontage.

Neighbor: Will there be a green roof? The development claims to be outside the downtown view corridor plan, and this project is actually inside the downtown view corridor plan. Additionally, if you are in proximity to a historic landmark or district then there is additional code that needs to be met. The architect should respond to these in their design narrative.

Response: Yes, we are looking into creating a green roof. We will make the architect aware and can update these standards.

Neighbor: The off-street parking across the street is currently no parking – can we change that? Will you be driving piles? Will they be temporary?

Response: There is an opportunity to change the public parking designation across the street. We will investigate it. Yes, unfortunately, we will be driving piles. The means and methods are not

finalized but we will communicate when it happens ahead of time. The temporary piles will likely become permanent to assist construction efficiency and cost.

Neighbor: What is the material on the rear of the building.

Response: It's a fiber cement panel. We will provide samples.

Neighbor: Is the bar element light brick? Why does the rear side of the building look so dark.

Response: At this stage it's a contrasting material to work with the brick and break down the massing.

Neighbor: Cove Street does not look right in the presentation image.

Response: We will make sure our image is correct. The background is the most recent geolocated image from Maine Geolibrary.

Neighbor: Are there plans to create a formal agreement with Roux Institute? Or will conversations remain informal.

Response: That's a good question. We do not have a formal agreement. We are working with them currently and making some design decisions around them. Our project is the closest housing development in proximity to their location and it is available to rent for them so we anticipate a certain demand that will contain Roux students.

Neighbor: Under federal law do you have the right to enter an agreement or first refusal with Roux Institute?

Response: We are carefully studying the Fair Housing Act to comply with all local, state and federal regulations, but yes, you can enter into an agreement with institutions.

Neighbor: Will my view be hindered from the second floor of Bayview heights

Response: We believe if you're on floor two of Bayview Heights, then our building may not impact your view as Washington Avenue is much lower in elevation than North Street.

Neighbor: Can you explain the reasoning of efficiency unit's vs studio vs 1-bedroom units.

Response: This helps some units be more affordable and help get housing cost down. Efficiency units and studio units are smaller and more affordable and also provide options for students who want to have a double occupancy.

Neighbor: It seems like there are more beds than advertised.

Response: The work force units are separate in the slide breakdown calculations. In the 243 market rate units, there are potentially 388 beds. We are not including the deed restricted workforce housing in the bed count. (See Presentation Slide for breakdown).

Neighbor: I lived in the building that is now called The Linden, that building as also constructed for student housing. They did not get the students, what if the same happens to this project?

Response: The Linden failed to secure the students. We don't have a secure deal, but we believe the demand exists and proximity to the campus will provide much needed housing, but understand it is a risk we are taking.

The meeting concluded at approximately 6:50 pm.

The abovementioned material was as interpreted and recorded from handwritten notes. Please note and relay any discrepancies or disputed information in the recorded minutes to the below address so that they can be reviewed, revised, and resubmitted, as necessary.

Recorded by,



Zach Stevens, PE
Project Engineer, Acorn Engineering, Inc.
Zstevens@acorn-engineering.com

ACORN ENGINEERING, INC.

Planning Division
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

January 13th, 2024

Subject: 165 Washington Avenue – Major Site Plan Application neighborhood meeting certification

I, Peter Heil, hereby certify that a second neighborhood meeting was held on January 8th, 2025 at East End Community Center Cafeteria – 195 North Street, Portland Maine, 04101 at 5:30 pm.

I also certify that on December 20th, 2024, invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development.
2. Residents on the "interested parties" list.

Sincerely,

Peter F. Heil, P.E.
Project Manager
Acorn Engineering, Inc.

Included with this certification are:

1. Copy of the invitation sent
2. Sign-in sheet
3. Meeting minutes

A C O R N
ENGINEERING, INC.

Dear Neighbor: December 20, 2024

On behalf of Redfern Properties, we are pleased to invite you to a neighborhood meeting to discuss the Major Site Plan Application for the proposed redevelopment of 165 Washington Avenue. The parcel is currently vacant and located within the B2b Neighborhood Business zoning district. The project proposes to construct a 7 floor multi-family apartment building with 326 dwelling units and a ground floor commercial space. The project will include additional internal residential amenity areas, two exterior courtyard amenity spaces, structured parking below the building, and various infrastructure upgrades.

A sign-in sheet will be circulated, and a record of the meeting will be taken. Both the sign-in sheet and record will be submitted to the Planning Board. If you have any questions, please call (207) 775-2655.

Meeting Location: East End Community Center - Cafeteria
195 North Street, Portland, ME 04101

Meeting Date/Time: Wednesday, January 8th, 2025, at 5:30 p.m.

Under the City of Portland land use code, an applicant for a major site plan, master development plan, subdivision of over five lots, or zoning map amendment is required to hold a neighborhood meeting within 30 days of an application being deemed complete and no less than seven calendar days before a public hearing. Should you wish to offer additional comments on this proposed development, you may forward them by e-mail to planning@portlandmaine.gov or by mail to the Planning and Urban Development Department, Planning Division, 4th Floor, 389 Congress Street Portland, ME 04101

tony cowles-studio.com <tony@cowles-studio.com>
to planningboard@portlandmaine.gov Wed, Jan 29, 1:17 PM

Dear City Planning Staff & Planning Board Members,

I was unable to attend the workshop for the proposed 165 Washington Ave (Redfern) project yesterday, however I would like to offer some comments based on my knowledge of the project so far. I am a Portland resident, and live within a couple hundred yards of the project site, just down the hill at 34 Hammond Street. I attended one of the prior neighborhood presentations (at East End School) to learn about the project, and to better understand what is being proposed by the Redfern Properties.

In general, I really like the idea of a mixed-use project on Washington Street, mostly because of the housing that it will offer to residents, and the future residents of Portland. It also seems to make good sense as the Roux Institute begins developing their higher education project at the nearby B&M property. I also like that the project will anchor Washington Ave, ultimately bringing long-term economic vitality to the area. Although I realize there will be significant challenges associated with the non-existent parking on site, I generally believe that the lack of parking will be positive for climate-change reasons, and that it will encourage more people to walk, ride bicycles, and use public transportation.

I am also aware that the newly defined Re-Code has pretty much made this project a 'slam-dunk' for the Redfern organization. Given this fact, I encourage the Planning Dept and Planning Board to be very cautious and forthright in considering how this project defines the future of Portland, and how this project will impact this deeply valued section of our City. As you consider this project, it will be imperative that you get the details right as we envision this huge change for Portland. I would ask those who are tasked with 'approvals' to please consider the following:

- Is a 7-story structure really necessary to make this project successful..? Three additional stories for this area are clearly out of character with its context, and all previous developments in the area were held to the 4-story limit outlined in the zoning guidelines.
- After reviewing the elevations, I have concerns that the mass and scale of the building are frankly, just too much for the site. I think most urban planners would agree… if the proportions aren't right, it is very difficult to get anything else right on the project.
- How is the proposed structure meeting the 'edges' of the property, and how could the design team improve these transitions to the adjacent properties..? Screening..? Other strategies to diminish the scale of the structure..?
- The potential for pedestrian and vehicular conflict at this Washington Street location is extremely high, especially during morning and evening commute times. This project will undoubtedly create an enormous surge in pedestrians and cyclists if the project moves forward. What measures does the City intend to employ to ensure the safety and protection of pedestrians and cyclists in this highly-used traffic corridor..? Dedicated bike lanes..? Traffic-calming measures..? Has a traffic/safety study been performed that will inform this process..?
- Construction parking for the duration of the project will have a significant impact on the surrounding neighborhoods (Hammond St, Gould. St, North St, etc.). Would the City consider transporting workers from a remote parking facility via bus or van throughout the construction process..?
- Once the project is complete, parking will continue to negatively impact the surrounding neighborhoods. I would request that the City strongly consider stickered parking as a requirement for full-time residents in these impacted neighborhoods (so we continue to enjoy street parking near our homes).

Thank you, and I look forward to hearing how you plan address these concerns for the people of Portland. Let's get this one right..!

Tony Cowles
(207) 415-4332

TAVATA
165 WASHINGTON AVENUE REDEVELOPMENT
REDFERN PROPERTIES
PORTLAND, MAINE

LEGEND

EXISTING

REFER TO THE EXISTING CONDITIONS PLAN FOR ADDITIONAL INFORMATION

PROPOSED

- GREEN SPACE
- UTILITY PAVEMENT CUTS
- STRIPING
- SEDIMENTATION BARRIER
- EDGE OF EX. PAVEMENT
- CURB
- SIGN
- LAMP OR LIGHT POLE
- UTILITY POLE
- GUY WIRE
- WATER VALVE
- FIRE HYDRANT
- SEWER MANHOLE
- CATCH BASIN
- DRAIN MANHOLE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND WATER LINE
- MINOR CONTOURS (1 FT)
- MAJOR CONTOURS (5 FT)
- GAS LINE
- STORM DRAIN LINE
- SEWER LINE
- UNDERDRAIN
- EXISTING/PROPOSED BUILDING
- OVERHEAD ELECTRICAL/TELEPHONE/CABLE
- PROPERTY LINE
- SETBACKS

UTILITIES

SEWER

DEPARTMENT OF PUBLIC WORKS (DPW)
250 CANCO ROAD
PORTLAND, MAINE 04101
CONTACT: BRAD ROLAND, P.E.
(207) 874-8840

WATER

PORTLAND WATER DISTRICT
225 DOUGLASS STREET
PO BOX 3553
PORTLAND, MAINE 04104
ATTN: MEANS DIVISION
(207) 774-5961

ELECTRIC

CENTRAL MAINE POWER COMPANY (CMP)
162 CANCO ROAD
PORTLAND, MAINE 04103
CONTACT: JAMIE COUGH
(207) 629-1489

TELEPHONE

CONSOLIDATED COMMUNICATIONS
(FORMERLY FAIRPOINT)
45 FOREST AVENUE
PORTLAND, MAINE 04101
CONTACT: PAT MORRISON
(207) 745-9363

CABLE

SPECTRUM CABLE
118 JOHNSON ROAD
PORTLAND, MAINE, 04102
CONTACT: STEVEN HOLMES
(207) 631-1618

NATURAL GAS

UNITIL SERVICE CORP
1075 FOREST AVENUE
PORTLAND, ME 04103
CONTACT: SCOTT CARPENTER
(207) 541-2536

PROJECT TEAM

DEVELOPER

REDFERN PROPERTIES
PORTLAND, MAINE
CONTACT: JONATHAN CULLEY
(207) 261-5302

CIVIL ENGINEER:

ACORN ENGINEERING, INC.
PORTLAND, MAINE
CONTACT: PETER HEIL, P.E.
(207) 775-2655

ARCHITECT

HOLST ARCHITECTURE
PORTLAND, OREGON
CONTACT: LEE JORGENSEN, RA
612-470-1525

RYAN SENATORE ARCHITECTURE
PORTLAND, MAINE
CONTACT: RYAN SENATORE, RA
207-650-6414

SURVEYOR

OWEN HASKELL INC.
FALMOUTH, MAINE
CONTACT: JOHN C. SCHWANDA P.L.S.
(207) 774-0424

ELECTRICAL ENGINEER

TARR ENGINEERING
NEW GLOUCESTER, MAINE
CONTACT: JOHN, W. TARR, P.E.
(207) 212-6022

STRUCTURAL ENGINEER

STRUCTURAL INTEGRITY CONSULTING ENGINEERS, INC.
PORTLAND, MAINE
CONTACT: AARON JONES, P.E.
(207) 774-4614

TRAFFIC ENGINEER

BARTON & LOGUIDICE
SCARBOROUGH, MAINE
CONTACT: JOHN Q. ADAMS, P.E.
(207) 331-6694

GEOTECHNICAL ENGINEER

SUMMIT GEOENGINEERING SERVICES
LEWISTON, MAINE
CONTACT: BILL PETERLEIN, P.E.
(207) 576-3313

ENVIRONMENTAL ENGINEER

TRC
PORTLAND, MAINE
CONTACT: EMILY WASSMER, PG/LG, LSP
(207) 298-0785

GENERAL CONTRACTOR

PENOBSCOT GENERAL CONTRACTORS (PGC)
FALMOUTH, MAINE
CONTACT: CLAY MAKER
(207) 236-6390

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VICINITY MAP
SCALE: 1:200

ABBREVIATIONS

PARTIAL LIST OF ABBREVIATIONS AND THEIR CORRESPONDING MEANING. PLEASE CONTACT THE ENGINEER FOR ANY CLARIFICATION

APPROX.	APPROXIMATE
BC	BOTTOM OF CURB
BMP	BEST MANAGEMENT PRACTICE
BOT.	BOTTOM
CAD	COMPUTER AIDED DESIGN
CB	CATCH BASIN
CF	CUBIC FOOT
CIP	CAST IN PLACE
CL	CENTERLINE
CM	CONSTRUCTION MANAGER
CMP	CENTRAL MAINE POWER
CONC.	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CY	CUBIC YARD
DI	DUCTILE IRON PIPE
DIA.	DIAMETER
DIM.	DIMENSION
EA.	EACH
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EQUIV.	EQUIVALENT
EST.	ESTIMATE
EX.	EXISTING
FFE	FINISH FLOOR ELEVATION
FT.	FEET
HDPE	HIGH DENSITY POLY ETHYLENE
ID	INNER DIAMETER
IN.	INCH
INV.	INVERT
L	LENGTH
MAX.	MAXIMUM
MDEP	MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
MDOT	MAINE DEPARTMENT OF TRANSPORTATION
M.E.P	MECHANICAL, ELECTRICAL, PLUMBING DESIGNER
MFG.	MANUFACTURED
MH	MANHOLE
MIN.	MINIMUM
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OHE/T/C	OVERHEAD ELECTRIC/TELEPHONE/CABLE
PC	PRECAST
PE	PROFESSIONAL ENGINEER
PL	PROPERTY LINE
PLS	PROFESSIONAL LAND SURVEYOR
PROP.	PROPOSED
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PWD	PORTLAND WATER DISTRICT
R	RADIUS
RD	ROOF DRAIN
RET.	RETAINING
ROW	RIGHT OF WAY
S	SLOPE
SD	STORM DRAIN
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FEET
SMH	SEWER MANHOLE
SPEC.	SPECIFICATION
TC	TOP OF CURB
TW	TOP OF WALL
TYP.	TYPICAL
UD	UNDERDRAIN
UGE	UNDERGROUND ELECTRIC
VIF	VERIFY IN FIELD

CALL BEFORE YOU DIG
1-888-DIG-SAFE
1-888-344-7233

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SITE PLAN	PFH 11/20/24
COMMENT RESPONSE	PFH 2/14/25

DRAWING NAME: COVER SHEET & LEGEND
PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101
CLIENT: REDFERN PROPERTIES P.O. BOX 8816, PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.
ENGINEERING, INC.

THESE PLANS SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY MODIFICATIONS MADE BY OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC
PORTLAND, MAINE 04104
PO BOX 8816
(207) 775-2655

FILE:	1202_CIVIL
JN:	1202
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE – WILLIAM H. SAVAGE – 11419 – 1/31/25 – LICENSED PROFESSIONAL ENGINEER

STATE OF MAINE – PETER F. HEIL – 15318 – LICENSED PROFESSIONAL ENGINEER – 2/14/25

DRAWING NO.
C-01

GENERAL NOTES:

1. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE ANY POTENTIAL CONFLICTS WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.

2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES SHOWN ON THE PLAN. IF DEEMED NECESSARY BY THE OWNER OR OWNER'S REPRESENTATIVE (IF APPLICABLE), ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER.

3. THE CONTRACTOR SHALL PREPARE THEIR OWN MATERIAL SCHEDULE BASED ON THE PLANS AND FIELD VERIFICATION BY THE CONTRACTOR. ALL MATERIAL SCHEDULES SHOWN WITHIN THE PLAN SET ARE FOR GENERAL INFORMATION ONLY.

4. ALL CONSTRUCTION METHODS, TESTING AND MATERIALS SHALL CONFORM TO THE MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, THE CITY OF PORTLAND AND SERVICING UTILITY REQUIREMENTS, IF ANY. IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SPECIFICATION SHALL APPLY AT NO ADDITIONAL COST TO THE OWNER.

5. THE SITE CONTRACTOR SHALL MAINTAIN A SET OF PAPER AND CAD DRAWINGS WHICH SHALL RECORD THE ACTUAL LOCATION, DIMENSIONS, ELEVATIONS, MATERIALS OF THEIR WORK, INDICATING THEREON ALL VARIATIONS FROM THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH ONE COMPLETE SET OF REPRODUCIBLE RECORD DRAWINGS, IN .DWG FORMAT AND PAPER, STAMPED ''AS-BUILT''. IF AUTOCAD CAPABILITY IS NOT AVAILABLE, EXCLUDE FROM BID IN WRITING.

6. THE CONTRACTOR WILL REMAIN SOLELY AND COMPLETELY RESPONSIBLE FOR ENFORCEMENT OF AND COMPLIANCE WITH 1) ALL CONTRACT PLANS AND SPECIFICATIONS, 2) APPLICABLE INTERNATIONAL BUILDING CODE REQUIREMENTS, AND 3) ALL SITE WORKING CONDITIONS AND SAFETY REQUIREMENTS, DAY AND NIGHT, FOR BOTH PERSONS AND PROPERTY, IN EACH CASE BOTH BY THE CONTRACTOR AND ITS SUBCONTRACTORS. THESE INCLUDE ALL OSHA, NIOSH, U.S. EPA AND ANY OTHER APPLICABLE GOVERNMENTAL REGULATIONS.

7. EXISTING CONDITIONS, BOUNDARY SURVEY, AND TOPOGRAPHY FROM THE PLAN TITLED BOUNDARY & TOPOGRAPHIC SURVEY BY OWEN HASKELL, INC. FOR ACORN ENGINEERING, DATED 7/25/23.

8. SUBSURFACE DATA OBTAINED BY **THE PROJECT GEOTECHNICAL ENGINEER** SHALL BE INCLUDED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL ALSO REVIEW THE REPORT PRIOR TO SUBMITTING A BID.

9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO THE SITE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS, SIGNAGE AND INCIDENTALS TO MAINTAIN A SAFE VEHICLE AND PEDESTRIAN ACCESS THOUGH THE LIFE OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE PORTLAND PUBLIC SAFETY DIVISION ROUTINELY REGARDING TEMPORARY IMPACTS OR CHANGES TO SITE ACCESS CONDITIONS.

10. **CONSTRUCTION MANAGEMENT PLAN** SHALL BE REFERRED TO FOR ANTICIPATED PROJECT SCHEDULE AND CLOSURES. TRAFFIC CONTROL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

11. CONTRACTOR TO DETERMINE SOIL CLASSIFICATION INDEPENDENTLY FOR TRENCH, SHORING, AND OTHER SIMILAR CONSTRUCTION MEANS AND METHODS APPLICATIONS.

12. NO HOLES, TRENCHES, OR STRUCTURES SHALL BE LEFT OPEN OR UNATTENDED OVERNIGHT IN ANY AREA ACCESSIBLE TO THE PUBLIC OR WITHIN THE PUBLIC RIGHT-OF-WAY.

13. THE CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION SURVEY OF INTERIOR SUBGRADE AND ABOVE GRADE ACCESSIBLE WALLS, CEILINGS, FLOORS, ROOF AND VISIBLE EXTERIOR AS VIEWED FROM THE GRADE LEVEL. THIS SHALL BE COMPLETED AT A MINIMUM ADJACENT STRUCTURES. PROVIDE A COPY OF THE SURVEY TO THE OWNER. DOCUMENT WITH PICTURES AT A MINIMUM.

14. THE CONTRACTOR SHALL SURVEY ROCK SURFACE PRIOR TO EXCAVATION AND DEVELOP VOLUME CALCULATIONS TO SHARE WITH THE ENGINEER, ACORN ENGINEERING INC. (ACORN), IF ANY.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL TREES AND SHRUBS ON THE PROJECT WHICH ARE NOT TO BE REMOVED.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY TRENCH PAVEMENT THAT HAS EXPERIENCED EXCESSIVE SETTLEMENT, CRACKING, OR OPENING OF JOINTS. REPAIRS MAY INCLUDE OVERLAY. REMOVAL OF WORK MAY BE NECESSARY AFTER THE FINAL ACCEPTANCE OF WORK OR PRIOR TO THE END OF THE WARRANTY PERIOD. THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

CIVIL SITE NOTES:

1. THE CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO ACORN TO MODIFY THE CONTRACT DOCUMENTS.

2. ALL SHOP, ERECTION, AND CONSTRUCTION DRAWINGS SHALL BE CHECKED AND STAMPED BY THE CONTRACTOR PRIOR TO SUBMISSION FOR ACORN'S REVIEW. ANY UNCHECKED OR NON-STAMPED SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.

3. CONTRACTOR SHALL THOROUGHLY INSPECT AND SURVEY EXISTING STRUCTURES AND SITE TO VERIFY CONDITIONS THAT AFFECT THE WORK SHOWN ON THE DRAWINGS. CONTRACTOR TO NOTIFY ACORN OF ANY DISCREPANCIES PRIOR TO PROCEEDING.

4. DETAILS SHOWN APPLY TO ALL SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.

5. ALTHOUGH ALL DUE DILIGENCE HAS BEEN APPLIED TO MAKE THE DRAWINGS AS COMPLETE AS POSSIBLE, NOT ALL DETAILS ARE ILLUSTRATED, NOR IS EVERY EXCEPTION CONDITION ADDRESSED WITHIN THE CONTRACT DOCUMENTS.

6. ALL PROPRIETARY CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

7. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK, INCLUDING DIMENSION AND LAYOUT VERIFICATION, MATERIALS COORDINATION, SHOP DRAWING REVIEW, AND THE WORK OF ANY SUBCONTRACTORS.

8. UNLESS OTHERWISE SPECIFICALLY INDICATED, THE DRAWINGS DO NOT DESCRIBE OR DIRECT MEANS OR METHODS OF CONSTRUCTION.

9. THE CONTRACTOR, IN THE PROPER SEQUENCE, SHALL PERFORM OR SUPERVISE ALL WORK NECESSARY TO ACHIEVE THE FINAL COMPLETED STRUCTURE, AND TO PROTECT THE STRUCTURE, WORKMEN, AND OTHERS DURING THE CONSTRUCTION. SUCH WORK SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR EXCAVATION, FORMWORK, SCAFFOLDING, SAFETY DEVICES AND PROGRAMS OF ALL KINDS, SUPPORT AND BRACING FOR CRANES AND OTHER ERECTION EQUIPMENT.

10. DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL SUPPORTING SLABS AND FLOOR FRAMING ARE IN PLACE AND SECURELY ANCHORED, UNLESS ADEQUATE BRACING IS PROVIDED. PRIOR TO BACKFILLING, CONCRETE SHALL BE CURED PER STRUCTURAL ENGINEER'S SPECIFICATIONS.

11. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL ALL FLOORS, WALLS, ROOFS AND OTHER SUPPORTING ELEMENTS ARE IN PLACE, IF APPLICABLE.

12. ALL PAVEMENT JOINTS SHALL BE SAWCUT AND APPLIED WITH TACK COAT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.

13. ACORN BEARS NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND SITE OBSERVATION VISITS DO NOT IN ANY WAY INCLUDE INSPECTION OF THEM.

14. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBPART P OF 29 CRF PART 1926.650-.652 (CONSTRUCTION STANDARD FOR EXCAVATIONS).

15. ALL TRENCH PAVEMENT REPAIR SHALL BE COMPLETED WITH THE USE OF A STREET PAVER WITH A SCREED WIDTH CAPABLE OF SPANNING THE FULL WIDTH OF THE TRENCH UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

SPECIAL INSPECTION NOTES

1. ALL SITE SOILS-RELATED WORK AND FOOTING EXCAVATIONS PRIOR TO PLACING FORMS SHALL BE REVIEWED BY THE PROJECT GEOTECHNICAL ENGINEER.

2. ALL SITE DRAINAGE-RELATED WORK SHALL BE REVIEWED BY ACORN.

3. NORMAL REVIEWS BY LOCAL BUILDING DEPARTMENT. NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.

4. REQUIRED SPECIAL INSPECTIONS PER I.B.C. SECTION 1705.6 BY AN APPROVED SPECIAL INSPECTOR RETAINED BY OWNER. CONTRACTOR TO COORDINATE SPECIAL INSPECTIONS.

5. SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

   5.1. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE TO OBSERVE AND/OR TEST THE WORK ASSIGNED AND OUTLINE ABOVE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.

   5.2. THE SPECIAL INSPECTOR SHALL FURNISH REGULAR REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT AND ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. PROGRESS REPORTS FOR CONTINUOUS INSPECTION SHALL BE FURNISHED WEEKLY. INDIVIDUAL REPORTS OF PERIODIC INSPECTIONS SHALL BE FURNISHED WITHIN ONE WEEK OF INSPECTION DATES. THE REPORTS SHALL NOTE UNCORRECTED DEFICIENCIES, AND NET CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS AUTHORIZED BY THE ENGINEER OF RECORD.

   5.3. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT WITHIN TEN DAYS OF THE FINAL INSPECTION STATING WHETHER THE WORK REQUIRING A SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE AND BELIEF, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE. WORK NOT IN COMPLIANCE SHALL BE NOTED IN THE REPORT.

   5.4. SPECIAL INSPECTOR SHALL BE EMPLOYED BY THE OWNER AND COORDINATED BY THE CONTRACTOR.

LAYOUT NOTES:

1. MONUMENTS DELINEATING PROPERTY LINES OR RIGHT OF WAYS SHALL NOT BE DISTURBED DURING CONSTRUCTION OPERATIONS. IN THE CASE A MONUMENT IS DISTURBED, AT THE CONTRACTOR'S EXPENSE, THE MONUMENT SHALL BE RESET TO ITS ORIGINAL LOCATION AND ELEVATION BY A LICENSED PROFESSIONAL LAND SURVEYOR.

2. ALL DIMENSIONS ON THE FOLLOWING SHEETS TAKE PRECEDENT OVER SCALED DIMENSIONS. EACH DRAWING WITH A BAR SCALE MEANS THAT THE DRAWING/DETAIL HAS BEEN SCALED AS ACCURATELY AS POSSIBLE, AND THE BAR SCALE IS FOR GENERAL REFERENCE ONLY. IF NO BAR SCALE IS PRESENT, THEN THERE IS NO SCALE TO THAT DRAWING/DETAIL. AT NO TIME SHOULD DRAWINGS BE SCALED FROM. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, SPECIFICATIONS AND THE FIELD CONDITION SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.

3. SIGNAGE, STRIPING, AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

4. ALL TRAFFIC CONTROL SIGNS INDICATED ON THE SITE LAYOUT PLAN ARE TO MEET ALL REQUIREMENTS & CONDITIONS OF THE CITY OF PORTLAND, MAINE DEPARTMENT OF TRANSPORTATION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

5. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A LICENSED PROFESSIONAL LAND SURVEYOR TO PROVIDE A MINIMUM OF TWO TEMPORARY BENCHMARKS WITHIN THE SITE AND TO LOCATE PROPOSED STRUCTURE CORNERS.

6. CONTRACTOR TO ENSURE THAT ACCESS, INCLUDING BUT NOT LIMITED TO WALKWAYS, DRIVEWAYS, AND MAILBOXES ADJACENT TO THE PROJECT REMAIN FUNCTIONAL AND AVAILABLE FOR USE AT ALL TIMES.

PERMITTING NOTES

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF A MAJOR SITE PLAN APPLICATION FROM THE CITY OF PORTLAND, A MAINE DEP STORMWATER LAW APPLICATION UNDER DELEGATED REVIEW BY THE CITY OF PORTLAND, A MAINE DEP CONSTRUCTION GENERAL PERMIT, AND A MDOT TRAFFIC MOVEMENT PERMIT.

2. THE CONTRACTOR SHALL REVIEW THE ABOVE REFERENCED PERMITS PRIOR TO SUBMITTING A BID FOR THIS PROJECT, AND INCLUDE COSTS AS NECESSARY TO COMPLY WITH THE CONDITIONS OF THESE PERMITS.

3. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY REQUIRES A STREET OPENING PERMIT FROM THE **CITY OF PORTLAND**. ADDITIONALLY, COORDINATE WITH THE DEPARTMENT OF PUBLIC WORKS.

GRADING AND DRAINAGE NOTES:

1. TOPSOIL STRIPPED FROM THE SITE THAT IS SUITABLE FOR REUSE AS LOAM (MEETS THE REQUIREMENTS WITHIN SECTION 615 OF THE MDOT STANDARD SPECIFICATIONS, MOST RECENT VERSION AND IS FREE OF TRACEABLE AMOUNTS OF CONTAMINANTS) SHALL BE STOCKPILED WITHIN THE PROPOSED LIMIT OF WORK AREA. THE CONTRACTOR SHALL NOT ASSUME THAT ANY STRIPPED TOPSOIL WILL BE ACCEPTABLE FOR REUSE WITH THEIR ESTIMATE.

2. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY; NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING. DEWATERING SHALL INCLUDE TREATMENT OF SILT THROUGH THE USE OF A DIRTBAG BY ACF ENVIRONMENTAL OR APPROVED EQUIVALENT. FLOWS FROM DEWATERING ACTIVITIES SHALL NOT BE DISCHARGED INTO SANITARY SEWERS. **SEE BORING LOGS FOR ADDITIONAL INFORMATION.**

3. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ANY EASEMENT OR TEMPORARY CONSTRUCTION RIGHTS AS NECESSARY BY PRIVATE ADJACENT LAND OWNERS. THE CONTRACTOR SHALL NOT DISTURB ANY SOIL BEYOND THE PROPERTY LINE WITHOUT NOTIFYING AND OBTAINING SUCH EASEMENT OR TEMPORARY CONSTRUCTION RIGHT FROM THE ADJACENT LAND OWNERS. PRIOR TO THE CONTRACTOR PRICING THE WORK, THEY SHALL PROVIDE ACORN WITH PROOF OF SUCH EASEMENT OR TEMPORARY RIGHTS. SHOULD EASEMENTS OR TEMPORARY RIGHTS NOT BE AVAILABLE, THE CONTRACTOR SHALL INCLUDE COST FOR BRACING AND SHORING AS NECESSARY.

4. THE MINIMUM SLOPE SHALL MEET OR EXCEED 1% IN ALL CASES WHERE NOT NOTED ON THE GRADING PLAN. SLOPES IDENTIFIED ON THE GRADING PLAN TAKE PRECEDENT. ALL SLOPES SHALL BE AWAY FROM BUILDINGS AND TOP OF PAVEMENT SHALL BE AT OR BELOW EXISTING FINISH FLOOR ELEVATIONS.

5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST **GEOTECHNICAL REPORT PREPARED BY THE PROJECT GEOTECHNICAL ENGINEER.**

6. CONTRACTOR TO REVIEW EXISTING SOIL CONDITIONS, TEST PITS, AND BORINGS. THERE WILL BE NO ADDITIONAL PAYMENT FOR UNSUITABLE SOILS.

7. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF N=0.012 OR LESS.

8. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.

9. NATIVE SOILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LIMIT THE DISTURBANCE TO SUBGRADE SOILS. SHOULD THE SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, CONTACT ACORN. THE DISTURBED AREAS SHALL BE EXCAVATED AND BACKFILLED WITH COMPACTED SELECT FILL OR CRUSHED STONE AT NO ADDITIONAL EXPENSE TO THE OWNER.

10. ALL SUBGRADE PREPARATION IS SUBJECT TO THE RECOMMENDATIONS OF THE PROJECT **GEOTECHNICAL** ENGINEER, IF APPLICABLE.

EROSION CONTROL NOTES:

1. DISTURBED AREAS ARE DEFINED AS THOSE SURFACES WHERE EXISTING VEGETATION OR STRUCTURES HAVE BEEN REMOVED, EXPOSING NATIVE SOIL TO THE ELEMENTS.

2. ALL ROUTINE WORK ACTIVITIES SHALL BE CONDUCTED IN SUCH A WAY TO LIMIT THE AMOUNT OF DISTURBED AREA AT ONE TIME TO THE EXTENT PRACTICABLE.

3. PRIOR TO THE START OF ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL APPLICABLE EROSION CONTROL DEVICES SUCH AS PERIMETER SILT FENCE, AND OTHER APPLICABLE MEASURES. IN THE EVENT THE CONTRACTOR IS NOT SURE A EROSION CONTROL MEASURE SHOULD BE IMPLEMENTED, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD TO CONFIRM IMPLEMENTATION OF ANY EROSION CONTROL DEVICES.

4. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCH SHALL BE APPLIED AS SOON AS POSSIBLE WITHIN 7 DAYS FOLLOWING THE COMPLETION OF ANY SOIL DISTURBANCE, AND PRIOR TO ANY STORM EVENT.

5. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY. THE CONTRACTOR SHALL REFERENCE THE APPROVED EROSION AND SEDIMENTATION CONTROL REPORT FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES IN ADDITION TO THE PLAN SET. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE D.E.P.'S PERMIT CONDITIONS, FINDINGS OF FACT AND ORDER (IF ANY), AND THE CURRENT MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

6. PRIOR TO PAVING, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT FROM STORM DRAINS, CATCH BASINS, AND APPURTENANCES.

7. REFER TO THE EROSION CONTROL DETAILS & NOTES FOR ADDITIONAL INFORMATION.

UTILITY NOTES:

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED UPON RECORDS OF VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEST PIT TO DETERMINE THE EXACT LOCATION AND ELEVATION OF UTILITIES TO COORDINATE WITH THE PROPOSED CONNECTIONS OR CROSSING. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.

2. **CONTRACTOR TO BYPASS EXISTING SEWER FLOW CONTROL AT CONNECTION TO EXISTING SYSTEM AT NO ADDITIONAL COST.**

3. CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, CONDUCT EXPLORATORY EXCAVATIONS AT LOCATIONS WHERE PROPOSED EXCAVATION WILL INTERSECT WITH EXISTING UTILITIES, PRIOR TO THE ORDERING OF STRUCTURES.

4. ALL NEW SANITARY MANHOLES SHALL BE VACUUM TESTED AND SHOWN TO PASS PRIOR TO BACKFILLING. TESTING SHALL BE COMPLETED IN ACCORDANCE WITH TECHNICAL REPORT #16 (TR-16): GUIDES FOR THE DESIGN OF WASTEWATER TREATMENT WORKS, PREPARED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION.

5. SEWER MANHOLES SHALL BE 4' ID UNLESS OTHERWISE STATED ON THE PLANS.

6. CONTRACTOR TO PROVIDE 5.5' OF COVER FROM TOP OF PIPE TO FINISH GRADE FOR WATER MAINS.

7. THRUST BLOCKS SHALL BE USED FOR THRUST RESTRAINT ON WATER MAINS. DETAIL AND LIMITS FOR THRUST BLOCKS ARE SHOWN WITHIN THE PLAN SET.

8. WATER INFRASTRUCTURE SHALL BE TESTED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT DOCUMENT ''WATER AND SEWER CONSTRUCTION SPECIFICATIONS AND PROCEDURE'', MOST RECENT REVISION.

9. ALL REQUIRED FITTINGS FOR THE WATER MAIN ARE NOT SHOWN ON DRAWINGS. CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY FITTINGS REQUIRED TO CONSTRUCT THE WATER MAIN IN ACCORDANCE WITH **CITY OF PORTLAND**, STATE OF MAINE, AND AMERICAN WATER WORKS ASSOCIATION STANDARDS AND REGULATIONS.

10. CONTRACTOR SHALL COORDINATE WORK REGARDING ANY WATER MAIN CONNECTION AND WATER MAIN SHUTDOWN WITH THE PORTLAND WATER DISTRICT AT LEAST SEVEN (7) DAYS PRIOR TO CONSTRUCTION.

11. ALL WATER PIPE INSTALLATION SHALL CONFORM WITH THE **PORTLAND WATER DISTRICT** SPECIFICATIONS AND PROCEDURES, MOST RECENT EDITION.

12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

13. SEWER, GAS, TELEPHONE, ELECTRICITY, CABLE, WATER AND ANY OTHER UTILITY CONNECTIONS SHALL BE REVIEWED BY PLUMBING, ELECTRICAL, AND MECHANICAL DESIGNER FOR CONSISTENCY WITH THEIR PLANS PRIOR TO CONSTRUCTION.

14. COORDINATE EXIT POINT FOR SECONDARY UTILITY SERVICES WITH THE ARCHITECT/ELECTRICAL ENGINEER. SECONDARY LINE LOCATIONS NOT PROVIDED BY ACORN WITHIN THE UTILITY PLAN.

15. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL THE NECESSARY PERMITS FOR THE INSTALLATION OF THE UTILITIES AND STORMDRAINS WITHIN THE PUBLIC RIGHT OF WAY. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO THE CITY IN ACCORDANCE WITH **THE CITY OF PORTLAND TECHNICAL MANUAL** PRIOR TO ANY WORK.

16. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL AT NO EXTRA EXPENSE TO THE OWNER.

17. ALL UTILITY PIPES SHALL SLOPE UNIFORMLY BETWEEN ELEVATIONS INDICATED ON THE DRAWINGS. NO CRESTS OR SAGS IN THE PIPING WILL BE PERMITTED. ALL HORIZONTAL AND VERTICAL BENDS IN PRESSURIZED PIPE LINES SHALL BE SUITABLY RESTRAINED WITH THRUST BLOCKS OR RETAINER GLANDS. RETAINER GLANDS ALLOWED FOR DUCTILE IRON PIPE ONLY. PROVIDE ALL BENDS, HORIZONTAL AND VERTICAL, AS REQUIRED TO MEET THE GRADES AND ALIGNMENTS INDICATED ON THE DRAWINGS.

18. ALL WASTEWATER PIPING, EXCLUDING BUILDING DRAINS, AND ALL PRESSURIZED PIPING, TO INCLUDE WATER MAINS, INSTALLED BENEATH STRUCTURES SHALL BE ENCASED IN CONCRETE.

19. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS AND ADDITIONAL PIPE AS REQUIRED TO ENSURE A COMPLETE AND PROPERLY FUNCTIONING CONNECTION. CONTRACTOR TO VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. ADAPTERS AND FITTINGS ARE INCIDENTAL TO THE PIPE INSTALLATION.

20. WHENEVER POSSIBLE, WATER LINES SHOULD BE INSTALLED OVER WASTEWATER LINES. A MINIMUM SEPARATION OF 18 INCHES BETWEEN THE BOTTOM OF THE WATER LINE AND THE TOP OF THE WASTEWATER LINE SHALL BE MAINTAINED WHERE POSSIBLE. WHERE A WATER LINE CROSSES UNDER THE WASTEWATER LINE, A FULL LENGTH OF WASTEWATER PIPE SHALL BE CENTERED ABOVE THE WATER LINE SO THAT BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE,

21. THE CONTRACTOR SHALL BE ANTICIPATE THAT THE NATIVE SILT AND CLAY SOILS WILL NOT BE SUITABLE FOR PIPE TRENCH BACKFILL IN PAVED AREAS.

22. GROUNDWATER SHALL BE CONTROLLED TO A LEVEL OF AT LEAST ONE FOOT BELOW SUBGRADE OF THE PIPE OR STRUCTURE. THE CONTRACTOR SHALL MAINTAIN THE LOWERED GROUNDWATER LEVEL UNTIL CONSTRUCTION HAS BEEN COMPLETED TO SUCH AN EXTENT THAT THE STRUCTURES OR PIPES WILL NOT BE FLOATED OR OTHERWISE DAMAGED.

23. EXCAVATION TO SUBRADE IN NATIVE SILT AND CLAY SHALL BE COMPLETED WITH A SMOOTH EDGE BUCKET TO MINIMIZE SUBGRADE DISTURBANCE.

24. ALL ADJUSTMENTS TO FINISHED GRADE ARE TO BE COMPLETED BY THE CONTRACTOR. THE CONTRACTOR SHALL CONFIRM STRUCTURES THAT REQUIRE ADJUSTMENT WITH THE ENGINEER OR OWNERS REPRESENTATIVE PRIOR TO ADJUSTING FRAMES.

DEMOLITION NOTES:

1. THE FOLLOWING ITEMS ARE TYPICAL OF MATERIAL WHICH MAY BE ON SITE:
   - ROCK AND CONCRETE FOUNDATIONS
   - CONCRETE SLABS
   - BITUMINOUS ASPHALT PAVEMENT
   - CONCRETE PADS AND BLOCKS
   - FENCE POST AND FENCING
   - UNDERGROUND UTILITY LINES
   - ABOVE AND OR BELOW FUEL OIL AND PROPANE GAS TANKS
   - STORM DRAIN PIPES AND APPURTENANCE STRUCTURES
   - OTHER TRASH & MISCELLANEOUS SOLID WASTES

2. THE CONTRACTOR IS ADVISED TO VISIT THE SITE TO CONFIRM DEMOLITION ITEMS SINCE THE LIST IS NOT INCLUSIVE OF THE SITE CONDITIONS WHICH MAY BE ENCOUNTERED

3. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTORS SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" DEMONSTRATING PROPER DISPOSAL OF ALL MATERIALS.

4. THE CLIENT HAS NOT REQUESTED NOR HAS ACORN COMPLETED A PHASE I – ENVIRONMENTAL SITE ASSESSMENT FOR THE PROPERTY.

PERMITTING
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY	DATE
SITE PLAN	PFH	11/20/24
COMMENT RESPONSE	PFH	2/14/25

DRAWING NAME: **GENERAL NOTES**

PROJECT NAME: **TAVATA – 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101**

CLIENT: REDFERN PROPERTIES P.O. BOX 8816, PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.
ACORN ENGINEERING, INC.
PO BOX 321 NORTH YARMOUTH, MAINE 04104
(207) 775-2655

THESE PLANS, IN PART OR WHOLE, ARE NOT TO BE USED IN ANY WAY WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF ACORN ENGINEERING, INC. ANY UNAUTHORIZED USE, WITHOUT SUCH AUTHORIZATION AND ADAPTATION BY ACORN ENGINEERING, INC., SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

FILE:	1202_CIVIL
JN:	1202
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER
2/14/25

DRAWING NO.
C-02

POSSIBLE ENCROACHMENTS

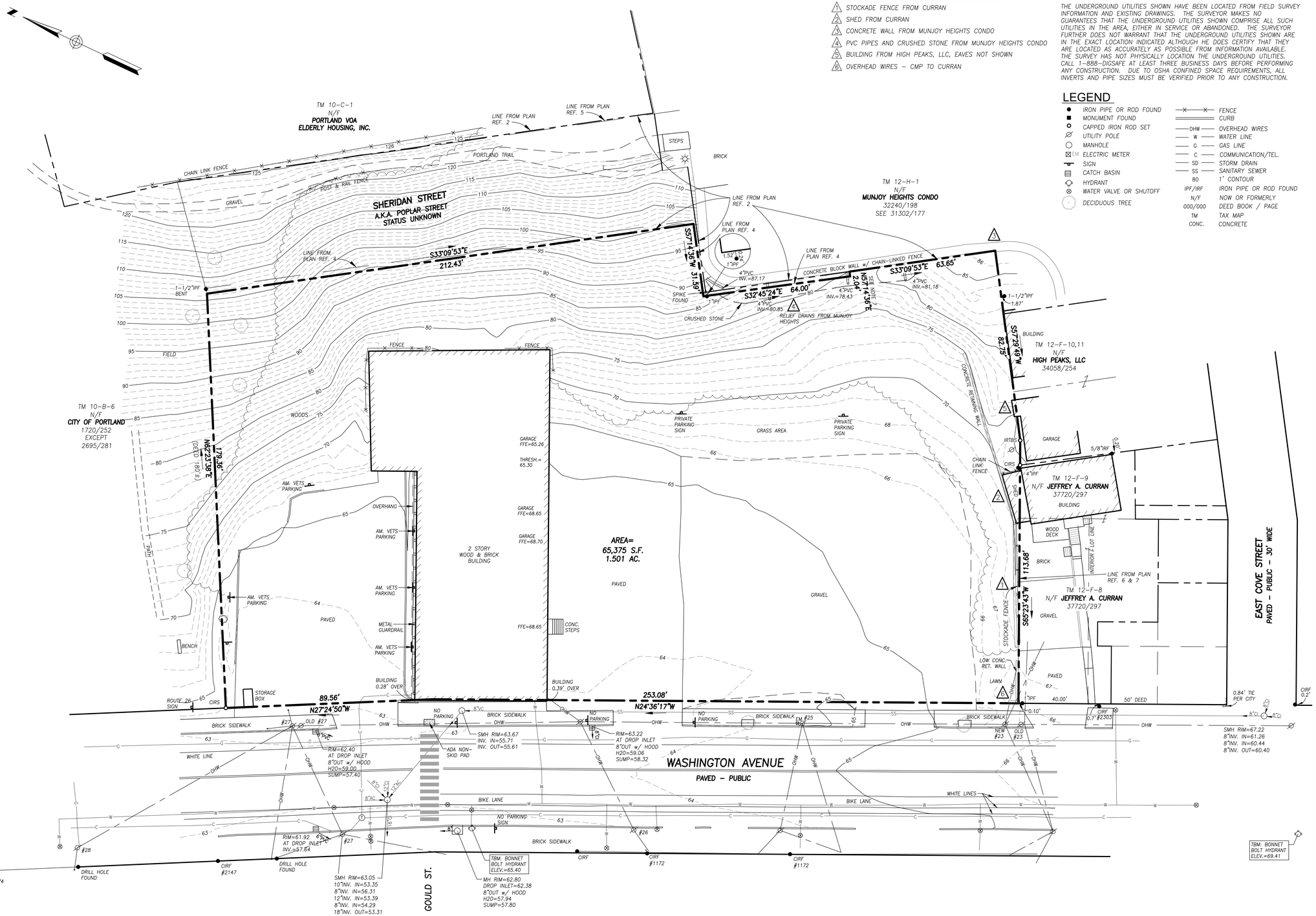
1. STOCKADE FENCE FROM CURRAN
2. SHED FROM CURRAN
3. CONCRETE WALL FROM MUNJOY HEIGHTS CONDO
4. PVC PIPES AND CRUSHED STONE FROM MUNJOY HEIGHTS CONDO
5. BUILDING FROM HIGH PEAKS, LLC, EAVES NOT SHOWN
6. OVERHEAD WIRES – CMP TO CURRAN

UTILITY NOTE

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEY HAS NOT PHYSICALLY LOCATION THE UNDERGROUND UTILITIES. CALL 1-888-DIGSAFE AT LEAST THREE BUSINESS DAYS BEFORE PERFORMING ANY CONSTRUCTION. DUE TO OSHA CONFINED SPACE REQUIREMENTS, ALL INVERTS AND PIPE SIZES MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.

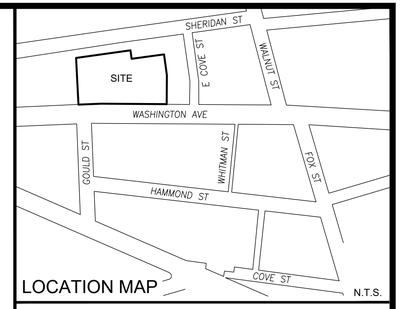
LEGEND

- IRON PIPE OR ROD FOUND
- MONUMENT FOUND
- CAPPED IRON ROD SET
- UTILITY POLE
- MANHOLE
- ELECTRIC METER
- SIGN
- CATCH BASIN
- HYDRANT
- WATER VALVE OR SHUTOFF
- DECIDUOUS TREE
- FENCE
- CURB
- OHW — OVERHEAD WIRES
- W — WATER LINE
- G — GAS LINE
- C — COMMUNICATION/TEL.
- SD — STORM DRAIN
- SS — SANITARY SEWER
- 80 — 1' CONTOUR
- IPF/IRF — IRON PIPE OR ROD FOUND
- N/F — NOW OR FORMERLY
- 000/000 — DEED BOOK / PAGE
- TM — TAX MAP
- CONC. — CONCRETE



SCALE : 1" = 20'

0' 10' 20' 40'



LOCATION MAP

PLAN REFERENCES

1. "PLAN OF PROPERTY OF W.H. BAXTER ESQ. BY ANDERSON BONNELL & CO. JULY 1866" RECORDED IN PLAN BOOK 2 PAGE 54.
2. "PLAN DEPICTING A PROPOSED SUBDIVISION MADE FOR REDFERN MUNJOY, LLC MUNJOY HEIGHTS SHERIDAN STREET, EAST COVE STREET, AND WALNUT STREET PORTLAND, MAINE 12/6/2013 NADEAU LAND SURVEYS" RECORDED IN PLAN BOOK 214 PAGE 48.
3. SUBDIVISION OF LOT 1 ON MUNJOY'S NECK FOR LITTLE, WEEKS AND MOODY DATED FEB. 17, 1802 AND RECORDED IN DEED BOOK 36, PAGE 247.
4. "PLAN OF PROPERTY IN PORTLAND, MAINE MADE FOR DEAD RIVER LEASING, INC. 11-10-1969 H.I. & E.C. JORDAN – SURVEYORS"
5. "LAND TITLE SURVEY FOR VOLUNTEERS OF AMERICA PORTLAND, MAINE 12-18-92 H.I. & E.C. JORDAN – SURVEYORS" REVISED AUG. 29, 1995
6. "BOUNDARY SURVEY AT 163 WASHINGTON AVENUE, PORTLAND, MAINE MADE FOR OWNER OF RECORD JEFFREY A. CURRAN MAY 26, 2021 OWEN HASKELL, INC. JOB NO. 2021-075 P" REVISED 12-18-2022.
7. "PLAN OF PROPERTY OF W.H. BAXTER ESQ. BY ANDERSON BONNELL & CO. JULY 1866" RECORDED IN PLAN BOOK 2, PAGE 56.

GENERAL NOTES

1. OWNER OF RECORD: RAYMOND H. AND ALINA WATERHOUSE, 105 PARTRIDGE CIRCLE, PORTLAND, ME; CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 25470, PAGE 272.
2. LOCUS IS SHOWN AT LOT 1 IN BLOCK D ON PORTLAND PROPERTY MAP 10.
3. BEARINGS ARE GRID NORTH AS BASED ON CITY MONUMENTS L749-78-3002, CORNER WASHINGTON AVENUE AND NORTH SIDE OF WALNUT STREET, AND T112-18-107, CORNER EAST SIDE OF NORTH STREET AND NORTH SIDE OF WALNUT STREET, AS SURVEYED BY THIS FIRM IN 2014. THESE ARE THE SAME TWO MONUMENTS USED FOR PLAN REFERENCE 2 IN 2013. BOTH OF THESE MONUMENTS HAVE BEEN MOVED OR DISTURBED, APPARENTLY DURING SIDEWALK RECONSTRUCTION SINCE 2014.
4. ELEVATIONS ARE CITY DATUM AS BASED ON PK IN POLE #11, CORNER ANDERSON AND EVERETT STREETS, ELEVATION 12.42 CITY LEVEL BOOK 737, PAGE 77.
5. LINES ALONG CURRAN, HIGH PEAKS, LLC, AND A PORTION OF MUNJOY HEIGHTS CONDO ARE BASED ON DIMENSIONS SHOWN ON PLAN REFERENCE 7.
6. THE EXACT STATUS OF SHERIDAN STREET, FORMERLY KNOWN AS POPLAR STREET, HAS NOT BEEN DETERMINED. IT IS PRESUMED TO HAVE BEEN VACATED AND OWNERSHIP MAY EXTEND TO THE CENTER OF THE PAPER STREET. THE WESTERLY LINE OF SHERIDAN HEREON IS THE SAME AS SHOWN ON PLAN REFERENCE 2. THIS MATCHES REASONABLY WELL WITH THE LINE OF SHERIDAN STREET AS SHOWN ON PLAN REFERENCE 5 BUT NOT WITH THE LINE ON PLAN REFERENCE 4. THIS STREET WAS ORIGINALLY SHOWN ON PLAN REFERENCE 3 IN 1802 WHICH PLAN IS VERY DIFFICULT TO RECREATE.
7. THE SKETCH IN DEED BOOK 31302, PAGE 177, FROM WATERHOUSE TO REDFERN MUNJOY, LLC, DOES NOT INDICATE A JOG IN THE CURRENT EAST LINE OF WATERHOUSE. THE SOUTH SIDE OF THE ORIGINAL WATERHOUSE LAND, ON THE WEST SIDE OF SHERIDAN STREET, ON PLAN REFERENCE 4 HAS A DISTANCE OF 33.47 FEET. THE SAME LINE ON THE RECENT SKETCH HAS A DISTANCE OF 30.00 FEET. THIS SURVEYOR BELIEVES THAT THE LINE OF SHERIDAN STREET ON PLAN REFERENCE 4 IS NOT ACCURATE. A BOUNDARY AGREEMENT WITH MUNJOY HEIGHTS CONDO WOULD RESOLVE ANY CONFLICT.
8. UNDERGROUND UTILITIES MARKED BY PROMARK UTILITY LOCATING, INC. SEWER PIPE SIZES AND MATERIALS FROM CITY GIS.

CERTIFICATE

OWEN HASKELL, INC. HEREBY CERTIFIES THAT THIS PLAN IS BASED ON, AND THE RESULT OF, AN ON THE GROUND FIELD SURVEY AND THAT TO THE BEST OF OUR KNOWLEDGE, INFORMATION AND BELIEF, IT CONFORMS TO THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS CURRENT STANDARDS OF PRACTICE.

JOHN C. SCHWANDA, PLS #1252

7/25/2023
DATE

STATE OF MAINE
JOHN C. SCHWANDA 1252
PROFESSIONAL LAND SURVEYOR

Boundary & Topographic Survey

At

185 Washington Avenue, Portland, Maine

Made for

Acorn Engineering

Owner of Record

Raymond H. & Alina Waterhouse

105 Partridge Circle, Portland, Maine

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
390 US ROUTE 1, UNIT 10, FALMOUTH, ME 04105 TEL. 207-774-0424

DRAWN BY: NM / JLW	DATE: JULY 25, 2023	JOB NO. 2023-117 P	
CHECKED BY: JCS	SCALE: 1" = 20'	DRWG. NO. 1	

GENERAL NOTES:

1. EXISTING ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
2. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTOR SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" TO DEMONSTRATE PROPER DISPOSAL OF ALL MATERIALS.
3. SITE DEMOLITION SHALL NOT OCCUR UNTIL PROPER ABATEMENT PROCEDURES HAVE OCCURRED. ABATEMENT, IF NECESSARY, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE POTENTIAL CONFLICT WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
5. ALL CONSTRUCTION SIGNAGE IS TEMPORARY AND WILL BE REMOVED AT PROJECT COMPLETION. FINAL SIGNAGE WORDING AND PLACEMENT LOCATION TO BE ACCEPTED BY THE CITY.
6. SEDIMENT BARRIERS TO BE PLACED DIRECTLY ON THE FRONT AND SIDE PROPERTY LINES, DOWN GRADIENT OF THE PROPOSED PROJECT WORK PER DETAIL; FENCES ARE OFFSET OF THE PROPERTY LINES AS SHOWN ON THE PLAN FOR CLARITY PURPOSES AND DO NOT NECESSARILY DEPICT THE PHYSICAL LOCATION.
7. CONTRACTOR SHALL PLACE CATCH BASIN INLET PROTECTION ON CATCH BASINS AND FIELD INLETS DOWN-GRADIENT OF ALL NON-STABILIZED SURFACES, PER DETAIL.
8. DEMOLITION PLAN IS NOT INCLUSIVE OF ALL EXISTING ITEMS TO BE REMOVED AS PART OF SITE CONSTRUCTION INCLUDING BUT NOT LIMITED TO LANDSCAPING, UTILITIES, WORK WITHIN THE ROW, ETC. ALL DEMOLITION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF PORTLAND REGULATIONS.
9. CONTRACTOR TO BE RESPONSIBLE FOR PROVIDING OFF-SITE PARKING TO EMPLOYEES; ON-SITE PARKING WILL NOT BE PROVIDED OR GUARANTEED. CONTRACTOR TO BE RESPONSIBLE FOR OBTAINING THE APPROPRIATE PERMITS FROM THE CITY FOR CLOSING ANY ON-STREET PARKING SPACES DURING THE CONSTRUCTION PERIOD.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR SNOW REMOVAL ALONG CONSTRUCTION FENCE AND GATE.
11. CONTRACTOR TO SUBMIT A DEWATERING PLAN FOR REVIEW AND APPROVAL TO THE DEPARTMENT OF PUBLIC WORKS PRIOR TO THE PRE-CONSTRUCTION MEETING, DURING THE BUILDING PERMIT APPLICATION PROCESS, OR PRIOR TO ADVANCED SITE WORK. CONTACT THE DEPARTMENT OF PUBLIC WORKS FOR ADDITIONAL INFORMATION AND CURRENT REGULATIONS.

TM 10-C-1
N/F
PORTLAND VOA
ELDERLY HOUSING, INC.

TM 12-H-1
N/F
MUNJOY HEIGHTS CONDO
32240/198
SEE 31302/177

TM 12-F-10,11
N/F
HIGH PEAKS, LLC
34058/254

TM 12-F-9
N/F JEFFREY A. CURRAN
37720/297

TM 12-F-8
N/F JEFFREY A. CURRAN
37720/297

TM 10-B-6
N/F
CITY OF PORTLAND
1720/252
EXCEPT
2695/281

WASHINGTON AVENUE
PAVED - PUBLIC

E COVE STREET

AREA=
65,375 S.F.
1.501 AC.

EXISTING TREELINE TO REMAIN, TYP.
EXISTING FENCE TO BE REMOVED, TYP.
SEE LANDSCAPE PLANS FOR TREE REMOVALS
EXISTING TREE TO BE REMOVED, TYP.
EXISTING BUILDING TO BE DEMOLISHED, TYP.
EXISTING SIGNS TO BE REMOVED
EXISTING CURB TO BE REMOVED, TYP.
EXISTING SHRUB TO BE REMOVED, TYP.
EXISTING SEWER MAIN TO BE REMOVED. SEE SHEET C-30 FOR ADDITIONAL INFORMATION
EXISTING UTILITY POLES (NEW #27 & OLD #27) ALONG PROJECT FRONTAGE TO BE REMOVED. IF REPLACEMENT IS NECESSARY COORDINATE GUY WIRE LOCATION WITH CMP, TYP. (OF 6). SEE C-20 FOR ADDITIONAL INFORMATION
EXISTING BRICK SIDEWALK AND VERTICAL GRANITE CURB TO BE REMOVED AND REPLACED/RESET PER SHEET C-30
INSTALL CATCH BASIN INLET PROTECTION PER DETAIL, TYP.
EXISTING OVERHEAD WIRES TO BE RELOCATED, SEE C-20 FOR ADDITIONAL INFORMATION
EXISTING SUBSURFACE TELECOMMUNICATIONS CONDUIT TO BE ABANDONED IN PLACE, TYP.
INSTALL CATCH BASIN INLET PROTECTION PER DETAIL, TYP.
EXISTING SUBSURFACE TELECOMMUNICATIONS MANHOLE TO BE ABANDONED IN PLACE, TYP.
EXISTING HYDRANT TO REMAIN
EXISTING SMH TO BE REMOVED
EXISTING 'NO PARKING THIS SIDE OF STREET' SIGN TO REMAIN TO BE REMOVED
EXISTING 'NO PARKING' SIGN TO BE REMOVED
EXISTING UTILITY POLE #26 TO BE REMOVED IN COORDINATION WITH CMP
EXISTING CATCH BASIN TO BE REMOVED AND REPLACED. INSTALL INLET PROTECTION BEFORE AND AFTER
RETIRE EXISTING WATER SERVICE PER PWD STANDARDS
EXISTING OVERHEAD WIRE TO BE REMOVED
BIKE LANE
EXISTING SEWER MAIN TO BE REMOVED. SEE SHEET C-30 FOR ADDITIONAL INFORMATION. CONTRACTOR TO ENSURE NEW SYSTEM IS ONLINE AND OPERATIONAL PRIOR TO REMOVAL AND HOOK UP ANY EXISTING SERVICES TO ENSURE CONTINUED FLOWS AS NECESSARY
EXISTING GAS MAIN TO REMAIN, TYP
EXISTING WATER MAIN TO REMAIN, TYP
EXISTING SUBSURFACE TELECOMMUNICATIONS CONDUIT TO BE ABANDONED IN PLACE, TYP.
APPROXIMATE LIMIT OF SITE WORK
PROPOSED TREELINE, TYP.
EXISTING TREELINE TO BE REMOVED, TYP.
EXISTING SIGNS TO BE REMOVED
EXISTING UTILITY POLE TO BE REMOVED IN COORDINATION WITH CMP
EXISTING FENCE TO BE REMOVED, TYP.
EXISTING STRUCTURE TO BE REMOVED. OWNER TO COORDINATE WITH LAND OWNER PRIOR TO START OF CONSTRUCTION. CONTRACTOR TO COORDINATE WITH STRUCTURAL ENGINEER
EXISTING RETAINING WALL TO BE REMOVED 131 LF. CONTRACTOR TO COORDINATE WITH GEOTECHNICAL ENGINEER
EXISTING GRAVEL TO BE REMOVED, TYP.
EXISTING PAVEMENT TO BE REMOVED, TYP.
CONSTRUCTION ENTRANCE PER DETAIL, TYP.
EROSION CONTROL BERM INSTALLED AT DOWN GRADIENT EDGE OF SITE PER DETAIL, TYP.
CONSTRUCTION FENCING, TYP.
EXISTING 'NO PARKING' SIGN TO BE REMOVED
EXISTING RETAINING WALL TO BE REMOVED 20 LF
EXISTING UTILITY POLE #25 TO BE REMOVED IN COORDINATION WITH CMP
EXISTING OVERHEAD WIRES TO BE RELOCATED, SEE C-20 FOR ADDITIONAL INFORMATION
EXISTING UTILITY POLE (NEW #23 & OLD #23) TO BE REMOVED IN COORDINATION WITH CMP
EXISTING STREET TREE TO BE REMOVED
EXISTING OVERHEAD WIRES TO BE RELOCATED, SEE C-20 FOR ADDITIONAL INFORMATION
PROPOSED SAWCUT TYP. PER DETAIL
LIMITS OF FULL WIDTH PAVEMENT REPLACEMENT, TYP.

INV.=87.17
INV.=81.18
INV.=78.43
INV.=80.85
RIM=62.40 AT DROP INLET 8"OUT w/ HOOD H20=59.08 SUMP=57.40
RIM=61.92 AT DROP INLET 8"OUT INV.=57.64
RIM=63.22 AT DROP INLET 8"OUT w/ HOOD H20=59.06 SUMP=58.32
MH RIM=62.80 DROP INLET=62.38 8"OUT w/ HOOD H20=57.94 SUMP=57.80
TBM: BONNET BOLT HYDRANT ELEV.=65.40
TBM: BONNET BOLT HYDRANT ELEV.=69.41
SMH RIM=67.22 8"INV. IN=61.26 8"INV. IN=60.44 8"INV. OUT=60.40

20 0 20 40
SCALE: 1" = 20'

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SITE PLAN	PFH 11/20/24
COMMENT RESPONSE	PFH 2/14/25

DRAWING NAME: CONSTRUCTION MANAGEMENT PLAN
PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101
CLIENT: REDFERN PROPERTIES P.O. BOX 8816, PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.
ACORN ENGINEERING, INC
70 JOHN ROAD SUITE 1 SOUTH PORTLAND, MAINE 04106
PO BOX 4593 PORTLAND, MAINE 04112
(207) 775-2655

THE DRAWINGS, SPECIFICATIONS AND IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED THEREIN ARE AND SHALL REMAIN THE PROPERTY OF ACORN ENGINEERING, INC. AND SHALL NOT BE USED IN WHOLE OR IN PART FOR ANY PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF ACORN ENGINEERING, INC. AND SHALL NOT BE LOANED, COPIED OR OTHERWISE DISPOSED OF WITHOUT SIMILAR AUTHORIZATION. VISITORS, BY THEIR VISIT TO THE PREMISES, AGREE THAT THEY WILL NOT COPY OR REPRODUCE BY ANY MEANS ANY PART OF THE DRAWINGS, SPECIFICATIONS OR IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED THEREIN, AND THAT THEY WILL NOT DISCLOSE ANY INFORMATION CONTAINED IN THE DRAWINGS, SPECIFICATIONS OR IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED THEREIN TO ANY PERSON, FIRM OR CORPORATION FOR ANY PURPOSE WHATSOEVER. THE USE OF THESE PLANS FOR BIDDING OR CONSTRUCTION BY ANY PERSON OR ENTITY OTHER THAN THE OWNER SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

FILE:	1202_CIVIL
JN:	1202
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER
2/14/25

DRAWING NO.
C-03

GENERAL NOTES:

1. ALL BRICK SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO CITY OF PORTLAND STANDARD.
2. ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO CITY OF PORTLAND STANDARDS.
3. ANY ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
4. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
6. ALL SITE SIGNAGE TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.
8. CONTRACTOR SHALL VERIFY BOTTOM AND TOP OF CURB ELEVATIONS ALONG BUILDING FRONTAGES PRIOR TO CONSTRUCTION OF THE FOUNDATIONS. CONTACT ENGINEER PRIOR TO CONSTRUCTION IF DISCREPANCIES ARE FOUND.
9. 20% OF PARKING SPACES TO HAVE LEVEL 2 OR GREATER EV CHARGING STATIONS. 50% OF PARKING SPACES TO BE EV READY WITH CONDUITS INSTALLED FOR FUTURE USE.

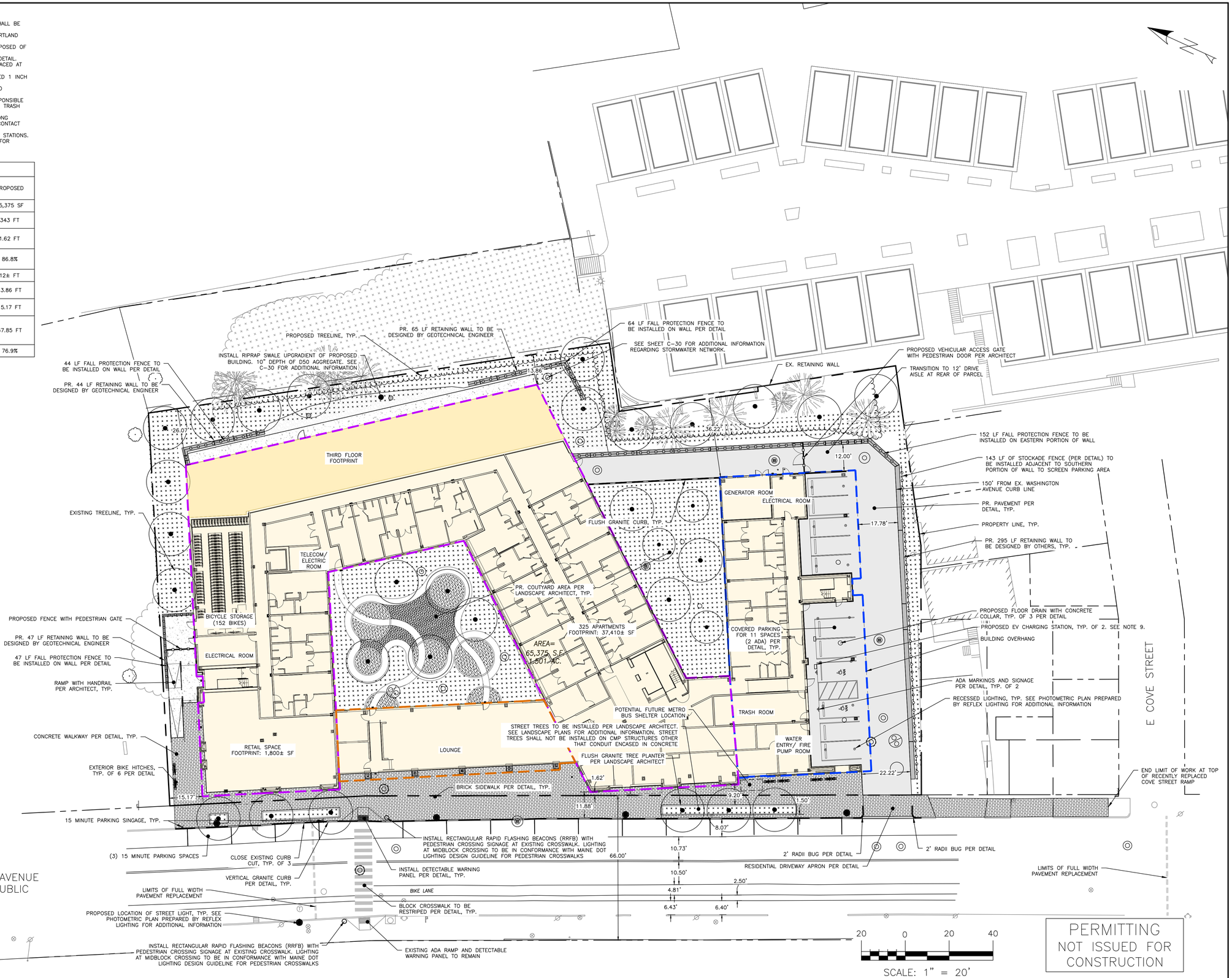
SPACE AND BULK STANDARDS		
ZONING DISTRICT B2B	REQUIRED	PROPOSED
MINIMUM LOT AREA	N/A	65,375 SF
STREET FRONTAGE	N/A	343 FT
BUILD TO ZONE	0–10 FT	1.62 FT
MINIMUM BUILDING LENGTH AS PERCENTAGE OF STREET FRONTAGE	60%	86.8%
MAX BLANK WALL AREA	20 FT	12± FT
MINIMUM REAR YARD SETBACK	NONE (10 FT ONLY WHEN ABUTTING RESIDENTIAL)	13.86 FT
MINIMUM SIDE YARD SETBACK	NONE (5 FT ONLY WHEN ABUTTING RESIDENTIAL)	15.17 FT
MAXIMUM BUILDING HEIGHT	75* FT (50 FT IF WITHIN 15' OF RN1,RN2,RN3,RN4,OS–R,OS–P ZONES)	67.85 FT
IMPERVIOUS SURFACE RATIO	NONE	76.9%

LEGEND

- FIRST FLOOR FOOTPRINT
- THIRD FLOOR FOOTPRINT
- 3 STORY BUILDING HEIGHT
- 4 STORY BUILDING HEIGHT
- 7 STORY BUILDING HEIGHT

PARKING SUMMARY		
	MAX	PROPOSED
RESIDENTIAL	2 SPACES PER DWELLING UNIT (325 UNITS) = 650 PARKING SPACES	
RETAIL	1 SPACE PER 300 SF OF FLOOR AREA (1,800 SF) = 6 SPACES	
STANDARD (9'X18')	–	9
ADA (8'X18')	–	2
TOTAL SPACES	656 SPACES	11

BICYCLE PARKING SUMMARY		
	MIN	PROPOSED
RESIDENTIAL	1 SPACES PER 2 DWELLING UNITS (325 UNITS) 163 SPACES	
RETAIL	OVER 5,000 SF OF FLOOR AREA ONLY	
INTERIOR	–	152
EXTERIOR		12
TOTAL SPACES	163 SPACES	164



PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SITE PLAN	PFH 11/20/24
COMMENT RESPONSE	PFH 2/14/25

DRAWING NAME: SITE PLAN

PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101

CLIENT: REDFERN PROPERTIES P.O. BOX 8816, PORTLAND, MAINE 04104

THESE PLANS SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY MODIFICATIONS MADE TO THESE PLANS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
LAND PLANNING • CIVIL ENGINEERING
PO BOX 3422 PORTLAND, MAINE 04104
(207) 775–2655

FILE:	1202_CIVIL
JN:	1202
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. NEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-10

GENERAL NOTES:

1. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
2. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANY AND DIG SAFE NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY INFORMATION, PRIOR TO ANY CHANGES.
3. FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LIMITS END AT EXTERIOR WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS SPECIFIED OTHERWISE.
4. CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
5. SEWER UTILITIES: CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE THE PROPERTY LINES FOR EACH CITY SEWER CONNECTION. CONTACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN.
6. WATER UTILITIES: FINAL PIPE SIZING PROVIDED BY M.E.P. ENGINEER AND FIRE PROTECTION DESIGNER. INTERNAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE COMPLETED BY M.E.P. ENGINEER. DOMESTIC WATER PIPE SIZES WILL DETERMINE THE FINAL WATER METERING OPTIONS. METER MAY BE SMALLER THAN PROPOSED WATER MAIN. WATER METERING, PRESSURE REDUCER AND BACKFLOW PREVENTION TO BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE PORTLAND WATER DISTRICT AND CITY OF PORTLAND.
7. GAS UTILITIES: PROJECT GAS LOAD, GAS UTILITY DESIGN, AND FINAL GAS SERVICE LOCATION AND METERS TO BE DEFINED BY M.E.P. AND IN ACCORDANCE WITH UNITIL.
8. ELECTRIC UTILITIES: ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. METER LOCATION AND TRANSFORMER SIZE, IF NECESSARY DEFINED BY M.E.P. M.E.P. TO FINALIZE SERVICE CONNECTION TO BUILDING. ALL ELECTRIC CONSTRUCTION SHALL CONFORM TO CMP GUIDEBOOK OF STANDARD REQUIREMENTS, MOST RECENT EDITION. DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
9. CABLE AND TELEPHONE PULLBOXES AND PEDESTAL LOCATIONS TO BE DETERMINED BY CHARTER COMMUNICATIONS AND FAIRPOINT PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.

LEGEND

WATER — W
SEWER — S — S
STORMWATER — > — > — >
ELECTRIC/TELECOMMUNICATIONS/CABLE/FIBER — UGE/T/C/F
GAS — G

WASHINGTON AVENUE
PAVED – PUBLIC

E COVE STREET

AREA= 65,375 S.F. 1.501 AC.

BUILDING

TELECOM/ELECTRIC ROOM

ELECTRICAL ROOM

GENERATOR ROOM
ELECTRICAL ROOM

ELECTRICAL METER BANK

TRASH ROOM

WATER ENTRY/ FIRE PUMP ROOM

BIKE LANE

ELECTRICAL METER BANK PER MEP. CONTRACTOR TO COORDINATE WITH CMP

MAX. INV. OUT: 60.00'

6" SDR35 PVC SEWER PIPE
L: 7'
S: 0.01 FT/FT

PROPOSED SMH
RIM: 64.50'
(2) 6" INV. IN: 59.70'
8" INV. OUT (INSTALL BACKFLOW VALVE): 59.60'

6" SDR35 PVC SEWER PIPE
L: 19'
S: 0.01 FT/FT

MAX. INV. OUT: 60.00'

PROPOSED 6" SEWER SERVICE

PROPOSED TELECOM SPLICE BOX PER DETAIL

PROPOSED GREASE TRAP TO BE DESIGNED BY MEP AND LOCATED INTERNALLY WITHIN RETAIL SPACE

POTENTIAL 38Y MANHOLE, TYP. OF 3. PER DETAIL

PROPOSED RISER POLES TYP. OF 4. TRANSITION TO UNDERGROUND ELECTRIC, TELECOM, AND CABLE. CONTRACTOR TO COORDINATE WITH RESPECTIVE UTILITY COMPANIES

PROPOSED GUY WIRE INSTALLED PER CMP SPECIFICATION

(UTILITY POLE 28)

PROPOSED LOCATION OF STREET LIGHT, TYP OF 5. SPACED APPROXIMATELY 100' O.C. LIGHT POLE BASES TO BE INSTALLED PRIOR TO CONDUIT DUCT BANK. SEE LIGHTING DESIGN BY REFLEX FOR ADDITIONAL INFORMATION

EXISTING CATCH BASIN APPEARS TO TIE INTO GOULD/WASHINGTON MANHOLE

(UTILITY POLE 27)

EXISTING SMH
RIM: 63.05'
EX. 10" INV. IN: 53.35'
EX. 8" INV. IN: 56.31'
CAP AND PLUG EX. 12" CI SERVICE
PR. 15" INV. IN: 53.39'
(CORE & BOOT NEW CONNECTION)
EX. 8" INV. IN: 54.29'
EX. 18" INV. OUT: 53.31'

RIM=61.92
AT DROP INLET
INV.=57.64

TBM: BONNET BOLT HYDRANT ELEV.=65.40

MH RIM=62.80
DROP INLET=62.38
8"OUT w/ HOOD
H20=57.94
SUMP=57.80

RIM=62.40
AT DROP INLET
8"OUT w/ HOOD
H20=59.08
SUMP=57.40

PROPOSED (6) 6" UGE & (4) 4" UGT/C CONDUIT DUCT BANK (175 LF)

PROPOSED SECONDARY SUBSURFACE TRANSFORMER, TYP. OF 2 PER DETAIL

PROPOSED PRIMARY SUBSURFACE TRANSFORMER, TYP. OF 2 PER DETAIL

8" SDR35 PVC SEWER PIPE
L: 34'
S: 0.02 FT/FT

SEE C-30 FOR ADDITIONAL INFORMATION REGARDING COMBINED SEWER/STORM MAIN DESIGN IN RIGHT OF WAY

RETIRE EXISTING WATER SERVICE PER PWD STANDARDS

(UTILITY POLE 26.1)
MAINTAIN ABUTTER UGE/T/C SERVICES, TYP.

EXISTING 8" CAST IRON (1947) WATER MAIN

INV.=87.17

INV.=78.43

INV.=77.18

PROPOSED GAS METER PER MEP

PROPOSED BOLLARDS METER PER DETAIL, TYP.

CONTRACTOR TO SLEEVE CONDUIT THROUGH FOUNDATION WALL AS NECESSARY

PROPOSED FIELD INLET PER DETAIL, TYP. SEE C-30 FOR ADDITIONAL INFORMATION

6" SDR35 SEWER SERVICE
L: 82'
S: 0.01 FT/FT

6" SDR35 SEWER SERVICE
L: 33'
S: 0.01 FT/FT

6" SDR35 SEWER SERVICE
L: 13'
S: 0.01 FT/FT

PROPOSED OWS PER DETAIL
RIM: 65.70'
6" INV. IN: 59.40'
6" INV. IN: 59.40'
8" INV. OUT: 59.15'

8" SDR35 SEWER SERVICE
L: 44'
S: 0.01 FT/FT

STORMWATER TREATMENT LOCATION. SEE C-30 FOR ADDITIONAL INFORMATION

INSTALL BACKFLOW VALVE, TYP. OF 4 PER DETAIL

PROPOSED (6) 6" UGE & (4) 4" UGT/C CONDUIT DUCT BANK (165 LF)

(2) PROPOSED RISER UTILITY POLES. COORDINATE FINAL LOCATION AND GUYING REQUIREMENTS WITH CMP

FDC CONNECTION

3.50'

1" CURB STOP PER DETAIL, TYP.

8" GATE VALVE 1.5' FROM FACE OF CURB

6" GATE VALVE 1.5' FROM FACE OF CURB

PROPOSED GAS SERVICE

EXISTING 4" HDPE GAS MAIN

CONTRACTOR TO SLEEVE CONDUIT THROUGH FOUNDATION WALL AS NECESSARY

PROPOSED 6" DOMESTIC SERVICE WITH 6"X8" TAPPING SLEEVE AND 6" GATE VALVE

PROPOSED 1" DOMESTIC SERVICE WITH 1" DIRECT TAP

PROPOSED 8" FIRE SUPPRESSION SERVICE WITH 8"X8" TAPPING SLEEVE AND 8" GATE VALVE

(UTILITY POLE 23.1)

TBM: BONNET BOLT HYDRANT ELEV.=69.41

20 0 20 40
SCALE: 1" = 20'

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY	DATE
SITE PLAN	PFH	11/20/24
COMMENT RESPONSE	PFH	2/14/25

DRAWING NAME: UTILITY PLAN
PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101
CLIENT: REDFERN PROPERTIES P.O. BOX 8816, PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.
PROFESSIONAL ENGINEERING
PO BOX 1 CAPE ELIZABETH, MAINE 04107
(207) 775-2655

THESE PLANS, NOTES, ETC. MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. SHALL NOT BE USED BY ANY PERSON OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

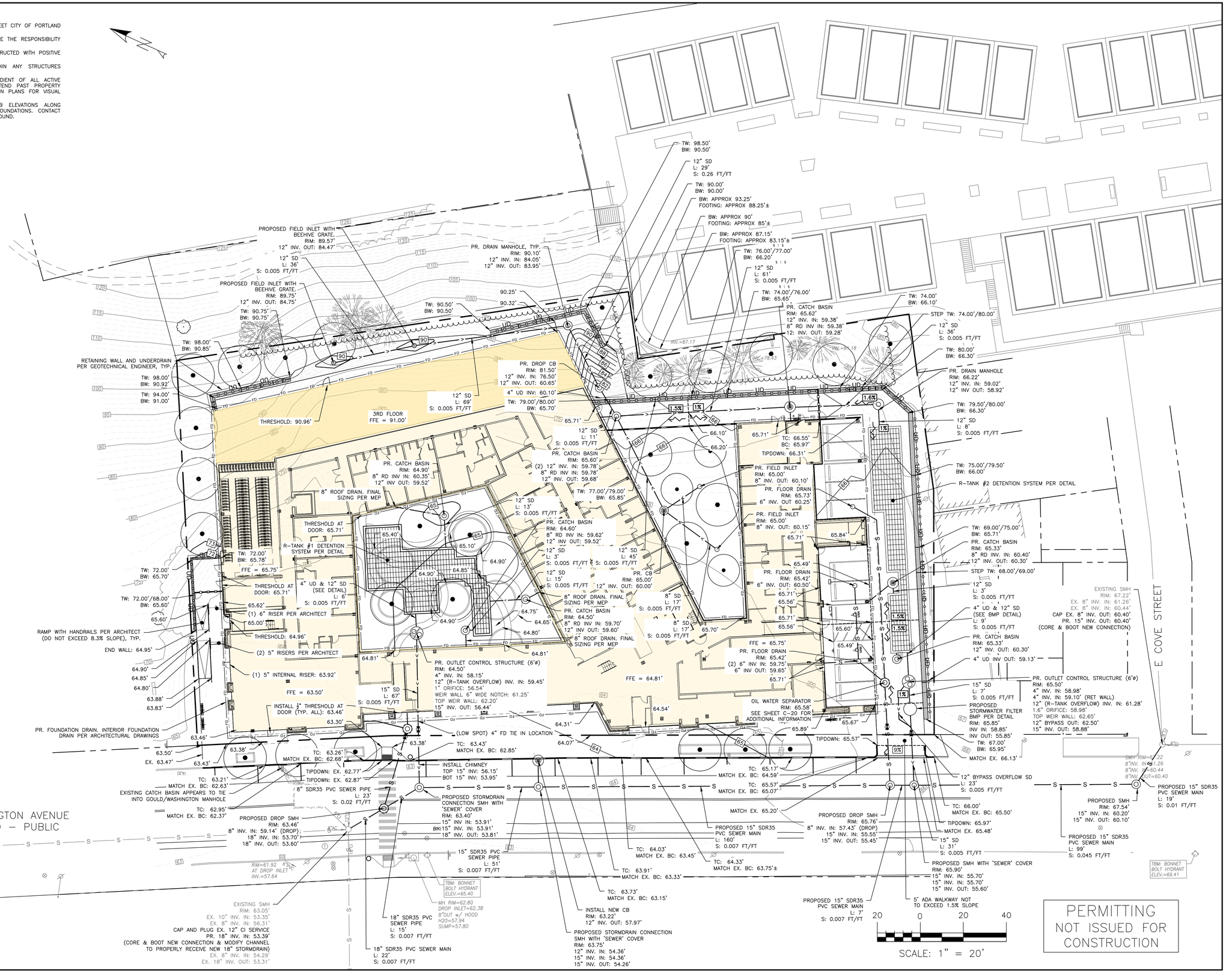
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SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER
2/14/25

DRAWING NO.
C-20

GENERAL NOTES:

1. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
2. DESIGN OF TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
3. CONTRACTOR SHALL ENSURE THAT UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.
4. CATCH BASIN INLET PROTECTION TO BE INSTALLED WITHIN ANY STRUCTURES DOWNGRADIENT OF ACTIVE CONSTRUCTION.
5. SEDIMENTATION BARRIERS ARE TO BE INSTALLED DOWNGRADIENT OF ALL ACTIVE CONSTRUCTION WORK PER DETAIL. BARRIERS TO NOT EXTEND PAST PROPERTY LINES; BARRIERS SHOWN OFFSET FROM PROPERTY LINES ON PLANS FOR VISUAL PURPOSES ONLY.
6. CONTRACTOR SHALL VERIFY BOTTOM AND TOP OF CURB ELEVATIONS ALONG BUILDING FRONTAGES PRIOR TO CONSTRUCTION OF THE FOUNDATIONS. CONTACT ENGINEER PRIOR TO CONSTRUCTION IF DISCREPANCIES ARE FOUND.



ISSUED FOR	BY DATE
SITE PLAN	PFH 11/20/24
COMMENT RESPONSE	PFH 2/14/25

DRAWING NAME: GRADING & DRAINAGE PLAN

PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101

CLIENT: REDFERN PROPERTIES P.O. BOX 8816, PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.
ENGINEERING, INC.

THESE PLANS, NOTES, AND DETAILS ARE INSTRUMENTS OF SERVICE AND SHALL NOT BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF ACORN ENGINEERING, INC. ANY UNAUTHORIZED USE SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
49 PLEASANT HILL ROAD, SCARBOROUGH, MAINE 04104
PO BOX 3201, PORTLAND, MAINE 04104
(207) 775-2655

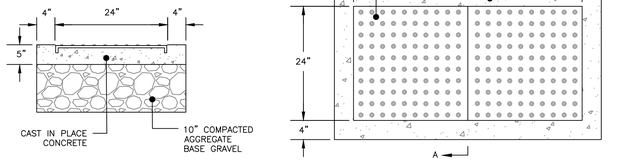
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SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE PETER F. HEIL 15318 LICENSED PROFESSIONAL ENGINEER

DRAWING NO. C-30

NOTES:

1. ALL DETECTABLE WARNING PLATES SHALL BE UNCOATED CAST IRON. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
2. CAST IN PLACE CONCRETE SHALL MEET SPECIFICATIONS FOR MDOT CLASS A STRUCTURAL CONCRETE, MINIMUM COMPRESSIVE STRENGTH 4,000 PSI. THE EXPOSED CONCRETE BORDER SHALL RECEIVE A UNIFORM BROOM FINISH PERPENDICULAR TO THE FLOW OF PEDESTRIAN TRAFFIC.
3. TRUNCATED DOMES SHALL BE ALIGNED IN ROWS, PARALLEL AND PERPENDICULAR TO THE PREDOMINANT DIRECTION OF TRAVEL. TRUNCATED DOME BRICKS AND GRANITE PAVERS ARE NOT ALLOWED.
4. SIZE: THE DETECTABLE WARNING PLATES SHALL EXTEND 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION TO THE STREET.
5. ORIENTATION: THE DETECTABLE WARNING PANEL SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE CURB LINE. THE PANEL SHALL BE ORIENTED TO THE DIRECTION OF TRAVEL AS IDENTIFIED BY THE POINT OF EGRESS.



SECTION A–A

PLAN VIEW

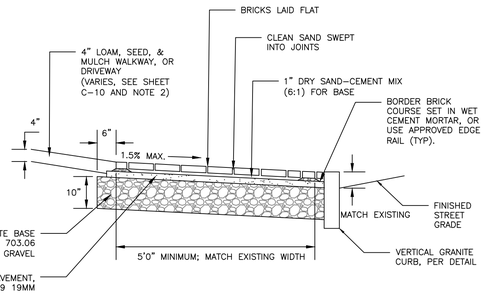
SIDEWALK RAMP DETECTABLE WARNING PANEL
NOT TO SCALE

NOTES:

1. BRICKS TO BE USED:

   NEW CONSTRUCTION:
   4"X8" PINE HALL PATHWAY PAVER BRICK; MFG. BY PINE HALL BRICK CO., MADISON, NORTH CAROLINA. LACHANCE ITEM #193623;. PINE HALL PATHWAY PAVER BRICK.

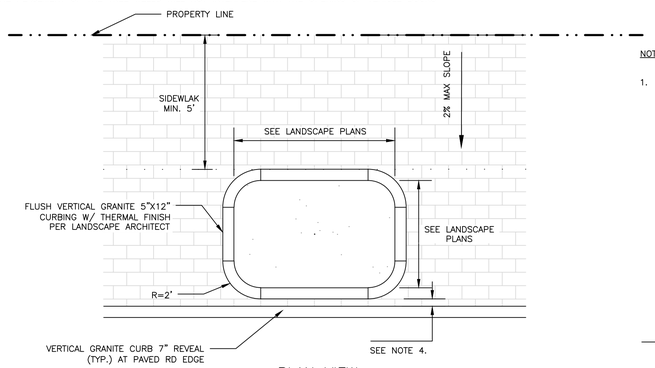
   REPAIR/MAINTENANCE TO EXISTING BRICK SIDEWALKS:
   VERMONT BACKER SUPPLIED BY GAGNE AND SONS SPECIFICATION NUMBER: "VERMONT PAVER BRICK", ITEM NUMBER #VBBB
2. INSTALL BRICK FLUSH UP TO BUILDING, PAVEMENT, STAIRS, CONCRETE SURFACES, CURB OR LANDSCAPED AREAS.



BRICK SIDEWALK WITH BITUMINOUS BASE DETAIL
NOT TO SCALE

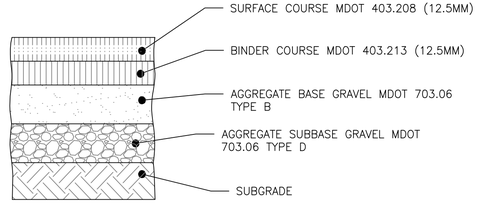
NOTES:

1. ALL TREE WELLS SHALL COMPLY WITH CITY TECHNICAL STANDARDS AND MUST BE APPROVED BY THE CITY ARBORIST
2. FINAL PLACEMENT LOCATION OF THE GRANITE CURB TREE WELL SHALL BE APPROVED BY DPW AND SHALL CONSIDER SIDEWALK WIDTH, STREET PARKING STATUS, ABOVE AND BELOW GROUND UTILITIES AND OTHER OBSTRUCTIONS
3. SIDEWALK MATERIAL POLICY. SEE SIDEWALK CONSTRUCTION DETAILS IN SECTION 1 OF THE TECHNICAL MANUAL
4. RAISED CURB TREE WELL OFFSETS FROM THE CURB LINE SHALL TAKE THE LOCATION OF ON–STREET PARKING INTO ACCOUNT. WHERE ADJACENT TO ON–STREET PARKING AND SIDEWALK WIDTH ALLOWS, A MINIMUM OFFSET OF 2 FEET IS PREFERRED, UNLESS IT CAN BE DEMONSTRATED THAT THE PLACEMENT OF THE TREE WELLS WILL NOT INTERFERE WITH THE OPENING OF VEHICLE DOORS



PLAN VIEW

TREEWELL IN SIDEWALK
NOT TO SCALE



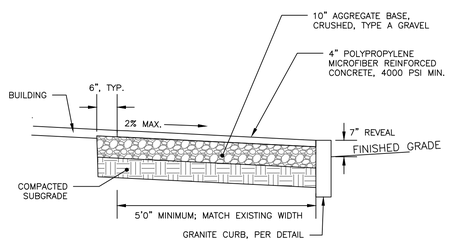
NOTES:

1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D–1557
2. SURFACE AND AGGREGATE MATERIALS SHALL MEET THE CITY OF PORTLAND STANDARDS IN ADDITION TO MDOT STANDARDS.

	THICKNESS OF LAYERS
STANDARD	LAYERS
2''	SURFACE COURSE MDOT 403.208 (12.5mm)
3''	BINDER COURSE MDOT 403.208 (12.5mm)
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE A
18"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

CITY OF PORTLAND ARTERIAL BITUMINOUS PAVEMENT PROFILE
NOT TO SCALE

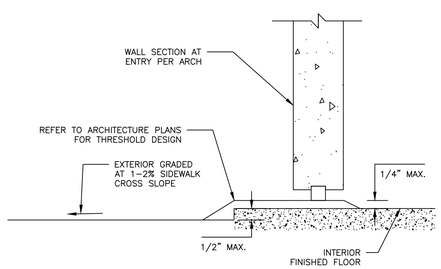
1. AT A MINIMUM, TESTING SHALL CONSIST OF ENTRAINED AIR AND SLUMP TESTS ON SITE PRIOR TO POURING THE SIDEWALKS. ENTRAINED AIR TESTS SHALL BE DONE IN ACCORDANCE WITH AASHTO T152. TEST FIRST TWO LOADS AND EVERY THIRD LOAD THEREAFTER PROVIDED CONSISTENT RESULTS ARE ACHIEVED.
2. SLABS SHALL BE PLACED ALTERNATELY IN LENGTHS NOT TO EXCEED 30 FEET OR AS DIRECTED AND SHALL BE SEPARATED BY AN EXPANSION JOINT OF PREFORMED EXPANSION FILLER ½ INCH IN THICKNESS.
3. WHEN CONSTRUCTED ADJACENT TO A BUILDING, RETAINING WALL OR OTHER FIXED STRUCTURE, A ½ INCH THICK PREFORMED JOINT FILLER SHALL BE USED BETWEEN THE SLAB AND THE STRUCTURE.
4. THE SIDEWALK SURFACE SHALL BE SCORED INTO BLOCK UNITS NO GREATER THAN 40 SQUARE FEET AS DIRECTED. THE DEPTH OF THE SCORING SHALL BE AT LEAST ONE QUARTER OF THE THICKNESS OF THE SLAB.
5. ANY MATCHING INTO EXISTING SIDEWALKS SHALL BE DONE SO WITH A CLEAN VERTICAL FACE CONNECTION.
6. THE SURFACE SHALL BE FINISHED TO PRODUCE A BROOMLIKE "BRUSHED" PATTERN. NO PLASTERING OF THE SURFACE WITH MORTAR WILL BE PERMITTED. THE FINISH SHALL RESULT IN A SURFACE OF UNIFORM TEXTURE AND COLOR. ALL OUTSIDE EDGES OF THE SLAB AND ALL JOINTS SHALL BE ROUNDED WITH A ¼ INCH RADIUS EDGING TOOL.
7. CONCRETE SHALL BE CURED FOR 72 HOURS. CURING SHALL BE BY MEANS OF THOMPSON'S WATER SEAL AS MANUFACTURED BY E.A. THOMPSON CO., INC. OF MEMPHIS, TENNESSEE, BOILED LINSEED OIL, WHITE PIGMENTED CURING COMPOUND, OR BY OTHER APPROVED METHODS. CONCRETE SIDEWALK TO BE SEALED WITH CONSOLIDECK SALTGUARD WB OR APPROVED EQUAL 28 DAYS AFTER PLACEMENT. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR APPLICATION.
8. GENERAL CONTRACTOR TO COLLECT DELIVERY SLIPS AND TRANSFER TO THE OWNER.
9. REFER TO CITY OF PORTLAND CONCRETE SPECIFICATIONS SECTION 608 FOR MORE INFORMATION.



REINFORCED CONCRETE SIDEWALK
NOT TO SCALE

NOTES:

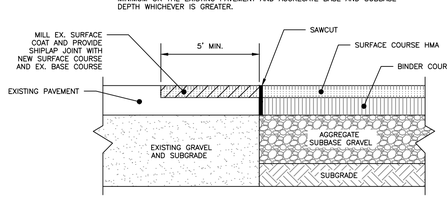
1. THIS DETAIL REPRESENTS A TYPICAL CONDITION TO MITIGATE WATER INTRUSION. REFER TO THE ARCHITECTURAL PLANS FOR SPECIFICATION AND THRESHOLD DESIGN. CONTACT ENGINEER WITH ANY DISCREPANCIES



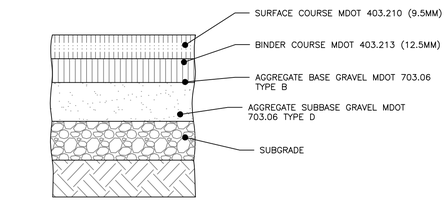
TYPICAL THRESHOLD DETAIL
NOT TO SCALE

NOTES:

1. SAWCUT EXISTING PAVEMENT AND REMOVE 5' STRIP OF EXISTING PAVEMENT TO CREATE A UNIFORM AND RIGID BUTT JOINT TO CREATE SHIPLAP JOINTS BETWEEN THE PAVEMENT LAYERS.
2. APPLY BITUMINOUS TACK COAT AT AN APPLICATION RATE OF 0.10 TO 0.14 GALLONS PER SQUARE YARD TO EXISTING PAVEMENT JOINTS AND SURFACES PRIOR TO PLACEMENT OF NEW BITUMINOUS PAVEMENT.
3. THE NEW PAVEMENT SECTION SHALL MEET "PAVEMENT PROFILE DETAIL" AT A MINIMUM OR THE EXISTING PAVEMENT AND AGGREGATE BASE AND SUBBASE DEPTH WHICHEVER IS GREATER.



PAVEMENT SAWCUT WITH SHIPLAP JOINTS DETAIL
NOT TO SCALE

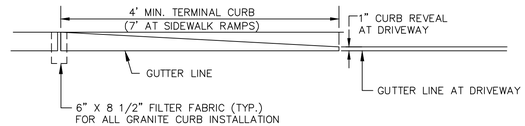


NOTES:

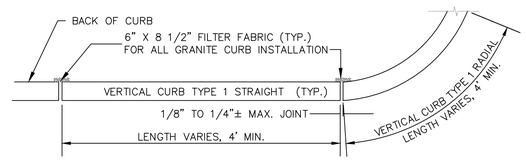
1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D–1557
2. SURFACE AND AGGREGATE MATERIALS SHALL MEET THE CITY OF PORTLAND STANDARDS IN ADDITION TO MDOT STANDARDS.

	THICKNESS OF LAYERS
STANDARD	LAYERS
1–1/2''	SURFACE COURSE MDOT 403.210 (9.5mm)
2''	BINDER COURSE MDOT 403.208 (12.5mm)
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE A
15"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

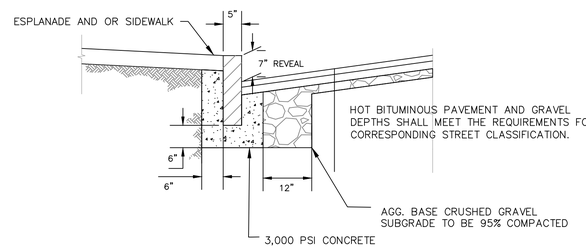
PRIVATE PAVEMENT PROFILE
NOT TO SCALE



TERMINAL CURB PROFILE



VERTICAL GRANITE CURB PLAN VIEW



VERTICAL GRANITE CURB CROSS SECTION

NOTES:

1. INDIVIDUAL PIECES OF CURB SHORTER THAN 4 L.F. ARE NOT ALLOWED, WITH THE EXCEPTION OF RADIAL CURB.
2. THE MINIMUM HEIGHT OF THE CONCRETE BACKING SHALL BE 10–INCHES OR TO THE BOTTOM OF THE HOT MIX ASPHALT PAVEMENT, WHICHEVER IS GREATER, MEASURED FROM THE BOTTOM OF CURB.
3. CURBING SHALL BE SET IN A 6–INCH BED OF POURED IN PLACE 3,000 PSI CONCRETE MIX.
4. WOODEN SHIMS MAY BE USED TO SET CURB.

VERTICAL GRANITE CURB
NOT TO SCALE

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SITE PLAN	PFH 11/20/24
COMMENT RESPONSE	PFH 2/14/25

DRAWING NAME: SITE DETAILS – 1

PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101

CLIENT: REDFERN PROPERTIES P.O. BOX 8816, PORTLAND, MAINE 04104

ACORN ENGINEERING, INC. ENGINEERING
ACORN ENGINEERING, INC.
207 E. HOWE STREET, KENNEBUNK, MAINE 04043
PO BOX 1252, KENNEBUNK, MAINE 04043
(207) 775–2655

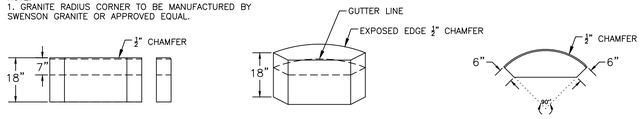
THESE PLANS SHALL NOT BE MODIFIED WITHOUT THE WRITTEN AUTHORIZATION FROM ACORN ENGINEERING, INC. ANY MODIFICATIONS MADE TO THESE PLANS WITHOUT THE WRITTEN AUTHORIZATION FROM ACORN ENGINEERING, INC. SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

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SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

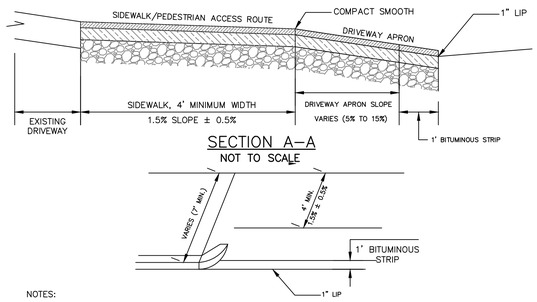
STATE OF MAINE — PETER F. HEIL — 15318 — LICENSED PROFESSIONAL ENGINEER — 2/14/25

DRAWING NO.
C-40

NOTE:
1. GRANITE RADIUS CORNER TO BE MANUFACTURED BY SWENSON GRANITE OR APPROVED EQUAL.

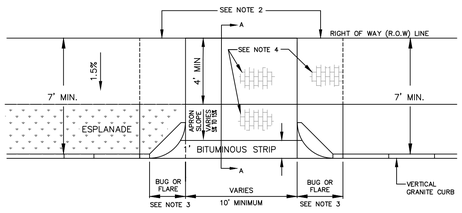


GRANITE RADIUS CORNER "BUG"

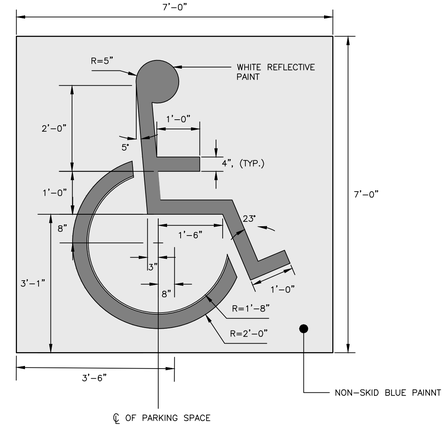


SECTION A–A
NOT TO SCALE

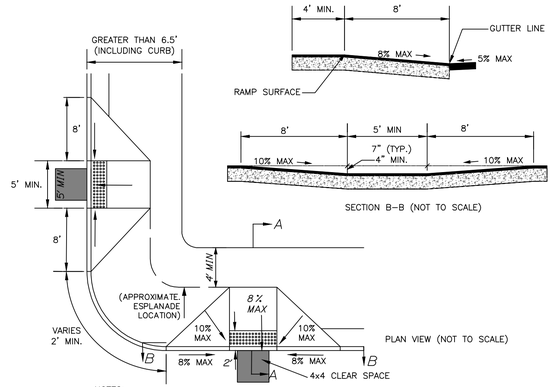
NOTES:
1. MATCH EXISTING GRADE AT R.O.W LINE. WHERE REQUIRED TO MEET A.D.A. AND DRIVEWAY APRON SLOPE REQUIREMENTS, A CONSTRUCTION EASEMENT MAY BE REQUIRED.
2. IF MATCHING THE EXISTING GRADE AT ROW CAUSES APRON SLOPE TO EXCEED RECOMMENDED %, SIDEWALK TRANSITION AREAS MAY BE ADDED, BUT SHALL NOT EXCEED 8.33%.
3. TWO–FOOT RADIUS CORNER GRANITE PIECES ("BUGS") ARE REQUIRED AT LOW–VOLUME DRIVEWAYS UNLESS OTHERWISE DIRECTED BY DPW. AT OTHER DRIVEWAYS, STANDARD FLARE/TIPDOWN TREATMENTS SHALL BE USED.
4. ALL MATERIALS IN ROW TO COMPLY WITH CITY'S SIDEWALK & DRIVEWAY MATERIAL POLICY. BRICK IN DRIVEWAY APRONS, WHERE APPLICABLE, SHALL BE ORIENTED IN THE SAME WAY AS THE ADJACENT BRICK SIDEWALK.
5. THIS LAYOUT MAY BE REQUIRED AT MINOR DRIVEWAYS SERVING COMMERCIAL OR INDUSTRIAL USES.



STANDARD RESIDENTIAL DRIVEWAY APRON LAYOUT
NOT TO SCALE



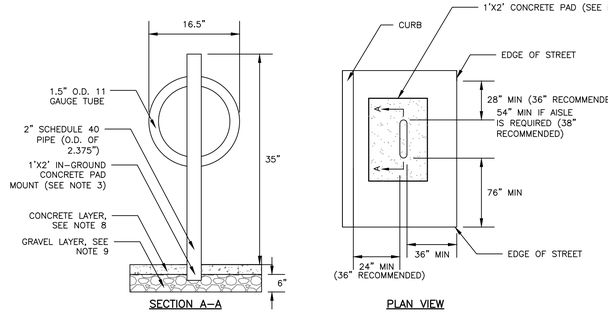
INTERNATIONAL BARRIER FREE SYMBOL
NOT TO SCALE



NOTES:
1. THIS DESIGN IS THE PREFERRED OPTION WHEN THE SIDEWALK WIDTH IS GREATER THAN 6.5'. USE OTHER OPTIONS ONLY WHEN REQUIRED BY DESIGN CONSTRAINTS.
2. A MINIMUM CURB REVEAL OF 4" IS REQUIRED AT THE APEX OF THE CURB RADIUS.
3. MINIMUM TERMINAL CURB LENGTH SHALL BE 4 FEET.
4. SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY.

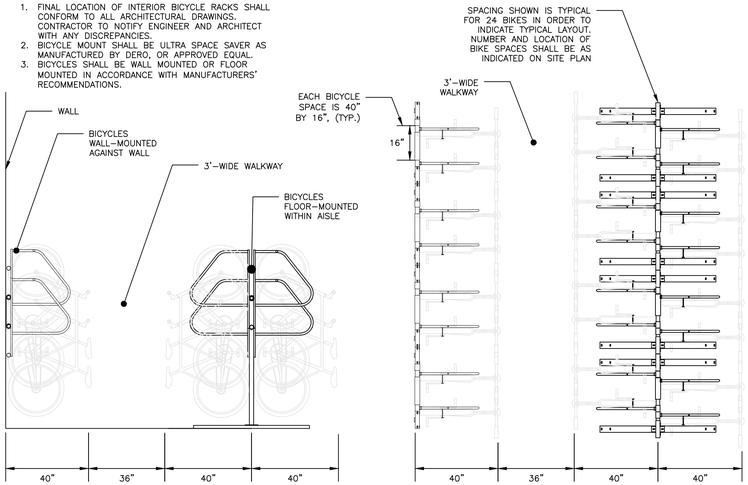
PERPENDICULAR ADA RAMP – SIDEWALK WIDTH GREATER THAN 6.5' WIDE WITH OR WITHOUT ESPLANADE
NOT TO SCALE

NOTES:
1. BICYCLE RACK SHALL BE "DERO BIKE HITCH", AS MANUFACTURED BY DERO BIKE RACKS.
2. BICYCLE RACK SHALL HAVE CAPACITY FOR TWO BICYCLES.
3. BICYCLE RACK PARTS SHALL BE OF UNIFORM COLOR AND SHALL BE FINISHED IN ACCORDANCE WITH PRODUCT SPECIFICATION.
4. BICYCLE RACK SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S MOST RECENT INSTALLATION RECOMMENDATIONS, AND SHALL BE INSTALLED WITH AN IN–GROUND MOUNT UNLESS OTHERWISE APPROVED BY ENGINEER.
5. MINIMUM OFFSETS SHOWN. MANUFACTURER'S RECOMMENDED OFFSETS SHALL BE ENFORCED WHERE POSSIBLE.
6. MINIMUM DISTANCE BETWEEN BICYCLE RACKS SHALL BE 24". RECOMMENDED DISTANCE BETWEEN BICYCLE RACKS SHALL BE 38".
7. ALL OFFSETS ARE FROM OUTSIDE EDGES OF ITEMS.
8. CONCRETE SHALL BE 4000 PSI @28 DAYS. BOTTOM OF CONCRETE SHALL BE AT TOP OF SIDEWALK GRAVEL ELEVATION. DEPTH VARIES APPROX. 4"–7".
9. GRAVEL LAYER SHALL BE INSTALLED IN ACCORDANCE WITH CONCRETE SIDEWALK DETAIL, AND SHALL BE MAINEDOT 703.06 TYPE B.



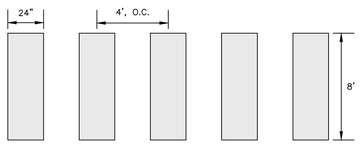
DERO BIKE HITCH
NOT TO SCALE

NOTES:
1. FINAL LOCATION OF INTERIOR BICYCLE RACKS SHALL CONFORM TO ALL ARCHITECTURAL DRAWINGS. CONTRACTOR TO NOTIFY ENGINEER AND ARCHITECT WITH ANY DISCREPANCIES.
2. BICYCLE MOUNT SHALL BE ULTRA SPACE SAVER AS MANUFACTURED BY DERO, OR APPROVED EQUAL.
3. BICYCLES SHALL BE WALL MOUNTED OR FLOOR MOUNTED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.

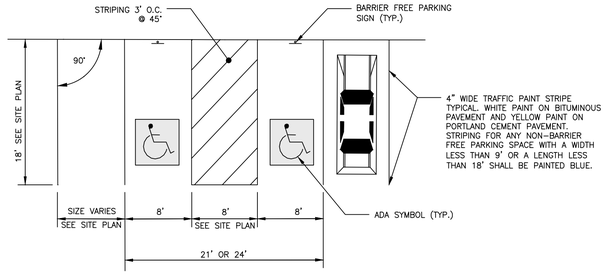


BICYCLE RACK INTERIOR
NOT TO SCALE

NOTE:
1. CROSSWALKS TO BE BUILT IN CONFORMANCE WITH MUTCD STANDARDS, LATEST EDITION.
2. CROSSWALKS ARE TO BE PAINTED WHITE MEETING MAINE DOT SPECIFICATIONS.
3. BLOCKS TO BE PARALLEL TO THE DIRECTION OF CAR TRAFFIC.

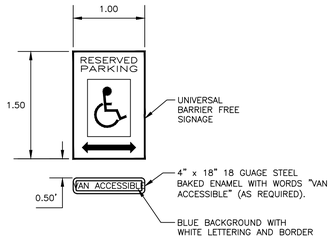


BLOCK CROSSWALK
NOT TO SCALE

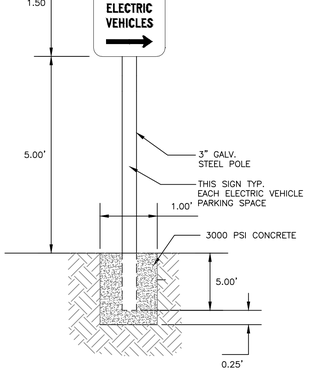


PARKING SPACE DIMENSIONS
NOT TO SCALE

NOTES:
1. ALL ASPECTS OF RESERVED PARKING SIGN CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION
2. SIGN SHALL BE CONSTRUCTED AS SIGN R7–8 UNDER THE "PARKING AND STANDING SIGNS AND PLAQUES" (R7 SERIES) WITHIN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION. VAN ACCESSIBILITY SHALL BE CONSTRUCTED AS SIGN R7–8a OR R7–8b.
3. SIGN POST CONSTRUCTION AND MOUNTING SHALL BE IN ACCORDANCE WITH CHAPTER 2A OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION.

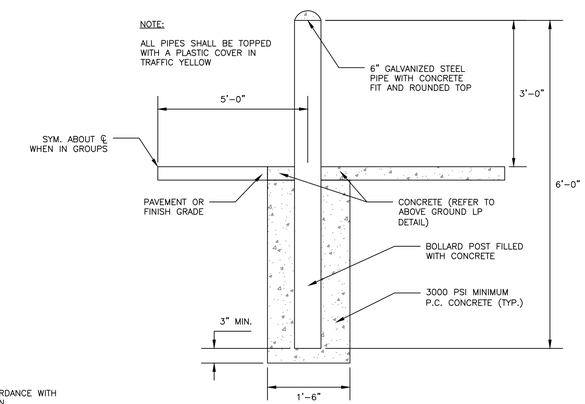


BARRIER FREE PARKING SIGN
NOT TO SCALE

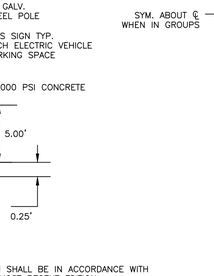


NOTES:
1. ALL ASPECTS OF RESERVED PARKING SIGN CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION
2. SIGN SHALL BE CONSTRUCTED AS SIGN R7–111 UNDER THE "PARKING AND STANDING SIGNS AND PLAQUES" (R7 SERIES) WITHIN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION.
3. SIGN POST CONSTRUCTION AND MOUNTING SHALL BE IN ACCORDANCE WITH CHAPTER 2A OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION.

ELECTRIC VEHICLE PARKING SIGN
NOT TO SCALE



PIPE BOLLARD
NOT TO SCALE



NOTES:
1. 8' SECTION OF FENCE SHALL BE A 4' TALL ASSEMBLY
2. RECOMMENDED SUPPLIER FOR FENCE ASSEMBLY TO BE MAIN LINE FENCE OR AN APPROVED EQUAL.

FENCE INSTALLED ON CAST IN PLACE (CIP) RETAINING WALL DETAIL
NOT TO SCALE

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SITE PLAN	PFH 11/20/24
COMMENT RESPONSE	PFH 2/14/25

DRAWING NAME: SITE DETAILS – 2
PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101
CLIENT: REDFERN PROPERTIES P.O. BOX 8816, PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.
ACORN ENGINEERING, INC.
70 FLEET STREET, YARMOUTH, MAINE 04104
PO BOX 3375, PORTLAND, MAINE 04104
(207) 775–2655

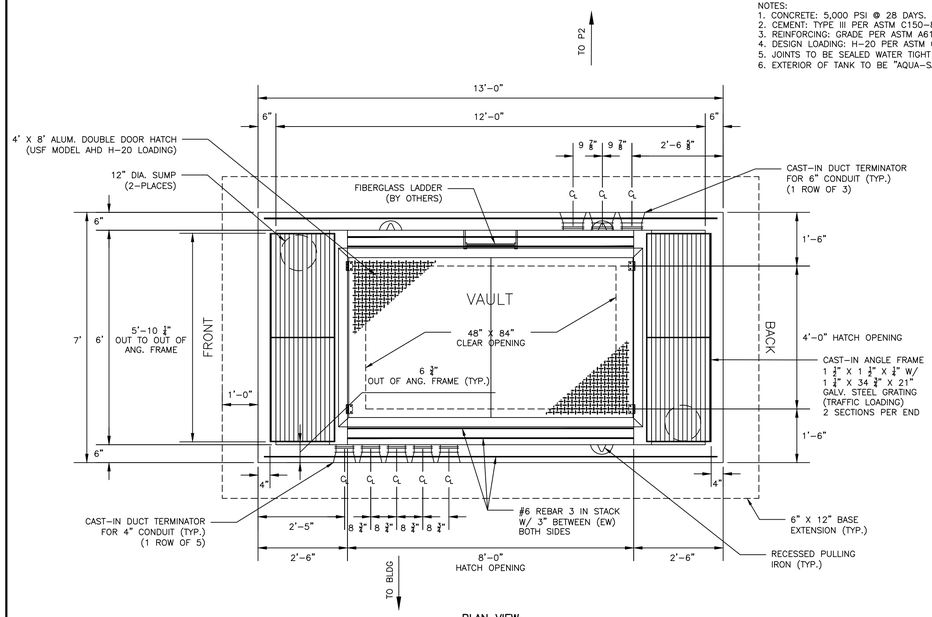
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JN:	1202
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

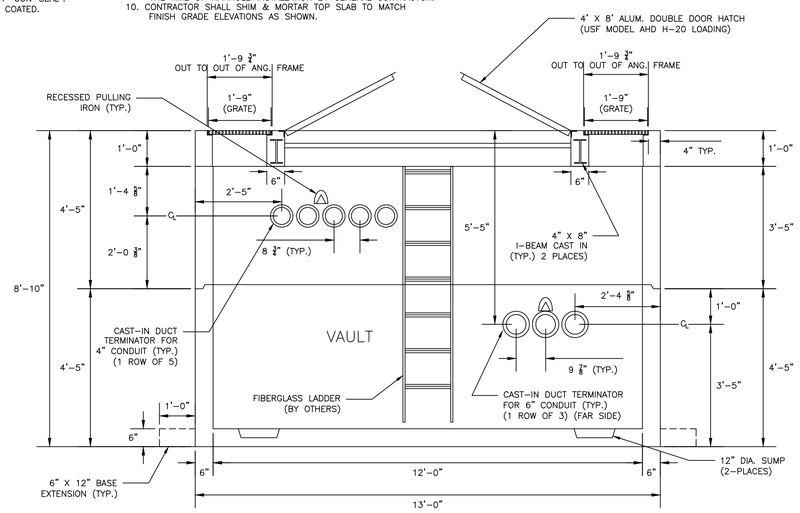
STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-41

NOTES:
1. CONCRETE: 5,000 PSI @ 28 DAYS.
2. CEMENT: TYPE III PER ASTM C150–81.
3. REINFORCING: GRADE PER ASTM A615.
4. DESIGN LOADING: H–20 PER ASTM C–478.
5. JOINTS TO BE SEALED WATER TIGHT WITH "CON–SEAL".
6. EXTERIOR OF TANK TO BE "AQUA–SAFE" COATED.
7. ALL PRECAST SECTIONS AND BASES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME OF THE MANUFACTURER MARKED ON THE INSIDE WALL.
8. LADDER PROVIDED AND INSTALLED BY OTHERS.
9. IDENTIFICATION TAGS FOR CABLES IN VAULT SHALL BE SET AT THE TIME OF MANHOLE INSTALLATION BY GENERAL CONTRACTOR.
10. CONTRACTOR SHALL SHIM & MORTAR TOP SLAB TO MATCH FINISH GRADE ELEVATIONS AS SHOWN.

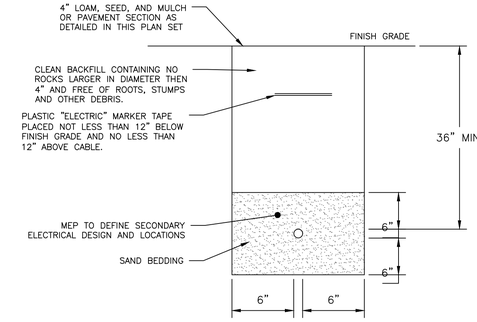


PLAN VIEW



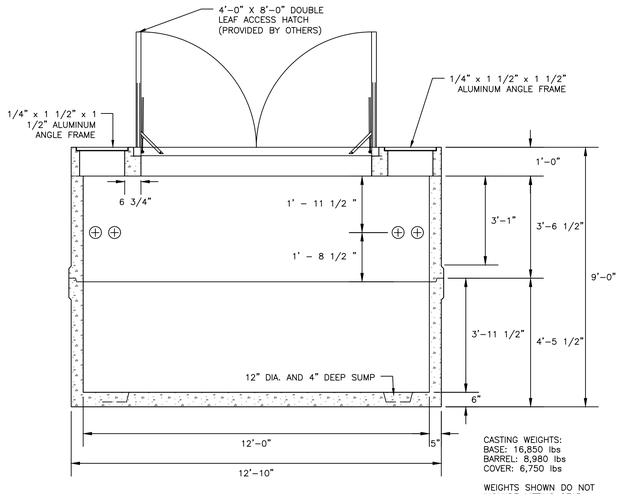
SECTION VIEW

SIDEWALK ELECTRICAL VAULT DETAIL
NOT TO SCALE



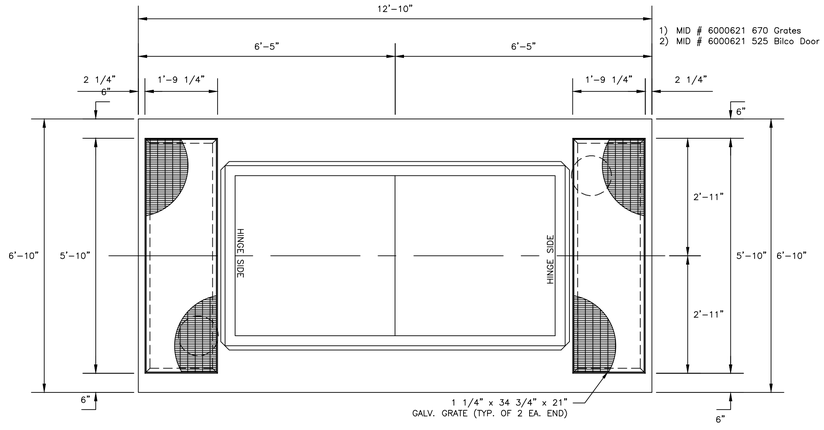
SECONDARY ELECTRICAL TRENCH
NOT TO SCALE

NOTES:
1) VAULT SHALL BE DESIGNED TO WITHSTAND H–20 WHEEL LOADING WITH 6" OF OVERBURDEN. THE DESIGN SHALL ALSO COMPLY WITH THE STRENGTH REQUIREMENTS OF NATIONAL ELECTRICAL SAFETY CODE SECTION 323A. PROVIDE SHOP DRAWINGS STAMPED BY A STATE OF MAINE REGISTERED PROFESSIONAL ENGINEER UPON REQUEST.
2) JOINTS SEALED WITH ASPHALT.
3) MOUNTINGS FOR CABLE RACKS ETC. CAST IN WALL BY FURTHER PLANS OR FIELD LOCATED.
4) MANHOLE SHALL BE SET ON A SUITABLE GRAVEL BASE.
5) CABLES ARE TO BE RACKED ALONG ONE WALL ONLY.
6) OPTION OF USING 8" THICK WALLS TO OFFSET ANY LOAD FACTORS, SOILS OR OTHER FACTORS SPECIFIC TO SITE.



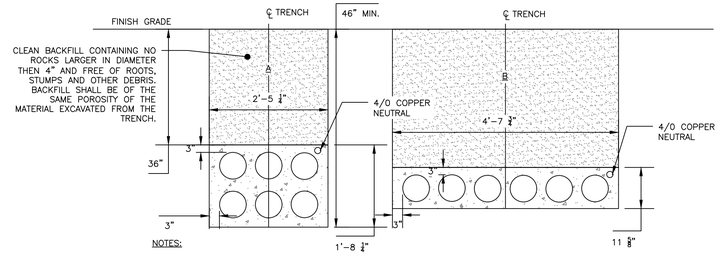
SECTION VIEW

NOTES:
1) CONCRETE: 5,000 PSI AFTER 28 DAYS.
2) JOINTS TO BE SEALED WITH CONSEAL CS102 JOINT SEALANT.
3) KNOCKOUTS EXTEND 4" INTO THE WALL WITH SIDES SLOPED @ 45 DEGREES PROVIDING A BELL TYPE OPENING; KNOCKOUTS SHOULD BE FREE OF ANY REINFORCING.
4) REINFORCING: DESIGNED FOR H–20 LOADING.
5) HATCH & GALV. GRATING PROVIDED BY OTHERS.
6) HATCH DOORS SHALL BE COATED WITH AN ANTI–SKID SURFACE HAVING A MINIMUM COEFFICIENT OF FRICTION OF 0.6 AND BE LISTED AS SLIP RESISTANT BY THE UNDERWRITERS LABORATORIES.



PLAN VIEW

SECONDARY CABLE VAULT DETAIL
NOT TO SCALE



NOTES:
1. "A" WILL BE USED FOR MAJORITY OF INSTALLATION. DUCT BANK WILL NEED TO BE DEEPER AND NARROWER NEAR MANHOLES.
2. "B" WILL BE USED AS NEEDED. DUCT BANK WILL NEED TO BE WIDER AND SHALLOWER.
3. CONDUITS WITHIN THE CITY RIGHT–OF–WAY SHALL BE ENCASED IN CONCRETE.
4. FINAL SIZE OF CONDUITS TO BE SPECIFIED BY MEP, ELECTRICIAN, OR DESIGN/BUILD ELECTRICAL CONTRACTOR.
5. ALL CONSTRUCTION TO BE IN COMPLIANCE WITH CMP'S CONSTRUCTION STANDARDS AND THE LATEST EDITION OF THE NATIONAL ELECTRICAL SAFETY CODE.
6. ALL 90 DEGREE BENDS SHALL BE GALVANIZED LONG SWEEP BENDS. CONDUIT BELL ENDS REQUIRED AT SPLICE BOXES, TRANSFORMER BASES, AND SWITCH CABINETS.
7. CONDUITS SHALL BE PROPERLY PITCHED TO DRAIN INTO TRANSFORMER FOUNDATIONS, MANHOLES, OR SPLICE BOXES. THREE INCHES PER 100 FEET MINIMUM SLOPE. IF CONDUITS SLOW TOWARD THE RISER POLE, A COMPANY APPROVED DRAINAGE BOX AT THE RISER BASE SHALL BE INSTALLED.
8. INSTALL 1" (OR MULE TAPE) PULLING LINE IN EACH CONDUIT.
9. INSTALL 4/0 CU NEUTRAL IN CONDUIT DUCT BANK.
10. INSTALL CONDUIT SPACERS

PRIMARY POWER CONDUIT DUCT BANK
NOT TO SCALE

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY	DATE
SITE PLAN	PFH	11/20/24
COMMENT RESPONSE	PFH	2/14/25

DRAWING NAME: **UTILITY DETAILS – 1**

PROJECT NAME: **TAVATA – 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101**

CLIENT: REDFERN PROPERTIES
P.O. BOX 8816, PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.
ENGINEERING, INC.
ACORN ENGINEERING, INC.
70 FARM VIEW DRIVE, NEW GLOUCESTER, MAINE 04260
PO BOX 3257, LEWISTON, MAINE 04243-3257
(207) 775–2655

THESE PLANS SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY MODIFICATIONS MADE WITHOUT SUCH PERMISSION SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

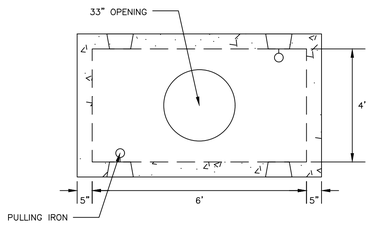
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JN:	1202
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-42

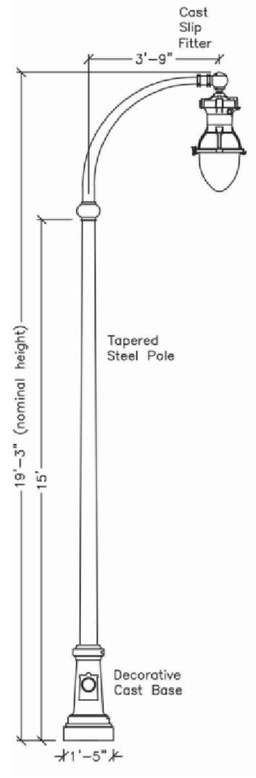
NOTES:

1. SPLICE BOX SHALL BE DESIGNED TO WITHSTAND H20 LOADING WITH 6" OF OVERBURDEN. THE DESIGN SHALL ALSO COMPLY WITH NATIONAL ELECTRICAL SAFETY CODE SECTION 323A. PROVIDE SHOP DRAWINGS STAMPED BY A STATE OF MAINE REGISTERED PROFESSIONAL ENGINEERING UPON REQUEST.
2. FOR USE WITH 32" COVER MARKED CMP CO., S/C62-1830 (MIN. ONE COURSE OF BRICK TO GRADE.)
3. SPLICE BOX AND SLAB SHALL BE SET ON A SUITABLE GRAVEL BASE.



PLAN VIEW

CMP 4' X 6' SPLICE BOX
NOT TO SCALE



LUMINAIRE
Holophane Esplanade LED II
Model:
ESL2-P20S-30K-AS-CMC-TG3-S-P7-NL2X2-BHDF13-200CMC
or Spring City Columbia Series
Model: ALMCLU-LE080/EVX/X2-30-CR3-GR14-LACLB-FED-CU
Pendant mount, cast aluminum housing with stainless steel hardware. Dropped refractor shall be thermal resistant borosilicate glass. Internal reflector and prismatic diffuser shall provide an IES Type IV distribution pattern. LED 3000K color temperature.

BRACKET ARM
Holophane OUC Roadway Arm
Model: OUC 6063-T6
or Spring City Columbia Arm
Model: AARCLA-1S-51-53-TN2.38/7.00-CU
Aluminum crossarm with a post-top fitting for a 3 1/2" by 8" tenon. Single Arm 45° Oriented 180 degrees.

SLIP FITTER
Holophane Boston Harbor Series
Model: BHLF-200-SCA/AS
2 3/8" O.D. with swivel cast fitter.

LIGHTING POLE
Holophane
Model: CM17CSB-CA-RAL6012
or Spring City Cambridge Series
Model: SSHSM-G11-7.00-15.00-TN3.50/8.00-CU
Smooth, tapered steel pole smooth shaft rated for a 90mph wind load with a 1.3 gust factor. Provide four hot-dipped galvanized steel L-type anchor bolts. Lighting pole shall be hot dip galvanized prior to powdercoat paint.

DECORATIVE BASE
Holophane Cambridge Series
Model: CM17CSB
or Spring City Cambridge Series
Model: DWBCMB-17-CU
Decorative clamshell cast aluminum base. Hardware shall be stainless steel.

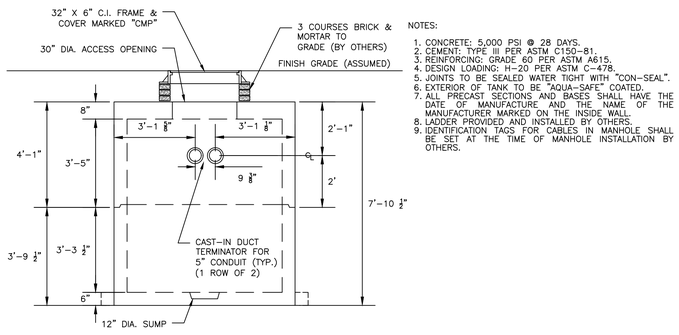
DIMENSIONS
Overall Height = 19' 3"
Pole Height = 15' 0"
Base Diameter = 17" to 18"

FINISH
Black (standard)

APPLICATION
Stree/sidewalk lighting. Decorative fixture not needed on same side of street as existing cobrahead fixtures.
Spacing: 80' - 100' on center
Place in furnishing zone overhang towards street; where fixture conflicts with overhead utilities, may be placed on back of sidewalk.

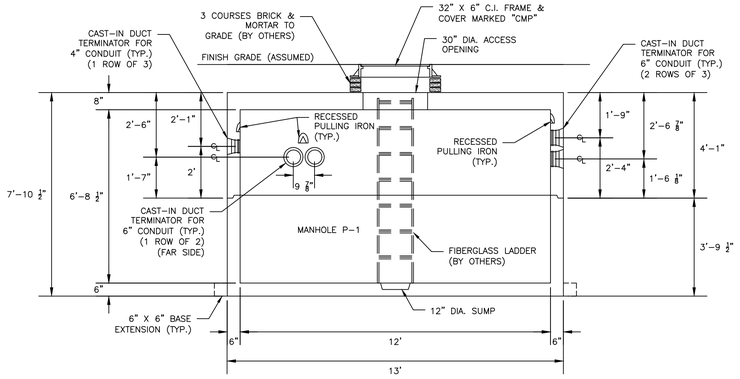
PENINSULA MEDIUM STREET LIGHT
NOT TO SCALE

PLAN VIEW

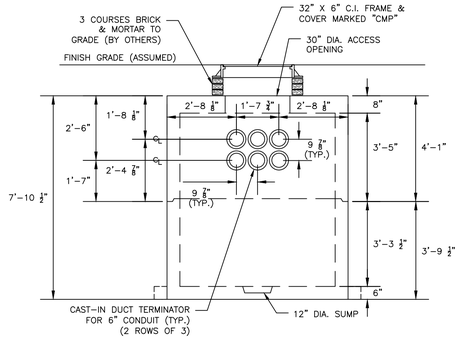


NOTES:
1. CONCRETE: 5,000 PSI @ 28 DAYS.
2. CEMENT: TYPE III PER ASTM C150-81.
3. REINFORCING: GRADE 60 PER ASTM A615.
4. DESIGN LOADING: H-20 PER ASTM C-478.
5. JOINTS TO BE SEALED WATER TIGHT WITH "CON-SEAL".
6. EXTERIOR OF TANK TO BE "AQUA-SAFE" COATED.
7. ALL PRECAST SECTIONS AND BASES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME OF THE MANUFACTURER MARKED ON THE INSIDE WALL.
8. LADDER PROVIDED AND INSTALLED BY OTHERS.
9. IDENTIFICATION TAGS FOR CABLES IN MANHOLE SHALL BE SET AT THE TIME OF MANHOLE INSTALLATION BY OTHERS.

FRONT ELEVATION VIEW



SECTION VIEW



BACK ELEVATION VIEW

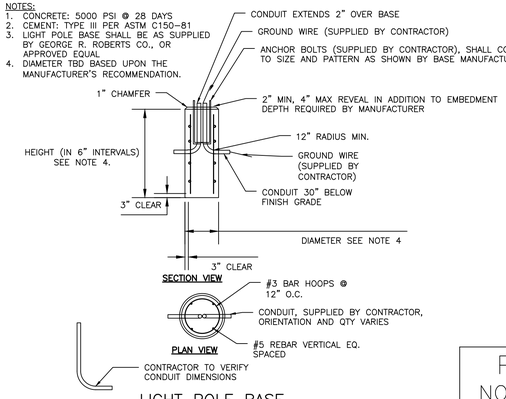
DESCRIPTION	WEIGHT	QUANTITY
3'-9 1/2" BASE	16,202 LBS	1
3'-11" TOP	18,892 LBS	1

PRECAST CONCRETE 38Y MANHOLE DETAIL
NOT TO SCALE

SCHEDULE		
HEIGHT OF POLE	MIN DIAMETER	MIN EMBEDMENT
<20'	18"	5'
20'-40'	2'	6'
>40'	3'	8'

REVEALS	
APPLICATIONS	REVEAL
STREET/SIDEWALK	4"
OTHER PED HARDSCAPE	FLUSH
PEDESTRIAN LAWN/MULCH	4"
PARKING AREAS (OPEN TRAFFIC)	24"-36"

NOTES:
1. CONCRETE: 5000 PSI @ 28 DAYS
2. CEMENT: TYPE III PER ASTM C150-81
3. LIGHT POLE BASE SHALL BE AS SUPPLIED BY GEORGE R. ROBERTS CO., OR APPROVED EQUAL
4. DIAMETER TBD BASED UPON THE MANUFACTURER'S RECOMMENDATION.



LIGHT POLE BASE
NOT TO SCALE

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY	DATE
SITE PLAN	PFH	11/20/24
COMMENT RESPONSE	PFH	2/14/25

DRAWING NAME: UTILITY DETAILS – 2
PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101
CLIENT: REDFERN PROPERTIES P.O. BOX 8816, PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.

ALL PLANS SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. AND SHALL NOT BE USED BY THE OWNER OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
70 MILK STREET, PORTLAND, MAINE 04104
PO BOX 3437 (207) 775-2655

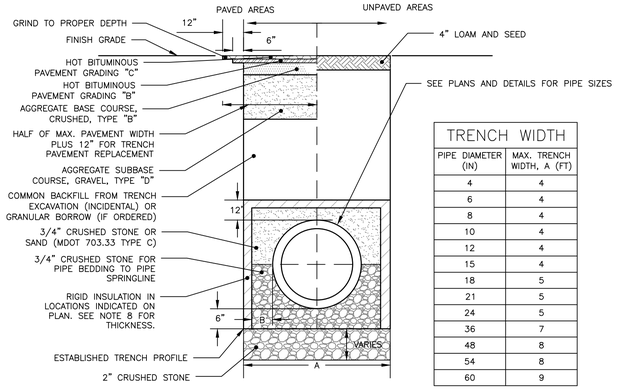
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SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-43

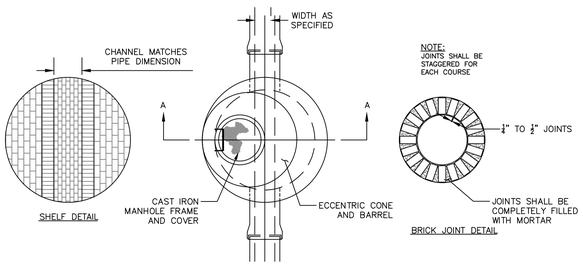
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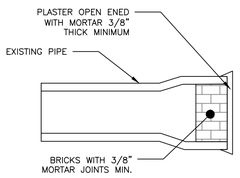
1. ANY ALTERNATE TRENCHING METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
2. ALL CONSTRUCTION METHODS SHALL CONFORM TO THE CITY OF PORTLAND TECHNICAL STANDARDS FIGURE II-2.
3. BRACING & SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. WHERE APPLICABLE, PERFORATIONS IN STORM DRAIN (PERF. SD) SHALL BE ORIENTED UP.
5. ALL STORM DRAINS SHALL BE PVC SDR 35 MIN PS-46 RATING OR OR IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL MANUAL , SECTION 2 – SANITARY SEWER AND STORM DRAIN – PART 2.5.2
6. IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
7. THIS DETAIL SHALL BE APPLIED ONLY TO PIPE TRENCHES WITHIN OF THE CITY OF PORTLAND R.O.W.
8. STORM DRAIN COVER BETWEEN 2' AND 3' SHALL INCLUDE 4" OF RIGID INSULATION. COVER BETWEEN 3' AND 4' SHALL INCLUDE 2" RIGID INSULATION. OTHER UTILITIES: ADD 2" OF RIGID INSULATION FOR EACH FOOT ABOVE MINIMUM DEPTH.
9. DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.
10. DIMENSION B SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE; BUT IN ALL CASES DIMENSION B SHALL BE AT LEAST 9".
11. DIMENSION A IS THE MAXIMUM WIDTH ALLOWED FOR CALCULATING PAY QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION A SHALL BE BASED ON PIPE DIAMETER D, AS SET FORTH IN THE TABLE BELOW.



TRENCH WIDTH	
PIPE DIAMETER (IN)	MAX. TRENCH WIDTH, A (FT)
4	4
6	4
8	4
10	4
12	4
15	4
18	5
21	5
24	5
36	7
48	8
54	8
60	9

CITY OF PORTLAND TYPICAL PIPE TRENCH DETAIL WITHIN RIGHT-OF-WAY
NOT TO SCALE

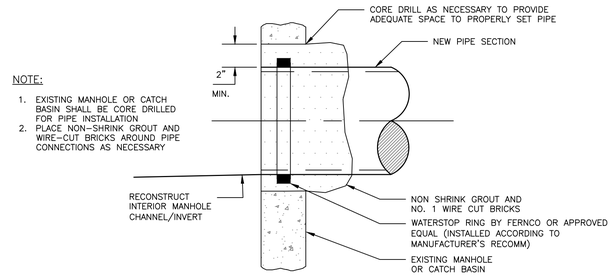




DESIGN NOTES:

1. IT IS ASSUMED THAT THE EXISTING PIPE IS OF VITRIFIED CLAY CONSTRUCTION. USE CAP OR PLUG FOR PVC PIPE

MASONRY PLUG
NOT TO SCALE



NOTE:

1. EXISTING MANHOLE OR CATCH BASIN SHALL BE CORE DRILLED FOR PIPE INSTALLATION
2. PLACE NON-SHRINK GROUT AND WIRE-CUT BRICKS AROUND PIPE CONNECTIONS AS NECESSARY

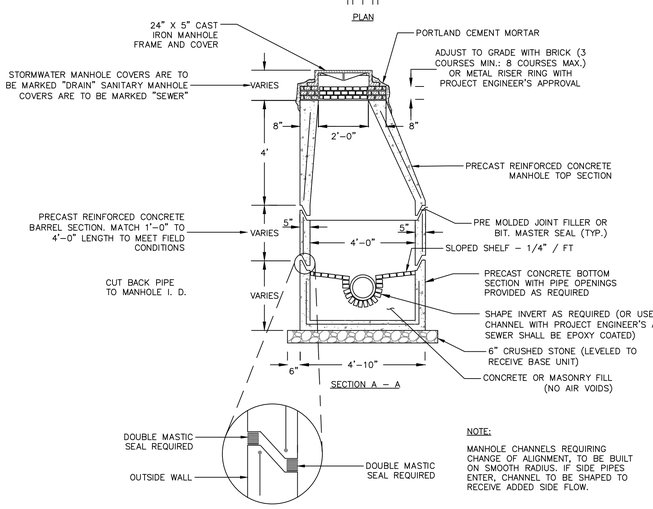
NEW PIPE TO EXISTING STRUCTURE CONNECTION DETAIL
NOT TO SCALE



NOTES:

1. INSIDE DROP MAHOLES SHALL BE A MINIMUM OF 5' DIAMETER
2. ALL INSIDE DROP CONNECTIONS FOR SERVICES AND COLLECTOR SEWERS SHALL USE THE DROP BOWL AS SHOWN

TYPICAL INSIDE DROP MANHOLE
NOT TO SCALE

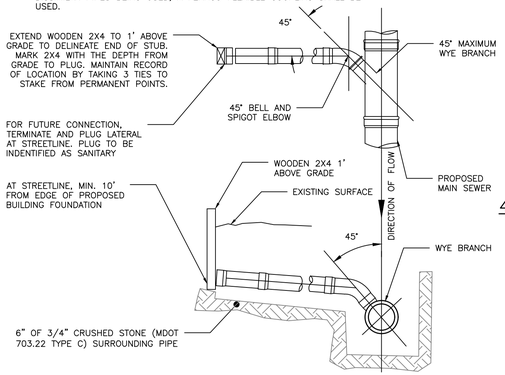


NOTE:
MANHOLE CHANNELS REQUIRING CHANGE OF ALIGNMENT, TO BE BUILT ON SMOOTH RADIUS. IF SIDE PIPES ENTER, CHANNEL TO BE SHAPED TO RECEIVE ADDED SIDE FLOW.

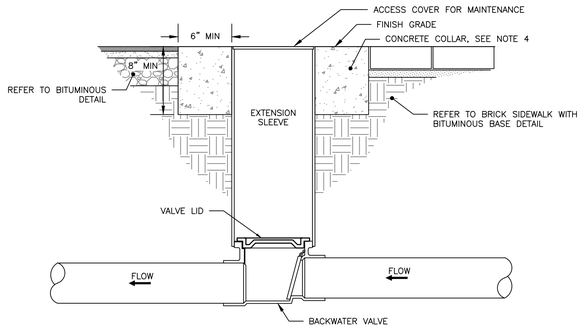
NOTES:

1. UNLESS OTHERWISE SPECIFIED, CONCRETE SHALL BE 4000 PSI @28 DAYS.
2. RECONSTRUCT INTERIOR MANHOLE INVERT AS NECESSARY TO ACCOMMODATE NEW PIPE.
3. THIS DETAIL IS INTENDED TO PROVIDE ADDITIONAL INFORMATION TO THE CONTRACTOR IN REGARDS TO THE CONNECTION OF THE DOGHOUSE MANHOLE BASE TO THE EXISTING SANITARY SEWER SYSTEM.
4. MANHOLES MAY BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
5. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
6. ALL MANHOLE RISERS SHALL BE ETHERIDGE 24" OR APPROVAL EQUAL.
7. ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE. THE MATERIAL SHALL BE MINWAX FIBROUS BRUSH COAT MADE BY THE MINWAX COMPANY, NEW YORK, NEW YORK; TREMCO 121 FOUNDATION COATING, MADE BY THE TREMCO MANUFACTURING COMPANY, CLEVELAND, OHIO; INERTOL NO-7 MADE BY INERTOL COMPANY, NEWARK, NEW JERSEY; CAMGER SUPERSEAL WATER-PROOFING CONCRETE COATING PPS-922-2, MADE BY THE CAMGER COATING SYSTEMS, INC., NORFOLK, MASSACHUSETTS OR APPROVED EQUAL.
8. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35.

PRECAST CONCRETE MANHOLE – CITY OF PORTLAND
NOT TO SCALE



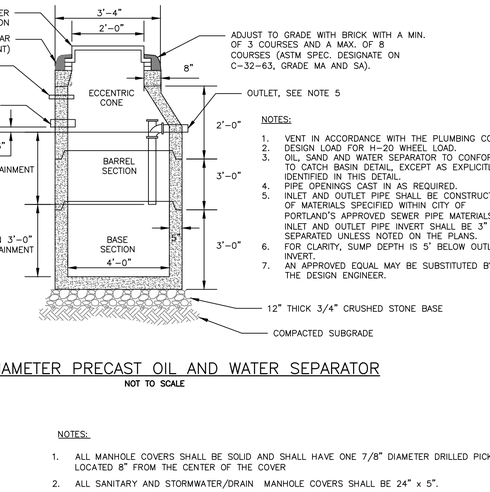
SEWER TEE/WYE CONNECTION DETAIL
NOT TO SCALE



NOTES:

1. BACKFLOW VALVE TO BE PROVIDED BY AGRI DRAIN CORPORATION OR AN APPROVED EQUAL.
2. VALVE TO BE INSTALLED TO MANUFACTURER'S SPECIFICATIONS AND COMPLY WITH RULES AND REGULATIONS AS OUTLINED IN SECTION 2 OF THE CITY OF PORTLAND TECHNICAL MANUAL.
3. VALVE SHALL BE INSTALLED WITH A VALVE BOX AND COVER TO PROVIDE EASY ACCESS AND MAINTENANCE; VALVE COVER SHALL STATE 'SEWER' ON LID FLUSH TO SURFACE. REFER TO VALVE & BOX COVER DETAIL FOR ADDITIONAL INFORMATION.
4. CONCRETE COLLAR AT A MINIMUM 24-HOUR COMPRESSIVE STRENGTH OF 3,000 PSI.

BACKFLOW VALVE ASSEMBLY
NOT TO SCALE



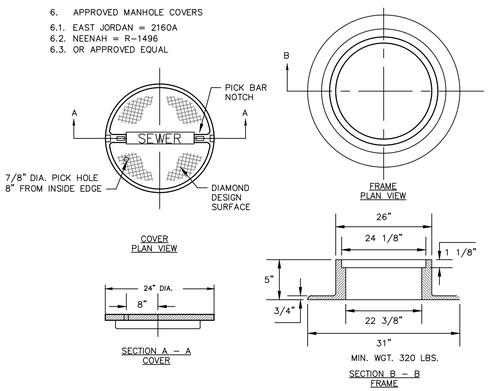
NOTES:

1. VENT IN ACCORDANCE WITH THE PLUMBING CODE.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. OIL, SAND AND WATER SEPARATOR TO CONFORM TO CATCH BASIN DETAIL, EXCEPT AS EXPLICITLY IDENTIFIED IN THIS DETAIL.
4. PIPE OPENINGS CAST IN AS REQUIRED.
5. INLET AND OUTLET PIPE SHALL BE CONSTRUCTED OF MATERIALS SPECIFIED WITHIN CITY OF PORTLAND'S APPROVED SEWER PIPE MATERIALS. INLET AND OUTLET PIPE INVERT SHALL BE 3" SEPARATED UNLESS NOTED ON THE PLANS.
6. FOR CLARITY, SUMP DEPTH IS 5' BELOW OUTLET INVERT.
7. AN APPROVED EQUAL MAY BE SUBSTITUTED BY THE DESIGN ENGINEER.

4'-0" DIAMETER PRECAST OIL AND WATER SEPARATOR
NOT TO SCALE

NOTES:

1. ALL MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE ONE 7/8" DIAMETER DRILLED PICK HOLE, LOCATED 8" FROM THE CENTER OF THE COVER
2. ALL SANITARY AND STORMWATER/DRAIN MANHOLE COVERS SHALL BE 24" x 5".
3. ALL SANITARY MANHOLE COVERS AND SHALL HAVE "SEWER" CAST INTO THE COVER.
4. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
5. APPROVED MANHOLE FRAMES:
   5.1. EAST JORDAN = 1690Z
   5.2. NEENAH = R-1496
   5.3. OR APPROVED EQUAL
6. APPROVED MANHOLE COVERS
   6.1. EAST JORDAN = 2160A
   6.2. NEENAH = R-1496
   6.3. OR APPROVED EQUAL



CAST IRON MANHOLE COVER AND FRAME
NOT TO SCALE

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY / DATE
SITE PLAN	PFH 11/20/24
COMMENT RESPONSE	PFH 2/14/25

DRAWING NAME: UTILITY DETAILS – 3

PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101

CLIENT: REDFERN PROPERTIES P.O. BOX 8816, PORTLAND, MAINE 04104

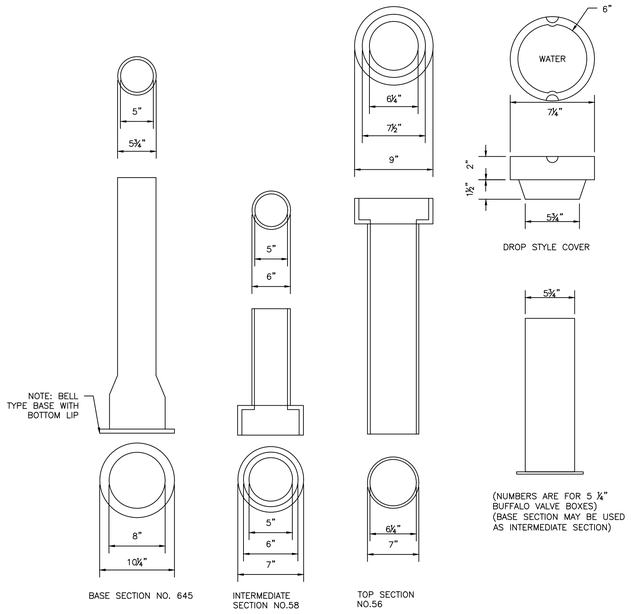
ACORN ENGINEERING, INC. — ENGINEERING, INC.
ACORN ENGINEERING, INC.
P.O. BOX 1535 – BIDDEFORD, MAINE 04104
(207) 775-2655

THESE PLANS SHALL NOT BE MODIFIED WITHOUT THE PRIOR WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. AND IF SO MODIFIED, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

FILE:	1202_CIVIL
JN:	1202
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE — PETER F. HEIL — 15318 — LICENSED PROFESSIONAL ENGINEER — 2/25/25

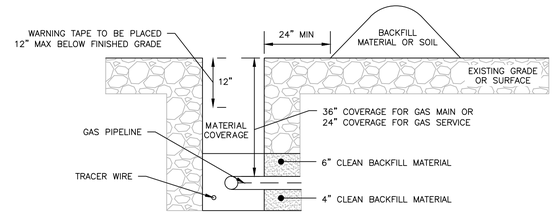
DRAWING NO.
C-44



VALVE BOX & COVER
NOT TO SCALE

NOTES:

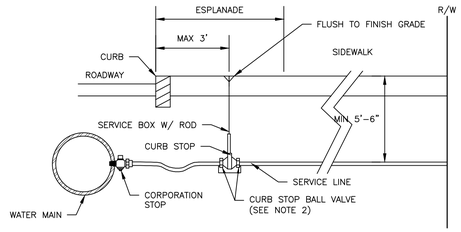
1. INSTALL MAINS WITH A MINIMUM OF 36" OF COVER AND SERVICES WITH A MINIMUM OF 24" OF COVER. EXCEPTIONS MAY BE MADE WITHIN SLATE AND FEDERAL CODES WITH THE PRIOR APPROVAL OF THE OPERATIONS CENTER MANAGER. INSTALL PLASTIC PIPE WITH SLACK SO EXTERNAL LOADING OR THERMAL CONTRACTION WILL NOT PLACE UNNECESSARY STRESS ON THE PIPE OR JOINTS. IN CASES WHERE A STOPPER FITTING OF OTHER NEW MATERIAL IS ADDED TO AN OLDER MAIN SUCH THAT THE MAIN HAS LESS THAN 24" OF COVE, THE CONTRACTOR SHOULD PROVIDE PERMANENT PROTECTION SUCH AS CONCRETE. WHENEVER A MAIN WILL BE INSTALLED WITH LESS THAN 24" OF COVER, NOTIFY THE OPERATIONS CENTER MANAGER OR THE DESIGNEE SO THEY CAN REQUEST APPROVAL FROM THE DEPARTMENT OF PUBLIC UTILITIES.
2. PROCEDURE – SEE FIGURE BELOW
   - 2.1. REMOVE ALL EXCESS WATER FROM THE TRENCH WITH PUMPS OR EQUIVALENT
   - 2.2. PLACE A LAYER OF SAND 4" DEEP IN TRENCH BOTTOM BEFORE LAYING THE PIPE IN THE TRENCH. THE OPERATIONS CENTER MANAGER OR COMPANY FIELD REPRESENTATIVE MAY ALLOW USE OF CLEAN FILL MATERIAL INSTEAD OF SAND PROVIDED IT IS CLEAN AND FREE OF ANY OBJECTS THAT MAY IMPINGE ON THE PIPE.
   - 2.3. FOR PLASTIC PIPE, INSTALL NUMBER 12 AWG SOLID COPPER WIRE (TRACER WIRE) WITH YELLOW INSULATION JACKET ALONG THE LENGTH OF THE SERVICE. THIS WIRE IS USED TO LOCATE THE PIPE. DO NOT PHYSICALLY ATTACH THE WIRE OR ALLOW THE WIRE TO TOUCH THE PLASTIC PIPE. KEEP THE TRACER WIRE AT LEAST 4" AWAY FROM THE PLASTIC PIPE. IF THE INSTALLATION IS TRENCHLESS, THE TRACER WIRE MAY BE LESS THEN 4" AWAY FROM THE PLASTIC PIPE.
   - 2.4. PLACE A MINIMUM OF 6" OF SAND OVER THE PIPE. THE OPERATIONS CENTER MANAGER OR COMPANY FIELD REPRESENTATIVE MAY ALLOW USE OF CLEAN FILL MATERIAL INSTEAD OF SAND PROVIDED IT IS CLEAN AND FREE OF ANY OBJECTS THAT MAY IMPINGE ON THE PIPE.
   - 2.5. PLACE WARNING TAPE IN THE TRENCH NOT MORE THAN 12" BELOW FINISHED GRADE. THE STANDARD WARNING TAPE IS YELLOW, NON-DETECTABLE TAPE, 6" WIDE.
   - 2.6. FILL THE REST OF THE TRENCH WITH CLEAN FILL MATERIAL, USING THE SPOIL WHERE SUITABLE AND ACCEPTABLE. IF THE ORIGINAL SPOIL MATERIAL IS NOT SUITABLE FOR USE AS A SUB-GRADE MATERIAL WHEN RESTORING ROAD SURFACES, USE MATERIAL REQUIRED BY STATE OR LOCAL AGENCIES. REMOVE ALL EXCESS SPOIL IN THE ACCEPTED MANNER.
   - 2.7. PROPERLY COMPACT THE TRENCH TO INSURE THE TRENCH WILL NOT SETTLE.
3. SEE GAS STANDARD 10.03 FOR A DESCRIPTION OF SUITABLE MATERIALS FOR PIPE BEDDING AND FINAL BACKFILL.



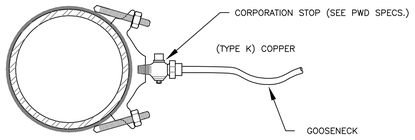
NATURAL GAS MAIN/SERVICE TRENCH DETAIL
NOT TO SCALE

NOTES:

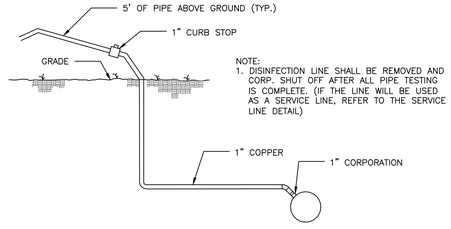
1. ALL MATERIALS AND INSTALLATION PROCEDURES MUST COMPLY WITH PORTLAND WATER DISTRICT (PWD) SPECIFICATIONS.
2. CURB STOP BALL VALVE TO BE MADE OF COPPER OR BRASS UNLESS OTHERWISE NOTED BY THE PORTLAND WATER DISTRICT.
3. SERVICE LINE TO BE MADE OF TYPE K COPPER.
4. CONCRETE BLOCKING SHALL BE ADDED TO THE BASE OF THE CURB STOP TO PROVIDE STRUCTURAL SUPPORT FOR THE CURB STOP AND SERVICE BOX.
5. CURB STOP TO BE INSTALLED IN PERVIOUS AREAS TO THE GREATEST EXTENT FEASIBLE. FOR LOTS IN WHICH THE CURB STOP MUST BE LOCATED IN A SIDEWALK OR DRIVEWAY, CONTRACTOR TO CONTACT PWD FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
6. CONTRACTOR TO COIL ACCESS PIPE ON PRIVATE PROPERTY PRIOR TO CONNECTION TO HOUSE. ACCESS PIPE TO BE ADEQUATELY MARKED IF BURIED OR PROTECTED IF STORED ABOVE GROUND.



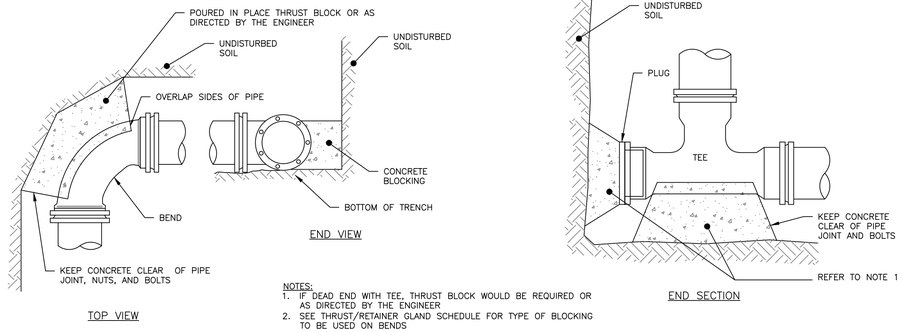
TYPICAL SERVICE CONNECTION
NOT TO SCALE



SERVICE SADDLE: 2" C.C. THREAD
NOT TO SCALE

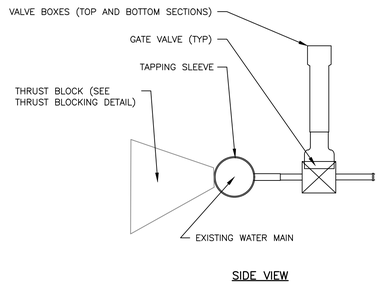


DISINFECTION LINE DETAIL
NOT TO SCALE



NOTES:
1. IF DEAD END WITH TEE, THRUST BLOCK WOULD BE REQUIRED OR AS DIRECTED BY THE ENGINEER
2. SEE THRUST/RETAINER GLAND SCHEDULE FOR TYPE OF BLOCKING TO BE USED ON BENDS

THRUST BLOCKING: REGULAR BEND
NOT TO SCALE

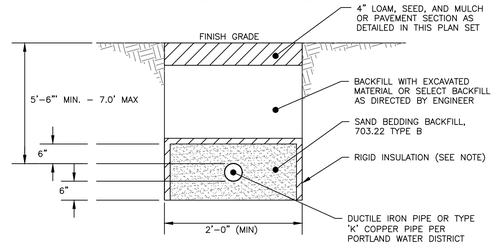


SIDE VIEW

TAPPING SLEEVE AND VALVE
NOT TO SCALE

NOTES:

1. THE WATER TRENCH SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARD DETAILS & SPECIFICATIONS.
2. IF LESS THAN 5'-6" OF COVER IS NECESSARY ADD 1 INCH OF "BLUE DOW" RIGID INSULATION FOR EVERY 12" LESS COVER.
3. 12" MIN. HORIZONTAL CLEARANCE BETWEEN PIPES IN JOINT TRENCH.



WATER SERVICE TRENCH SECTION DETAIL
NOT TO SCALE

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SITE PLAN	PFH 11/20/24
COMMENT RESPONSE	PFH 2/14/25

DRAWING NAME: UTILITY DETAILS – 4

PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101

CLIENT: REDFERN PROPERTIES P.O. BOX 8816, PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.
ENGINEERING, INC.
ACORN ENGINEERING, INC. 122 FOREST AVENUE, PORTLAND, MAINE 04101 (207) 775-2655
PO BOX 3327, PORTLAND, MAINE 04104

THESE PLANS SHALL NOT BE ALTERED WITHOUT PERMISSION FROM ACORN ENGINEERING, INC. AND NOT USED BY OTHERS OR, OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

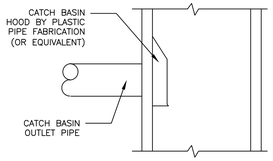
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DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE — PETER F. HEIL — 15318 — LICENSED PROFESSIONAL ENGINEER

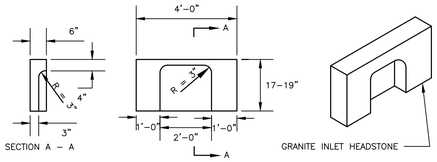
DRAWING NO.
C-45

NOTES:

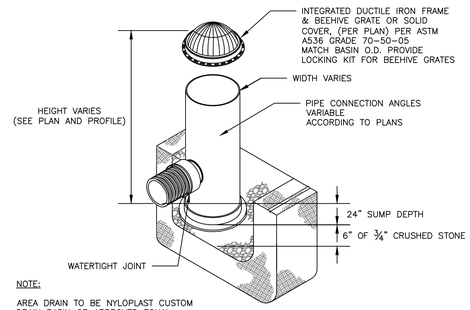
1. INSTALL CATCH BASIN HOODS IN ALL CATCH BASINS OR DRAINAGE MANHOLES.
2. PREFERRED STYLE DESIGNED TO ELIMINATE CEMENTING OF THE TRAP.
3. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION REQUIREMENTS



CATCH BASIN HOOD DETAIL
NOT TO SCALE



4' GRANITE HEADSTONE FOR CATCH BASIN INLET
NOT TO SCALE



NOTE:
AREA DRAIN TO BE NYLOPLAST CUSTOM DRAIN BASIN OR APPROVED EQUAL.

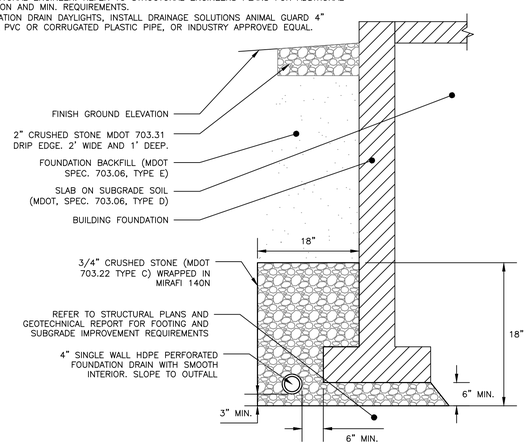
BEEHIVE DRAIN IN RIPRAP CHANNEL DETAIL
NOT TO SCALE

1. ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 lbs. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. MANHOLES MAY BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
3. PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
4. ALL STORM AND SEWER MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE ONE ⅞" DIAMETER DRILLED PICK HOLE LOCATED 8" FROM THE CENTER OF THE COVER.
5. ALL SANITARY MANHOLE COVERS SHALL HAVE "SEWER" CAST INTO THE COVER. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
6. ALL MANHOLE RISERS SHALL BE ETHERIDGE 24" OR APPROVAL EQUAL.
7. SEWER BRICK SHALL CONFORM TO ASTM SPEC. DESIGNATE ON C-32-63, GRADE MA AND SA.
8. ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE.
9. CATCH BASIN FRAMES FOR TYPE A4 CATCH BASIN CURB INLETS SHALL BE ETHERIDGE DR5A OR APPROVED EQUAL.
10. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35.
11. EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND.
12. ALL CATCH BASIN OUTLETS SHALL BE INSTALLED WITH A CASCO TRAP PER DETAIL.

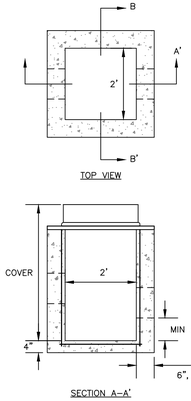
GENERAL NOTES FOR MANHOLES AND CATCH BASINS

NOTES:

1. REFER TO THE BUILDING ARCHITECTS AND STRUCTURAL ENGINEERING PLANS FOR THE BUILDING FOUNDATION, BACKFILL, ROOF DRAIN, SIDEWALK AND OTHER DETAILS.
2. PERFORATIONS IN UNDERDRAIN PIPE SHALL BE ORIENTED DOWN.
3. INSTALL STONE DRIP EDGE IN A LOCATIONS SUBJECT TO ROOF RUNOFF. WIDTH SHALL BE A MIN. 12" BEYOND THE PROJECTION OF THE ROOF EVE.
4. FOUNDATION WALL FOOTINGS SHALL BE CONSTRUCTED TO A MIN. DEPTH OF 4 FT BELOW ADJACENT FINISH GRADE UNLESS OTHERWISE SPECIFIED BY THE GEOTECHNICAL ENGINEER OR STRUCTURAL ENGINEER. REFER TO STRUCTURAL ENGINEERS PLANS FOR ADDITIONAL INFORMATION AND MIN. REQUIREMENTS.
5. IF FOUNDATION DRAIN DAYLIGHTS, INSTALL DRAINAGE SOLUTIONS ANIMAL GUARD 4" EXTERNAL PVC OR CORRUGATED PLASTIC PIPE, OR INDUSTRY APPROVED EQUAL.



FOUNDATION DRAIN DETAIL
NOT TO SCALE

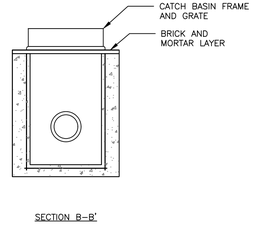


TOP VIEW

NOTES:

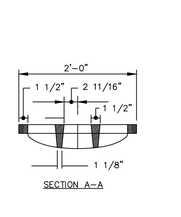
1. CATCH BASIN TO BE PRECAST AS A SINGLE PORTLAND CEMENT CONCRETE UNIT, AS MANUFACTURED BY AMERICAN CONCRETE INDUSTRIES OR AN APPROVED EQUAL.
2. FRAME AND GRATE TO BE NEENAH FOUNDRY ENTERPRISES R-4826 OR AN APPROVED EQUAL.
3. REBAR FRAMING TO BE #4, MIN 8" O.C. OR AN APPROVED EQUAL.
4. DIAMETER OF DRAINAGE HOLE TO BE 3" LARGER THAN THE INSIDE DIAMETER OF A FLEXIBLE PIPE OR THE OUTSIDE DIAMETER OF RIGID PIPE.

SECTION A-A'



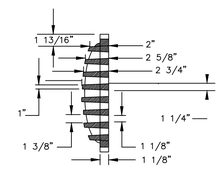
SECTION B-B'

'TYPE F' PRECAST CATCH BASIN
NOT TO SCALE



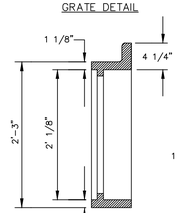
PLAN VIEW

SECTION A-A

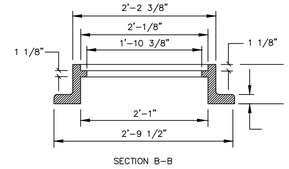


SECTION B-B

GRATE DETAIL



SECTION A-A



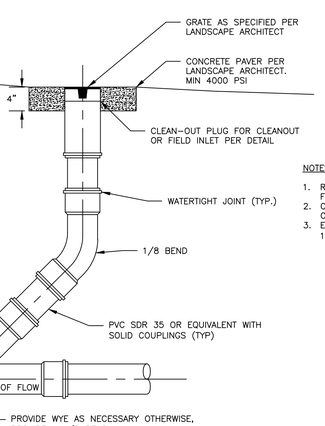
SECTION B-B

NOTES:

1. APPROVED CATCH BASIN FRAMES:
   1.1. EAST JORDAN = 7375Z
   1.2. NEENAH = R-3248
   1.3. OR APPROVED EQUAL
2. APPROVED CATCH BASIN GRATES
   2.1. EAST JORDAN = 2440M
   2.2. NEENAH = R-3248
   2.3. OR APPROVED EQUAL

FRAME DETAIL

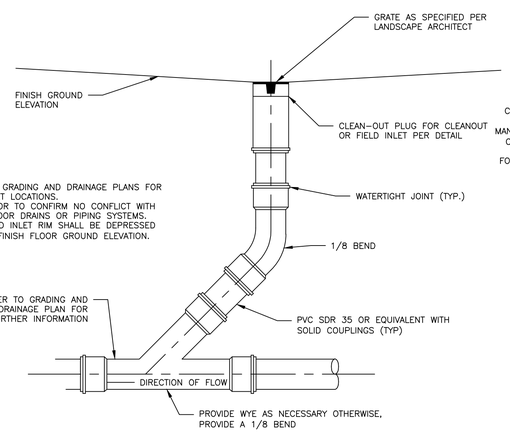
CATCH BASIN FRAME & GRATE
NOT TO SCALE



NOTES:

1. REFER TO GRADING AND DRAINAGE PLANS FOR FIELD INLET LOCATIONS.
2. CONTRACTOR TO CONFIRM NO CONFLICT WITH OTHER FLOOR DRAINS OR PIPING SYSTEMS.
3. EACH FIELD INLET RIM SHALL BE DEPRESSED 1" FROM FINISH FLOOR GROUND ELEVATION.

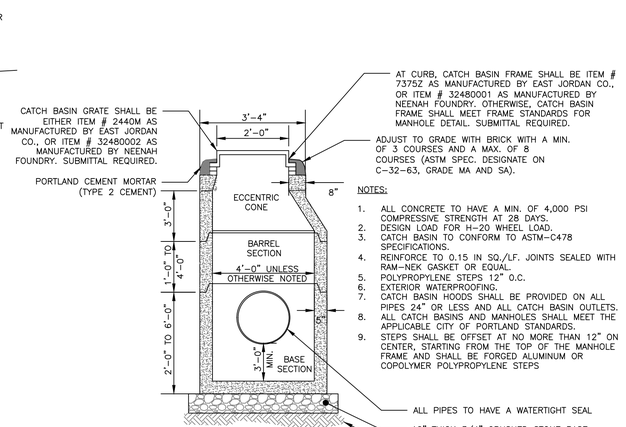
FIELD INLETS IN THE TRAVEL WAY
NOT TO SCALE



NOTES:

1. REFER TO GRADING AND DRAINAGE PLANS FOR FIELD INLET LOCATIONS.
2. CONTRACTOR TO CONFIRM NO CONFLICT WITH OTHER FLOOR DRAINS OR PIPING SYSTEMS.
3. EACH FIELD INLET RIM SHALL BE DEPRESSED 1" FROM FINISH FLOOR GROUND ELEVATION.

FIELD INLETS IN LANDSCAPE AREAS
NOT TO SCALE

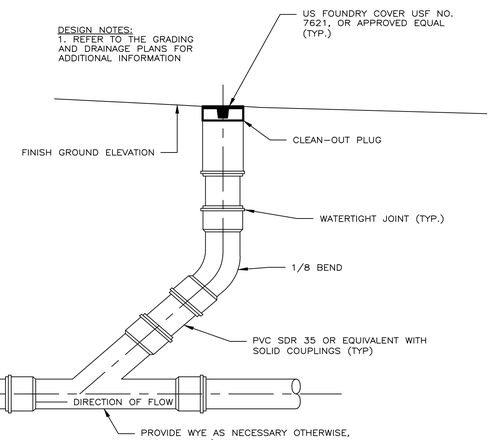


NOTES:

1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.15 IN SQ./LF. JOINTS SEALED WITH RAM-NEK GASKET OR EQUAL.
5. POLYPROPYLENE STEPS 12" O.C.
6. EXTERIOR WATERPROOFING.
7. CATCH BASIN HOODS SHALL BE PROVIDED ON ALL PIPES 24" OR LESS AND ALL CATCH BASIN OUTLETS.
8. ALL CATCH BASINS AND MANHOLES SHALL MEET THE APPLICABLE CITY OF PORTLAND STANDARDS.
9. STEPS SHALL BE OFFSET AT NO MORE THAN 12" ON CENTER, STARTING FROM THE TOP OF THE MANHOLE FRAME AND SHALL BE FORGED ALUMINUM OR COPOLYMER POLYPROPYLENE STEPS

PRECAST CATCH BASIN/ DRAINAGE MANHOLE
NOT TO SCALE

DESIGN NOTES:
1. REFER TO THE GRADING AND DRAINAGE PLANS FOR ADDITIONAL INFORMATION



CLEANOUT DETAIL
NOT TO SCALE

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SITE PLAN	PFH 11/20/24
COMMENT RESPONSE	PFH 2/14/25

DRAWING NAME: DRAINAGE DETAILS - 1

PROJECT NAME: TAVATA - 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101

CLIENT: REDFERN PROPERTIES P.O. BOX 8816, PORTLAND, MAINE 04104

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ACORN ENGINEERING, INC.
70 CANAL STREET, STE. 3
PO BOX 1237 ESTERO, FLORIDA 33928
(207) 775-2655

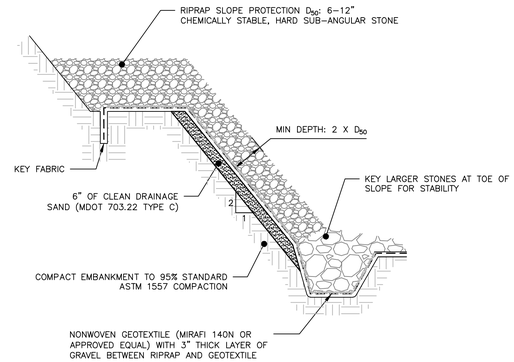
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CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER
2/14/25

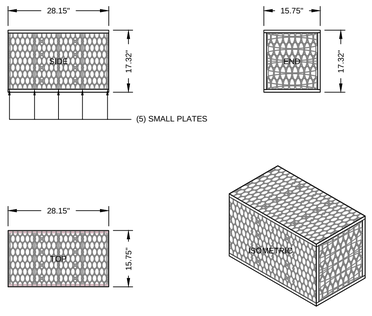
DRAWING NO.
C-46

NOTES:

1. RIPRAP SHOULD CONTAIN A VARIETY OF SIZES TO PROVIDE COHESIVE, STRONG AND WELL-BLENDED COVER WITH MINIMUM VOIDS. THE DESIRED DISTRIBUTION OF STONES SHALL BE OBTAINED BY PLACING BY HAND.
2. RUBBLE CONCRETE MAY BE USED IN PLACE OF RIPRAP STONE PROVIDED THE CONCRETE HAS A MINIMUM DENSITY OF 150 POUNDS PER CUBIC FOOT. ROUND RIVER ROCKS MAY BE APPROPRIATE IN SITUATIONS WHERE THE SLOPE IS SHALLOWER THAN 3:1, IN A CHANNEL NOT RECEIVING CONCENTRATED WATER FLOW AND WHERE PEOPLE WILL NOT ACCESS THE AREA.
3. ANY FILL MATERIAL SHOULD BE WELL-GRADED.
4. IF DRAINAGE LAYER IS NECESSARY TO CONTROL GROUNDWATER SEEPAGE, APPROXIMATELY 6 INCHES OF GRANULAR FILL SHOULD BE SPREAD UNIFORMLY OVER THE NATIVE SOILS. A NON-WOVEN GEOTEXTILE FILTER FABRIC MAY BE PLACED DIRECTLY ON THE PREPARED SLOPE IN SITUATIONS WHERE GROUNDWATER IS NOT AN ISSUE. FOR MORE PROTECTION, PROVIDE BOTH THE DRAINAGE LAYER AND THE GEOTEXTILE.



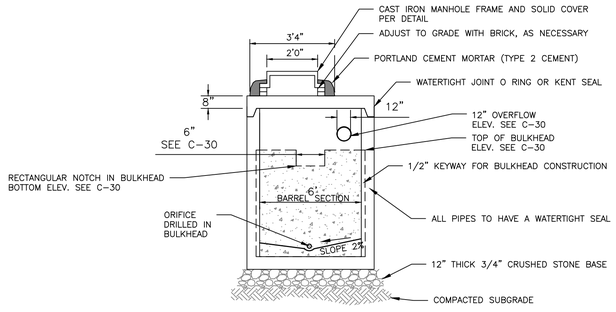
RIPRAP PROTECTION
NOT TO SCALE



R-TANK HD SINGLE MODULE
NOT TO SCALE

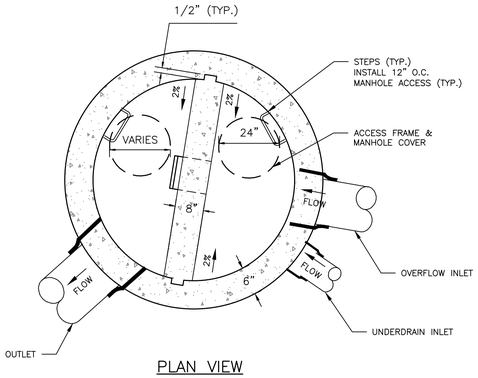
NOTES:

1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.12 IN SQ./LF.
5. JOINTS SEALED WITH BUTYL RUBBER.
6. POLYPROPYLENE STEPS 12" O.C.
7. STRUCTURE TO BE IN ACCORDANCE WITH APPLICABLE NOTES & SPECIFICATIONS OF "4'-0" DIAMETER PRECAST CATCH BASIN/DRAINAGE MANHOLE" DETAIL, SHEET C-44.



SIDE PROFILE

SCHEDULE		
ITEM	DIMENSION/ELEVATION	
	R-TANK OCS 1	R-TANK OCS 2
SD OUTLET	15"/56.44'	15"/58.88'
WATER QUALITY VERT. ORIFICE DRILLED IN BULKHEAD	1"/56.54'	1.6"/58.98'
NOTCH IN BULKHEAD	6" WIDE @ 61.25'	N/A
TOP WEIR WALL OVERFLOW	62.20'	62.65'
BMP OVERFLOW INLET	12"/59.45'	12"/61.28'
UNDERDRAIN INLET	58.15'	58.98'



PLAN VIEW

OUTLET CONTROL STRUCTURE
NOT TO SCALE

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SITE PLAN	PFH 11/20/24
COMMENT RESPONSE	PFH 2/14/25

DRAWING NAME: DRAINAGE DETAILS - 2

PROJECT NAME: TAVATA - 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101

CLIENT: REDFERN PROPERTIES P.O. BOX 8816, PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.

THESE PLANS SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. AND ALTERATIONS AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

ACORN ENGINEERING, INC.
70 CENTER STREET, KENNEBUNK, MAINE 04043
PO BOX 3257, KENNEBUNK, MAINE 04104
(207) 775-2655

FILE:	1202_CIVIL
JN:	1202
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C-47

1.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

AS PART OF THE SITE DEVELOPMENT, THE FOLLOWING TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE IMPLEMENTED. DEVICES SHALL BE INSTALLED AS DESCRIBED IN THIS REPORT OR WITHIN THE PLAN SET. SEE THE MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES FOR FURTHER REFERENCE.

1.1 TEMPORARY EROSION CONTROL MEASURES

THE FOLLOWING TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ARE PLANNED FOR THE PROJECT'S CONSTRUCTION PERIOD:

1.1.1 CRUSHED STONE STABILIZED CONSTRUCTION ENTRANCES SHALL BE PLACED AT ALL ACCESS POINTS TO THE PROJECT SITE WHERE THERE ARE DISTURBED AREAS. THE FOLLOWING SPECIFICATIONS SHALL BE FOLLOWED AT A MINIMUM:
- STONE SIZE SHALL BE 2–3 INCHES, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- THE THICKNESS OF THE ENTRANCE STONE LAYER SHALL BE NO LESS THAN 6 INCHES.
- THE ENTRANCE SHALL NOT BE LESS THAN 20 FEET WIDE, HOWEVER NOT LESS THAN THE FULL WIDTH OF POINTS WHERE INGRESS OR EGRESS OCCURS. THE LENGTH SHALL NOT BE LESS THAN 50 FEET IN LENGTH.
- GEOTEXTILE FABRIC (WOVEN OR NON–WOVEN) SHALL BE PLACED OVER THE ENTIRE ENTRANCE AREA.
- THE ENTRANCE/EXIT SHALL BE MAINTAINED TO THE EXTENT THAT IT WILL PREVENT THE TRACKING OF SEDIMENT ONTO PUBLIC ROAD WAYS.

1.1.2 SILTATION FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED DOWN GRADIENT OF ANY DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL PERMANENT STABILIZATION IS ACHIEVED. THE SILT FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED PER THE DETAILS PROVIDED IN THE PLAN SET AND INSPECTED BEFORE AND IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIRS SHALL BE MADE IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE LINE OR BERM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE OR BERM, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM.

1.1.3 HAY MULCH INCLUDING HYDRO SEEDING IS INTENDED TO PROVIDE COVER FOR DENUDED OR SEEDED AREAS UNTIL REVEGETATION IS ESTABLISHED. MULCH PLACED BETWEEN APRIL 15TH AND NOVEMBER 1ST ON SLOPES OF LESS THAN 15 PERCENT SHALL BE COVERED BY FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. MULCH PLACED BETWEEN NOVEMBER 1ST AND APRIL 15TH ON SLOPES EQUAL TO OR STEEPER THAN 8 PERCENT AND EQUAL TO OR FLATTER THAN 2:1 SHALL USE MATS OR FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.

1.1.4 AT ANY TIME OF THE YEAR, ALL SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH DOUBLE NET EROSION CONTROL BLANKET BIONET SC150BN BY NORTH AMERICAN GREEN OR APPROVED EQUAL, OR EROSION CONTROL MIX SLOPE PROTECTION AS DETAILED WITHIN THE PLANS.

1.1.5 WASHINGTON AVENUE SHALL BE SWEPT TO CONTROL MUD AND DUST FROM THE CONSTRUCTION SITE AS NECESSARY. ADD ADDITIONAL STONE TO THE STABILIZED CONSTRUCTION ENTRANCE TO MINIMIZE THE TRACKING OF MATERIAL OFF THE SITE AND ONTO THE SURROUNDING ROADWAYS.

1.1.6 DURING DEMOLITION, CLEARING AND GRUBBING OPERATIONS, STONE CHECK DAMS SHALL BE INSTALLED AT ANY AREAS OF CONCENTRATED FLOW. THE MAXIMUM HEIGHT OF THE CHECK DAM SHALL NOT EXCEED 2 FEET. THE CENTER OF THE CHECK DAM SHALL BE 6 INCHES BELOW THE OUTER EDGES OF THE DAM. THE CONTRACTOR SHALL MULCH THE SIDE SLOPES AND INSTALL STONE CHECK DAMS FOR ALL NEWLY EXCAVATED DITCH LINES WITHIN 24 HOURS OF THEIR CREATION.

1.1.7 SILT FENCE STAKE SPACING SHALL NOT EXCEED 6 FEET UNLESS THE FENCE IS SUPPORTED WITH 14 GAUGE WIRE IN WHICH CASE THE MAXIMUM SPACING SHALL NOT EXCEED 10 FEET. THE SILT FENCE SHALL BE "TOED" INTO THE GROUND.

1.1.8 STORMDRAIN INLET PROTECTION SHALL BE PROVIDED TO STORMDRAINS THROUGH THE USE OF ANY OF THE FOLLOWING: HAY BALE DROP INLET STRUCTURES, SILT FENCE DROP INLET SEDIMENT FILTER, GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER, OR CURB INLET SEDIMENT FILTER. BARRIERS SHALL BE INSPECTED AFTER EVERY RAINFALL EVENT AND REPAIRED AS NECESSARY. SEDIMENTS SHALL BE REMOVED WHEN ACCUMULATION HAS REACHED ½ THE DESIGN HEIGHT.

1.1.9 DUST CONTROL SHALL BE ACCOMPLISHED BY THE USE OF ANY OF THE FOLLOWING: WATER, CALCIUM CHLORIDE, STONE, OR AN APPROVED MDEP PRODUCT. DUST CONTROL SHALL BE APPLIED AS NEEDED TO ACCOMPLISH DUST CONTROL.

1.1.10 TEMPORARY LOAM, SEED, AND MULCHING SHALL BE USED IN AREAS WHERE NO OTHER EROSION CONTROL MEASURE IS USED. APPLICATION RATES FOR SEEDING ARE PROVIDED AT THE END OF THIS REPORT.

1.1.11 STOCKPILES SHALL BE STABILIZED WITHIN 7 DAYS OF FORMATION UNLESS A SCHEDULED RAIN EVENT OCCURS PRIOR TO THE 7 DAY WINDOW, IN WHICH CASE THE STOCKPILE SHALL BE STABILIZED PRIOR TO THE RAIN EVENT. METHODS OF STABILIZATION SHALL BE MULCH, EROSION CONTROL MIX, OR EROSION CONTROL BLANKETS/MATS. SILT FENCE OR A WOOD WASTE COMPOST FILTER BERM SHALL BE PLACED DOWNHILL OF ANY SOIL STOCKPILE LOCATION.

1.1.12 FOR DISTURBANCE BETWEEN NOVEMBER 1 AND APRIL 15, PLEASE REFER TO WINTER STABILIZATION PLAN IN THIS REPORT AND THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR FURTHER INFORMATION.

1.1.13 IT IS OF THE UTMOST IMPORTANCE THAT STORMWATER RUNOFF AND POTENTIAL SEDIMENT FROM THE CONSTRUCTION SITE BE DIVERTED AROUND THE PROPOSED UNDERDRAINS UNTIL THE TRENCH IS BACKFILLED.

1.2 PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES ARE INTENDED FOR POST DISTURBANCE AREAS OF THE PROJECT.

1.2.1 ALL DISTURBED AREAS DURING CONSTRUCTION, NOT SUBJECT TO OTHER PROPOSED CONDITIONS, SHALL RECEIVE A MINIMUM 4" OF LOAM AND SHALL BE LIMED, AND MULCHED. EROSION CONTROL BLANKETS OR MATS SHALL BE PLACED OVER THE MULCH IN AREAS NOTED IN PARAGRAPH 4.2 OF THIS REPORT.

1.2.2 ALL STORMWATER DEVICES SHALL BE INSTALLED AND TRIBUTARY AREAS STABILIZED PRIOR RECEIVING STORMWATER.

1.2.3 REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

2.0 EROSION AND SEDIMENTATION CONTROL PLAN

2.1 THE EROSION AND SEDIMENTATION CONTROL PLAN IS INCLUDED WITHIN THE PLAN SET.

3.0 DETAILS AND SPECIFICATIONS

3.1 EROSION CONTROL DETAILS AND SPECIFICATIONS ARE INCLUDED IN THE PLAN SET.

4.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

WINTER CONSTRUCTION CONSISTS OF EARTHWORK DISTURBANCE BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15. IF A CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15, THEN THE SITE SHALL BE PROTECTED WITH OVER–WINTER STABILIZATION. ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MIX, EROSION CONTROL MATS, RIPRAP, OR GRAVEL BASE ON A ROAD SHALL BE CONSIDERED OPEN.

THE CONTRACTOR SHALL LIMIT THE WORK AREA TO AREAS THAT WORK WILL OCCUR IN DURING THE SUBSEQUENT 15 DAYS AND SO THAT IT CAN BE MULCHED ONE DAY PRIOR TO A SNOW EVENT. THE CONTRACTOR SHALL STABILIZE WORK AREAS PRIOR TO OPENING ADDITIONAL WORK AREAS TO MINIMIZE AREAS WITHOUT EROSION CONTROL MEASURES.

THE FOLLOWING MEASURES SHALL BE IMPLEMENTED DURING WINTER CONSTRUCTION PERIODS:

4.1 SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES OR SILT FENCES.

4.2 MULCHING

ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75–LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. EROSION CONTROL MIX MUST BE APPLIED WITH A MINIMUM 4 INCH THICKNESS. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW SHALL BE REMOVED DOWN TO A ONE–INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA SHALL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, TRACKING OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WHEN THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. AFTER NOVEMBER 1ST, MULCHING AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

4.3 SOIL STOCKPILING

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A FOUR–INCH LAYER OF EROSION CONTROL MIX. THIS SHALL BE DONE WITHIN 24 HOURS OF STOCKING AND RE–ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL.

4.4 SEEDING

BETWEEN THE DATES OF OCTOBER 15TH AND APRIL 1ST, LOAM OR SEED SHALL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS NOT BEEN LOAMED, FINAL GRADING WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED.

DORMANT SEEDING MAY BE PLACED PRIOR TO THE PLACEMENT OF MULCH OR EROSION CONTROL BLANKETS. IF DORMANT SEEDING IS USED FOR THE SITE, ALL DISTURBED AREAS SHALL RECEIVE 4" OF LOAM AND SEED AT AN APPLICATION RATE OF 5 LBS/1,000 S.F. ALL AREAS SEEDED DURING THE WINTER SHALL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

4.5 OVER WINTER STABILIZATION OF DISTURBED SOILS

BY SEPTEMBER 15TH, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% SHALL BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS SHALL BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION – BY OCTOBER 1ST, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3LBS PER 1,000 S.F., LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 LBS PER 1,000 S.F., AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1ST, THEN MULCH THE AREA FOR OVER–WINTER PROTECTION.
- STABILIZE THE SOIL WITH SOD – STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
- STABILIZE THE SOIL WITH MULCH – BY NOVEMBER 15TH, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 LBS PER 1,000 S.F. ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

4.6 OVER WINTER STABILIZATION OF DISTURBED SLOPES

ALL STONE–COVERED SLOPES SHALL BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15TH. ALL SLOPES TO BE VEGETATED SHALL BE SEEDED AND MULCHED BY SEPTEMBER 1ST. A SLOPE IS CONSIDERED A GRADE GREATER THAN 15%. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1ST, THEN ONE OF THE FOLLOWING ACTION SHALL BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER:

- STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS – BY OCTOBER 1ST THE DISTURBED SLOPE SHALL BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 LBS PER 1,000 S.F. AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE SLOPE BY NOVEMBER 1ST, THEN THE CONTRACTOR SHALL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP.
- STABILIZE THE SOIL WITH SOD – THE DISTURBED SLOPE SHALL BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR SHALL NOT USE LATE–SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 3H:1V OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
- STABILIZE THE SOIL WITH EROSION CONTROL MIX – EROSION CONTROL MIX SHALL BE PROPERLY INSTALLED BY NOVEMBER 15TH. THE CONTRACTOR SHALL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GRADES GREATER THAN 2H:1V OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
- STABILIZE THE SOIL WITH STONE RIPRAP – PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15TH. A REGISTERED PROFESSIONAL ENGINEER SHALL BE HIRED TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

5.0 INSPECTION AND MAINTENANCE

A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT PERIODIC VISUAL INSPECTIONS OF INSTALLED EROSION CONTROL MEASURES. THE FREQUENCY OF INSPECTION SHALL OCCUR AT LEAST ONCE EVERY TWO WEEKS, AS WELL AS AFTER A "STORM EVENT". A "STORM EVENT" SHALL CONSIST 0.5 INCHES OF RAIN WITHIN A 24 HOUR PERIOD. THE FOLLOWING EROSION AND SEDIMENT CONTROL – BEST MANAGEMENT PRACTICES (BMP'S) SHALL INSPECTED IN THE MANNER AS DESCRIBED.

5.1 SEDIMENT BARRIERS

HAY BALE BARRIERS, SILT FENCES AND FILTER BERMS SHALL BE INSPECTED AND REPAIRED FOR THE FOLLOWING IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE–HALF THE HEIGHT OF THE BARRIER. FILTER BERMS SHOULD BE RESHAPED AS NEEDED. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

5.2 STABILIZED STONE CONSTRUCTION ENTRANCES

THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL AND REDISTRIBUTED ON SITE IN A STABLE MANNER. THE ENTRANCE SHOULD THEN BE RECONSTRUCTED. THE CONTRACTOR SHALL SWEEP OR WASH PAVEMENT AT EXITS, WHICH HAVE EXPERIENCED MUD–TRACKING ON TO THE PAVEMENT OR TRAVELED WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.

5.3 MULCHED AREAS

ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED. NETS MUST BE INSPECTED AFTER RAIN EVENTS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, RE–INSTALL THE NETS AS NECESSARY AFTER REPAIRING DAMAGE TO THE SLOPE. WHERE MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE. REPAIR AS NEEDED.

5.4 DUST CONTROL

WHEN TEMPORARY DUST CONTROL MEASURES ARE USED, REPETITIVE TREATMENT SHALL BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL.

5.5 STORMWATER APPURTENANCES

ALL UNDERDRAINS, STORM DRAINS, AND CATCH BASINS NEED TO BE OPERATING EFFECTIVELY AND FREE OF DEBRIS.

5.6 EROSION AND SEDIMENTATION CONTROL INSPECTIONS:

ACORN ENGINEERING HAS PERSONNEL QUALIFIED TO CONDUCT EROSION AND SEDIMENTATION CONTROL INSPECTIONS. FOR FURTHER INFORMATION CONTACT:

CONTACT: PETER HEIL, PE
TELEPHONE: (207) 775–2655

QUALIFICATIONS:

ø MAINE PROFESSIONAL ENGINEERING LICENSE #15318
ø MAINE DEP – CERTIFIED IN MAINTENANCE & INSPECTION OF STORMWATER BMP'S CERT
ø MAINE DEP – CERTIFIED THIRD–PARTY INSPECTOR
ø CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC) CERT. #7071

THE CONTRACTOR HAS SOLE RESPONSIBILITY FOR COMPLYING WITH THE EROSION AND SEDIMENTATION REPORT/PLAN, INCLUDING CONTROL OF FUGITIVE DUST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONETARY PENALTIES RESULTING FROM FAILURE TO COMPLY WITH THESE STANDARDS.

6.0 IMPLEMENTATION SCHEDULE

THE FOLLOWING IMPLEMENTATION SEQUENCE IS INTENDED TO MAXIMIZE THE EFFECTIVENESS OF THE ABOVE DESCRIBED EROSION CONTROL MEASURES. CONTRACTORS SHOULD AVOID OVEREXPOSING DISTURBED AREAS AND LIMIT THE AMOUNT OF STABILIZATION AREA.

1. INSTALL A STABILIZED CONSTRUCTION ENTRANCE IN ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC WILL ENTER AND EXIT THE SITE.
2. INSTALL PERIMETER SILT FENCE OR EROSION CONTROL BERM.
3. INSTALL ALL OTHER EROSION CONTROL DEVICES AS NECESSARY THROUGHOUT THE REMAINDER OF THIS SCHEDULE.
4. COMMENCE INSTALLATION OF DRAINAGE INFRASTRUCTURE.
5. PRIORITIZE THE DOWNHILL SIDE TO CONTAIN RUNOFF WITHIN THE SITE WHILE PROVIDING AN ENGINEERED OUTLET WITH SILTATION BARRIER TO THE MUNICIPAL STORMWATER SYSTEM WITHIN WASHINGTON AVENUE.
6. COMMENCE EARTHWORK OPERATIONS, WALL AND FOUNDATION INSTALLATION.
7. COMMENCE INSTALLATION OF UTILITIES.
8. CONTINUE EARTHWORK AND GRADING TO SUBGRADE AS NECESSARY FOR CONSTRUCTION.
9. COMPLETE INSTALLATION OF DRAINAGE INFRASTRUCTURE, AS WELL AS OTHER UTILITY WORK.
10. COMPLETE REMAINING EARTHWORK OPERATIONS.
11. INSTALL SUB–BASE AND BASE GRAVELS IN PAVED AREAS.
12. INSTALL PAVING, CURBING AND BRICKWORK.
13. LOAM, LIME, FERTILIZE, SEED AND MULCH DISTURBED AREAS AND COMPLETE ALL LANDSCAPING.
14. ONCE THE SITE IS STABILIZED, 90% CATCH OF GRASS HAS BEEN OBTAINED, OR MULCHING OF LANDSCAPE AREAS IS COMPLETE REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.
15. TOUCH UP AREAS WITHOUT A VIGOROUS CATCH OF GRASS WITH LOAM AND SEED.
16. COMPLETE SITE SIGNAGE AND STRIPING.
17. EXECUTE PROPER MAINTENANCE OF ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES THROUGHOUT THE PROJECT.

THE ABOVE IMPLEMENTATION SEQUENCE SHOULD BE GENERALLY FOLLOWED BY THE SITE CONTRACTOR. HOWEVER, THE CONTRACTOR MAY CONSTRUCT SEVERAL ITEMS SIMULTANEOUSLY. THE CONTRACTOR SHALL SUBMIT TO THE OWNER A SCHEDULE OF THE COMPLETION OF THE WORK. IF THE CONTRACTOR IS TO COMMENCE THE CONSTRUCTION OF MORE THAN ONE ITEM ABOVE, THEY SHALL LIMIT THE AMOUNT OF EXPOSED AREAS TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE FOLLOWING 30 DAYS.

THE CONTRACTOR SHALL RE–VEGETATE DISTURBED AREAS AS RAPIDLY AS POSSIBLE. ALL AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING OR BEFORE A STORM EVENT. THE CONTRACTOR SHALL INCORPORATE PLANNED INLETS AND DRAINAGE SYSTEMS AS EARLY AS POSSIBLE INTO THE CONSTRUCTION PHASE.

7.0 SEEDING PLAN

7.1 SITE PREPARATION

THE SEEDED AREAS SHALL BE FEASIBLY GRADED OUT TO PROVIDE THE USE OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. IF NECESSARY, THE SITE MAY REQUIRE ADDITIONAL TEMPORARY EROSION CONTROL MEASURES OUTLINED IN THE EROSION CONTROL REPORT.

7.2 SEEDBED PREPARATION

FERTILIZER SHALL BE APPLIED TO THE SITE AT A RATE OF 13.8 POUNDS PER 1,000 SQUARE FEET. THE COMPOSITION OF THE FERTILIZER SHALL BE 10–10–10 (N–P205–K20) OR EQUIVALENT.

LIMESTONE SHALL BE APPLIED TO THE SITE AT A RATE OF 138 POUNDS PER 1,000 SQUARE FEET.

7.3 SEEDING

THE COMPOSITION AND AMOUNT OF TEMPORARY SEED APPLIED TO A SITE SHALL BE DETERMINED BY THE FOLLOWING TABLE:

TEMPORARY SEED APPLICATION RATES

SEED	LBS / ACRE	RECOMMENDED SEEDING DATES
WINTER RYE	2.57	8/15 TO 10/1
OATS	1.84	4/1 TO 7/1 8/15 TO 9/15
ANNUAL RYGRASS	0.92	4/1 TO 7/1
SUDANGRASS	0.92	5/15 TO 8/15
PERENNIAL	0.92	8/15 TO 9/15
TOTAL	7.17 LBS/ACRE	

PERMANENT SEED APPLICATION RATES

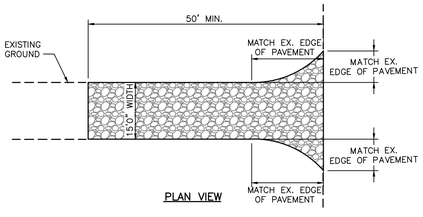
SEED	LBS / ACRE
KENTUCKY BLUEGRASS	20.00
CREEPING RED FESCUE	20.00
PERENNIAL RYEGRASS	4.80
TOTAL	44.8 LBS/ACRE

7.4 MULCHING

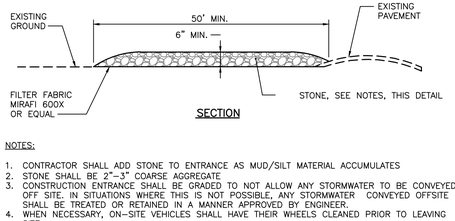
MULCH SHALL BE HARDWOOD AND APPLIED AT A RATE OF 70 LBS – 90 LBS PER 1,000 SQUARE FEET. THE MULCH SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4 INCHES. THE SEEDED AREA SHALL BE MULCHED IMMEDIATELY AFTER SEED IS APPLIED. MULCHING DURING THE WINTER SEASON SHALL BE DOUBLE THE NORMAL AMOUNT. REFER TO DETAIL FOR MORE INFORMATION.

8.0 CONCLUSION

THE ABOVE EROSION CONTROL NARRATIVE IS INTENDED TO MINIMIZE THE DEVELOPMENT IMPACT BY IMPLEMENTING TEMPORARY AND PERMANENT EROSION CONTROL MEASURES. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.



PLAN VIEW



SECTION

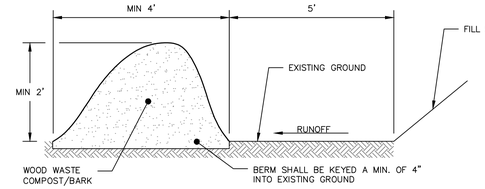
NOTES:

1. CONTRACTOR SHALL ADD STONE TO ENTRANCE AS MUD/SILT MATERIAL ACCUMULATES
2. STONE SHALL BE 2"–3" COARSE AGGREGATE
3. CONSTRUCTION ENTRANCE SHALL BE GRADED TO NOT ALLOW ANY STORMWATER TO BE CONVEYED OFF SITE. IN SITUATIONS WHERE THIS IS NOT POSSIBLE, ANY STORMWATER CONVEYED OFFSITE SHALL BE TREATED OR RETAINED IN A MANNER APPROVED BY ENGINEER.
4. WHEN NECESSARY, ON–SITE VEHICLES SHALL HAVE THEIR WHEELS CLEANED PRIOR TO LEAVING SITE.
5. CONSTRUCTION ENTRANCE SHALL BE GRADED IN A MANNER THAT PREVENTS TRACKING OF SEDIMENTS ONTO PUBLIC RIGHT–OF–WAY

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

NOTES:

1. THE EROSION CONTROL MIX SHALL CONFORM TO THE FOLLOWING STANDARDS AND IN ACCORDANCE WITH THE MAINE DOT CHAPTER 700, SECTION 717.04(D):
   1.1. pH BETWEEN 5.0 – 8.0
   1.2. PARTICLE SIZE (BY WEIGHT):
   1.2.1. 100% PASSING A 150 MM (6 IN) SCREEN
   1.2.2. 75 TO 85% PASSING A 19 MM (0.75 IN) SCREEN
   1.3. SOLUBLE SALTS CONTENT < 4.0 MMHOS/CM
   1.4. ORGANIC MATTER 20 TO 100% , DRY WEIGHT BASIS
2. THE BERM SHOULD BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR, WHEN NECESSARY THE BERM MAY BE PLACED PERPENDICULAR TO THE SLOPE ALONG THE PROPERTY LINE TO CONTAIN THE SEDIMENT PROVIDED A BERM IS LOCATED AT THE BASE OF THE SLOPE.
3. BERMS SHALL REMAIN IN PLACE UNTIL UPSTREAM AREA IS STABILIZED OR 90% CATCH OF VEGETATION IS ATTAINED. BERMS SHALL BE REMOVED OFFSITE OR BY SPREADING SUCH THAT NATIVE EARTH CAN BE SEEN BELOW.
4. DURING PERIODS OF WINTER CONSTRUCTION (NOV. 15 THROUGH APRIL 15), THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.



EROSION CONTROL MIX BERM DETAIL
NOT TO SCALE

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (ECB), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE ECB IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF ECB EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE ECB WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL AND FOLD THE REMAINING 12" PORTION OF ECB BACK OVER THE SEED AND COMPACTED SOIL. SECURE ECB OVER COMPACTED SOIL WITH A ROW O

R-TANK QUANTITIES

TRAFFIC LOAD	HS-20
# OF HD SINGLE R-TANKS	443
# OF HD SINGLE R-TANK ACCESS MODULES (OPEN END PLATE)	70
# OF HD SINGLE R-TANK ACCESS MODULES (SOLID END PLATE)	8
TOTAL SYSTEM STORAGE	3,990 CF
R-TANK STORAGE VOLUME	2,200 CF
STONE STORAGE VOLUME (40% VOID RATIO)	1,790 CF
STONE BED FOOTPRINT	2,307 SF
STONE QUANTITY	166 CY
N080 NON-WOVEN GEOTEXTILE TANK WRAP	494 SY
N080 NON-WOVEN GEOTEXTILE EXCAVATION WRAP	1,485 SY
30 MIL. PVC LINER (EXCAVATION)	687 SY
30 MIL PVC LINER TREAT. ROW WRAP	58 SY
8 OZ. NON-WOVEN GEOTEXTILE TREAT. ROW PROTECTION	117 SY
S300 WOVEN GEOTEXTILE TREAT. ROW BASE FABRIC	67 SY
INSPECTION PORTS (12")	13
GEOTEXTILE PIPE BOOTS (12")	39
30 MIL. PVC PIPE BOOTS (8" | 12")	(2 | 13)
STORMRING CPS (12")	5

R-TANK ELEVATIONS

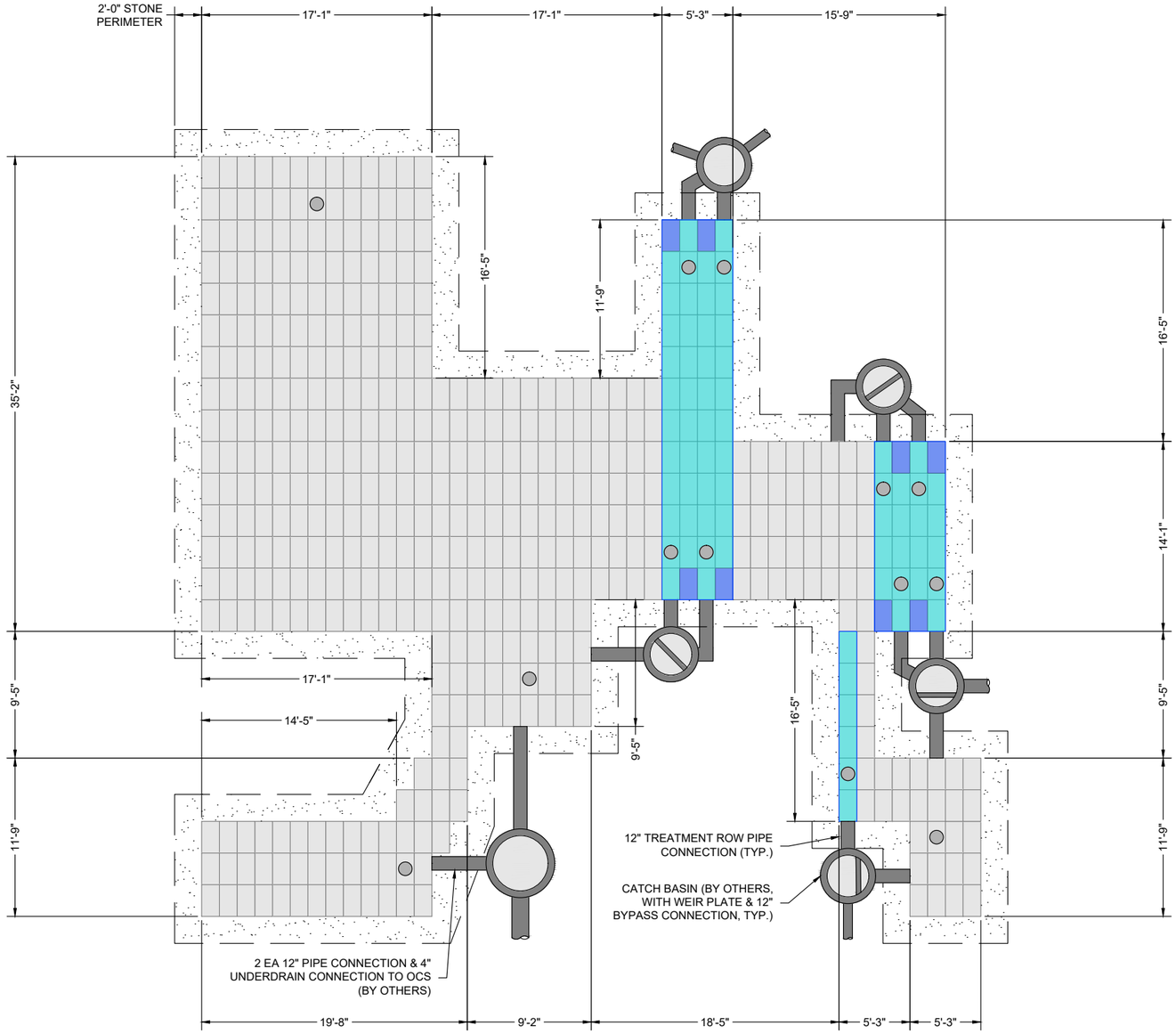
DESCRIPTION	ELEVATION
BASE INV.	59.56
TANK INV.	60.06
TOP OF TANK	61.50
GEOGRID	62.50
MIN. ALLOW. FINAL GRADE	63.17
MAX. ALLOW. FINAL GRADE	68.49

LEGEND

- R-TANK HD SINGLE UNITS
- R-TANK HD SINGLE ACCESS UNITS
- R-TANK HD SINGLE ACCESS UNITS WITH SOLID END PLATE
- EXCAVATION PERIMETER
- PERIMETER BACKFILL
- INSPECTION PORT
- PIPE CONNECTION

NOTES & DISCLAIMERS

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. BACKFILL, GEOTEXTILE, AND/OR LINER QUANTITIES ARE APPROXIMATIONS BASED ON DIMENSIONS SHOWN.
3. PRE-TREATMENT DEVICES ARE RECOMMENDED UP-STREAM OF ALL INFLOW CONNECTIONS. LEAF GUARDS SHOULD BE INSTALLED ON ANY DOWNSPOUT CONNECTIONS. CONTRACTOR AND ENGINEER ARE RESPONSIBLE ON ENSURING THE LAST UP-STREAM STRUCTURE IS ADEQUATE TO CONTAIN THE NECESSARY TREATMENT DEVICE.
4. CONSULTANT DRAWINGS ARE BEING RELIED UPON AS BEING ACCURATE IN DEPICTING SITE CONDITIONS, THAT THEY SATISFY ANY LOCAL BUILDING CODE REQUIREMENTS, AND THAT THEY ACCURATELY DEPICT SUBSURFACE CONDITIONS.
5. FERGUSON SUPPLIES THE PRODUCTS ONLY AND TAKES NO RESPONSIBILITY FOR INSTALLATION AND HAS NO ROLE IN THE INSTALLATION OF THE PRODUCTS.
6. R-TANK SYSTEMS ARE NOT DESIGNED TO SUPPORT LOADS FROM BUILDINGS, RETAINING WALLS, ETC. THEREFORE, THE ENGINEER OF RECORD MUST COORDINATED WITH THE PROPER DISCIPLINES TO ENSURE NO STRUCTURAL LOADS ARE IMPARTED UPON THE SYSTEM AND ANY INFILTRATION FROM THE SYSTEM HAS BEEN ACCOUNTED FOR IN FOUNDATION DESIGN.
7. TREES NOT PERMITTED ON TOP OF R-TANK SYSTEM
8. ENGINEER OF RECORD, OR LANDSCAPE ARCHITECT, TO CONFIRM R-TANK MODULES TO BE INSTALLED OUTSIDE CRZ OF NEARBY TREES
9. EXCAVATION GEOTEXTILE FABRIC & IMPERMEABLE LINER QTY ACCOMODATE FULL SAND FILTER DEPTH. BACKFILL QTY REPRESENTS BACKFILL REQUIRED FOR R-TANK SYSTEM ONLY



COURTYARD SYSTEM

DATE	INITIALS	DESCRIPTIONS

DISTRIBUTED BY: FERGUSON WATERWORKS

R-Tank
MODULAR STORMWATER STORAGE SYSTEM

0 15' 30'

SYSTEM LAYOUT
165 WASHINGTON AVE REDEVELOPMENT
PORTLAND, ME

DRAWN BY: BMK
DATE: 11/20/2024
SHEET NO.: 2 of 8

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO FERGUSON WATERWORKS BY THE DESIGN ENGINEER, CONTRACTOR, OR OTHER PROJECT REPRESENTATIVE. THE ENGINEER OF RECORD SHALL REVIEW AND APPROVED THAT THE DEPICTED LAYOUT AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE REGULATIONS AND PROJECT SPECIFIC REQUIREMENTS.

R-TANK QUANTITIES

TRAFFIC LOAD	HS-20
# OF HD DOUBLE R-TANKS	314
TOTAL SYSTEM STORAGE	4,135 CF
R-TANK STORAGE VOLUME	2,592 CF
STONE STORAGE VOLUME (40% VOID RATIO)	1,543 CF
STONE BED FOOTPRINT	1,524 SF
STONE QUANTITY	143 CY
N080 NON-WOVEN GEOTEXTILE TANK WRAP	351 SY
N080 NON-WOVEN GEOTEXTILE EXCAVATION WRAP	902 SY
30 MIL. PVC LINER	408 SY
INSPECTION PORTS (12")	4
GEOTEXTILE PIPE BOOTS (12")	9
30 MIL. PVC PIPE BOOTS (8" | 12")	(1 | 3)
STORMRING CPS (12")	2

R-TANK ELEVATIONS

DESCRIPTION	ELEVATION
BASE INV.	57.88
TANK INV.	58.38
TOP OF TANK	61.20
GEOGRID	62.20
MIN. ALLOW. FINAL GRADE	62.87
MAX. ALLOW. FINAL GRADE	68.19

LEGEND

R-TANK HD DOUBLE UNITS

INSPECTION PORT

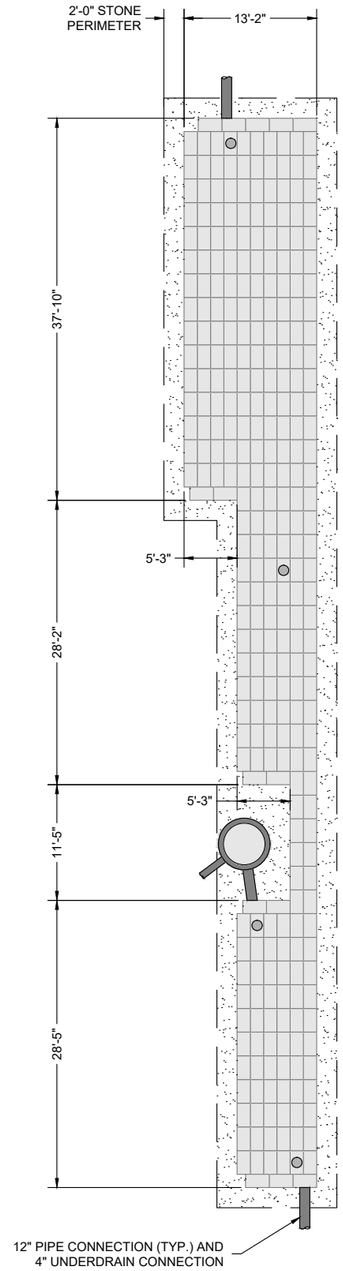
PIPE CONNECTION

EXCAVATION PERIMETER

PERIMETER BACKFILL

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6. R-TANK SYSTEMS ARE NOT DESIGNED TO SUPPORT LOADS FROM BUILDINGS, RETAINING WALLS, ETC. THEREFORE, THE ENGINEER OF RECORD MUST COORDINATED WITH THE PROPER DISCIPLINES TO ENSURE NO STRUCTURAL LOADS ARE IMPARTED UPON THE SYSTEM AND ANY INFILTRATION FROM THE SYSTEM HAS BEEN ACCOUNTED FOR IN FOUNDATION DESIGN.
7. TREES NOT PERMITTED ON TOP OF R-TANK SYSTEM
8. ENGINEER OF RECORD, OR LANDSCAPE ARCHITECT, TO CONFIRM R-TANK MODULES TO BE INSTALLED OUTSIDE CRZ OF NEARBY TREES



PARKING LOT SYSTEM

DATE	INITIALS	DESCRIPTIONS

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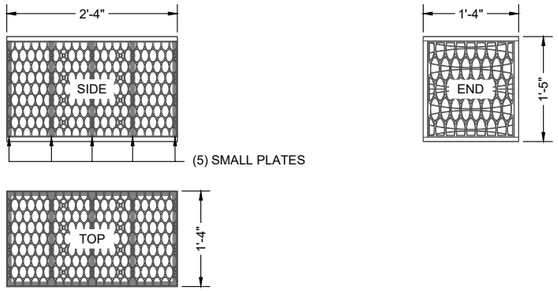
R-Tank
MODULAR STORMWATER STORAGE SYSTEM

0 15' 30'

SYSTEM LAYOUT
165 WASHINGTON AVE REDEVELOPMENT
PORTLAND, ME

DRAWN BY: BMK
DATE: 11/20/2024
SHEET NO.: 3 of 8

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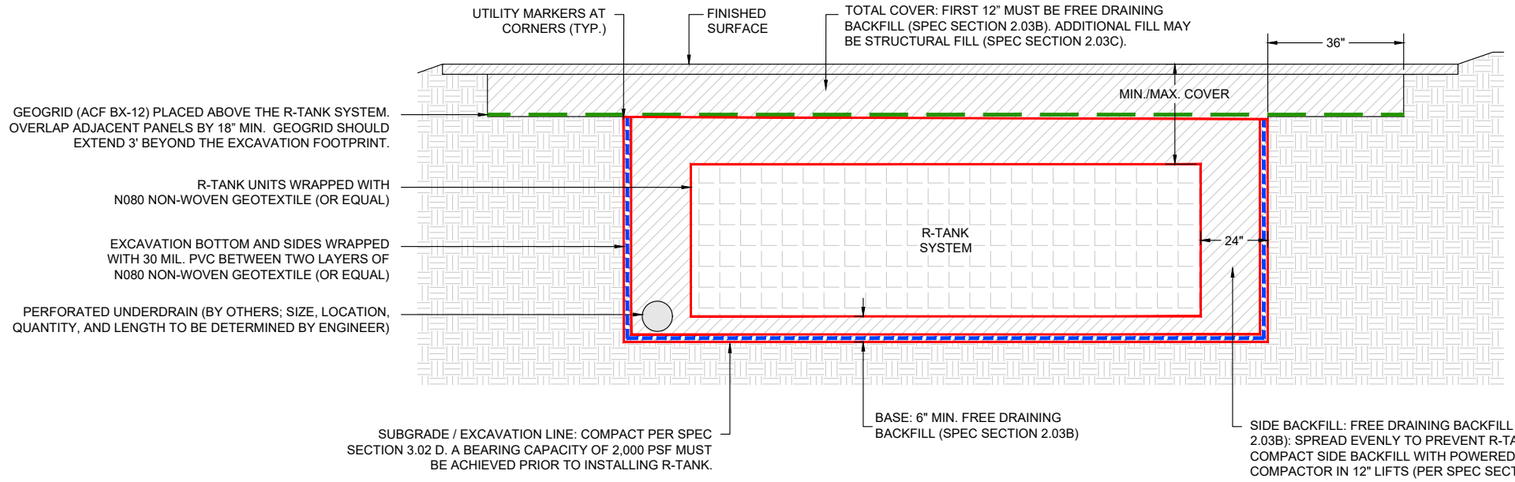
MODULE DATA

GEOMETRY:	**LOAD RATING:**
LENGTH = 28.15 IN. (715 MM)	33.4 PSI, (MODULE ONLY)
WIDTH = 15.75 IN. (400 MM)	HS20/HS25 - SEE SPEC FOR
HEIGHT = 17.32 IN. (440 MM)	COVER REQUIREMENTS
TANK VOLUME = 4.44 CF	**MATERIAL:**
STORAGE VOLUME = 4.22 CF	100% RECYCLED POLYPROPYLENE
VOID INTERNAL VOLUME: 95%	**SMALL PLATES REQUIRED:**
VOID SURFACE AREA: 90%	5/SEGMENT, 5/MODULE

SINGLE R-TANK^{HD} - MODULE DETAIL

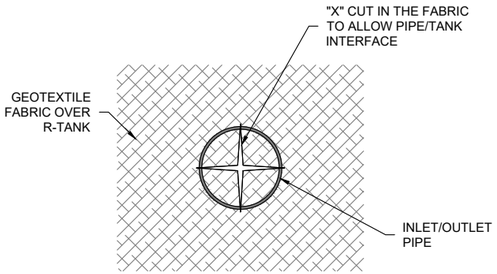
R-TANK UNIT LOAD RATING					
UNIT TYPE	**COMPRESSION STRENGTH**	**NON-VEHICULAR MIN. COVER***	**HS-20 MIN. COVER***	**HS-25 MIN. COVER***	**MAX. COVER***
HD	33.4 PSI	12"	20"	24"	6.99'
* MINIMUM AND MAXIMUM COVER ARE MEASURED FROM THE TOP OF THE R-TANK UNIT TO THE TOP OF THE FINISHED SURFACE.					

NOTES:
1. INSTALLATIONS PER THIS DETAIL MEET GUIDELINES OF HL-93 LOADING PER THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
2. FOR INFILTRATION APPLICATIONS, UNCOMPACTED FREE DRAINING BACKFILL (SPEC SECTION 2.03A) TO PROVIDE A LEVEL BASE. SURFACE MUST BE SMOOTH, FREE OF LUMPS OR DEBRIS, AND EXTEND 2' BEYOND R-TANK FOOTPRINT. THE ENGINEER OF RECORD IS RESPONSIBLE FOR ASSESSING THE BEARING CAPACITY OF THE SUBGRADE, AND BASE.
3. FOR INSTALLATIONS IN LANDSCAPED AREAS, THE INSTALLATION OF TREES IS PROHIBITED ABOVE THE R-TANK UNITS. PLEASE CONTACT YOUR LOCAL FERGUSON WATERWORKS REPRESENTATIVE FOR MORE INFORMATION.
4. THE R-TANK SYSTEM IS NOT DESIGNED TO SUPPORT LOADS FROM BUILDINGS OR STRUCTURES. THEREFORE, THE ENGINEER OF RECORD MUST COORDINATE WITH THE PROPER DISCIPLINES TO ENSURE NO STRUCTURAL LOADS ARE IMPARTED UPON THE SYSTEM AND ANY INFILTRATION FROM THE SYSTEM HAS BEEN ACCOUNTED FOR IN THE FOUNDATION DESIGN.



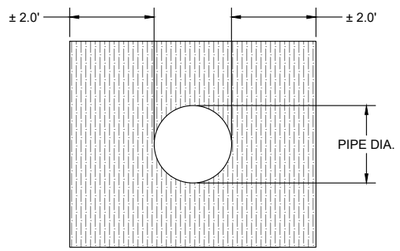
R-TANK SECTION VIEW

CUT AN "X" IN THE FABRIC ENVELOPE THAT IS SLIGHTLY LARGER THAN THE PIPE. PULL THE FABRIC FLAPS AROUND THE PIPE, AND SEAL WITH A STAINLESS STEEL BAND.

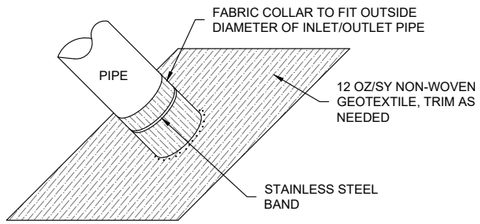


END VIEW OF PIPE/FABRIC CONNECTION

NOTE:
- PIPE BOOTS ARE AVAILABLE IN THE FOLLOWING STANDARD SIZES: 8" | 12" | 15" | 18" | 24".
- LARGER SPECIAL ORDER, CUSTOM SIZES ARE AVAILABLE.

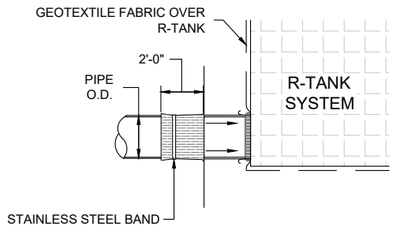


FRONT VIEW OF GEOTEXTILE BOOT

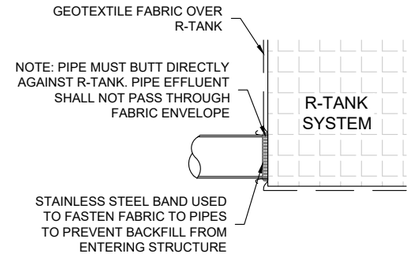


GEOTEXTILE BOOT

AFTER TANK WRAP IS SECURED TO PIPE, SLIDE BOOT AGAINST R-TANK AND SECURE WITH SECOND STAINLESS STEEL BAND, THEN ATTACH BOOT FLAP TO TANK ENVELOPE FABRIC WITH DUCT TAPE OR OTHER ADHESIVE.



SIDE VIEW OF GEOTEXTILE BOOT



SIDE VIEW OF PIPE/FABRIC CONNECTION

R-TANK TYPICAL TANK INLET/OUTLET W/ GEOTEXTILE PIPE BOOT DETAIL

DATE	INITIALS	DESCRIPTIONS

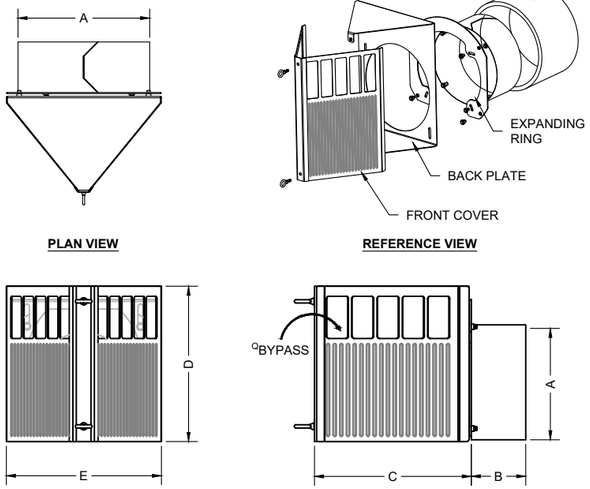
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R-Tank
MODULAR STORMWATER STORAGE SYSTEM

SYSTEM DETAILS
165 WASHINGTON AVE REDEVELOPMENT
PORTLAND, ME

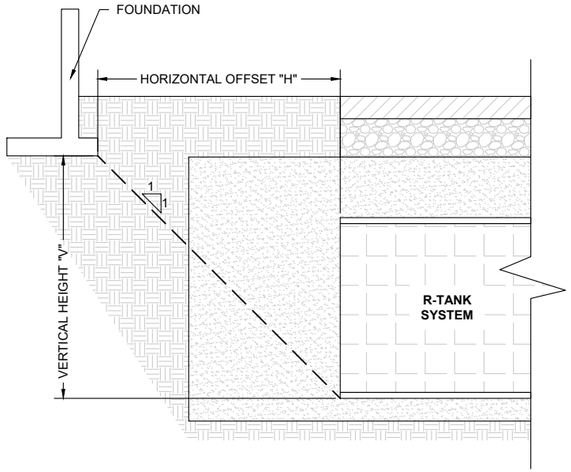
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SHEET NO.: 4 of 8

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PART NUMBER	NOMINAL PIPE DIA.	EXPANDING COLLAR DIA. (A)		STUB LENGTH (B)	CPS DEPTH (C)	CPS HEIGHT (D)	CPS WIDTH (E)
		MIN.	MAX.				
SCA6-1	6"	5.63"	6.50"	6.00"	10.00"	10.13"	10.13"
SCA8-1	8"	7.50"	8.50"	6.00"	13.00"	11.88"	11.38"
SCA10-1	10"	9.50"	10.50"	8.00"	13.50"	13.50"	13.25"
SCA12-1	12"	11.38"	12.63"	8.00"	15.50"	15.38"	15.38"
SCA15-1	15"	14.25"	15.50"	8.00"	15.50"	21.38"	18.38"
SCA18-1	18"	17.38"	18.63"	8.00"	15.75"	28.00"	21.38"
SCA24-1	24"	23.25"	24.50"	9.00"	17.00"	40.00"	28.38"

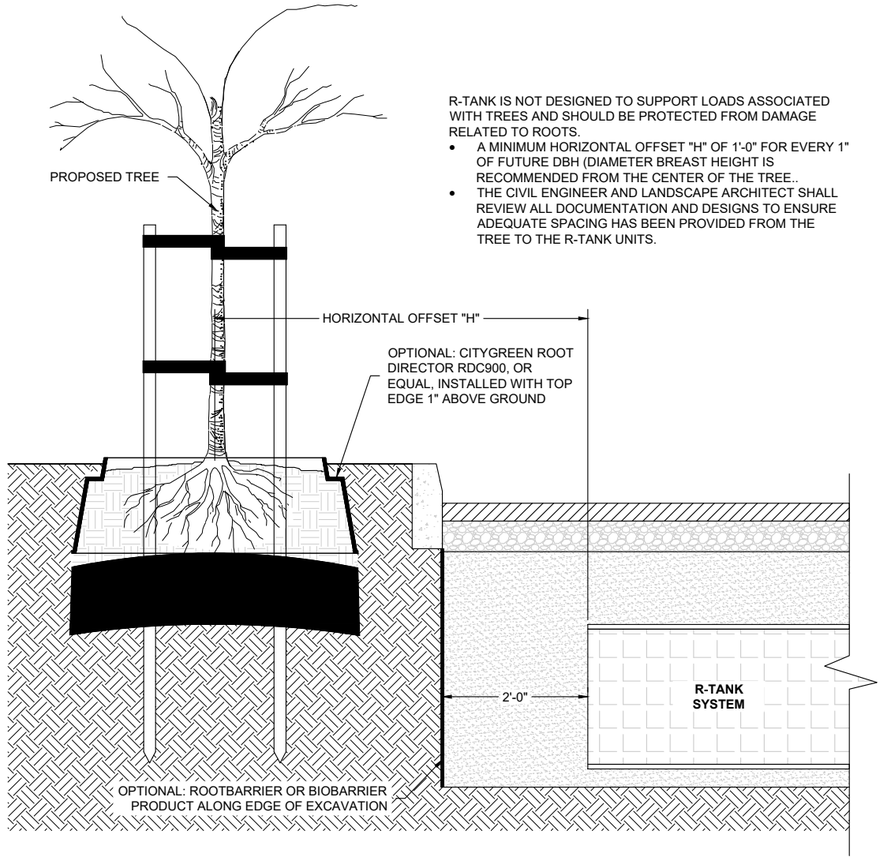
STORMRING CPS PRETREATMENT DETAIL



R-TANK IS NOT DESIGNED TO SUPPORT STRUCTURAL LOADS ASSOCIATED WITH BUILDINGS, RETAINING WALLS OR OTHER STRUCTURES.

- THE CIVIL ENGINEER AND STRUCTURAL ENGINEER SHALL REVIEW ALL DOCUMENTATION AND DESIGNS TO ENSURE NO STRUCTURAL LOADS ARE APPLIED BY THE STRUCTURE ON THE R-TANK UNITS. IT IS RECOMMENDED THAT ALL R-TANK UNITS BE INSTALLED ABOVE THE ELEVATION OF ANY SUBSURFACE STRUCTURAL ELEMENTS SUCH AS FOOTERS. IF THIS CANNOT BE ACHIEVED, IT RECOMMENDED THAT A MINIMUM 1:1 ZONE OF INFLUENCE, SITE SPECIFIC SOILS MAY REQUIRE GREATER SEPARATION DISTANCE, BE MAINTAINED BETWEEN THE STRUCTURAL ELEMENT AND THE UNITS.
- THE STRUCTURAL ENGINEER AND GEOTECHNICAL ENGINEER SHALL REVIEW ALL DOCUMENTATION AND DESIGNS TO ENSURE PROPER STABILITY OF STRUCTURAL ELEMENTS DURING SATURATED SOIL CONDITIONS POTENTIALLY CAUSED BY THE PROXIMITY OF INFILTRATION FACILITIES TO THE STRUCTURAL ELEMENTS.

R-TANK - MINIMUM OFFSET DETAIL



R-TANK IS NOT DESIGNED TO SUPPORT LOADS ASSOCIATED WITH TREES AND SHOULD BE PROTECTED FROM DAMAGE RELATED TO ROOTS.

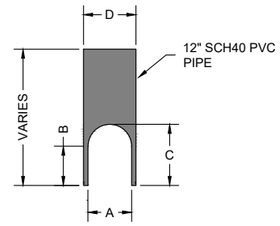
- A MINIMUM HORIZONTAL OFFSET "H" OF 1'-0" FOR EVERY 1" OF FUTURE DBH (DIAMETER BREAST HEIGHT IS RECOMMENDED FROM THE CENTER OF THE TREE..
- THE CIVIL ENGINEER AND LANDSCAPE ARCHITECT SHALL REVIEW ALL DOCUMENTATION AND DESIGNS TO ENSURE ADEQUATE SPACING HAS BEEN PROVIDED FROM THE TREE TO THE R-TANK UNITS.

R-TANK - TREE OFFSET DETAIL

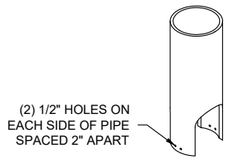
NOTES
1. THE INSPECTION PORT IS USED IN THE ACCESS MODULE TO INSPECT THE LEVEL OF SEDIMENT ACCUMULATION AND PERFORM ROUTINE MAINTENANCE.
2. MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION DURING THE FIRST YEAR OF OPERATION AND A YEARLY INSPECTION THEREAFTER. FLUSH AS NEEDED.
3. R-TANK^{HD}, R-TANK^{SD}, R-TANK^{UD} AND R-TANK^{XD} MAY BE USED IN TRAFFIC APPLICATIONS. SEE TRAFFIC LOADING DETAIL FOR MINIMUM & MAXIMUM COVER REQUIREMENTS.
4. IF INSPECTION PORT IS LOCATED IN A NON-TRAFFIC AREA, A PLASTIC CAP CAN BE USED IN LIEU OF A FRAME AND COVER WITH CONCRETE COLLAR.

R-TANK INSPECTION PORT DIMENSIONS				
UNIT TYPE	**DOGHOUSE BOTTOM WIDTH ("A")**	**DOGHOUSE VERTICAL LENGTH ("B")***	**DOGHOUSE OPENING HEIGHT ("C")**	**PORT DIAMETER ("D")**
HD	10"	9"	14"	12"
SD	10"	3"	8"	12"
UD	8"	7"	12"	10"
XD	10"	VARIES**	VARIES**	12"

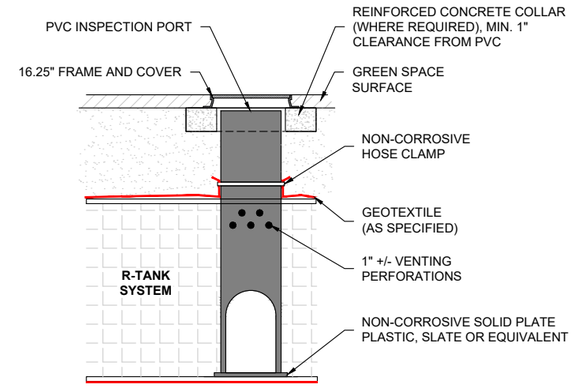
* PORTS ARE SUPPLIED WITH A STANDARD DOGHOUSE LENGTH OF 9". THE OPENING LENGTH SHALL BE REDUCED IN THE FIELD TO CORRESPOND WITH THE SPECIFIED PRODUCT TYPE.
** VERTICAL HEIGHTS VARY BASED ON THE STACKING HEIGHT OF THE XD SYSTEM. THE TOP OF ANY OPENING SHOULD NOT EXCEED THE TOP OF THE STACK HEIGHT.



FRONT VIEW OF INSPECTION PORT



ISOMETRIC PORT



R-TANK TYPICAL VEHICULAR LOAD RATED INSPECTION PORT

DATE	INITIALS	DESCRIPTIONS

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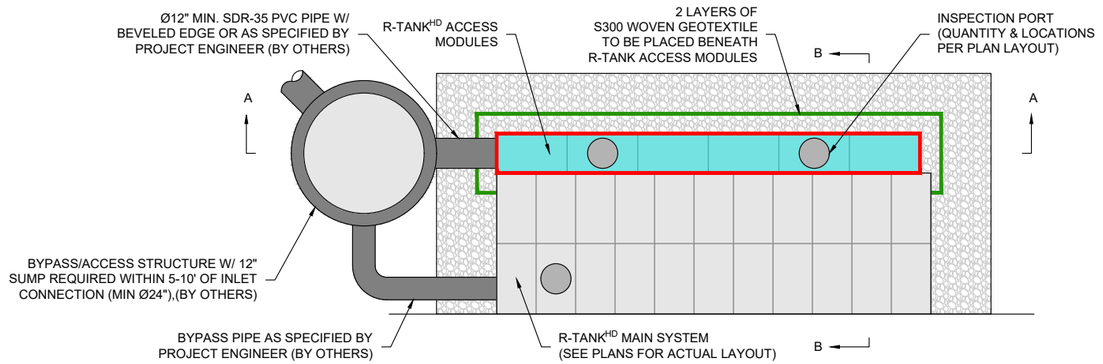
R-Tank
MODULAR STORMWATER STORAGE SYSTEM

SYSTEM DETAILS
165 WASHINGTON AVE REDEVELOPMENT
PORTLAND, ME

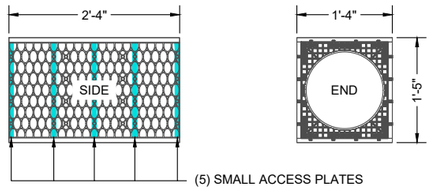
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SHEET NO.: 5 of 8

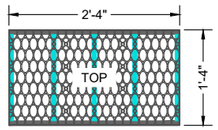
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NOTE: TREATMENT ROW DETAILS ARE PROVIDED FOR ILLUSTATION PURPOSES ONLY. EXACT SIZE, SECTION, AND LOCATION SHALL BE DETERMINED BY THE LAYOUT PLANS AND DETAIL SHEETS.

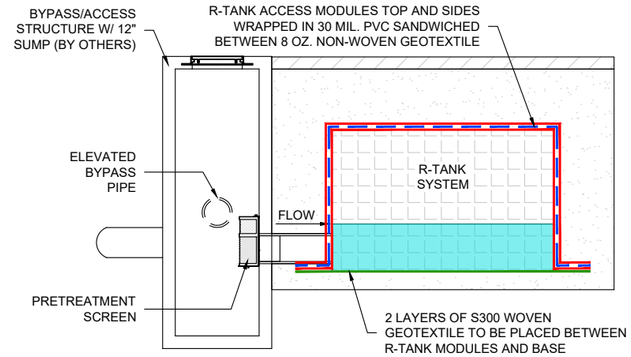


R-TANK^{HD} TREATMENT ROW PLAN VIEW

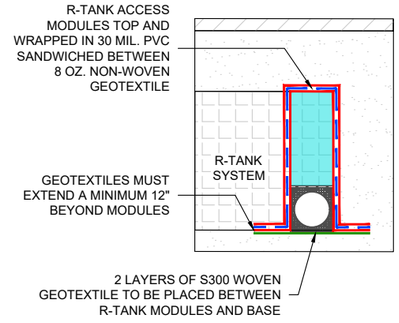




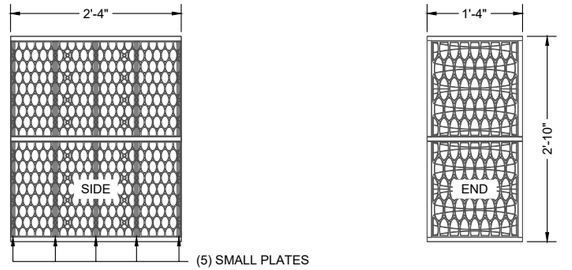
SINGLE R-TANK^{HD} - ACCESS MODULE DETAIL
(FOR MODULE DATA, SEE STANDARD MODULE DETAIL)



R-TANK TREATMENT ROW SECTION A-A



R-TANK TREATMENT ROW SECTION B-B

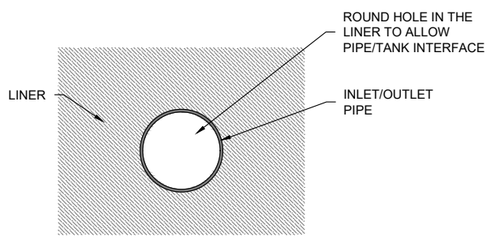


MODULE DATA

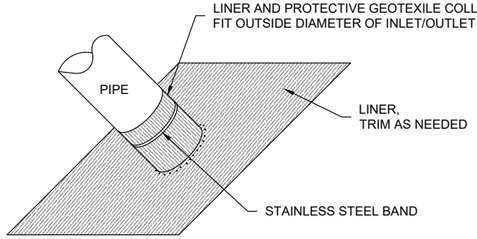
GEOMETRY:	**LOAD RATING:**
LENGTH = 28.15 IN. (715 MM)	33.4 PSI, (MODULE ONLY)
WIDTH = 15.75 IN. (400 MM)	HS20/HS25 - SEE SPEC FOR
HEIGHT = 33.86 IN. (860 MM)	COVER REQUIREMENTS
TANK VOLUME = 8.69 CF	**MATERIAL:**
STORAGE VOLUME = 8.25 CF	100% RECYCLED POLYPROPYLENE
VOID INTERNAL VOLUME: 95%	**SMALL PLATES REQUIRED:**
VOID SURFACE AREA: 90%	5/SEGMENT, 10/MODULE

DOUBLE R-TANK^{HD} - MODULE DETAIL

CUT A ROUND HOLE IN THE LINER ENVELOPE AND GEOTEXTILE PROTECTION FABRIC THAT IS SLIGHTLY LARGER THAN THE PIPE.

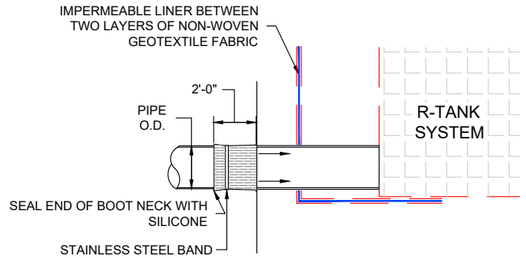


END VIEW OF PIPE/LINER CONNECTION

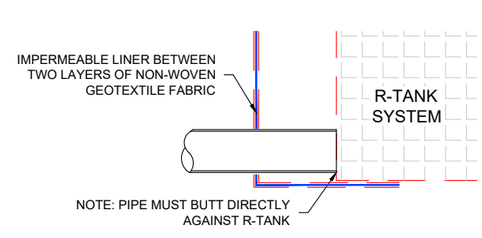


LINER BOOT W/ PROTECTIVE GEOTEXTILE FABRIC LAYER

AFTER LINER IS CUT AND PIPE INSTALLED, SLIDE BOOT AGAINST LINER AND SECURE WITH STAINLESS STEEL BAND, THEN BOND BOOT TO LINER AND SEAL END OF BOOT WITH SILICONE. REPLACE ANY GEOTEXTILE PROTECTION FABRIC REMOVED DURING BOOT INSTALLATION PROCESS.



SIDE VIEW OF LINER BOOT



SIDE VIEW OF PIPE/LINER CONNECTION

R-TANK TYPICAL EXCAVATION INLET/OUTLET W/ LINER PIPE BOOT DETAIL

DATE	INITIALS	DESCRIPTIONS

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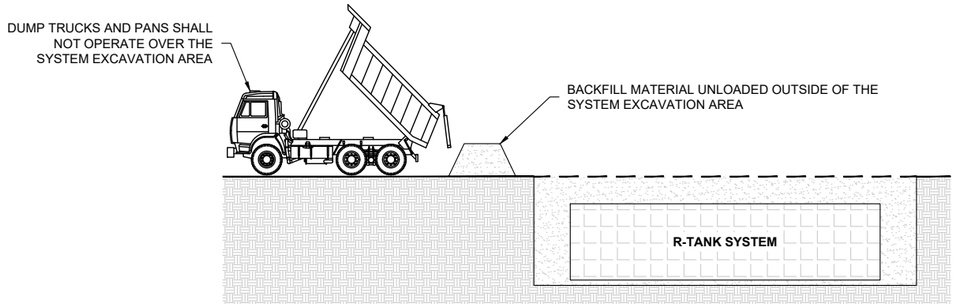
SYSTEM DETAILS
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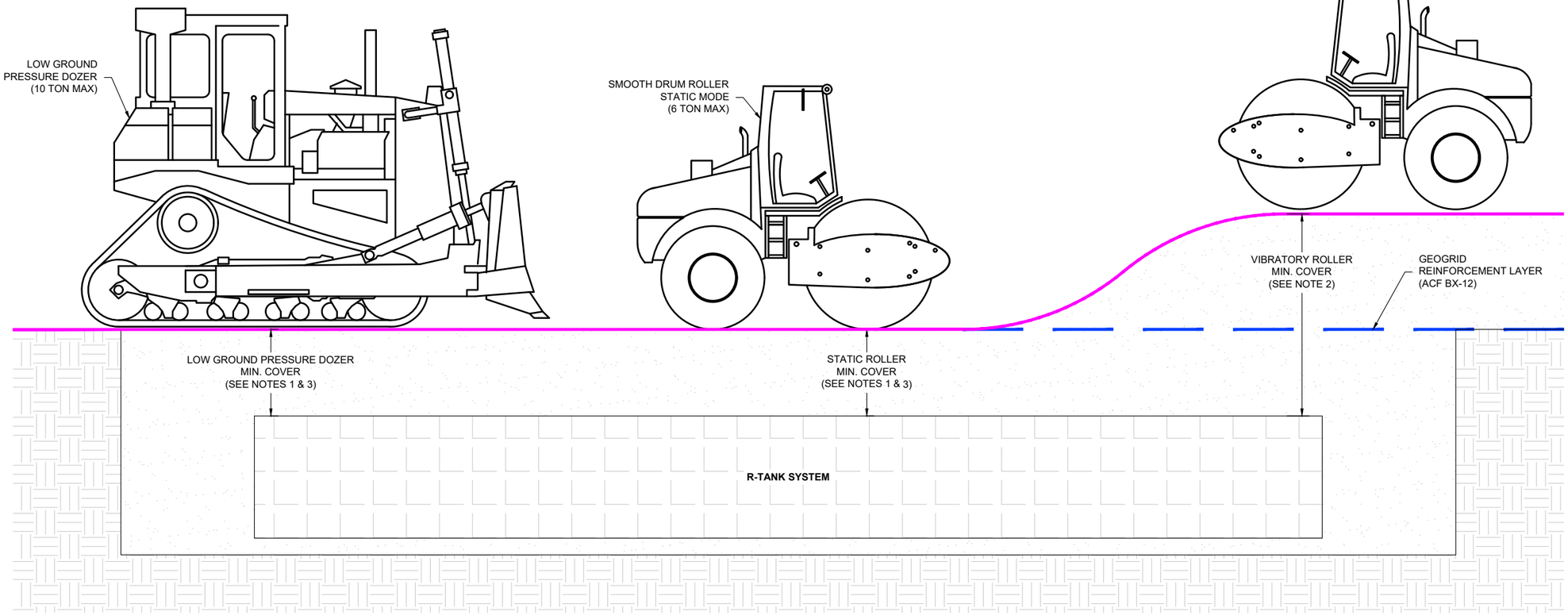
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R-TANK CONSTRUCTION EQUIPMENT RECOMMENDATIONS				
UNIT TYPE	**COMPRESSION STRENGTH**	**10 TON LOW GROUND PRESSURE DOZER MIN. COVER**	**6 TON SMOOTH DRUM STATIC ROLLER MIN. COVER**	**6 TON SMOOTH DRUM VIBRATORY ROLLER MIN. COVER**
HD	33.4 PSI	12" (SEE NOTE 1, 2 & 3)	12" (SEE NOTE 1, 2 & 3)	24" (SEE NOTE 2)
SD	42.9 PSI	12" (SEE NOTE 1, 2 & 3)	12" (SEE NOTE 1, 2 & 3)	24" (SEE NOTE 2)

NOTES:
1. FOLLOWING PLACEMENT OF SIDE BACKFILL, A UNIFORM 12" LIFT OF THE FREELY DRAINING MATERIAL (SPEC SECTION 2.03 B1) SHALL BE PLACED OVER THE R-TANK AND LIGHTLY COMPACTED USING A WALK-BEHIND TRENCH ROLLER. ALTERNATELY, A ROLLER (MAXIMUM GROSS VEHICLE WEIGHT OF 6 TONS) MAY BE USED. ROLLER MUST REMAIN IN STATIC MODE UNTIL A MINIMUM OF 24" OF COVER HAS BEEN PLACED OVER THE MODULES. SHEEP FOOT ROLLERS SHOULD NOT BE USED. **SPEC SECTION 3.05 A5**
2. AFTER THE GEOGRID IS INSTALLED OVER THE INITIAL LAYER, THE GRADED AGGREGATE BASE MATERIALS CAN BE PUSHED OUT (MAX MACHINE SIZE IS 10 TON LGP DOZER OR SMALLER) IN A SINGLE LIFT AND STATIC ROLLED BY A MACHINE WITH A MAX GROSS VEHICLE WEIGHT OF 6 TONS. ROLLER MUST REMAIN IN STATIC MODE UNTIL A MINIMUM OF 24" OF COVER HAS BEEN PLACED OVER THE MODULES. SHEEP FOOT ROLLERS SHOULD NOT BE USED. SPEC SECTION 3.05 A5
2. ONLY LOW PRESSURE TIRE OR TRACK VEHICLES (LESS THAN 7 PSI AND OPERATING WEIGHT OF LESS THAN 20,000 LBS) SHALL BE OPERATED OVER THE R-TANK SYSTEM DURING CONSTRUCTION. **SPEC SECTION 3.05 A5**
3. DUMP TRUCKS AND PANS SHALL NOT BE OPERATED WITHIN THE R-TANK SYSTEM AT ANY TIME. WHERE NECESSARY, THE HEAVY EQUIPMENT SHOULD UNLOAD IN AN AREA ADJACENT TO THE R-TANK SYSTEM AND THE MATERIAL SHOULD BE MOVED OVER THE SYSTEM WITH TRACKED EQUIPMENT. **SPEC SECTION 3.05 A5**
4. ENSURE THAT ALL UNRELATED CONSTRUCTION TRAFFIC IS KEPT AWAY FROM THE LIMITS OF EXCAVATION UNTIL THE PROJECT IS COMPLETE AND FINAL SURFACE MATERIALS ARE IN PLACE. NO NON-INSTALLATION RELATED LOADING SHOULD BE ALLOWED OVER THE R-TANK SYSTEM UNTIL THE FINAL DESIGN SECTION HAS BEEN CONSTRUCTED (INCLUDING PAVEMENT). **SPEC SECTION 3.05 B**
5. SEE R-TANK INSTALLATION GUIDE OR CONTACT YOUR LOCAL FERGUSON REPRESENTATIVE FOR ADDITIONAL INFORMATION.



DUMP TRUCK DETAIL



R-TANK HD OR SD CONSTRUCTION EQUIPMENT COVER DETAIL - VEHICULAR TRAFFIC

DATE	INITIALS	DESCRIPTIONS

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R-Tank
MODULAR STORMWATER STORAGE SYSTEM

CONSTRUCTION EQUIPMENT COVER DETAIL
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R-TANK SPECIFICATION

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK INCLUDED

A. Provide excavation and base preparation per geotechnical engineer's recommendations and/or as shown on the design drawings, to provide adequate support for project design loads and safety from excavation sidewall collapse. Excavations shall be in accordance with the owner's and OSHA requirements.
B. Provide and install R-Tank system and all related products per the manufacturer's installation guidelines.
C. Provide and construct the cover of the R-Tank system including; stone backfill, structural fill cover, and pavement section as specified.
D. Protect R-Tank system from construction traffic after installation until completion of all construction activity in the installation area.

1.02 QUALITY CONTROL

A. All materials shall be manufactured in ISO certified facilities.
B. Installation Contractor shall demonstrate knowledge and experience in the installation of subsurface storage system. A pre-installation conference shall be performed per section 1.05.
C. Installation Personnel: Performed only by skilled workers with experience in bulk earthworks, pipe, chamber, or pond/landfill construction projects of comparable size and quality.
D. Contractor must have manufacturer's representative available for site review if requested by Owner.

1.03 SUBMITTALS

A. Submit proposed R-Tank layout drawings. Drawings shall include typical section details as well as the required base elevation of stone and tanks, minimum cover requirements and tank configuration.
B. Submit manufacturer's product data, including compressive strength and unit weight.
C. Submit manufacturer's installation instructions.
D. Submit R-Tank sample for review. Reviewed and accepted samples will be returned to the Contractor.
E. Submit material certificates for geotextile, geogrid, base course and backfill materials.
F. Submit required experience and personnel requirements as specified in Section 1.03.
G. Any proposed equal alternative product substitution to this specification must be submitted for review and approved prior to bid opening. Review package should include third party reviewed performance data that meets or exceeds criteria in Table 2.01 B.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Protect R-Tank and other materials from damage during delivery, and store UV sensitive materials under tarp to protect from sunlight when time from delivery to installation exceeds two weeks. Storage of materials should be on smooth surfaces, free from dirt, mud and debris.
B. Handling is to be performed with equipment appropriate to the materials and site conditions, and may include hand, handcart, forklifts, extension lifts, etc.
C. Cold weather:
   1. Care must be taken when handling plastics when air temperature is 40 degrees or below as plastic becomes brittle.
   2. Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen ground or wet, saturated or muddy subgrade.

1.05 PREINSTALLATION CONFERENCE.

A. Prior to the start of the installation, a preinstallation conference shall occur with the representatives from the design team, the general contractor, the excavation contractor, the R-Tank installation contractor, and the manufacturer's representative.

1.06 PROJECT CONDITIONS

A. Coordinate installation for the R-Tank system with other on-site activities to eliminate all non-installation related construction traffic over the completed R-Tank system. No loads heavier than the design loads shall be allowed over the system, and in no case shall loads higher than a standard AASHTO HS20 (or HS25, depending on design criteria) load be allowed on the system at any time.
B. Protect adjacent work from damage during R-Tank system installation.
C. All pre-treatment systems to remove debris and heavy sediments must be in place and functional prior to operation of the R-Tank system.
D. Contractor is responsible for any damage to the system during construction.

PART 2 - PRODUCTS

2.01 R-TANK UNITS

A. R-Tank - Injection molded plastic tank plates assembled to form a modular structure of predesigned height (custom for each project).
B. R-Tank units shall meet the following Physical & Chemical Characteristics:

PROPERTY	DESCRIPTION	R-Tank^{HD} VALUE	R-Tank^{SD} VALUE	R-Tank^{UD} VALUE	R-Tank^{XD} VALUE
Void Area	Volume available for water storage	95%	95%	95%	90%
Surface Void Area	Percentage of exterior available for infiltration	90%	90%	90%	90%
Vertical Compressive Strength	ASTM D 2412 / ASTM F 2418	33.4 psi	42.9 psi	134.2 psi	240.2 psi
Lateral Compressive Strength	ASTM D 2412 / ASTM F 2418	22.4 psi	28.9 psi	N/A	N/A
HS-20 Minimum Cover	Cover required to support HS-20 loads	20"	18"	12" (STONE BACKFILL)	6"
HS-25 Minimum Cover	Cover required to support HS-25 loads	24"	19"	15" (STONE BACKFILL)	6"
Maximum Cover	Maximum allowable cover depth	< 7 feet	< 10 feet	5 feet	16.7 feet
Unit Weight	Weight of plastic per cubic foot of tank	3.62 lbs/cf	3.96 lbs / cf	4.33 lbs / cf	7.55 lbs / cf
Rib Thickness	Thickness of load-bearing members	0.18 inches	0.18 inches	N/A	N/A
Service Temperature	Safe temperature range for use	-14 – 167° F	-14 – 167° F	-14 – 167° F	-14 to 185° F

C. Supplier: Ferguson Waterworks; visit www.fergusongss.com for more information.

2.02 GEOSYNTHETICS

A. Geotextile. A geotextile envelope is required to prevent backfill material from entering the R-Tank modules.
   1. Standard Application: The standard geotextile shall be an 8 oz per square yard nonwoven geotextile.
   2. Infiltration Applications: When water must infiltrate/exfiltrate through the geotextile as a function of the system design, a woven monofilament shall be used.
B. Geogrid. For installations subject to traffic loads and/or when required by project plans, install geogrid to reinforce backfill above the R-Tank system. Geogrid is not always required for R-TankUD installations, and is often not required for non-traffic load applications.

2.03 BACKFILL & COVER MATERIALS

A. Bedding Materials: Stone (angular and smaller than 1.5" in diameter) or soil (GW, GP, SW, or SP as classified by the Unified Soil Classification System) shall be used below the R-Tank system (3" minimum). Material must be free from lumps, debris, and any sharp objects that could cut the geotextile. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D698 at the time of installation. For infiltration applications bedding material shall be free draining.
B. Side and Top Backfill: Material must be free from lumps, debris and any sharp objects that could cut the geotextile. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D698 at the time of installation.
   1. Traffic Applications - Free draining material shall be used adjacent to and above the R-Tank system.
      a. For HD, and SD modules, backfill materials shall be free draining stone (angular and smaller than 1.5" in diameter) or soil (GW, GP, SW, or SP as classified by the Unified Soil Classification System). For UD modules with less than 14" of top cover, backfill materials shall be free draining stone (angular and smaller than 1.5" in diameter). The use of soil backfill on the sides and top of the UD module is not permitted unless the modules are installed outside of traffic areas or with cover depths of 14" or more.
      b. Top backfill material (from top of module to bottom of pavement base or 12" maximum) must be consistent with side backfill.
   2. Non-Vehicular Applications - For all R-Tank modules installed in green spaces and not subjected to vehicular loads, backfill materials may either follow the guidelines for Traffic Applications above, or the top backfill layer (12" minimum) may consist of AASHTO #57 stone blended with 30-40% (by volume) topsoil to aid in establishing vegetation.
C. Additional Cover Materials: Structural Fill shall consist of granular materials meeting the gradational requirements of SM, SP, SW, GM, GP or GW as classified by the Unified Soil Classification System. Structural fill shall have a maximum of 25 percent passing the No. 200 sieve, shall have a maximum clay content of 10 percent and a maximum Plasticity Index of 4. Material shall be within 3 percent of the optimum moisture content as determined by ASTM D698 at the time of installation.

2.04 OTHER MATERIALS

A. Utility Marker: Install metallic tape at corners of R-Tank system to mark the area for future utility detection.

PART 3 - EXECUTION

3.01 ASSEMBLY OF R-TANK UNITS

A. Assembly of modules shall be performed in accordance with the R-Tank Installation Manual, Section 2.

3.02 LAYOUT AND EXCAVATION

A. Installer shall stake out, excavate, and prepare the subgrade area to the required plan grades and dimensions, ensuring that the excavation is at least 2 feet greater than R-Tank dimensions in each direction allowing for installation of geotextile filter fabric, R-Tank modules, and free draining backfill materials.
B. All excavations must be prepared with OSHA approved excavated sides and sufficient working space.
C. Protect partially completed installation against damage from other construction traffic by establishing a perimeter with high visibility construction tape, fencing, barricades, or other means until construction is complete.
D. Base of the excavation shall be uniform, level, and free of lumps or debris and soft or yielding subgrade areas. A minimum 2,000 pounds per square foot bearing capacity is required.
   1. Standard Applications: Compact subgrade to a minimum of 95% of Standard Proctor (ASTM D698) density or as required by the Owner's engineer.
   2. Infiltration Applications: Subgrade shall be prepared in accordance with the contract documents. Compaction of subgrade should not be performed in infiltration applications.
E. Unsuitable Soils or Conditions: All questions about the base of the excavation shall be directed to the owner's engineer, who will approve the subgrade conditions prior to placement of stone. The owner's engineer shall determine the required bearing capacity of the R-Tank subgrade; however in no case shall a bearing capacity of less than 2,000 pounds per square foot be provided.
   1. If unsuitable soils are encountered or if the subgrade is pumping or appears excessively soft, repair the area in accordance with contract documents and/or as directed by the owner's engineer.
   2. If indications of the water table are observed during excavation, the engineer shall be contacted to provide recommendations.
   3. Do not start installation of the R-Tank system until unsatisfactory subgrade conditions are corrected and the subgrade conditions are accepted by the owner's engineer.

3.03 PREPARATION OF BASE

A. Where a geotextile wrap is specified, install the specified fabric along the excavated surfaces while removing wrinkles so material lays flat. Overlap geotextile a minimum 12" or as recommended by manufacturer. Use tape, special adhesives, sandbags or other ballast to secure overlaps. As geotextiles can be damaged by extreme heat, smoking is not permissible on/near the geotextile, and tools using a flame to tack the overlaps, such as propane torches, are prohibited.
B. Place a thin layer (3" unless otherwise specified) of bedding material (Section 2.03 A), over the subgrade to establish a level working platform for the R-Tank modules. Level to within ½" (+/- ¼") or as shown on the plans. Native subgrade soils or other materials may be used if determined to meet the requirements of 2.03 A and are accepted by the owner's engineer.
   1. Standard Applications: Static roll or otherwise compact bedding materials until they are firm and unyielding.
   2. Infiltration Applications: Bedding materials shall be prepared in accordance with the contract documents.
B. Outline the footprint of the R-Tank system on the excavation floor using spray paint or chalk line to ensure a 2' perimeter is available around the R-Tank system for proper compaction of backfill.

3.04 INSTALLATION OF THE R-TANKS

A. Where a geotextile wrap is specified on the stone base, cut strips to length and install in excavation, removing wrinkles so material lays flat. Overlap geotextile a minimum 12" or as recommended by manufacturer. Use tape, special adhesives, sandbags or other ballast to secure overlaps. As geotextiles can be damaged by extreme heat, smoking is not permissible on/near the geotextile, and tools using a flame to tack the overlaps, such as propane torches, are prohibited.
B. Where an impervious liner (for containment) is specified, install the liner per manufacturer's recommendations and the contract documents. The R-Tank units shall be separated from impervious liner by a non-woven geotextile fabric installed accordance with Section 3.04A.
C. Install R-Tank modules by placing side by side, in accordance with the design drawings. No lateral connections are required. It is advisable to use a string line to form square corners and straight edges along the perimeter of the R-Tank system. The modules are to be oriented as per the design drawing with required depth as shown on plans.
   1. For LD, HD, and SD installations, the large side plate of the tank should be placed on the perimeter of the system. This will typically require that the two ends of the tank area will have a row of tanks placed perpendicular to all other tanks. If this is not shown in the construction drawings, it is a simple field adjustment that will have minimal effect on the overall system footprint. Refer to R-Tank Installation Guide for more details
   2. For UD installations, there is no perpendicular end row required.
D. Wrap the R-Tank top and sides in specified geotextile. Cut strips of geotextile so that it will cover the sides and top, encapsulating the entire system to prevent backfill entry into the system. Overlap geotextile 12" or as recommended by manufacturer. Take great care to avoid damage to geotextile (and, if specified, impervious liner) during placement.
E. Identify locations of inlet, outlet and any other penetrations of the geotextile (and optional liner). These connections should be installed flush (butted up to the R-Tank) and the geotextile fabric shall be cut to enable hydraulic continuity between the connections and the R-Tank units. These connections shall be secured using pipe boots with stainless steel pipe clamps. Support pipe in trenches during backfill operations to prevent pipe from settling and damaging the geotextile, impervious liner (if specified) or pipe. Connecting pipes at 90 degree angles facilitates construction, unless otherwise specified. Ensure end of pipe is installed snug against R-Tank system.
F. Install Inspection and Maintenance Ports in locations noted on plans. At a minimum one maintenance port shall be installed within 10' of each inlet & outlet connection, and with a maximum spacing of one maintenance port for every 2,500 square feet. Install all ports as noted in the R-Tank Installation Guide.
G. If required, install ventilation pipes and vents as specified on drawings to provide ventilation for proper hydraulic performance. The number of pipes and vents will depend on the size of the system. Vents are often installed using a 90 degree elbow with PVC pipe into a landscaped area with 'U" bend or venting bollard to inhibit the ingress of debris. A ground level concrete or steel cover can be used.

3.05 BACKFILLING OF THE R-TANK UNITS

A. Backfill and fill with recommended materials as follows:
   1. Place freely draining backfill materials (Section 2.03 B) around the perimeter in lifts with a maximum thickness of 12". Each lift shall be placed around the entire perimeter such that each lift is no more than 24" higher than the side backfill along any other location on the perimeter of the R-Tank system. No fill shall be placed over top of tanks until the side backfill has been completed.
   2. Each lift shall be compacted at the specified moisture content to a minimum of 95% of the Standard Proctor Density until no further densification is observed (for self-compacting stone materials). The side lifts must be compacted with walk behind compaction equipment. Even when "self-compacting" backfill materials are selected, a walk behind vibratory compactor must be used.
   3. Take care to ensure that the compaction process does not allow the machinery to come into contact with the modules due to the potential for damage to the geotextile and R-Tank units.
   4. No compaction equipment is permissible to operate directly on the R-Tank modules.
   5. Top Backfill: Only low pressure track vehicles shall be operated over the R-Tank system during construction. Dump Trucks and Pans shall not be operated within the R-Tank system footprint at any time. Heavy equipment should unload in an area adjacent to the R-Tank system and the material should be moved over the system using tracked equipment with an operating weight of less than 10 tons.
      a. Typical Applications: Install a 12" (or as shown on plans) lift of freely draining material (Section 2.03 B) over the R-Tank Units, maintaining 12" between equipment tracks and R-Tank System. Lightly compacted using a walk-behind trench roller. Alternately, a roller (maximum gross vehicle weight of 6 tons) may be used. Roller must remain in static mode until a minimum of 24" of cover has been placed over the modules. Sheep foot rollers should not be used.
      b. Shallow Applications (< 18" total cover): Install top backfill in accordance with plans.
   6. If required, install a geogrid as shown on plans. Geogrid shall extend a minimum of 3 feet beyond the limits of the excavation wall.
   7. Following placement and compaction of the initial cover, subsequent lifts of structural fill (Section 2.03 C) shall be placed at the specified moisture content and compacted to a minimum of 95% of the Standard Proctor Density and shall cover the entire footprint of the R-Tank system. During placement of fill above the system, unless otherwise specified, a uniform elevation of fill shall be maintained to within 12" across the footprint of the R-Tank system. Do not exceed maximum cover depths listed in Table 2.01 B.
   8. Place additional layers of geotextile and/or geogrid at elevations as specified in the design details. Each layer of geosynthetic reinforcement placed above the R-Tank system shall extend a minimum of 3 feet beyond the limits of the excavation wall.
B. Ensure that all unrelated construction traffic is kept away from the limits of excavation until the project is complete and final surface materials are in place. No non-installation related loading should be allowed over the R-Tank system until the final design section has been constructed (including pavement).
C. Place surfacing materials, such as groundcovers (no large trees), or paving materials over the structure with care to avoid displacement of cover fill and damage to surrounding areas.
D. Backfill depth over R-Tank system must be within the limitations shown in the table in Section 2.01 B. If the total backfill depth does not comply with this table, contact engineer or manufacturer's representative for assistance.

3.06 MAINTENANCE REQUIREMENTS

A. A routine maintenance effort is required to ensure proper performance of the R-Tank system. The Maintenance program should be focused on pretreatment systems. Ensuring these structures are clean and functioning properly will reduce the risk of contamination of the R-Tank system and stormwater released from the site. Pre-treatment systems shall be inspected yearly, or as directed by the regulatory agency and by the manufacturer (for proprietary systems). Maintain as needed using acceptable practices or following manufacturer's guidelines (for proprietary systems).
B. All inlet pipes and Inspection and/or Maintenance Ports in the R-Tank system will need to be inspected for accumulation of sediments at least quarterly through the first year of operation and at least yearly thereafter.
C. If sediment has accumulated to the level noted in the R-Tank Maintenance Guide or beyond a level acceptable to the Owner's engineer, the R-Tank system should be flushed.
D. All inspection and maintenance activities should be performed in accordance with the R-Tank Operation, Inspection & Maintenance Manual.

DATE	INITIALS	DESCRIPTIONS

DISTRIBUTED BY:

FERGUSON WATERWORKS

R-Tank

MODULAR STORMWATER STORAGE SYSTEM

R-TANK SPECIFICATION
165 WASHINGTON AVE REDEVELOPMENT
PORTLAND, ME

DRAWN BY: BMK
DATE: 11/20/2024
SHEET NO.: 8 of 8

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO FERGUSON WATERWORKS BY THE DESIGN ENGINEER, CONTRACTOR, OR OTHER PROJECT REPRESENTATIVE. THE ENGINEER OF RECORD SHALL REVIEW AND APPROVED THAT THE DEPICTED LAYOUT AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE REGULATIONS AND PROJECT SPECIFIC REQUIREMENTS.

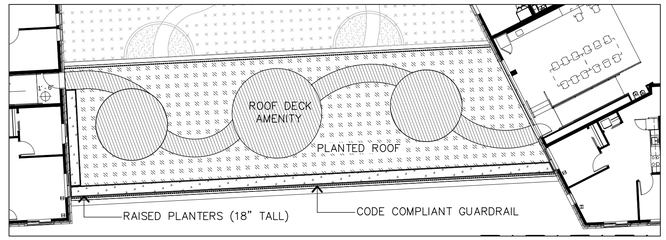
ID	BOTANICAL NAME	COMMON NAME	QTY	SIZE
DECIDUOUS TREES				
AC	AMELANCHIER CANADENSIS	SERVICEBERRY 'LUSTRE'	10	10'–12'
BN	BETULA NIGRA	RIVER BIRCH	7	10–12'
FG	FAGUS GRANDIFLORA	AMERICAN BEECH	3	3" CAL.
GTS	GLADITSIA TRIACANTHOS SP.	HONEYLOCUST 'SKYLINE'	6	3" CAL.
CF	CORNUS FLORIDA	'CHEROKEE' DOGWOOD	2	3" CAL.
IO	ILEX OPACA	AMERICAN HOLLY	3	10–12'

HARDSCAPE

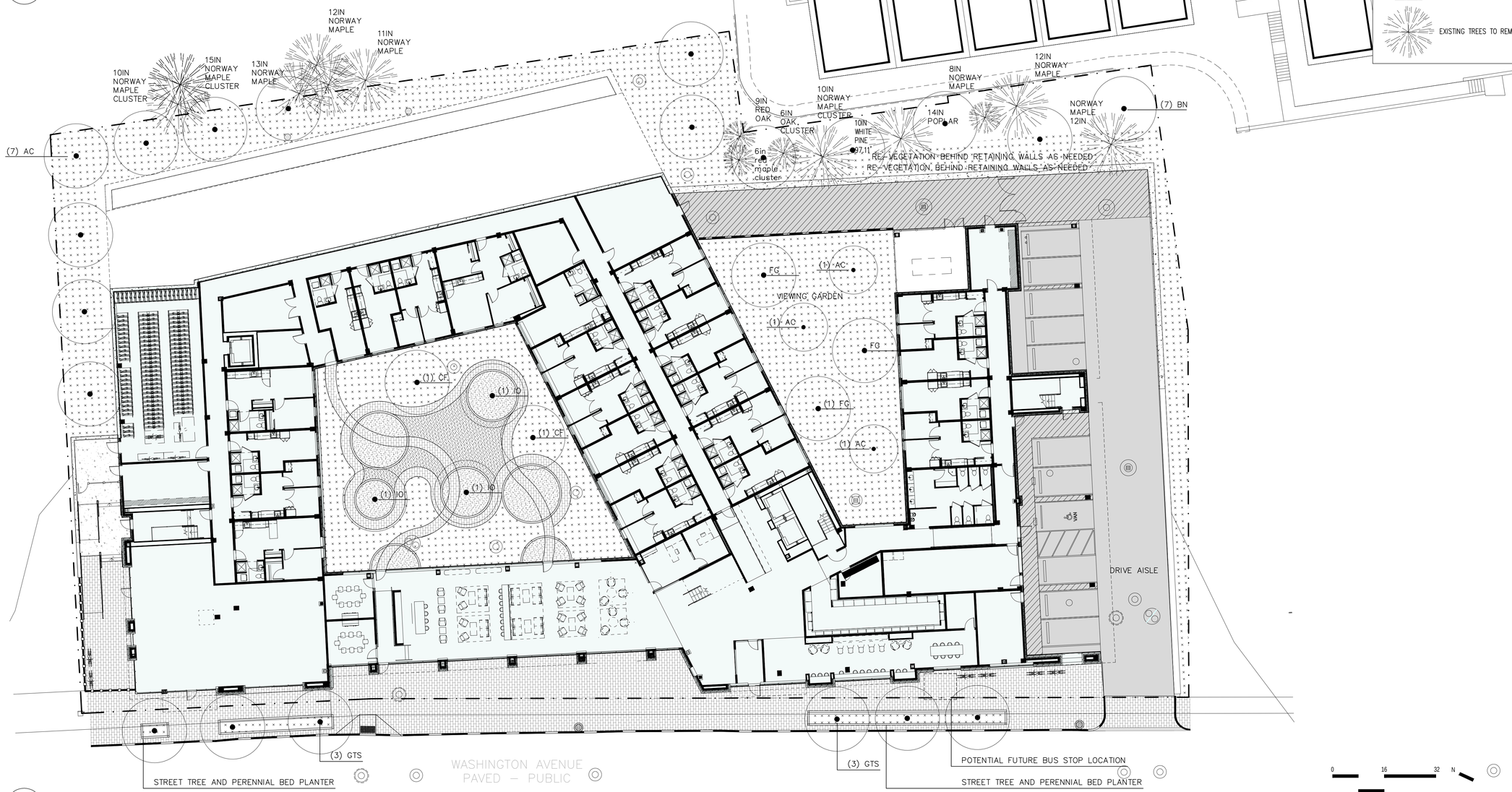
- PINEHALL BRICK PAVING (PER CITY STANDARDS)
- DECK BY ARCH.
- BIT. CONC. PAVING
- DECOMPOSED GRANITE (5/8")
- DECOMPOSED GRANITE (3/8") W/ FLUSH CURB

PLANTS

- PROPOSED DECIDIOUS TREE
- PROPOSED STREET TREE PLANTER
- PERENNIAL / SHRUB PLANTING BED
- SEDUM GREEN ROOF (BRIDGE)
- EXISTING TREES TO REMAIN



2 / L1.0 4TH FLOOR ROOF DECK AMENITY 'BRIDGE' (SEE ARCH. DWG X0.04)
1"=16'-0"



1 / L1.0 COURTYARDS AND STREETSCAPE
1"=16'-0"

0 16 32 N

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02.14.2025

issue: date:

revision: date

title:

LANDSCAPE PLAN

sheet:

L1.0

PLANTS

EX. TREE OVER 10" CAL. TO REMAIN

EX. TREE TO BE REMOVED

EX. STREET TREE TO BE REMOVED

10in norway maple cluster

15in norway maple cluster

14in ash

13in norway maple

12in norway maple

11in norway maple

12in red maple double

12in norway maple

7in red oak double

9in red oak

32in red oak

11in red oak

26in red oak

6in birch cluster

6in birch cluster

9in red oak

6in oak cluster

6in red maple cluster

10in norway maple cluster

10in white pine 97.11'

14in poplar

8in norway maple

12in norway maple

10in poplar

norway maple 12in

30in double norway maple

norway maple 12in

norway maple 20in double

norway maple 5 stem

catulpa 12in

9in norway maple

18in red oak

6in norway maple cluster

12in maple 67.51'

WASHINGTON AVENUE
PAVED – PUBLIC

1 / L1.0 COURTYARDS AND STREETSCAPE
1"=16'-0"

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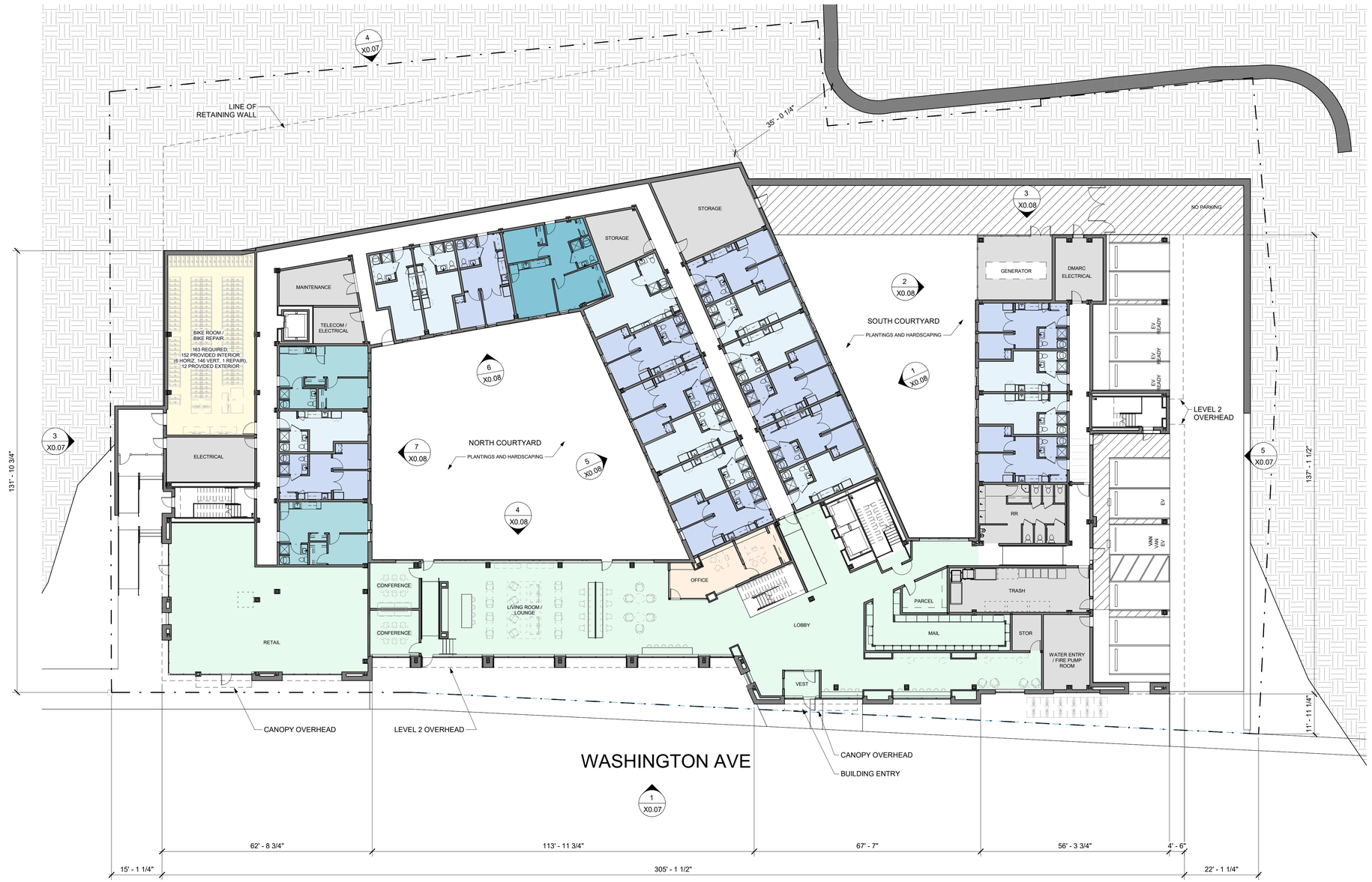
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PROPOSED TREE REMOVAL PLAN

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1 X0.01 LEVEL 01 FLOOR PLAN
1/16" = 1'-0"

N

LEGEND

- STUDIO UNIT
- CONVERTIBLE 1 BED
- 1 BED UNIT
- 2 BED UNIT
- OFFICE
- AMENITY SPACES
- BIKE PARKING
- MECH / B.O.H.

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LEVEL 01 FLOOR PLAN

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LEGEND

- STUDIO UNIT
- CONVERTIBLE 1 BED
- 1 BED UNIT
- 2 BED UNIT
- OFFICE
- AMENITY SPACES
- BIKE PARKING
- MECH / B.O.H.

1 X0.02 LEVEL 02 FLOOR PLAN
1/16" = 1'-0"

N

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LEVEL 02 FLOOR PLAN

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LEGEND

- STUDIO UNIT
- CONVERTIBLE 1 BED
- 1 BED UNIT
- 2 BED UNIT
- OFFICE
- AMENITY SPACES
- BIKE PARKING
- MECH / B.O.H.

1 X0.03 LEVEL 03 FLOOR PLAN
1/16" = 1'-0"

N

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LEVEL 03 FLOOR PLAN

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LEGEND

- STUDIO UNIT
- CONVERTIBLE 1 BED
- 1 BED UNIT
- 2 BED UNIT
- OFFICE
- AMENITY SPACES
- BIKE PARKING
- MECH / B.O.H.

1 X0.04 LEVEL 04 FLOOR PLAN
1/16" = 1'-0"

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LEVEL 04 FLOOR PLAN

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LEGEND

- STUDIO UNIT
- CONVERTIBLE 1 BED
- 1 BED UNIT
- 2 BED UNIT
- OFFICE
- AMENITY SPACES
- BIKE PARKING
- MECH / B.O.H.

1 X0.05 LEVEL 05-07 FLOOR PLAN
1/16" = 1'-0"

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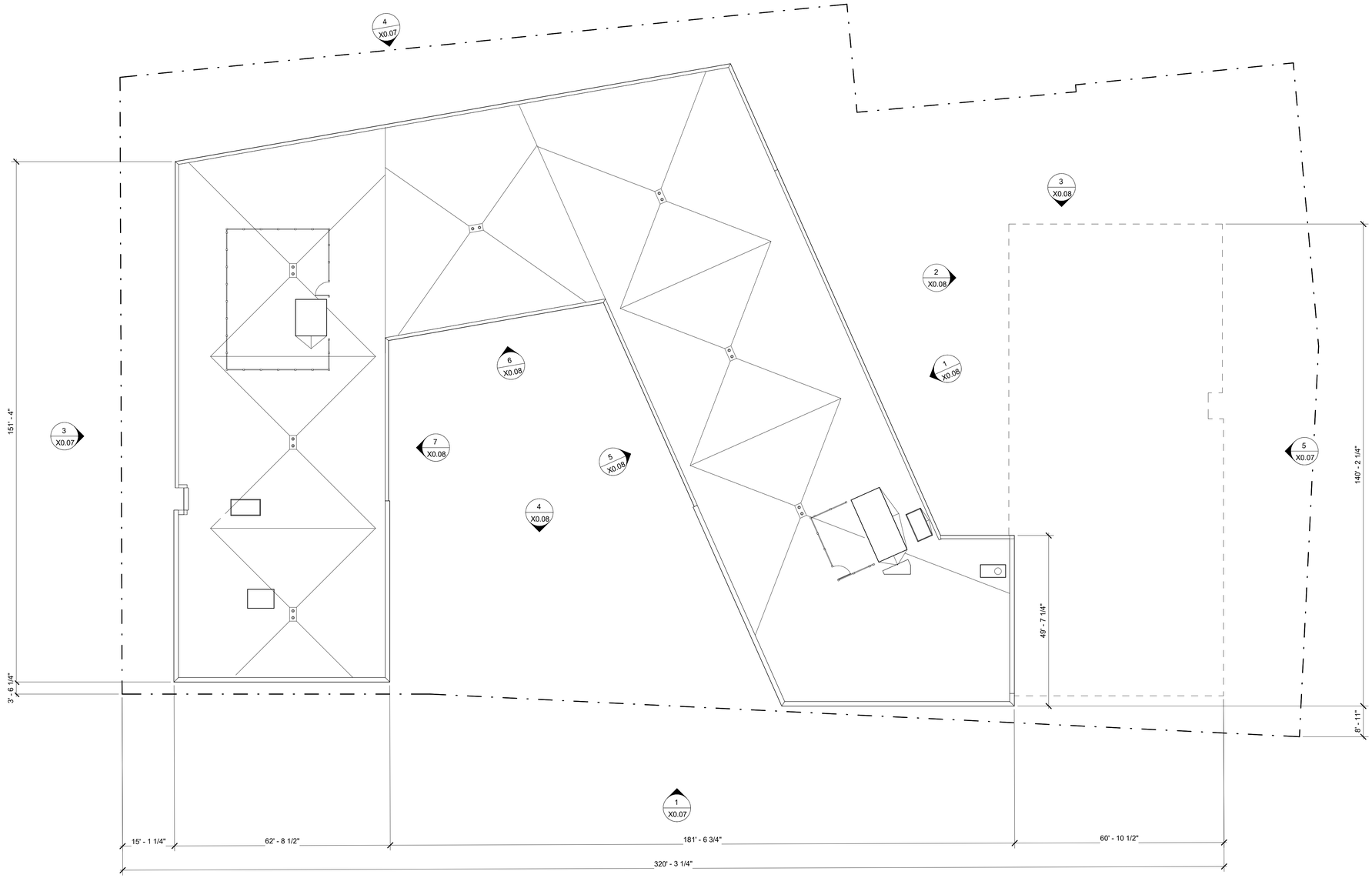
LEVEL 05-07
FLOOR PLAN

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1 X0.06 ROOF PLAN
1/16" = 1'-0"

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ROOF PLAN

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5 X0.07 BUILDING ELEVATION - SOUTH
1/16" = 1'-0"



4 X0.07 BUILDING ELEVATION - EAST @ NORTH WING
1/16" = 1'-0"



3 X0.07 BUILDING ELEVATION - NORTH
1/16" = 1'-0"



1 X0.07 BUILDING ELEVATION - WEST
1/16" = 1'-0"

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EXTERIOR ELEVATION

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7 X0.08 BUILDING ELEVATION - NORTH COURTYARD - NORTH
1/16" = 1'-0"



6 X0.08 BUILDING ELEVATION - NORTH COURTYARD - EAST
1/16" = 1'-0"



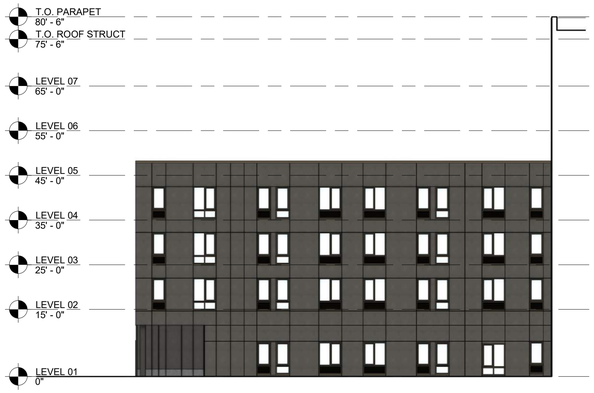
5 X0.08 BUILDING ELEVATION - NORTH COURTYARD - SOUTH
1/16" = 1'-0"



4 X0.08 BUILDING ELEVATION - NORTH COURTYARD - WEST
1/16" = 1'-0"



3 X0.08 BUILDING ELEVATION - EAST @ SOUTH WING
1/16" = 1'-0"



2 X0.08 BUILDING ELEVATION - SOUTH COURTYARD - SOUTH
1/16" = 1'-0"



1 X0.08 BUILDING ELEVATION - SOUTH COURTYARD - NORTH
1/16" = 1'-0"

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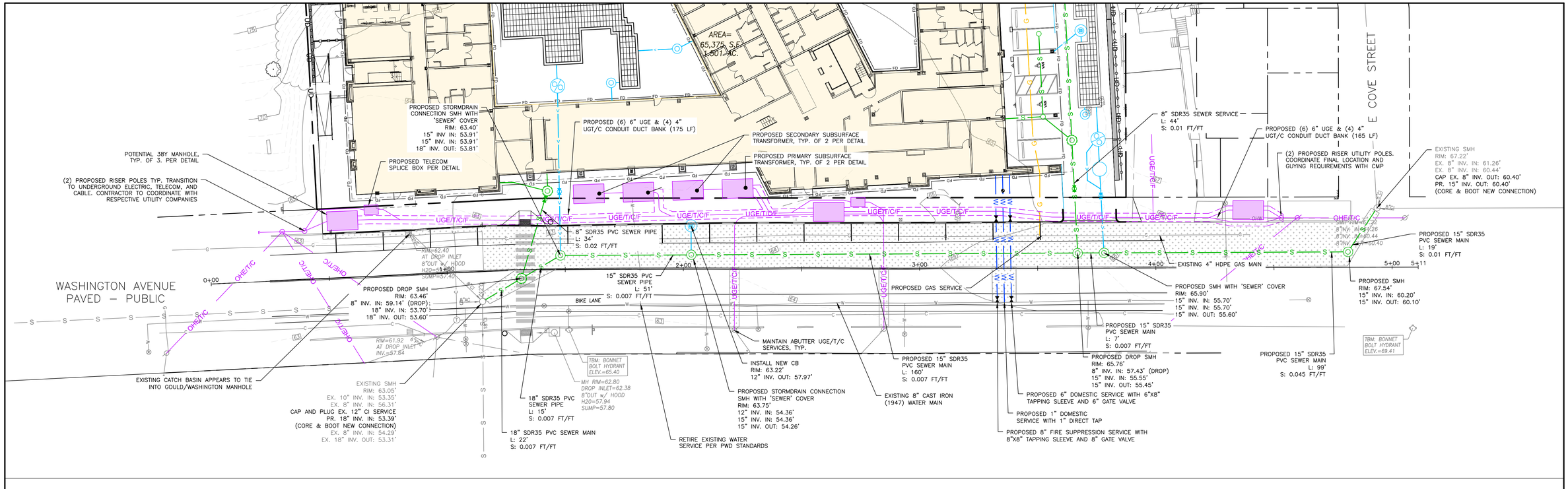
EXTERIOR ELEVATION

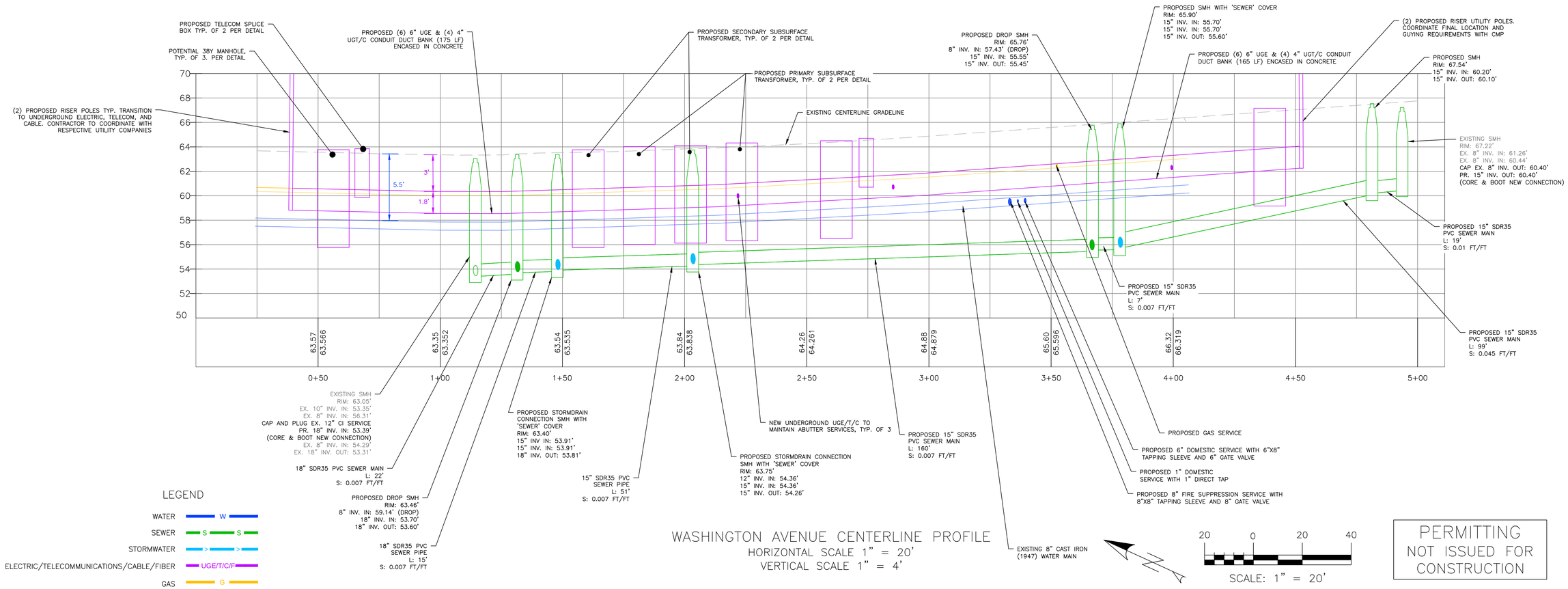
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WASHINGTON AVENUE CENTERLINE PROFILE
HORIZONTAL SCALE 1" = 20'
VERTICAL SCALE 1" = 4'

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SITE PLAN	PFH 11/20/24
COMMENT RESPONSE	PFH 2/14/25

DRAWING NAME: WASHINGTON AVENUE PROFILE
PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101
CLIENT: REDFERN PROPERTIES P.O. BOX 8816, PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.

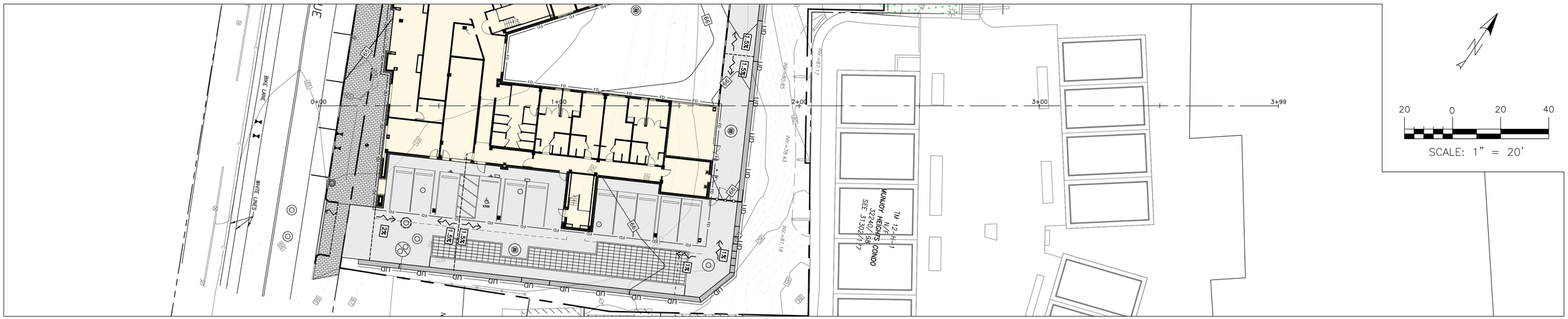
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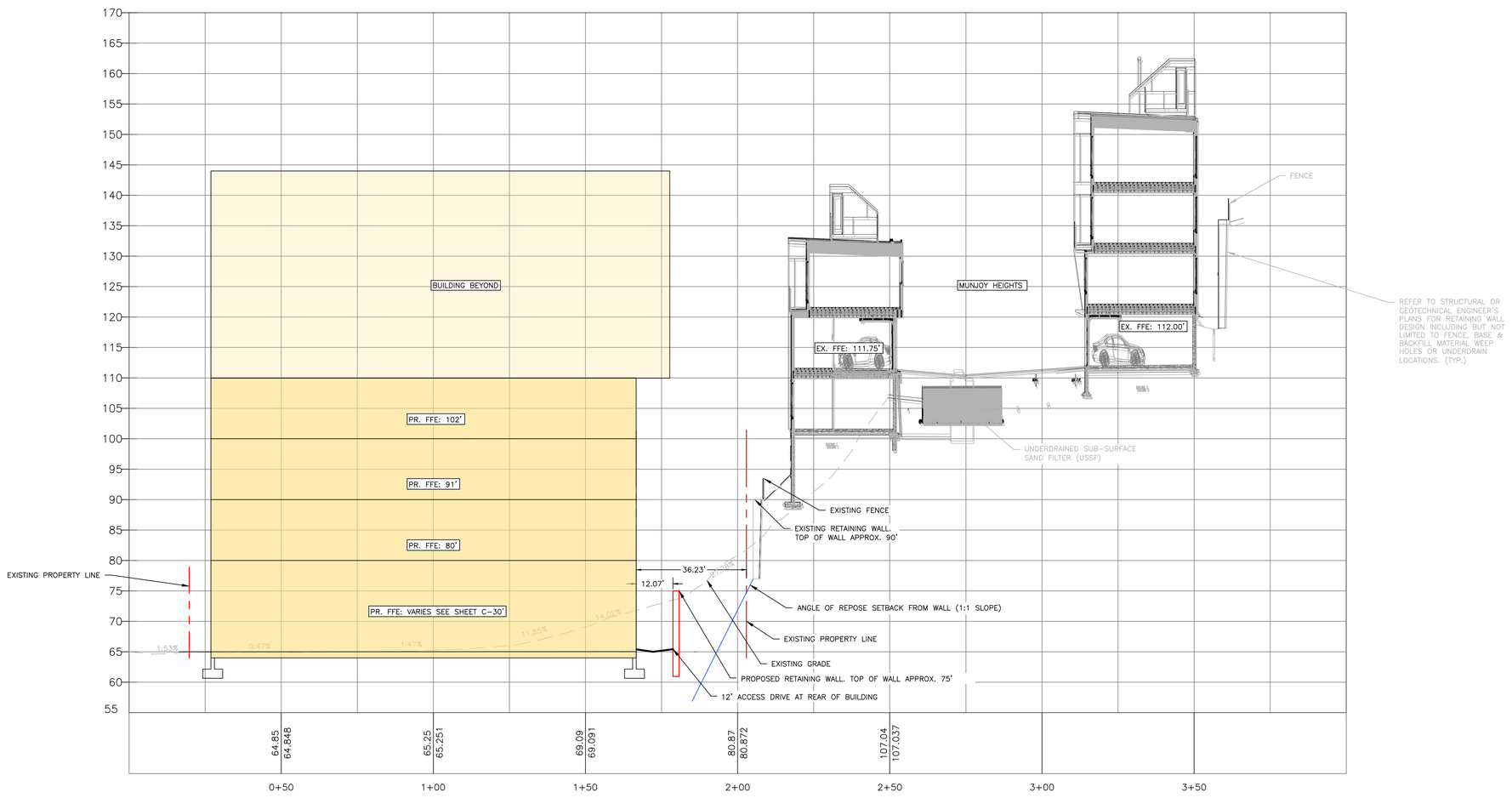
ACORN ENGINEERING, INC
PO BOX 3177 PORTLAND, MAINE 04104
(207) 775-2655

FILE:	1202_CIVIL
JN:	1202
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER
2/14/25

DRAWING NO.
C-21





MASTER PROFILE ALIGNMENT 1
VERTICAL: 1"=10'
HORIZONTAL: 1"=20'

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SITE PLAN	PFH 11/20/24
COMMENT RESPONSE	PFH 2/14/25

DRAWING NAME: MASTER PROFILE – 1

PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE PORTLAND, MAINE, 04101

CLIENT: REDFERN PROPERTIES P.O. BOX 8816, PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.

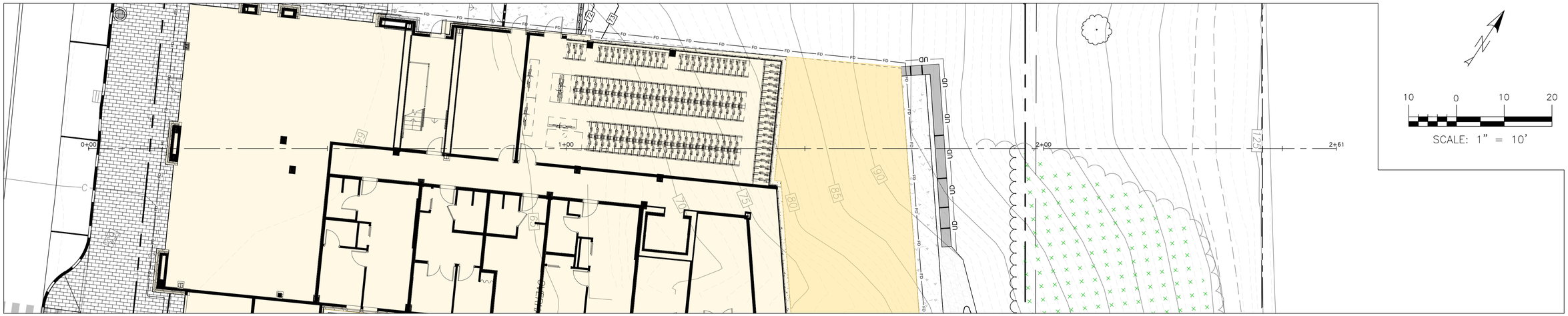
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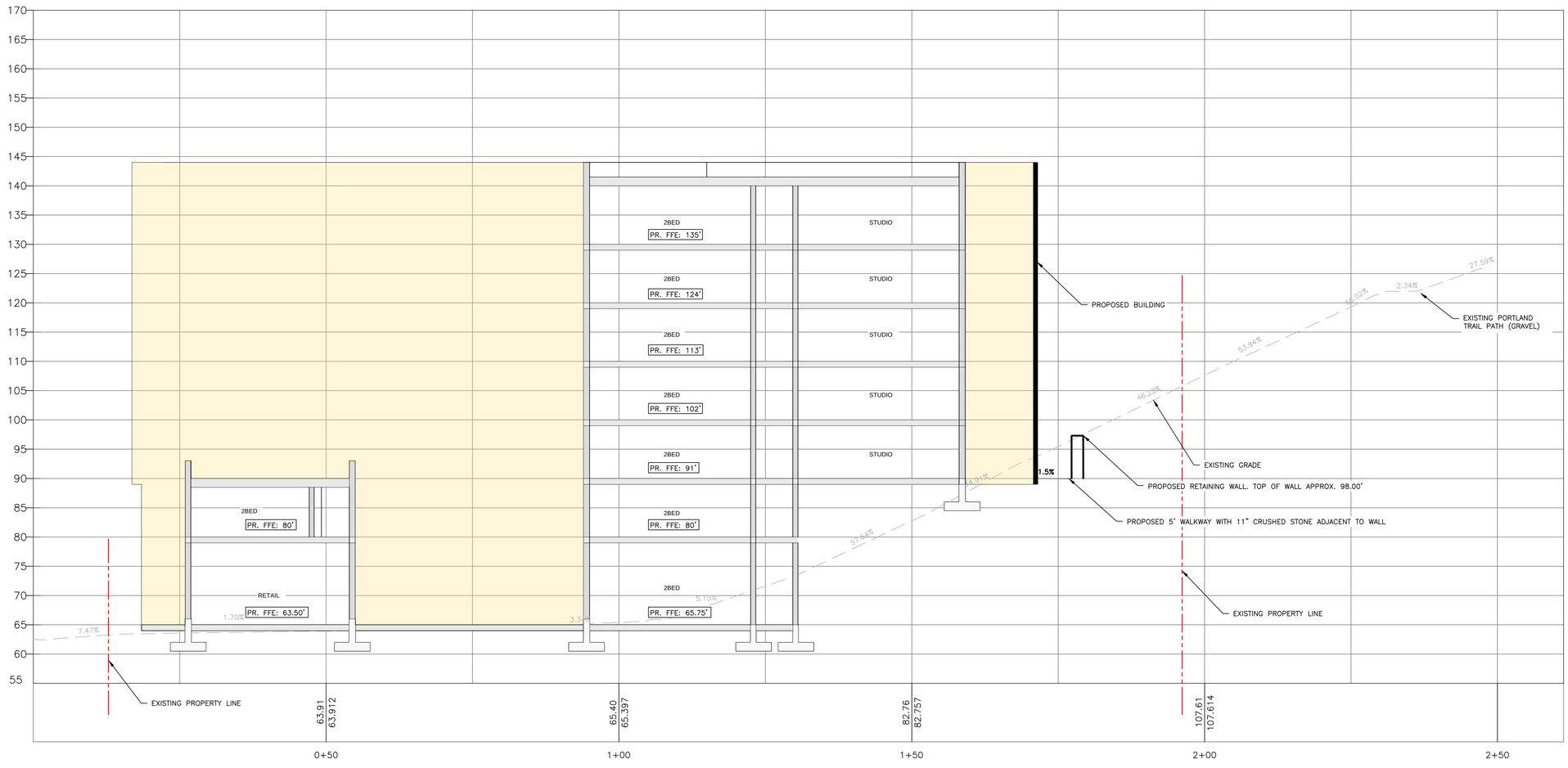
ACORN ENGINEERING, INC.
70 FORE RIVER PARKWAY, SUITE 350
PORTLAND, MAINE 04104
PO BOX 3422
(207) 775-2655

FILE:	1202_CIVIL
JN:	1202
SCALE:	AS NOTED
DESIGNED BY:	PFH
DRAWN BY:	ZMS
CHECKED BY:	WHS

STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C3.00





MASTER PROFILE ALIGNMENT 2
VERTICAL: 1"=10'
HORIZONTAL: 1"=10'

PERMITTING
NOT ISSUED FOR CONSTRUCTION

ISSUED FOR	BY DATE
SITE PLAN	PFH 11/20/24
COMMENT RESPONSE	PFH 2/14/25

DRAWING NAME: MASTER PROFILE – 2

PROJECT NAME: TAVATA – 165 WASHINGTON AVENUE
PORTLAND, MAINE, 04101

CLIENT: REDFERN PROPERTIES
P.O. BOX 8816, PORTLAND, MAINE 04104

ACORN ENGINEERING, INC.

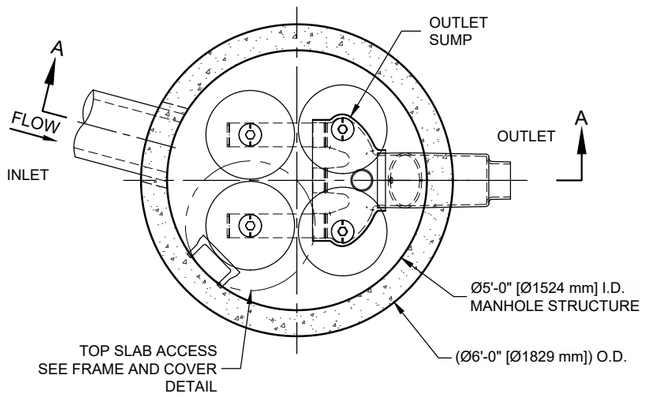
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70 FORE STREET, PORTLAND, MAINE 04104
PO BOX 3422, PORTLAND, ME 04104
(207) 775-2655

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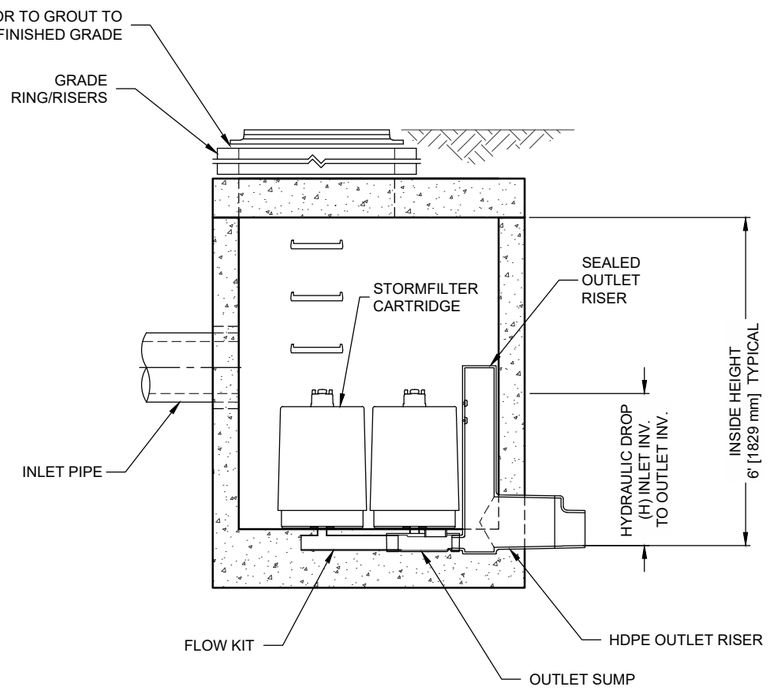
STATE OF MAINE
PETER F. HEIL
15318
LICENSED PROFESSIONAL ENGINEER

DRAWING NO.
C3.01



PLAN VIEW

STANDARD OUTLET RISER
FLOWKIT: 41A



SECTION A-A

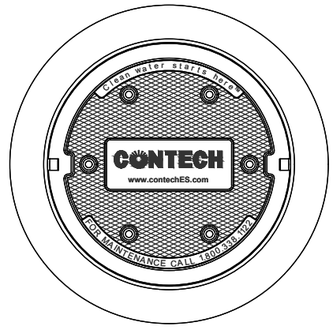
STORMFILTER DESIGN NOTES

STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. THE STANDARD MANHOLE STYLE IS SHOWN WITH THE MAXIMUM NUMBER OF CARTRIDGES (4). VOLUME SYSTEM IS ALSO AVAILABLE WITH MAXIMUM 4 CARTRIDGES.
Ø5'-0" [1524 mm] MANHOLE STORMFILTER WITH SEALED OUTLET RISER MAY REQUIRE AN UPSTREAM BYPASS STRUCTURE.

CARTRIDGE SELECTION

CARTRIDGE HEIGHT	27" [686 mm]			18" [458 mm]			LOW DROP		
RECOMMENDED HYDRAULIC DROP (H)	3.05' [930 mm]			2.3' [700 mm]			1.8' [550 mm]		
SPECIFIC FLOW RATE (gpm/sf) [L/s/m^2]	2 [1.30]	1.67* [1.08]	1 [0.65]	2 [1.30]	1.67* [1.08]	1 [0.65]	2 [1.30]	1.67* [1.08]	1 [0.65]
CARTRIDGE FLOW RATE (gpm) [L/s]	22.5 [1.42]	18.79 [1.19]	11.25 [0.71]	15 [0.95]	12.53 [0.79]	7.5 [0.44]	10 [0.63]	8.35 [0.54]	5 [0.32]

* 1.67 gpm/sf [1.08 L/s/m^2] SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY



FRAME AND COVER

(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	*
WATER QUALITY FLOW RATE (cfs) [L/s]	*
PEAK FLOW RATE (cfs) [L/s]	*
RETURN PERIOD OF PEAK FLOW (yrs)	*
CARTRIDGE HEIGHT (SEE TABLE ABOVE)	*
NUMBER OF CARTRIDGES REQUIRED	*
CARTRIDGE FLOW RATE	*
MEDIA TYPE (PERLITE, ZPG, PSORB)	*

PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE #1	*	*	*
INLET PIPE #2	*	*	*
OUTLET PIPE	*	*	*

RIM ELEVATION	*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR SITE SPECIFIC DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' [1524 mm] AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
6. FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES [178 mm]. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 38 SECONDS.
7. SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) [L/s] DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft)[m^2].
8. STORMFILTER STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET PIPE(S).
E. CONTRACTOR TO PROVIDE AND INSTALL CONNECTOR TO THE OUTLET RISER STUB. STORMFILTER EQUIPPED WITH A DUAL DIAMETER HDPE OUTLET STUB AND SAND COLLAR. IF OUTLET PIPE IS LARGER THAN 8 INCHES [200 mm], CONTRACTOR TO REMOVE THE 8 INCH [200 mm] OUTLET STUB AT MOLDED-IN CUT LINE. COUPLING BY FERNCO OR EQUAL AND PROVIDED BY CONTRACTOR.
F. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

The Stormwater Management StormFilter®

THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,322,629; 5,524,576; 5,707,527; 5,985,157; 6,027,639; 6,649,048; RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

SFMH60
STORMFILTER
STANDARD DETAIL


FCP-1
BV-1
BV-2
BV-1


TAVATA
MCP-1
NSV-1
SF-1
WND-1

MATERIALS



BV-1
Glen-Gery Stonington Gray Velour
Norman 3-5/8” x 2-1/4” x 11-5/8”



BV-1 Alternate
Glen-Gery Malmö
Norman 3-5/8” x 2-1/4” x 11-5/8”



BV-2
Watsontown Brick Diamond White Matt Clear
Norman 3-5/8” x 2-1/4” x 11-5/8”



FCP-1
James Hardie Architectural Panel Siding
4’ x 10’ Fine Sand Primed - Painted in field



NSV-1
Freshwater Stone Deer Isle Granite
Honed finish



WND-1
Intus Windows with integrated louver (where occurs)
Double Glazed - Dark Bronze

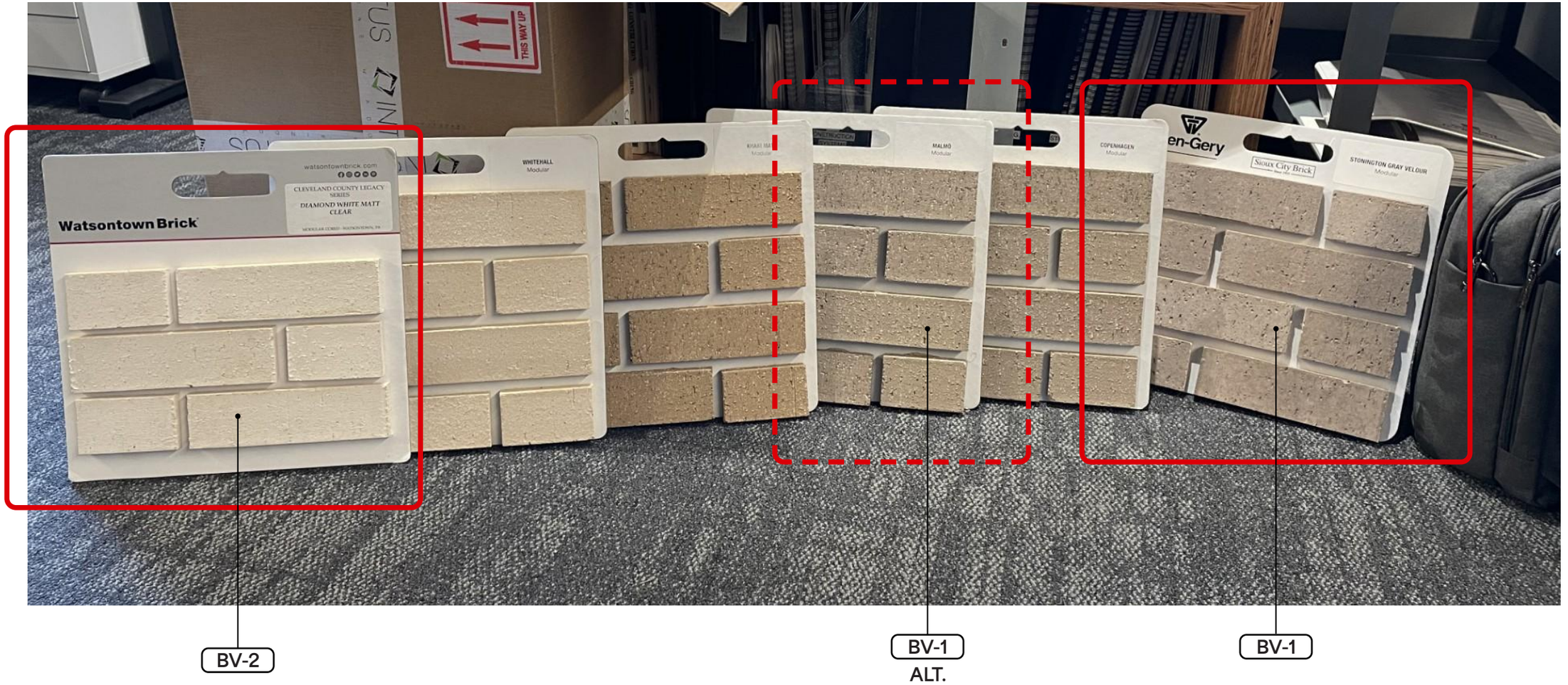


SF-1
Kawneer 451T Aluminum Storefront
Kynar painted finish - Dark Bronze
Window transparency to meet .7 VT



MCP-1
Alpolic RF Metal Composite Panel
Duranar Pearl Gold EX Finish

VE study showing range of options. BV-1 Alt. used in case of required VE.

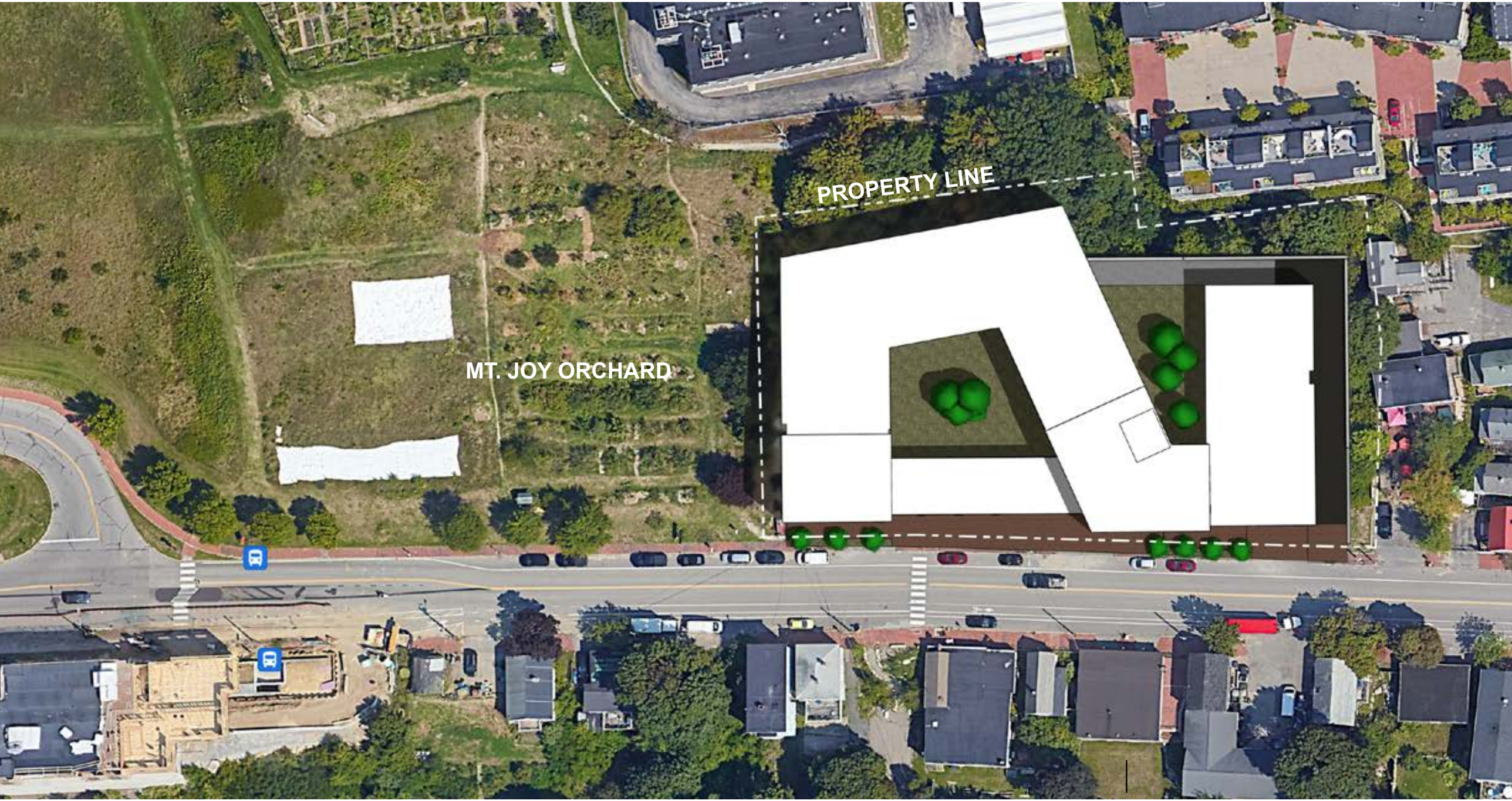




CURRENT ZONING (B-2b)
MARCH 21, 12PM

150 FT.

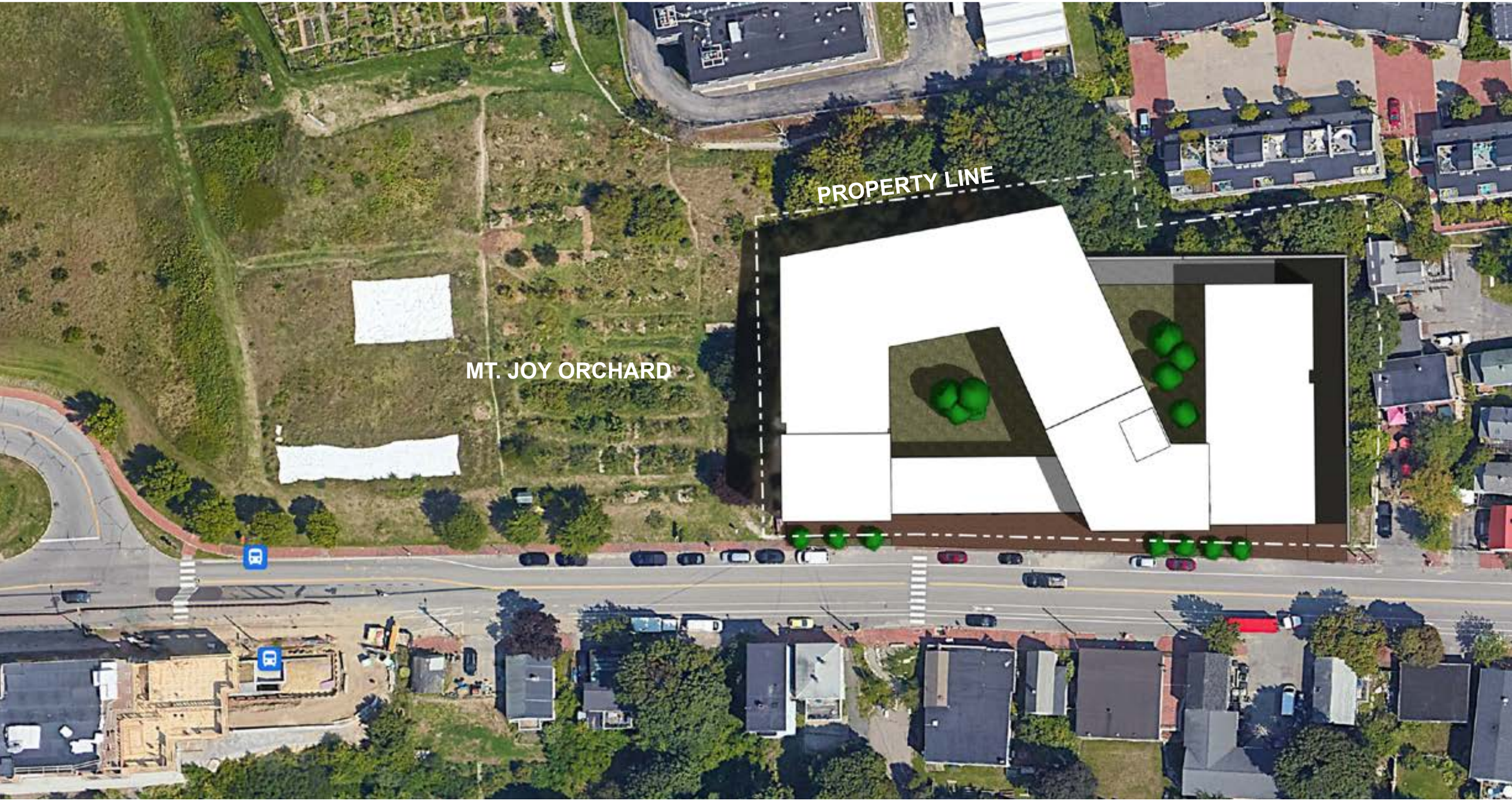
N



CURRENT ZONING (B-2b)
JUNE 21, 12PM

150 FT.

N



CURRENT ZONING (B-2b)
AUGUST 6, 12PM

150 FT.

N



CURRENT ZONING (B-2b)
DECEMBER 21, 12PM

150 FT.

N

NW CORNER



WINDOW DETAIL





Brick soldier coursing inset 1" around window

NW RETAIL CORNER





BUILDING ENTRANCE



FROM ADJACENT PROPERTY



125 Thompson's Point Road
Major Site Plan
PL-003090-2024
Forefront Partners I, LP / CPI Management, LLC

Submitted to:	Portland Planning Board	**Prepared By:**	Natasha Kypfer
Public Hearing Date:	February 25, 2025	**Date:**	February 21, 2025



Figure 1: A rendering of the project with a view from the drop-off court, provided by Embarc Designs (Attachment 43).

I. INTRODUCTION

At the public hearing on February 25, 2025, the Planning Board will review a Level III Site Plan application by Forefront Partners I, LP / CPI Management, LLC, which proposes the development of the property at 125 Thompson's Point Road. The project would involve the construction of a six-story, 255-unit multi-family residential building, with attached six-story structured parking for 463 vehicles and additional surface-level parking for 35 vehicles.

An initial workshop on this item took place before the Planning Board on January 14, 2025, materials for which can be found here. The first workshop guided the Planning Board through the original 2014 Master Development Plan (MDP), which provided background relative to pending proceeding project status, and reviewed findings from the City's first round of review.

The Planning and Urban Development Department mailed 55 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the February 13, 2025 and the February 14, 2025 editions of the *Portland Press Herald*.

Owner:	*Current:* Forefront Partners I, LP, Chris Thompson & Jed Troubh
	Under Contract: CPI Management, LLC (Cathartes, Rob Simmons)
Applicant:	Placemaker Partners, LLC, Bo Kennedy, P.E.
Applicant Representatives:	Cathartes, Rob Simmons
	Embarc Designs, Robert Del Savio
	Carroll Associates, Patrick Carroll

II. REQUIRED REVIEWS AND REQUESTED WAIVERS

Review	Applicable Standards (as of 8/15/2013) *
Level III Site Plan Review	Section 14.526
* Approval of Master Development Plans confer pending proceeding status upon the development with the effect of maintaining the applicability of municipal regulations in effect at the time of approval for as long as the Master Development Plan approval remains valid, including permissible extensions. See attached memo dated June 30, 2023 (Attachment 2). Further, the complete Land Use Code, effective 8/15/2013 is included (Attachment 6).	

III. PROJECT DATA

Existing Zoning	B-5, Urban Commercial Mixed-Use Zone
Property Size	4.67 acres
Existing Use	Vacant Lot, used as surface parking overflow
Proposed Use	Multi-family Residential with Retail



Figure 2: An aerial view of the project site (circled in red), from the Google Maps.

IV. BACKGROUND AND EXISITING MASTER DEVELOPMENT PLAN

The Thompson's Point campus has evolved since its vision was originally laid out in the Forefront at Thompson's Point Site Plan ("Forefront") application (Application # 2011-274), approved on June 5, 2012. These plans included the campus concept design with over 600,000 square feet of non-garage building space dedicated to event, hotel, office, and restaurant uses. Subsequently, a Master Development Plan (MDP) was sought, and approved by the Planning Board, which established a cohesive development program, allowing for multiple development phases over an extended timeframe. The MDP is detailed in the below section. Additionally, on January 12, 2016, the Planning Board approved a revised overall site plan and subdivision plan (Applications # 2015 133 and 2015-159) for a 19-lot subdivision of the Thompson's Point campus. In concert with this Site Plan application, Forefront is pursuing an amendment to Sectional 2 and 4 Subdivision Plat for review by the Planning Authority, which seeks to: consolidate Lots 17, 18, and 19 into a single development lot, the revised Lot 17 and split Lot 8 into two development lots, the revised Lots 8 and 18. As a result, Forefront's 19-lot subdivision will be reduced to 18 total lots, but the effective development area will remain the same.

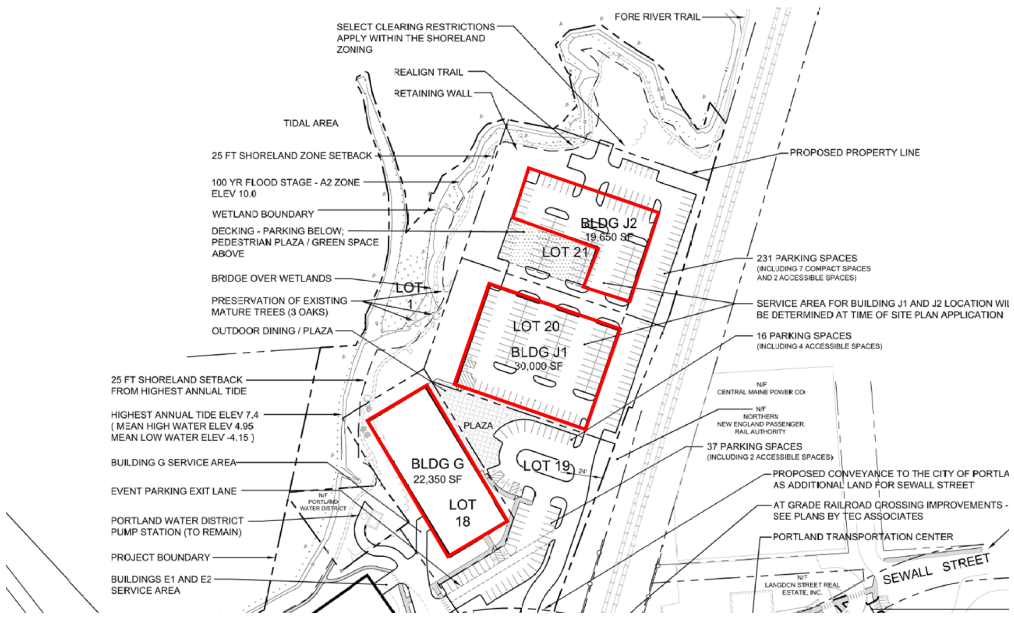


Figure 3: A snip of the original Master Plan, Application # 2013-262, with Buildings G, J1, and J2 highlighted (Attachment 1).

The MDP was approved by the Planning Board (Application # 2013-262), on March 11, 2014. Therefore, the approval of the MDP confers pending proceeding status upon the development with the effect of maintaining the applicability of municipal regulations in effect at the time of approval for as long as the MDP approval remains valid, including permissible extensions. Following its original approval, the MDP was extended twice, as noted in the February 14, 2020 (to March 11, 2022) and March 1, 2022 (to March 11, 2024) letters by the prior Planning and Urban Development Director (Attachment 1). Further, please see the attached memo dated June 30, 2023 (Attachment 2) detailing the project's pending proceeding status.

In March 2014, when the MDP was approved by the Planning Board, the site location as seen in Figure 4 above from their MDP Master Site Layout Plan (Plan 45), the site was originally envisioned as having three separate buildings, which the table below details based upon the MDP's proposed development program. Further, approximately 286 total parking spaces were proposed in conjunction with Buildings G, J1, and J2.

Building	Footprint (Square Feet)	Floor Area (Square Feet)	Height	Number of Units	Use
G	22,350	180, 000	9 floors	n/a	Office
J1	30,000	160,000	6 Floors	160	Condominiums
J2	19,650	196,500	TBD	160	Condominiums

V. EXISTING CONDITIONS AND THE SURROUNDING AREA

The project site is located within the Thompson's Point campus, totaling ~32.67 acres, immediately adjacent to the Portland Transportation Center and located on a peninsula of land that extends along the banks of the Fore River. Positioned southwest of downtown Portland, Thompson's Point was previously an industrial site, bounded by railroad tracks to the north, and otherwise surrounded by water, with Interstate I-295 and U.S. Route 1 running to the east.



Figure 4: A snip of the street view at 125 Thompson's Point Road, showing current conditions, from Google Maps

To date, the Thompson's Point campus now comprises multiple uses, including: a seasonal outdoor concert venue, adjoining the Depot Pavilion, that operates in collaboration with the State Theatre; Brick South, an event function hall; Halo at the Point, another event space; and, the Rink, a winter ice skating, seasonally located within the Depot Pavilion. Other uses include the Children's Museum & Theatre of Maine, the International Cryptozoology Museum, craft breweries/distilleries and other food and beverage service uses. Portland Trails maintains the Thompson's Point Trail, formerly Fore River Trail, which is a gravel and boardwalk path running along the Fore River and rail tracks. Hotel Portland, a 148-room boutique brand hotel with a restaurant and bar (Application # 2017-241), was originally approved by the Planning Board in July of 2018 and broke ground in late 2024. This project is expected to be completed in 2026.

VI. PROPOSED DEVELOPMENT

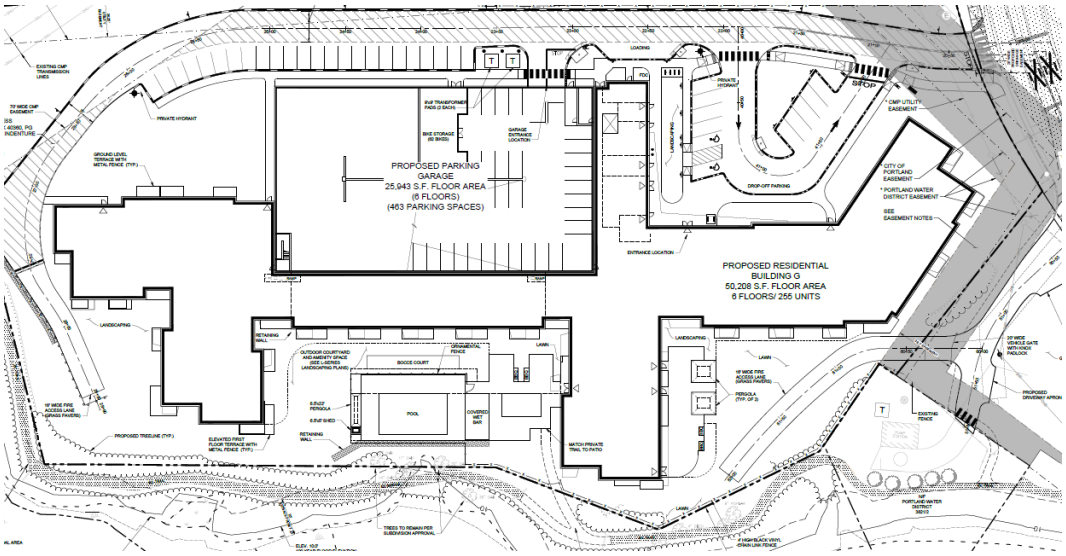


Figure 5: A snip from the Site Layout Plan, provided by the applicant (Plan 21) showing the building configuration.

The proposed development site (Plan 21) includes a six-story, 255-unit multi-family residential building with attached six-story structured parking for 463 vehicles, plus additional surface level parking for 35 vehicles located along the northern frontage. The residential portion of the building is proposed to total 50,208 square feet in footprint, and the adjoining parking garage is proposed to total 25,943 square feet in footprint. As seen below in Figure 5, programing for the site includes a drop-off parking and entry zone serving as the main entry point, and various amenities for residents including a pool, bocce court, multiple pergolas, and private trail connection to the existing public trail network.

VII. RIGHT, TITLE, AND INTEREST

The current owners of the property, Forefront Partners I, LP, are under contract in a Purchase and Sale Agreement with Cathartes, to purchase the subject property at Thompson's Point, as documented in a letter dated July 8, 2024 (Attachment D). Further, referenced in the City of Portland's

assessing records is a deed recorded at the Cumberland County Registry of Deeds (Book 36502 Page 035) on February 14, 2020, as evidence of right, title, and interest in the property by Forefront Partners I, LP.

VIII. FINANCIAL AND TECHNICAL CAPACITY

The applicant has submitted a letter from M&T Bank, dated July 24, 2024, as demonstration of their financial capacity to complete the proposed development (Attachment H). Accompanying this, the applicant included the technical capacity documentation which includes details on the following project partners and consultant team: Placemaker Partners, LLCs, Sebago Technics, Inc., Embarc Design, Carroll Associates, Summit Geoengineering Services, and Credere Associates, Inc. (also, Attachment H).

IX. ZONING ANALYSIS

A. DIMENSIONAL AND USE REQUIREMENTS

A zoning review has been conducted on this application and this project meets the requirements of the B-5, Urban Commercial Zone based on Section 14-230.4 (LUC, 8-15-2013), see below.

	Required	Proposed
Lot Size	None	4.637 ac.
Frontage	None	139'
Front Setback	None	34'
Rear Setback	None	39'
Side Setback	None	10'
Structure Height (Max.)	120' *	68'
Lot Coverage (Max.)	100%	63 %
Off-Street Parking Spaces	None	498
Bicycle Parking	None	102
* Order 119-13/14, effective 1/15/2014, provided an update to the B-5 dimensional requirements, increasing the maximum building height from sixty-five (65) feet for parcels of land located on Thompson's Point, and also subject to an approved Master Development Plan to: one hundred twenty (120) feet (Attachment 5).		

B-5 Urban Commercial Mixed Use Zone – Purpose Statement: *T*o provide zones in areas of the peninsula near the central business district where a mixture of uses, including marine, industrial, commercial, and residential, is encouraged. The B-5 and B-5b zones are characterized by larger underdeveloped lots with great potential for denser, clustered, urban mixed-use development and more efficient reuse of existing land and buildings. It is anticipated that such denser, mixed uses would rely on a shared infrastructure system, including service alleys, parking lots, public transportation facilities, stormwater management, and driveways.

The proposed uses of residential and commercial/retail are permitted uses within the B-5, Urban Commercial Mixed Use Zone, per Section 14-230.1 of the Land Use Code, 8-15-2013.

B. INCLUSIONARY ZONING

This project is not subject to the City's Inclusionary Zoning standards, which are outlined in Section 17.2.3 of the Land Use Code. The 255 residential units proposed with this development are proposed as market rate units. On October 19, 2015, the City Council adopted Inclusionary Zoning regulations which went into effect on November 18, 2015 (Order 82-15/16). The Forefront's MDP was approved before the Inclusionary Zoning regulations were implemented and therefore is not subject to Portland's Inclusionary Zoning requirements. As previously noted, this is due to the project site's pending proceeding status.

X. JANUARY 14, 2024 WORKSHOP

On January 14, the project appeared for an initial workshop before the Planning Board. This workshop allowed for an initial review of the site plan standards, with Board discussion focusing on the following project topics:

- Construction timing, due to TMP expiration on March 1, 2027
- Updates to the campus-wide TDM plan
- Floodplain management compliance

- Requested building design updates

Following the workshop, the applicant team and City staff, including third-party peer reviewers, met virtually on February 5, 2025 to discuss the above items and the outstanding project requests identified in the City Review Comments (Attachment 4).

XI. SITE PLAN STANDARDS

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's Site Plan Ordinance, Section 14.6. Staff comments are below.

1. Transportation Standards (Section 14.6.1)

A. Impact on Surrounding Street Systems

As part of the existing Master Development Plan (MDP), the overall project was reviewed under a Traffic Movement Permit (TMP) application, which addresses impacts on the surrounding street network and for the anticipated increases in traffic congestion. The TMP (Identification #: Reg. 01-00155-A-N) was issued on June 13, 2012 with a traffic study completed as part of the approved MaineDOT TMP, citing for 734 trip ends during the AM peak hour and 1,091 trip ends during the PM peak hour. Further, the TMP received an extension in 2024, through to March 1, 2027. According to the September 4, 2024 traffic memorandum prepared by Gorrill Palmer Associates, the proposed project is not forecasted to exceed the number of trips permitted under the existing TMP.

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and three Condition of Approvals are recommended:

- The applicant shall confirm that the TMP is being implemented for all events.
- The applicant shall schedule meetings with the Libbytown Neighborhood Association and City staff with the intent of identifying possible mitigation strategies to be implemented during the 2025 concert season.
- The applicant shall conduct a traffic monitoring review of conditions at the first major concert event of the 2025 season, to be reviewed by the Planning Authority.

B. Access and Circulation

The project site is accessed via Thompson's Point Road at the street's intersection with Fore River Parkway and includes a public railroad crossing proximate to the two-way driveway into the proposed development, which terminates at a hammerhead turnaround. The Thompson's Point Trail (formerly named the Fore River Trail) runs to the south of the development area, with the site's proposed pedestrian circulation well-integrated to the public trail system. Further, a proposed six-foot-wide sidewalk along the front façade of the building connects to the existing sidewalk network throughout the Thompson's Point campus.

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and consider this standard to be met.

C. Public Transit Access

This project is within a quarter mile of fixed transit, as the Greater Portland Metro's BREEZ line services bus stops at both the Portland Transportation Center (PTC) and Thompson's Point, operating Monday - Saturday. The application materials indicate the closest of which transit stop is approximately 665 feet / 0.13 miles walking-distance from the front door of the site. Per the Technical Manual Section 1.17.2, transit shelters shall be located within the site, directly adjacent to the right-of-way on which the public transportation route is established or located within a public sidewalk area long the property frontage.

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and consider this standard to be met.

D. Parking

This project proposes to provide 457 parking spaces within a parking garage structure attached to the proposed residential "Building G" residential structure. In addition, 35 off-street parking spaces are proposed along the front façade of the building and the drop-off court by the main entrance. Per the application materials, 26 ADA parking stalls are proposed on-site and 102 bicycle parking spaces are provided, with these being located outside of the building along the property's frontage, as well as within the proposed building within a dedicated bicycle storage room.

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and a single Condition of Approval applies, requiring the applicant to provide an updated parking analysis based on the 6th Edition of the ITE Parking Generation Manual and all requested back up information shall be provided.

E. Transportation Demand Management (TDM)

A TDM Plan is required for this project, as it exceeds the thresholds as detailed in the LUC Section 14.6.1.E.1. The project has an approved Thompson's Point campus-wide TDM plan for managing and reducing traffic trips and parking demand in place as part of the MDP. The provided Attachment P summarizes TDM initiatives and references previously prepared TDM strategy reports which was approved in 2011, and subsequently updated in both 2015 and 2018.

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and consider this standard to be met.

2. Environmental Quality Standards (Section 14.6.2)

A. Preservation of Significant Natural Features

The parcel's current use is as a gravel surface parking lot resulting in the anticipated site disturbance unlikely to disrupt any significant natural features. While the landscaping plan identifies trees to be preserved, it does not include a tree survey as noted below. Further, the applicant attests no known populations of trees or plants present on the site have been classified as Endangered and Threatened in Maine, nor known habitats/communities, present that appear on the state or federal endangered or threatened animal list.

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and consider this standard to be met, as it is not applicable.

B. Landscape Preservation

The submitted landscaping plan notes existing trees identified to preserve and protect (e.g. a handful of significant oaks along the southern property line that had previously been requested for preservation by the former City Arborist), but a tree survey was not included as part of the application submission. Per section 4.3.1. of the Technical Manual, projects are required to submit a tree survey from a licensed land surveyor arborist, forester, or landscape architect clearly identifying the forest type and location, size, and species of all existing trees 10" DBH or greater on the site and in the City right of way.

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and consider this standard to be met.

C. Site Landscaping and Buffers

The landscape plan proposes to screen the development from the existing trail, pool and outdoor amenity space, and around the entire perimeter of the building itself. The site location is buffered by both the rail line and Fore River, which will sufficiently buffer the proposed site use from the public right-of-way and neighboring campus properties. Further, the site has ±139 feet of street frontage and is required to plant site landscaping at a ratio of one tree or six plantings per 25-35 feet of street frontage. In their materials, the applicant cites that limited street trees have been proposed in location and quantities where possible, noting underground utility conflicts and that the rest of the site is heavily planted.

Section 4 of the Technical Manual allows for the use of street tree alternatives, which the applicant team has determined, due to the existing conditions and high-density of underground utilities that are located in the right-of-way, they will contribute to the City of Portland Tree Fund for a total amount of $95,200, which accounts for 238 trees at the 2014 fee of $400 per tree. The calculation is based on the calculation for multi-family residential projects to provide one tree per unit, which would total 255 trees, although credit has been given for 17 trees as approved by the City Arborist.

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and a Condition of Approval applies relative to the payment of the assessed fee-in-lieu for the outstanding street trees required.

D. Water Quality, Stormwater Management, and Erosion Controls

The September 2024 stormwater report summarizes changes to the water quality treatment zones and provides detailed computations of the respective stormwater management systems sized to convey and treat stormwater runoff from the proposed redevelopment. The bulk of the

new building, parking structure, central courtyard, and northerly courtyards will drain to a series of roof drains, catch basin inlets, and storm drain piping to convey runoff to a treatment system.

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and a Condition of Approval applies relative to the requirement for the applicant to retain the services of a third-party inspector for the duration of construction until final site stabilization is in place.

3. Public Infrastructure and Community Safety Standards (Section 14.6.3)

A. Consistency with City Master Plans

The proposed development of the subject property is a permitted use within the B-5 zone, and complies with applicable zoning as established under the City's comprehensive plan, *Portland's Plan 2030*.

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and consider this standard to be met.

B. Public Safety and Fire Prevention

The project site is accessible from Thompson's Point Road, and during the Master Development Plan (MDP) approval back in 2014, it was determined at the time that for the purposes of emergency vehicle access that one access point for ingress/egress was sufficient. Further, the included Utility Plan shows the location of all existing and proposed fire hydrants, with a service radius of 100' and 250', meeting the Technical Manual Section 3.2.1 standard of within 500'. City staff, including Fire & Life Safety reviewers, requested feasibility documentation in light of Section 18.2.3.3 of NFPA 1 Fire Code. The applicant has requested a waiver associated with the Technical Manual Section 10.5, as detailed below.

Waiver Request:

1. A waiver for *Technical Manual* Section 10.5, which requires two (2) access roads servicing development of over 100 proposed residential units.

Staff Finding: City staff are in support of the requested waiver to Section 10.5 of the Technical Manual, because a single means of ingress/egress was previously found acceptable at the time of the MDP approval in 2014, which was supported by a Master Fire Protection Plan, dated October 2013 and a Fire Protection Review Memo from Fire Risk Management, Inc. dated January 29, 2014.

C. Public Utilities

Per the applicant's submittal, the existing 12" water main (publicly owned), 15" sewer main (publicly owned), and electrical/communications (private) duct bank serving the project is shown on the accompanying utility plan. The proposed development will construct new utility stubs for the development lot. Ability to Serve letters have been provided by Until, CMP, DPW for wastewater capacity authorization, and PWD (Attachment E).

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and consider this standard to be met.

4. Site Design Standards (Section 14.6.4)

A. Massing, Ventilation, and Wind Impact

The proposed multi-family residential building is located at the panhandle portion of the property site of the Thompson's Point development, with direct access to the Thompson's Point roadway. Originally envisioned with the MDP as a clustered arrangement of three new buildings, the proposal is for a single six-story multi-family residential building with attached garage. Further, the HVAC equipment is proposed to be located on the roof of the building, as depicted (Plans 39).

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and consider this standard to be met.

B. Shadow

Shadow standards are not applicable in the B-5 zone; thus, this development is exempt.

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and consider this standard to be met, as it does not apply.

C. Snow and Ice Loading

Snow storage is proposed to be located temporarily along the edges of the drive aisles and landscaped areas until such a time when the stockpiles need to be removed from the property. Snow removal on the parking roof deck which is a flat roof and is designed to store snowfall, will be plowed to a drop chute where it can be managed on the ground.

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and consider this standard to be met.

D. View Corridors

This site is not located along a public view corridor identified in the Downtown Vision View Corridor Protection Plan.

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and consider this standard to be met, as it does not apply.

E. Historic Resources

The subject property is not within a Historic District; therefore, this standard does not apply.

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and consider this standard to be met, as it does not apply.

F. Exterior Lighting

All development must adhere to the site lighting standards provided for in the Technical Manual, Section 12, for: site lighting, architectural and specialty lighting, and street lighting. This project proposes site lighting, with 27 outdoor wall-mounted fixtures proposed in total along the four structure planes; the photometric plan is provided with the submission, as well as cut sheets and lighting specification materials.

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and consider this standard to be met.

G. Noise and Vibration

In the City, all HVAC, AHU, emergency generators, and similar equipment are required to meet applicable state and federal emissions requirements and are further required to be located and/or screened in such a manner as to mitigate noise and vibration impacts. Per the application materials, the majority of the roof top mounted HVAC equipment average approximately 57" - 69" above the roof, and includes electric heat pumps for each dwelling unit. Sheet A1.7 ('Site Line Studies of Roof Top Mechanical Units' with the resubmission. The applicant shares that there will be no cooling towers, nor chillers or generators that could create unwarranted noise to emanate from the site.

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and consider this standard to be met.

H. Signage and Wayfinding

Any signage associated with the redevelopment of this project will be required to be reviewed by the Permitting and Inspections Department separately, with a sign permit to meet the standards of Article of the Land Use Code.

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and consider this standard to be met.

I. Zoning-related Design Standards

Per the Land Use Code Section 14.6.4.I.a, developments in the B-5 zone shall be designed to support the development of dense, mixed-use neighborhoods with attractive, safe, and convenient street-level pedestrian environments. An initial Design Review Memo, dated October 28, 2024 was provided (Attachment 5), and a second, revised Design Review Memo, dated February 12, 2025, was also provided (Attachment 6). Further, the project was reviewed according to the City's multiple-family design standards, as well as the design guidelines identified in the Thompson's Point Master Development Plan.

Staff Finding: The proposed development has been reviewed by Staff for conformance with this standard and a Condition of Approval applies relative to the applicant providing requested design updates to address the visibility of the structured from abutting properties at the north and recommends that the applicant provide additional opaque screening as appropriate.

XII. SHORELAND OVERLAY ZONE SUPPLEMENTAL SITE PLAN STANDARDS

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's Shoreland Overlay Zone Ordinance, Section 11.5.1 Staff comments are below.

A. The proposal will maintain safe and healthful conditions.

Staff Finding: This application provides a private connection from the development to the existing Thompson's Point Trail, maintained by *Portland Trails*, which provides a safe and integrated pathway for the residents and visitors of Portland, and serves as an important waterfront publicly-accessed linear park space.

B. The proposal will not result in water pollution, erosion, or sedimentation to surface waters.

Staff Finding: The development as designed is compliant with MAINE DEP Chapter 500: Basic Erosions and Sedimentation Control requirements, along with Maine DEP General Standards.

C. The proposal will adequately provide for the disposal of all wastewater.

Staff Finding: Per the applicant, the existing site sanitary sewer system is connected to the Thompson's Point sanitary pump station owned and operated by the Portland Water District. All sanitary waste discharge will be tied into the existing public wastewater system. Onsite wastewater treatment is not proposed.

D. The proposal will not have an adverse impact on spawning grounds, fish, aquatic life, bird, or other wildlife habitat.

Staff Finding: As part of the original MDP submission, comments were received from MDIF&W (see Attachment E), wherein their comments explicitly state: "Given the steps that the applicant has taken to maintain and enhance mapped Significant Wildlife Habitats at this site we do not feel that project completion will result in any significant adverse impact to the resource."

E. The proposal will conserve shore cover and visual, as well as actual, points of access to inland and coastal waters.

Staff Finding: The proposed development does not impact shore cover or access points to inland and coastal waters.

F. The proposal will protect archaeological and historic resources.

Staff Finding: Per the City's site plan ordinance, in the event that archaeological resources and/or historic resources are discovered and identified during the course of construction, the developer is required to carry out specific steps in accordance with Section 13.6.4.E.2 to protect any such identified resource.

G. The proposal will not adversely affect existing commercial fishing or maritime activities.

Staff Finding: There are no existing commercial fishing or maritime activities in the close vicinity of this application.

H. The proposal will avoid problems associated with floodplain development and use.

Staff Finding: The site plan (Plan 6) provides a clear demarcation of the 100-year flood elevation, with the AE Flood Zone (elevation 9.71) overlaid and shown in red for visibility.

I. The proposal is in conformance with the standards set forth in this article.

Staff Finding: The application is in conformance with all of the required subsections that pertain to Section 11.5.1.

XIII. SUBDIVISION STANDARDS

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's Subdivisions Ordinance, Section 14.4.1 A full discussion and description of the standards for the subdivision application appears in the Site Plan standards section XI of this report. Responses to Subdivision standards that differ are provided below.

A. Will not result in undue water or air pollution.

Staff Finding: The project site is wholly within the existing Thompson Point campus a former industrial site that has been redeveloped into a mixed-use campus. The site plan, grading and utility plans are designed to adequately address stormwater quality and to minimize pollution from the site. No detrimental water or air quality impacts are anticipated. Stormwater review comments are included in the Site Plan Review section, above.

B. Has sufficient water available for the reasonably foreseeable needs of the subdivision.

Staff Finding: See Site Plan Review section above.

C. Will not cause unreasonable burden on an existing water supply.

Staff Finding: See Site Plan Review section above.

D. Will not cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result.

Staff Finding: See Site Plan Review section above.

E. Will not cause unreasonable highway or public road congestion, or unsafe conditions with respect to use of highways or public roads that are existing or proposed.

Staff Finding: See Site Plan Review section above.

F. Will provide for adequate sanitary waste and storm water disposal and will not cause an unreasonable burden on municipal services if they are utilized.

Staff Finding: See Site Plan Review section above.

G. Will not cause an unreasonable burden on the ability of the City to dispose of solid waste and sewage if municipal services are to be utilized.

Staff Finding: The applicant has proposed trash enclosures in association with the site plan application, to be privately managed, as well as provided evidence of sewer capacity from the Portland Water District, and full utility plans to address waste disposal.

H. Will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, significant wildlife habitat identified by the Department of Inland Fisheries and Wildlife or by the City, rare and irreplaceable natural areas, or any public rights for physical or visual access to the shoreline.

Staff Finding: The site is not within an historic district. The new subdivision application is not anticipated to affect original assessments related to historic sites, significant wildlife habitat, or irreplaceable natural areas. The property has been extensively evaluated on each of these measures over the course of prior reviews. The site is largely developed with pavement, gravel lots, and existing buildings.

I. Is in conformance with the adopted Comprehensive Plan.

Staff Finding: See Site Plan Review section above.

J. The subdivider has adequate financial and technical capacity to meet the standards of this subsection.

Staff Finding: See Site Plan Review section above.

K. Whenever situated, in whole or in part, within the watershed of any pond or lake or within 250 feet of any wetland, great pond, or river as defined in Title 38, Chapter 3, Subchapter I, Article 2B, will not adversely affect the quality of such body of water or unreasonably affect the shoreline of such body of water.

Staff Finding: With the exception of necessary stormwater discharges, all structures and paved surfaces will be set 25 feet back from high water at the shoreline, as consistent with Shoreland Zoning regulations. There is a full stormwater management plan that has been reviewed and approved for the site as a whole, with comments on revisions and specific proposals for the Level III stormwater plan addressed in the Site Plan Standards. The site is currently almost entirely impervious, with no stormwater treatment – proposed stormwater management techniques post-redevelopment will benefit water quality leaving the site.

L. Will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of groundwater.

Staff Finding: There are no anticipated impacts to groundwater supplies.

M. Is or is not in a flood prone area

Staff Finding: The perimeter of the peninsula is located within the flood plain. Buildings in the current site plan application are not in the flood plain.

N. Will provide for adequate stormwater management as demonstrated by compliance with the stormwater standards of the City of Portland *Technical Manual*.

O. Will not have lots with a lot depth-to-shore frontage ratio greater than 5 to 1 if any lots in the proposed subdivision have shore frontage on a river, stream, brook, great pond, or coastal wetland as these features are defined in Title 38 § 480-B. For purposes of this measurement, shore frontage shall be the length of a lot bordering on a water body or wetland measured in a straight line between the intersections of the lot lines with the shoreline.

Staff Finding: The proposed subdivision will not result in lot depth-to-shore frontage ratios greater than 5 to 1.

P. For any proposed subdivision that crosses municipal boundaries, will not cause unreasonable traffic congestion or unsafe conditions with respect to the use of existing public ways in an adjoining municipality in which part of the subdivision is located.

Staff Finding: The site does not cross municipal boundaries. Not applicable.

XIV. NEIGHBORHOOD MEETING AND PUBLIC COMMENT

As a requirement for this project, the applicant held a neighborhood meeting on October 16, 2024 at the Halo at the Point event space, wherein two members of the public attended (Attachment W), as well as members of the project team from Placemaker Partners, LLC, Cathartes, Carroll Associates, and Embarc Designs. Questions raised at the meeting were pertaining to: the height of the structured parking garage, visibility of the garage, whether the residential units would be condos or apartments, the mix of residential units, and the process in the event of a train crossing and EMS services are needed to access the site.

The Planning and Urban Development Department has received no public comment regarding this application at the time of publication of this report.

XV. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Department staff determines that the application PL-00260-2023 for 125 Thompson's Point Road, seeking to create a new six-story building with 255-unit multi-family residential building, meets the applicable standards of Portland's Land Use Code.

XVI. PROPOSED MOTIONS

A. WAIVERS

On the basis of the applicant, plans, reports, and other information submitted by the applicant, findings, and recommendation contained in the Planning Board Report for the public hearing on February 25, 2025 for application PL-003090-2024 for 125 Thompson's Point Road relevant to the Site Plan Standards of the Land Use Code and the City of Portland's Technical Manual, and other regulations, and the testimony presented at the Planning Board hearing:

1. Required Number of Access Roads by Number of Proposed Units

The Planning Board [finds/does not find] based upon the City's Review, that extraordinary conditions exist or undue hardship may result from strict compliance with the Technical Manual standard Section 10.5, which requires two (2) access roads for the service of over 100 proposed units, that substantial justice and the public interest are secured with the proposed variation in this standard, and that the variation is consistent with the intent of the ordinance based upon the decision made at the time of MDP approval on March 11, 2014. The Planning Board [waives/does not waive] the Technical Manual standard Section 10.5, in order to allow for one (1) access road to the project site which serves 255-units as proposed.

B. SITE PLAN REVIEW

On the basis of the application, plans, reports, and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for the public hearing on February 25, 2025 for application PL-003090-2024 for 125 Thompson's Point Road relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board [finds/does not find] that the plan is in conformance with the Site Plan Standards of the Land Use Code subject to the following conditions of approval:

1. The applicant has agreed that all large events/concerts will not begin (i.e. "doors open") between 4pm and 7pm Monday through Friday. If noncompliance continues, the City and MaineDOT will require the applicant meet to discuss actions required which may include traffic analysis and mitigation requirements during the 4pm to 7pm time. The applicant shall confirm that the TMP is being implemented for all events meeting the criterion which is triggered by the (combination) of 2500 or more attendees.

2. The applicant shall conduct a traffic monitoring review of conditions at the first major concert event of the 2025 season, to be reviewed by the Planning Authority. The applicant shall coordinate with the City on the scope of the monitor study and day to conduct the study, but will include monitoring of both Congress Street and I-295 Exit 5 ramps. If problems are identified, the applicant shall identify mitigation strategies for implementation, to be reviewed by the Planning Authority.

PRIOR TO APPLYING FOR A BUILDING PERMIT

3. The applicant shall provide design updates, that adequately addresses the visibility of the structured parking garage from abutting properties at the north and recommends that the applicant provide opaque screening or other architectural features as appropriate (e.g., architectural perforation, vertical landscaping or other façade-fixed material) for review and approval by the Planning Authority.
4. The applicant shall provide an updated parking analysis based on the 6th Edition of the ITE Parking Generation Manual and all requested back up information shall be provided, to be reviewed by the Planning Authority.
5. The applicant shall schedule and hold a meeting with City staff and the Libbytown Neighborhood Association to identify parking mitigation strategies to implement during the 2025 concert season.

PRIOR TO ISSUANCE OF A BUILDING PERMIT

6. The applicant shall provide draft condominium documents, for review by the Planning Authority and Corporation Council.

PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY

7. The applicant shall demonstrate compliance with the street tree ordinance to the satisfaction of the Planning Authority, by contribution to the City's tree fund in the amount of $95,200 (*a rate of $400 for each of the 238 trees*).

8. The applicant shall retain the services of a third-party inspector for the duration of construction until final site stabilization is in place. The inspector is required in order to ensure:
   a) All construction and stabilization activities comply with the permit conditions and the approved drawings and specifications;
   b) Field decisions regarding erosion control implementation, stormwater system installation, and natural resource protection are based on sound engineering and environmental considerations; and,
   c) Any changes to the development's erosion control plan, stormwater management plan, or final stabilization plan are communicated to the City of Portland for additional review and approval.

   The inspector will submit weekly written reports to the Stormwater Coordinator(s) in the Water Resources Division of Public Works. Reports must include: Project ID, project address, the date(s) and time(s) of inspection, site photographs of areas under construction, and the date(s) and approximate duration(s) of any rainfall events. The report will identify and describe any erosion problems or discharge of pollutants and what actions will be taken to address these issues and repair any damage to other properties or natural resources, actions to eliminate the erosion source, and actions to prevent future sediment discharges from the area.

C. SUBDIVISION REVIEW

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations contained in the Planning Board Report for the public hearing on February 25, 2025 for application PL-003090-2024 relevant to the subdivision regulations, and the testimony presented at the Planning Board hearing, the Planning Board **[finds/does not find]** that the plan is in conformance with the subdivision standards of the land use code subject to the following conditions of approval:

PRIOR TO ISSUANCE OF A BUILDING PERMIT

9. The signed subdivision plat shall be recorded at the Cumberland County Registry of Deeds.

D. PLANNING BOARD DECISION

On the basis of the findings, conclusions, and recommendations contained in the Planning Board report for the public hearing on February 25, 2025 related to application PL-003090-2024 for 125 Thompson's Point Road, which is attached to the draft approval letter and incorporated therein, the Planning Board **[adopts/does not adopt]** the approval letter as drafted as the Planning Board's decision for application PL-003090-2024, and authorizes the Planning Board Chair to sign the approval letter as drafted.

XVII. ATTACHMENTS

Staff Attachments

1. Original MDP Plan, Approval Letter, Public Hearing Report, & Ext. Letters
2. PUD Memo: MDP Pending Proceeding, 6/30/2023
3. Project Review Comments – First Submission, 11/6/2024
4. Project Review Comments – Second Submission, 1/30/2025
5. Design Review Memo – 2/12/2025
6. Order 119-13/14, Effective 1/15/2014
7. LUC Chapter 14, Effective 8/15/2013
8. Master Fire Protection Plan, 10/2013
9. MDP Fire Memo, 1/29/2014

Applicant's Documents

A. Cover Letter
B. Major Site Plan Checklist
C. Supporting Narrative

D. Right, Title, & Interest
E. Local, State, Federal, FAA & Historic Permits
F. Zoning Analysis Table
G. Conformity with Applicable Site and Zoning Standards
H. Financial and Technical Capacity
I. General Construction Management
J. Traffic and Parking Demand Summary
K. Traffic Supplemental Package
L. Supplemental Stormwater Memo, Multi-Family
M. Utility Correspondence
N. Fire Checklist, Multi-Family
O. Geotechnical Exploration Data
P. Letter of Authorization
Q. Easements
R. TDM, Multi-Family
S. Lighting Specifications
T. Photos 1 – Building Site
U. Photos 2 – Trail
V. Exterior Lighting Cut Sheets
W. Neighborhood Meeting, 10/16/2024
X. Comment Response Letter – Round 1, 12/24/2024
Y. Comment Response Letter – Round 2, 2/14/2025
Z. Full Package Revised Trip Generation 12/10/2024.
AA. Waiver Request

Plans

1. C1.0 – Cover Sheet
2. C1.2 – General Notes
3. C2.0 – Existing Conditions
4. C2.1 – Demolitions and Removals
5. C3.0 – Overall Campus Plan
6. C3.1A – Site Layout Plan w/o Easements
7. C3.1B – Site Layout Plan w/ Easements
8. C4.0 – Utility Plan
9. C5.0 – Grading Plan
10. C5.1 – Interim Overall SMP
11. C5.2 – SMP-1
12. C5.3 – SMP-2
13. C5.4 – SMP-3
14. C6.0 – Erosion Control and Construction Management Plan
15. C7.0 – Stormwater Details, Jellyfish Systems
16. C7.1 – Stormwater Details, Subsurface Storage
17. C7.2 – Stormwater Details, Filterra Units
18. C8.0 – Pavement and Sidewalk Details
19. C8.1 – Curbing and Sidewalk Details
20. C8.2 – Parking and Traffic Control Details
21. C8.3 – Stormwater Details
22. C8.4 – Stormwater & Sewer Details
23. C8.5 – ESC Details, 1
24. C8.6 – ESC Details, 2
25. C8.7 – Water & Gas Service Details

26. C8.9 – Typical Section
27. C9.0 – Fire Safety Compliance Plan
28. C11.0 – Sanitary Sewer & Water Line Profiles
29. C12.0 – Panhandle Util Profile, SD 1
30. C12.1 – Panhandle Util Profile, SD 2
31. C12.2– Panhandle Util Profile, SD 3
32. E.0 – Photometric Lighting Plan
33. L.100 – Landscape Plan
34. L.200 – Landscape Details
35. A1.1 – Ground Floor Plan, Level 1
36. A1.2 – Second Floor Plan, Level 2
37. A1.3 – Typical Floor Plan, Level 3-6
38. A1.4 – Roof Plan
39. A1.7 – Site Line Studies of Rooftop Mechanical Equipment
40. A2.1 – South Elevations
41. A2.2 – East & West Elevations & Building Sections
42. A2.3 – North Elevation & Garage Section
43. A2.4 – Three-Dimensional Views
44. A2.5 – Building Materials
45. Master Site Layout
46. Master Site Layout Overlay
47. Subdivision Sectional, Plat 2
48. Subdivision Sectional, Plat 4
49. Exhibit A – Flood Map
50. Rendering 1 – Proposed View at Railroad Crossing
51. Rendering 2 – Proposed View East of Railroad Crossing
52. Rendering 3 – Powsland Garage View

Att. 1

MASTER PLAN NOTES:

THIS MASTER PLAN IS SUBJECT TO CONDITIONS OF APPROVAL AS STATED IN THE PLANNING AUTHORITY LETTER OF APPROVAL DATED JUNE 5, 2012 AND JUNE 19, 2013

ZONING SPACE AND BULK SUMMARY

ZONE:	B-5 URBAN COMMERCIAL BUSINESS ZONE	
	REQUIREMENT	PROVIDED
MINIMUM LOT SIZE	NONE	SEE SUBDIVISION PLAN C-2.1
MINIMUM FRONTAGE	NONE	185.84
YARD DIMENSIONS		
FRONT SETBACK	NONE	N/A
SIDE SETBACK	NONE	N/A
REAR SETBACK	NONE	N/A
MAXIMUM LOT COVERAGE	100%	55% ±
MAXIMUM BUILDING HEIGHT	120 FT	120 FT

PARKING SUMMARY

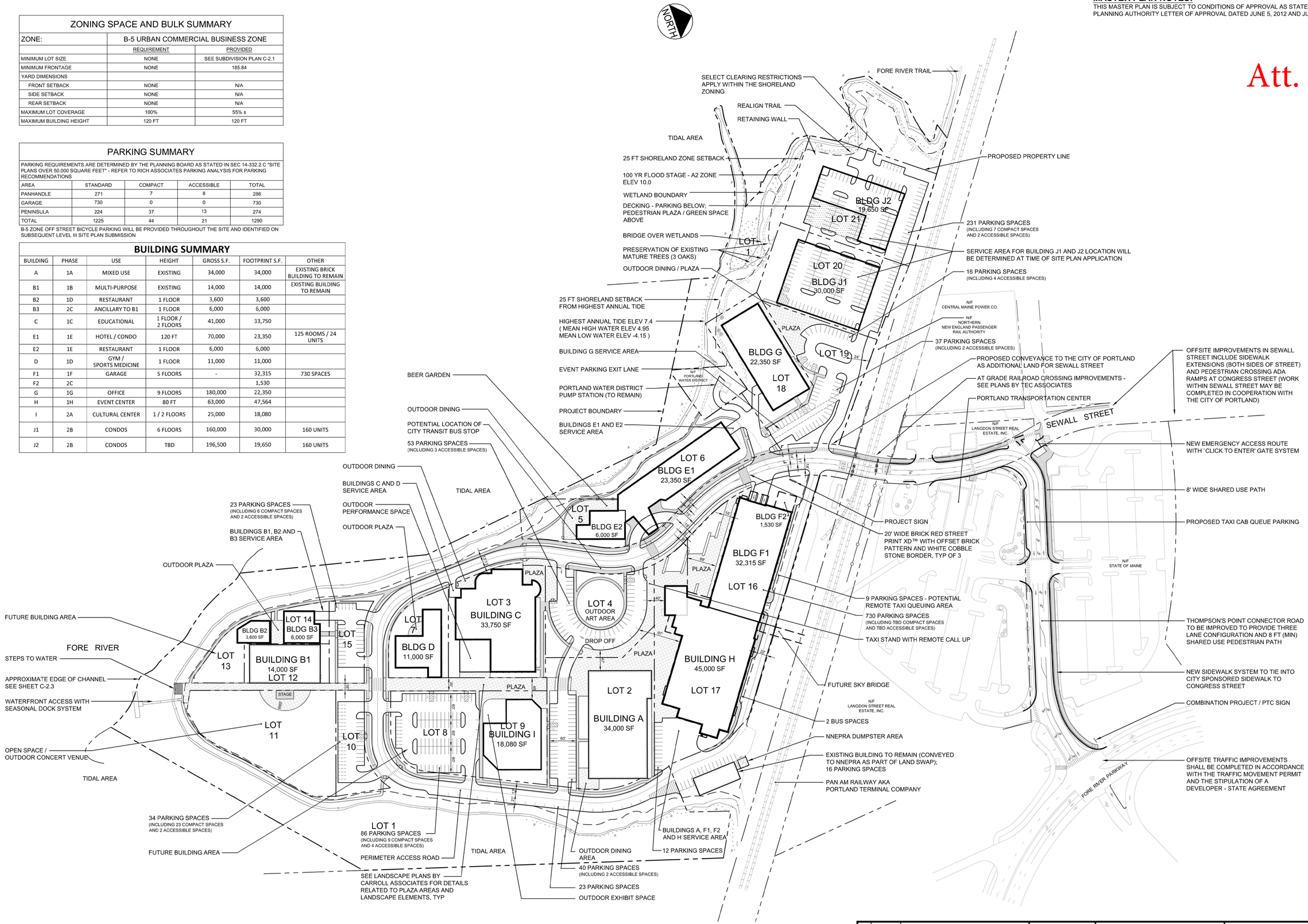
PARKING REQUIREMENTS ARE DETERMINED BY THE PLANNING BOARD AS STATED IN SEC 14-332.2.C "SITE PLANS OVER 50,000 SQUARE FEET" - REFER TO RICH ASSOCIATES PARKING ANALYSIS FOR PARKING RECOMMENDATIONS

AREA	STANDARD	COMPACT	ACCESSIBLE	TOTAL
PANHANDLE	271	7	8	286
GARAGE	730	0	0	730
PENINSULA	224	37	13	274
TOTAL	1225	44	21	1290

B-5 ZONE OFF STREET BICYCLE PARKING WILL BE PROVIDED THROUGHOUT THE SITE AND IDENTIFIED ON SUBSEQUENT LEVEL III SITE PLAN SUBMISSION

BUILDING SUMMARY

BUILDING	PHASE	USE	HEIGHT	GROSS S.F.	FOOTPRINT S.F.	OTHER
A	1A	MIXED USE	EXISTING	34,000	34,000	EXISTING BRICK BUILDING TO REMAIN
B1	1B	MULTI-PURPOSE	EXISTING	14,000	14,000	EXISTING BUILDING TO REMAIN
B2	1D	RESTAURANT	1 FLOOR	3,600	3,600	
B3	2C	ANCILLARY TO B1	1 FLOOR	6,000	6,000	
C	1C	EDUCATIONAL	1 FLOOR / 2 FLOORS	41,000	33,750	
E1	1E	HOTEL / CONDO	120 FT	70,000	23,350	125 ROOMS / 24 UNITS
E2	1E	RESTAURANT	1 FLOOR	6,000	6,000	
D	1D	GYM / SPORTS MEDICINE	1 FLOOR	11,000	11,000	
F1	1F	GARAGE	5 FLOORS	-	32,315	730 SPACES
F2	2C				1,530	
G	1G	OFFICE	9 FLOORS	180,000	22,350	
H	1H	EVENT CENTER	80 FT	63,000	47,564	
I	2A	CULTURAL CENTER	1 / 2 FLOORS	25,000	18,080	
J1	2B	CONDOS	6 FLOORS	160,000	30,000	160 UNITS
J2	2B	CONDOS	TBD	196,500	19,650	160 UNITS



REV	DATE	DESCRIPTION
3	03.04.14	UPDATED PROGRAM USE TABLE
2	01.23.14	REVISED PER CITY COMMENTS
1	11.26.13	SUBMITTED TO CITY FOR MASTER PLAN APPLICATION

REVISIONS

P.E. STEPHEN R. BUSHEY
LIC. #7429

PROJECT
THE FOREFRONT AT THOMPSON'S POINT

SHEET TITLE
MASTER PLAN

CLIENT
FOREFRONT PARTNERS I , LP

FAY, SPOFFORD & THORNDIKE, INC.
ENGINEERS · PLANNERS · SCIENTISTS
778 MAIN ST, SUITE 8, SOUTH PORTLAND, ME 04106

DRAWN:	DED	DATE:	OCT 2013
DESIGNED:	BEK	SCALE:	1" = 80'
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FILE NAME:	2982.05-SITE LAYOUT		
SHEET	C-3.00		

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CITY OF PORTLAND, MAINE

PLANNING BOARD

Stuart O'Brien, Chair
Timothy Dean, Vice Chair
Elizabeth Boepple
Sean Dundon
Bill Hall
Carol Morrissette
Jack Soley

March 12, 2014

Chris Thompson
Forefront Partners I, LP
55 Lisbon Street
Lewiston, ME 04240

Bo Kennedy
FST
778 Main Street, Suite 8
S. Portland, ME 04106

Project Name: Forefront at Thompson's Point – Master Development Plan
Project ID: 2013-262
CBL: 201-A-5
Applicant: Forefront Partners I, LP
Planner: Nell Donaldson

Dear Mr. Thompson:

On February 11 and March 11, 2014, the Planning Board considered your master development plan application for the Forefront at Thompson's Point. The Planning Board reviewed the proposal for conformance with the master development plan standards of the city's land use code, made findings that the proposal met the required standards and voted to approve the application with the conditions presented below.

MASTER PLAN

The Planning Board voted (6-0, Boepple abstained) that the proposed plans are in conformance with the master plan standards of the city's land use code, subject to the following conditions of approval, which must be met prior to subdivision approval, unless otherwise stated:

1. The applicant shall provide a summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site, including the proposed easement to the Department of Public Services to use the private drive system for turn-around access and easements and conditions relating to public use of trails and open space on the site, for review and approval by the Department of Public Services and the Planning Authority;

2. The applicant shall provide evidence of water capacity from the Portland Water District, for review and approval by the Planning Authority;

3. The applicant shall provide evidence of sewer capacity from the Department of Public Services, for review and approval by the Planning Authority;

4. The applicant shall submit a revised report from a certified fire protection engineer describing evacuation procedures; add a note to the master development plan indicating that all buildings will include sprinkler and fire alarm systems, except for buildings determined by the Fire Prevention Bureau to be exempt from such regulations; and revise the event management plan to indicate that free and clear fire access will be maintained at all times during events, for review and approval by the city's Fire Prevention Bureau;

5. The off-site transportation-related improvements as heretofore required through prior approvals shall represent the off-site transportation-related improvements required for the master development plan and subsequent Level III subdivision and site plan review, so long as the existing Traffic Movement Permit applies; additional requirements for on-site transportation improvements shall be addressed through subdivision and site plan review.

The approval is based on the submitted plans and findings related to master development plan standards as contained in the Planning Board Report and Addendum for application 2013-262, which are attached.

STANDARD CONDITIONS OF APPROVAL & REQUIREMENTS
Please note the following standard conditions of approval and requirements for all approved master development plans:

1. **Separate Level III Subdivision/Site Plan Approvals Required** This approval establishes the general parameters to be adhered to for the development, including the supporting documentation for floor area ratio and/or residential density, general types of uses, building coverage, generalized open space plans and infrastructure systems. This master development plan approval shall not be construed as final authorization of the development. Approval shall confer pending proceeding status upon the development with the effect of maintaining the applicability of regulations in effect at the time of approval for as long as the master development plan approval remains valid, including permissible extensions if granted. Separate Level III subdivision and site plan approvals are required. Level III subdivision and site plans for each phase shall be in general conformance with the master development plan.

2. **Master Development Plan Amendments** A minor amendment to a master development Plan shall be defined as a change which is generally consistent with the approved master development plan layout of buildings, circulation infrastructure, and open spaces, and:

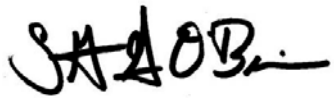
i. Does not propose any new general type of use beyond those approved initially;
ii. Does not increase the building ground coverage, floor area ratio or residential density of the Master Development Plan;
iii. Does not decrease any specified area regulations or enumerated parking ratios; and
iv. Does not substantially change access, circulation, or infrastructure on or adjacent to the site.

The Planning Authority shall be authorized to approve such minor amendments to a master development plan upon written application and explanation of the change(s) by the owner (or its agent) of the property. No further public hearings shall be required.

3. **Master Development Plan Expiration** An approved master development plan shall expire six (6) years from the date of approval unless, prior to the expiration of the master development plan, a written request for an extension is submitted to the Planning Authority. Only two (2) such extensions may be granted by the Planning Authority, and each such extension shall be limited to two (2) years from the date of expiration of the master development plan. The Planning Authority may grant an extension provided there have not been substantial changes to the underlying zoning or site plan standards since the date of the master development plan approval that would have a substantial impact on the approval. The Planning Authority may condition the extension on an amendment of the master development plan to comply with such applicable ordinance or site plan standard changes per *Section 14-532(d)* of the city's land use ordinance. Approved major or minor amendments to a master development plan do not alter the expiration date for the master development plan.

If there are any questions, please contact Nell Donaldson at (207) 874-8723.

Sincerely,



Stuart O'Brien, Chair
Portland Planning Board

Attachments:
1. Planning Board Report & Addendum

Electronic Distribution:
cc: Jeff Levine, Director of Planning and Urban Development
Alexander Jaegerman, Planning Division Director
Barbara Barhydt, Development Review Services Manager
Philip DiPierro, Development Review Coordinator, Planning
Marge Schmuckal, Zoning Administrator, Inspections Division
Tammy Munson, Inspection Division Director
Lannie Dobson, Administration, Inspections Division
Brad Saucier, Administration, Inspections Division
Michael Bobinsky, Public Services Director
Katherine Earley, Engineering Services Manager, Public Services
Bill Clark, Project Engineer, Public Services
David Margolis-Pineo, Deputy City Engineer, Public Services
Doug Roncarati, Stormwater Coordinator, Public Services
Greg Vining, Associate Engineer, Public Services
Michelle Sweeney, Associate Engineer

John Low, Associate Engineer, Public Services
Matt Doughty, Field Inspection Coordinator, Public Services
Mike Farmer, Project Engineer, Public Services
Jane Ward, Administration, Public Services
Jeff Tarling, City Arborist, Public Services
Captain Chris Pirone, Fire Department
Thomas Errico, P.E., TY Lin Associates
David Senus, P.E., Woodard and Curran
Rick Blackburn, Assessor's Department
Approval Letter File

Memorandum
Planning and Urban Development Department
Planning Division

To:	Stuart O'Brien, Chair, and Members of the Portland Planning Board
From:	Nell Donaldson, Planner
Date:	March 6, 2014
Re:	Addendum to 2/11/14 Board report, Thompson's Point Master Development Plan
Project #:	2013-262 **CBL:** 201 A 005001
Meeting Date:	March 11, 2014

I. INTRODUCTION

On February 11, 2014, the Planning Board held a final hearing on the master development plan for the Forefront at Thompson's Point. This plan, which had been reviewed by the board at a previous workshop held on January 28, 2014, represented a reiteration of a prior, approved subdivision for the site. As such, the application relied heavily on materials submitted as a product of earlier reviews. Due to time constraints, the Planning Board was not able to deliberate fully on the final master development plan during the February 11 hearing. However, several questions, mainly related to potential transportation impacts and the approach to the site's existing Traffic Movement Permit (TMP), the form and scale of the proposed buildings, and the process of managing future amendments to the master development plan, were raised. The board elected to table the plan and requested that the applicant consider these aspects of the project and return to the board at the next available hearing date on February 25. The applicant subsequently requested to be moved to the March 11 hearing, based on staff availability and a desire to develop additional supporting materials.

This addendum to the February 11 Planning Board report reviews additional materials submitted by the applicant and discusses items which were raised in the Board hearing or in the intervening time. On the basis of these materials and items, this addendum also presents a revised motion with updated conditions of approval.

II. REVISED SUBMITTALS

Following several meetings with planning staff, the applicant provided additional supporting materials to the Planning Division during the week of March 3. The materials included a revised trip generation analysis for the master development plan, intended to fit within the limits of the existing TMP, a revised parking analysis, additional renderings, and revised master plan graphics. These materials are discussed in detail below.

1. Revised Trip Generation Analysis

At the February 11 hearing, board members and members of the public raised a number of concerns regarding potential traffic and transportation impacts resulting from the project. Staff's report to the board, which referenced comments from Thomas Errico, consulting traffic engineer, provided brief overviews of the master plan's approach to transportation infrastructure; the existing Traffic Movement Permit (TMP), including off-site mitigation currently funded through the EDA grant and FHWA funding processes; the parking plan; the draft events management plan; and the draft transportation demand management plan *(Attachment 1)*. It should be reiterated that Mr. Errico expressed his satisfaction with the applicant's request to rely on the previously-developed events management and transportation demand management plans; Mr. Errico's comments note that these plans will be more fully vetted under subdivision and site plan review.

Existing Traffic Movement Permit (TMP)
As previously discussed, the applicant's plan relies heavily on the existing Traffic Movement Permit for the site, developed as a product of previous reviews. This permit, which was issued by the Maine Department of Transportation in June of 2012, includes a number of assumptions regarding uses *(Attachment 1, See J under 'Applicants' Submittals')*. Based on these assumptions, the TMP permits a certain number of AM and PM peak hour weekday trips (734 AM and 1,091 PM trips to be exact). It should be noted that the permit speaks to allowable trips and not to specific uses; modification of uses is permissible under the existing TMP so long as the program does not generate traffic exceeding the number of permitted AM and PM trips.

Based on the projected trip generation and the quantity of permitted trips, the TMP requires a substantial degree of on-site and off-site mitigation. This includes:

1. Overhead illumination for all entrances;
2. Widening of the Thompson's Point Connector Road to include an 8 ft. shared bike/pedestrian path; 3 ft. shoulders, two 11 ft. travel lanes, and one 11 ft. concrete flush median (which would transition to an exclusive outbound left-turn lane at the Fore River Parkway and be used as a reversible lane during events);
3. A provision that no concerts/sporting events be held between 4-7 pm Monday-Friday;
4. A provision that, during 'large' concerts/sporting events, flaggers and uniformed police officers be present to manage the reversible lane on the Thompson's Point Connector Road; help pedestrians cross at crosswalks, manage inbound and outbound buses at the Portland Transportation Center (PTC) entrance, assist PTC patrons leaving the PTC parking lot in merging with the outbound flow, and direct traffic at the Thompson's Point Connector Road/Fore River Parkway;
5. Improvements to the Fore River Parkway/Thompson's Point Connector Road/I-295 Exit 5A SB intersection, including the reconstruction of the southbound off-ramp to include a separate 13 ft. left turn lane and a 13 ft. through lane, the addition of a queue detector to pre-empt the signal as necessary, and the modification of signal phasing;
6. Improvements to the Fore River Parkway/Congress Street/I-295 Exit 5B intersection, including widening the southbound off-ramp to include two 12 ft. right-turn lanes, the installation of a queue detector to pre-empt the signal as necessary, modification of signal phasing, and the restriping of Congress Street westbound to lengthen the existing left-turn lane;
7. Improvements to the Congress Street/Stevens Avenue intersection, including restriping Stevens Avenue to create an exclusive left turn lane and a shared left-through-right lane, modification of signal phasing, and payment of an impact fee of $15,000 for inlaid thermoplastic paint skips, retro-reflective back plates, and overhead lane signage;
8. Payment of an impact fee of $15,000 for inlaid thermoplastic paint skips, retro-reflective back plates, and overhead lane signage at the Congress Street/Westbrook Street intersection;
9. Payment of an impact fee of $15,000 for inlaid thermoplastic paint skips, retro-reflective back plates, and overhead lane signage at the Congress Street/Frost Street intersection; and
10. A provision that transportation demand management strategies be used to offset additional traffic impacts.

The TMP also states explicitly that, if any supporting data changes, the applicant shall "request in writing from MaineDOT a decision of what impacts those changes will have on the permit. The applicant will then be required to submit those changes for review and approval and additional mitigation as a result of those changes may be required at the expense of the applicant."

In terms of history, it should be noted that staff's final report to the Planning Board on the original subdivision/Level III site plan for the project, published in June 2012, discussed the improvements required as a product of the TMP. The report did not raise significant issues related to the off-site

mitigation requirements.

It should also be noted that, as a product of the original planning process, additional off-site traffic investments are planned which will provide capacity that will benefit the Forefront at Thompson's Point. These investments include sidewalk improvements, trail connections, and lighting improvements.

As discussed in the February 11 Planning Board report, the applicant originally proposed a development program for the master plan that resulted in trip generation exceeding the existing TMP thresholds cited above. The applicant suggested a monitoring approach and, as necessary, modification of the TMP under site plan review at later phases of the project. The city's consulting traffic engineer, Tom Errico, generally agreed with this approach. However, he requested a letter from MDOT verifying their concurrence and suggested that monitoring occur at each phase of site plan review to ensure that trip generation thresholds not be exceeded. These recommendations were included in the February 11 Board report as conditions of approval.

Revised Trip Generation Analysis
Recognizing that, regardless of Mr. Errico's or MDOT's comfort with the approach to the TMP, the Board and public had concerns regarding modifications to the TMP at later stages of buildout, the applicant has chosen to submit supplemental materials which alter their development program and reassess their trip generation numbers in an effort to fit within the trip generation thresholds of the existing TMP. The applicant's revised trip generation analysis describes their approach (*Attachment B).*

In their revised analysis, the applicant has generally achieved a reduction in trip generation through three mechanisms: the modification of uses, reduction in occupancy, and the reassessment of projected trip generation numbers using revised trip generation ratios from the Institute of Traffic Engineers (ITE). Together, these have the effect of reducing the projected AM peak hour trip generation from 1,146 to 800 and the PM peak hour trip generation from 1,314 to 1,015. The trip generation changes include the following:

- In the original master plan submittal, Building B3 was proposed as a 6,000 SF restaurant generating 69 AM and 66 PM peak hour trips. In the applicant's revised trip generation analysis, the building's use has been changed such that it will be "ancillary to the Depot building and will not generate additional traffic" *(Attachment B)*. In conversation, the applicant has further explained that this building will serve as back-of-house operations for the performance space contained in the adjacent Depot. As such, no trips are estimated to be generated as a product of this building.
- In the original master plan submittal, Building C1, the Circus Conservatory of America, was estimated to generate 123 AM and 104 PM peak hour trips. These trip generation figures were based on ITE rates for community colleges using square footage as the independent variable. In the revised submittal, the applicant has recalculated trip generation figures using the ITE rate for community colleges, but basing the total on student population and staffing numbers rather than on square footage. This results in a decrease in trip generation to 25 AM and 21 PM trips.
- The original master plan submittal projected 70 AM peak hour trips as a product of Building E1, the hotel. In the revised trip generation analysis, this figure has been reduced to 54 using an ITE-based trip generation rate referenced in prior approvals.
- Under the original master plan application, the event center was proposed with an occupancy of 2,866 and projected to generate 115 AM and 224 PM peak hour trips. In the revised submittal, the occupancy has been reduced to 2,500, resulting in a decrease in trip generation to 100 AM and 195 PM peak hour trips.
- Lastly, in the original master plan submittal, Building J1 was proposed as a 160,000 SF office building. In the revised trip generation analysis, this building has been converted to 160 residential condominium units. Based on ITE ratios, this results in a decrease in AM peak hour

trips from 273 to 70 and in PM peak hour trips from 258 to 83.

It should be noted that the revised trip generation analysis also assumes a 100 trip "buffer" customarily provided by MDOT when considering TMP thresholds. While the revised cumulative PM trip generation figure stands well below the TMP threshold of 1,091 trips, the total AM trip generation figure of 800 actually exceeds the 734 trips permitted under the TMP. The buffer is needed in this case in order to accommodate these excess trips.

The applicant states in their revised trip generation analysis that "[t]he MaineDOT requires any development that exceeds their permitted trips by more than 99 trip ends in any peak hour to receive a permit modification. Since the proposed Master Plan does not exceed the 99 trip end threshold, a MaineDOT permit modification is not required. This was confirmed with MaineDOT" *(Attachment B).*

Tom Errico, consulting traffic engineer, has reviewed the revised trip generation analysis. He writes,

> *The applicant has revised the trip generation analysis to reflect the current development program and I concur with the methods used and the conclusions. Accordingly, the proposed project will comply with the MaineDOT Traffic Movement Permit (TMP) from a trip generation threshold perspective. In the issuance of a TMP, MaineDOT allows for a "buffer" of 100 trips above that noted in the Permit before a modified permit is required. As detailed by the applicant, the Project will generate less trips during the AM and PM peak hours when considering the buffer trips. I find the Master Plan to be in compliance with the TMP.*

NNEPRA/Portland Transportation Center Consultation
At the hearing on February 11, Board members raised questions regarding the involvement of Northern New England Passenger Rail Authority (NNEPRA) and the Portland Transportation Center in the planning of traffic mitigation measures. In terms of history, a stakeholder meeting was held in September of 2011, as the traffic movement permit was being developed, in order to discuss potential improvements and user conflicts on the Thompson's Point Connector Road and its surroundings. Representatives of NNEPRA, Concord Coach Lines (who owns the adjacent Portland Transportation Center), Amtrak, the city, and MDOT attended.

It should be noted that this meeting coincided with NNEPRA's *Portland Station Location Evaluation,* which considered future rail service in the context of several alternatives to the existing Portland Transportation Center site. The NNEPRA study, concluded in October of 2011, resulted in the decision to remain in the current location and invest in its improvement as a "thriving transportation hub." This decision was based, at least in part, on the "potential for increased transit connections, expansion and development associated with the Forefront project." NNEPRA's Executive Director, Patricia Quinn, has more recently indicated her organization's endorsement of the project as revised under the master plan, noting that the "project as proposed provides wonderful and exciting opportunities for the Downeaster, the City of Portland, and all of southeastern Maine" *(Attachment PC-1).*

In terms of coordination with the Portland Transportation Center, as mentioned during the February 11 hearing, the PTC contracted with Sebago Technics to conduct an independent assessment of the Thompson's Point traffic impact study during the initial subdivision and site plan review. The TMP was revised following the release of this report in an effort to accommodate concerns raised by the PTC.

Revised conditions of approval
Given Mr. Errico's review of the revised trip generation analysis, original conditions from the February 11 Board report that required written approval from MDOT regarding the TMP approach and traffic

monitoring are no longer germane. (It should be noted that compliance with the TMP will be assessed as the applicant proceeds through site plan review.) As such, these conditions of approval have been eliminated.

Further, at the applicant's request, staff has added a condition of approval related to the off-site transportation improvements required through the TMP and prior planning work, to which the applicant has made significant financial commitment. This condition is intended to define the off-site mitigation required so long as the existing TMP applies.

2. Revised Parking Analysis

The applicant's additional materials also include a revised parking analysis that recalculates peak parking demand *(Attachments C and D)*. In the original master plan submittal, the peak parking demand, represented by an average day with a live theater event after 5 PM, was estimated at 1,877 spaces. In the revised analysis, this figure has dropped to 1,822 spaces "as a result of [a] minor modification of the "outbuildings" near the old Union Station Depot outdoor event structure at the tip of the point (the removal of the second restaurant use and its consolidation with the proposed boathouse/café structure next to the "Depot")" *(Attachment C).*

Mr. Errico noted in his comments in the February 11 Board report that the peak parking demand exceeds the proposed parking supply at full buildout, 1,290 spaces. Even under the revised parking analysis, this remains the case. Mr. Errico stated previously that "during the site plan approval process the applicant will be required to demonstrate that adequate parking supply will be provided for the proposed uses" *(Attachment 1).* Again, this will remain the case. The applicant has indicated that they intend to use a combination of transportation demand management strategies, many of which are outlined in the transportation demand management plan, to accommodate peak parking demand without "over-building" parking infrastructure. It should be noted that the proposed parking supply is more than adequate to meet the projected demand on the average day without events. Mr. Errico has reviewed the revised parking analysis and writes,

> *I have reviewed the parking demand analysis and I find the method and estimates to be reasonable. I would note that the evaluation of parking supply adequacy will be conducted during each phase of the project. In general the project will provide sufficient parking for typical days and during large events a host of strategies will be employed that may include off-site parking with shuttle services. The on-going review will be linked to the TDM plan and Event Management Plan and will be adjusted as actual parking needs and management are better understood. Accordingly, I find the parking program under the Master Plan to be acceptable.*

3. Additional Renderings

At the February 11, 2014 hearing, Board members also raised questions regarding the design and massing of the proposed master plan, particularly as seen from the adjacent neighborhood to the north. In response, the applicant has provided renderings showing the site from residential streets across the railroad tracks *(Attachment E).* It should be noted that the applicant has also provided links to the walk-throughs shown at the February 11 hearing.

4. Revised Plans

In keeping with the changes to the development program as represented in the revised trip generation and parking analyses, the applicant has provided updated master plan graphics *(Plans 1 and 2).* The updated development program includes changes in uses for Buildings B3 (from restaurant to "ancillary") and J1 (from office to residential) and slight changes in the program for Building J2 (from 120 to160 residential units) and the event center (a decrease in occupancy). Altogether, these changes result in less commercial

square footage and more residential density. The increased emphasis on residential development advances the notion of the site as a transit-oriented development and in many ways allows for a more efficient use of the site overall. The revised development program is as follows:

Table 1: Forefront at Thompson's Point, Proposed Development Program

	Building	Height	Floor area	Footprint	Units	Rooms	Seats	Surface parking	Garage parking	Total parking
1A	Building A: Office, Café, Retail	Existing	34,000	34,000				71		*71*
1B	Building B1: Multi-Purpose (Live Theater)	Existing	14,000	14,000				436		*507*
	Boat Launch									
1C	Building C: Educational	1-2 Floors	41,000	33,750				(175)		*332*
1D	Building B2: Restaurant	1 Floor	3,600	3,600				(19)		*313*
	Building D: Gym & Medical Office	1 Floor	11,000	11,000						
	Portions of West Side Trail & Outdoor Stage									
1E	Building E1: Hotel & Condominiums	120 ft	70,000	23,350	24	125		144		*457*
	Building E2: Restaurant	1 Floor	6,000	6,000						
	Remainder of West Side Trail									
1F	Building F1: Parking Garage	5 Floors	161,575	32,315				15	730	*1,202*
	Building F2: Parking Garage		1,530	1,530						
1G	Building G: Office	9 Floors	180,000	22,350				58		*1,260*
1H	Building H: Event Center	80 ft	63,000	47,564			4,800	30		*1,290*
2A	Building I: Cultural Center	1-2 Floors	25,000	18,080						*1,290*
2B	Building J1: Condominiums	6 Floors	160,000	30,000	160			(78)	78	*1,290*
	Building J2: Condominiums	TBD	196,500	19,650	160			(48)	48	
2C	Building B3: Ancillary to B1	1 Floor	6,000	6,000						*1,290*
	TOTAL		***973,205***	***303,189***	***344***	***125***	***4,800***	***434***	***856***	***1,290***

III. ADDITIONAL DISCUSSION ITEMS & MODIFICATIONS TO CONDITIONS

In addition to the supplemental materials provided by the applicant, there are several discussion items which have emerged in the time since the February 11 hearing. All of these relate to the original conditions of approval from the February 11 Board report.

1. Trail and Open Space Access

Following the hearing, representatives of Portland Trails and the city's Department of Public Services raised questions regarding bike and pedestrian access along the northern edge of the site *(Attachment 3)*. The city's *Bicycle and Pedestrian Plan* and PACTS's *Regional Bicycle and Pedestrian Plan* identify the existing rail line in this location as an alignment for a future bike/pedestrian trail link, and Portland Trails and the city's Department of Public Services expressed a desire to identify this link in some capacity in the master plan. The link would serve a different purpose from the proposed perimeter trail, which has

always been a foundational element of the master plan; a bicycle/pedestrian way along the rail corridor, when combined with other bicycle and pedestrian links defined in regional long-range planning efforts, would provide a commutable alternative to Congress Street, with direct access from outlying neighborhoods to the peninsula.

In conversations following the correspondence with DPS and Portland Trails, the applicant stated clearly that a lack of space precludes the creation of a dedicated trail or bicycle lane paralleling the railroad tracks at the northern edge of the site. However, they also expressed a willingness, in concept, to create a bicycle/pedestrian way in some capacity, through pavement markings, signage, or other mechanisms, that would establish a more direct east-west route and link with the greater Portland Trails network. It is assumed that the details of this arrangement would be resolved under Level III site plan/subdivision review.

Also related to trails and open spaces, staff requested clarification from the applicant on the terms of public access to the perimeter trail, boat launch, and water on Thompson's Point. In conversation, the applicant stated explicitly that, as will be the case under the easement for the panhandle trail, the boat launch, water access, and perimeter trail will be accessible for public use through a license or other such agreement. That agreement would include provisions reserving the right of the applicant to limit public access at particular times (e.g. during events on site).

2. Fire

Staff has suggested a minor modification to the condition of approval relating to fire safety, based on conversations conducted with Chris Pirone of the Fire Prevention Bureau regarding the Depot building at the southern end of the peninsula. Captain Pirone has indicated that this building may not require a sprinkler, depending on its use. As such, staff has modified the condition of approval to state that all buildings will be sprinklered except as determined to be exempt by the Fire Prevention Bureau.

3. Phasing Plan

Lastly, staff was able to review the master phasing plan; as a result, the original condition of approval relating to this phasing plan has been eliminated.

IV. MASTER DEVELOPMENT PLAN AMENDMENTS

As noted in the February 11 report, the city's site plan ordinance includes language related to the procedure for processing master plan amendments (*Section 14-532(b)).* The ordinance defines "minor" amendments, or those that simply require administrative approval, as those which are "generally consistent" with the approved master plan layout, circulation, infrastructure, and open spaces. A minor amendment is qualified as a change which:

> *(i) Does not propose any new general type of use beyond those approved initially;*
> *(ii) Does not increase the building ground coverage, floor area ratio or residential density of the Master Development Plan;*
> *(iii) Does not decrease any specified area regulations or enumerated parking ratios; and*
> *(iv) Does not substantially change access, circulation, or infrastructure on or adjacent to the site.*

It is implied that changes which do not meet these conditions would require Planning Board review.

However, at the February 11 hearing, both board members and the applicant pressed for further clarification on thresholds triggering board review of future master plan changes. In internal discussions, as well as in discussions with the applicant, staff considered a series of thresholds, such as when an applicant proposes an increase in net square footage, a change of use, changes in trip generation, or

substantial changes in circulation or the location of buildings. On closer inspection, however, this list of potential additional thresholds was found to closely mirror the language of the existing ordinance. As such, no condition of approval related to amendments is suggested here.

V. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommends that the Planning Board approve the master development plan for the Forefront at Thompson's Point.

VI. PROPOSED MOTION – MASTER DEVELOPMENT PLAN

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board report for the public hearing on February 11, 2014 and the addendum to said report for the public hearing on March 11, 2014 for application 2013-262 relevant to the master development plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board finds that the plan **is/is not** in conformance with the master development plan standards of the land use code, subject to the following conditions of approval, which must be met prior to subdivision approval unless otherwise stated:

1. The applicant shall provide a summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site, including the proposed easement to the Department of Public Services to use the private drive system for turn-around access and easements and conditions relating to public use of trails and open space on the site, for review and approval by the Department of Public Services and the Planning Authority;

2. The applicant shall provide evidence of water capacity from the Portland Water District, for review and approval by the Planning Authority;

3. The applicant shall provide evidence of sewer capacity from the Department of Public Services, for review and approval by the Planning Authority;

4. The applicant shall submit a revised report from a certified fire protection engineer describing evacuation procedures; add a note to the master development plan indicating that all buildings will include sprinkler and fire alarm systems, except for buildings determined by the Fire Prevention Bureau to be exempt from such regulations; and revise the event management plan to indicate that free and clear fire access will be maintained at all times during events, for review and approval by the city's Fire Prevention Bureau;

5. The off-site transportation-related improvements as heretofore required through prior approvals shall represent the off-site transportation-related improvements required for the master development plan, so long as the existing Traffic Movement Permit applies; additional requirements for on-site transportation improvements shall be addressed through subdivision and site plan review.

VII. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. Planning Board report for hearing date 2/11/14
2. Traffic Engineer review (memo from Thomas Errico, 12/30/13)
3. Bicycle-Pedestrian Coordinator memo (memo from Bruce Hyman, 2/27/14)

APPLICANT'S SUBMITTALS

A. Cover letter (from Bo Kennedy, FST, Inc., dated 3/4/14)
B. Trip generation summary/methodology
C. Parking memorandum (from Chris Thompson, Forefront Partners, I, dated 3/1/14)
D. Parking summary
E. Renderings of panhandle

PUBLIC COMMENT

PC-1. Letter from Patricia Quinn, NNEPRA

PLANS

Plan 1 Revised Master Plan
Plan 2 Revised Master Plan

PLANNING BOARD REPORT
PORTLAND, MAINE

The Forefront at Thompson's Point, Portland, Maine
Master Development Plan
Application #2013-262
Thompson's Point Development Company, Inc., d/b/a Forefront Partners I, LP, Applicant

Submitted to: Portland Planning Board: Public Hearing Date: February 11, 2014 CBL: 201-A-5	Prepared by: Nell Donaldson, Planner Date: February 7, 2014

I. INTRODUCTION

The Thompson's Point Development Company, Inc, doing business as Forefront Partners I, LP, appears before the Planning Board for a final review of the proposed master development plan for the Forefront at Thompson's Point. The plans represent a final iteration of a preliminary application that was presented to the board at a workshop on January 28, 2014.

Thompson's Point consists of approximately 30 acres of land located adjacent to the Portland Transportation Center. The applicant's master development plan for the Forefront at Thompson's Point involves a mixed-use development including an event center, hotel, sports medicine facility, parking structure, educational facility, residential units, restaurants, and office uses.

The project is subject to master development plan review under *Section 14-524* of the city's ordinance. A total of 262 notices were sent to property owners within 500 feet of the site and a legal ad for the Planning Board hearing ran on February 3 and 4, 2014.

Applicant: Forefront Partners, I LP
Consultants: Stephen Bushey, FST, Inc; Owens McCullough, Sebago Technics; Bill Hopkins, Archetype

II. REQUIRED REVIEWS

Review	***Applicable Standards***
Master Development Plan	*Section 14-524(a)3c(iii)*
Site Location of Development Act	*Technical Manual Chapter 14 (to be completed at time of subdivision review)*

III. PROJECT DATA

Existing Zoning	B-5 Urban Mixed Use
Existing Use	Manufacturing, construction, and storage
Proposed Use	Mixed-Use/TOD
Parcel Size	32.67 acres

	Existing	*Proposed*	*Net Change*
Building Footprint	123,684 SF	303,189 SF	179,505 SF
Building Floor Area	123,684 SF	973,205 SF	849,521 SF
Impervious Surface Area	908,661 SF	761,430 SF	-147,231 SF
Parking Spaces	Undetermined	1,290	
Estimated Cost of Project	$100-110 million		

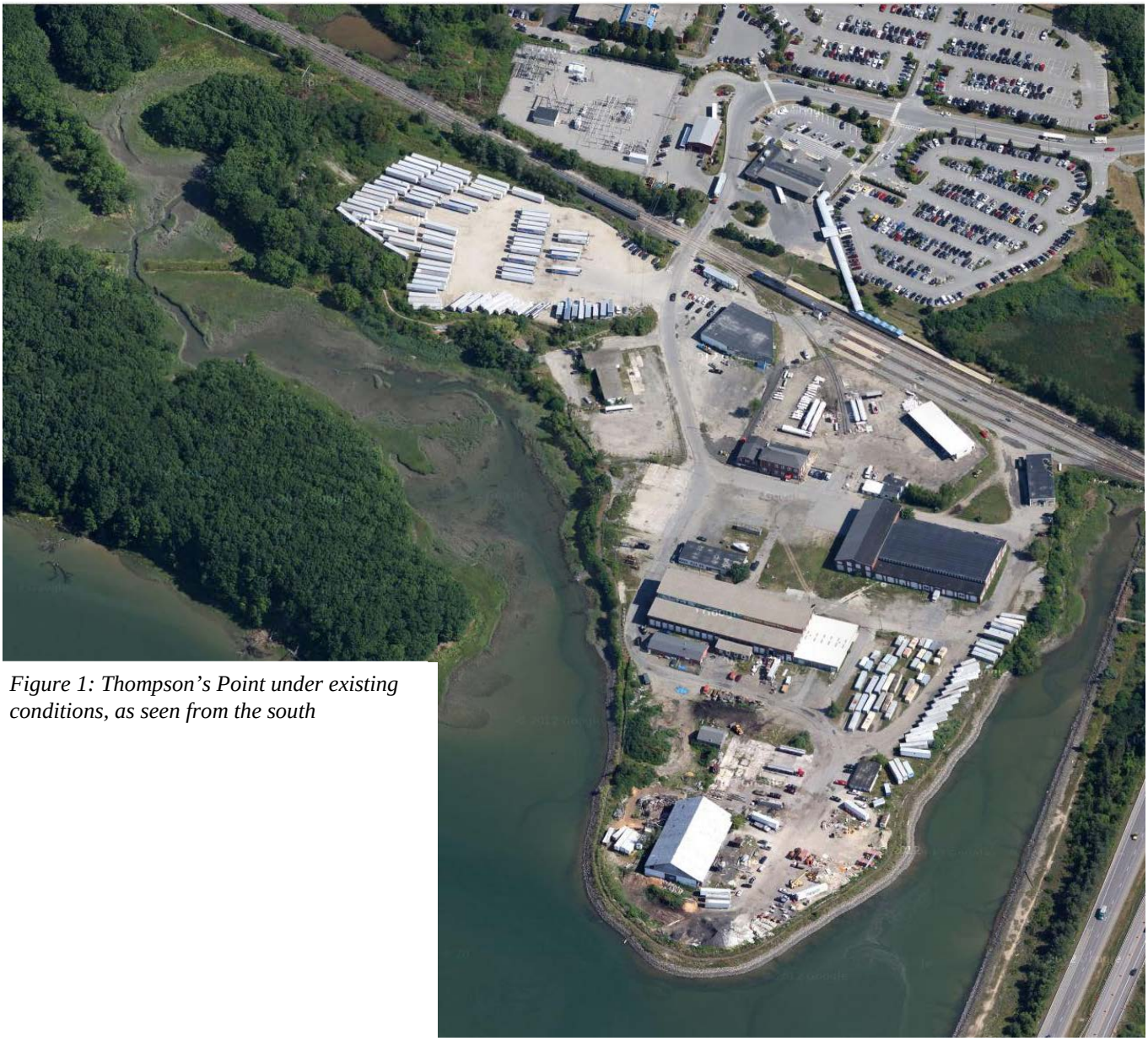


Figure 1: Thompson's Point under existing conditions, as seen from the south

IV. EXISTING CONDITIONS and BACKGROUND

Thompson's Point is a typical industrial site, bounded by railroad tracks to the north and the Fore River to the west, south, and east, and currently occupied by vacant buildings, semi-trailer box storage, and various other temporary uses *(Figure 1)*. The site does house an extension of the Fore River trail and some remnant natural areas on its western panhandle. It is a unique site in terms of its large size and its proximity to both the river and regional public transportation resources. It is zoned for urban commercial mixed-use development under the B-5 zone and is designated as a Tax Increment Financing (TIF) District.

The original plans for the Forefront at Thompson's Point, also submitted by the Thompson's Point Development Company, were approved on June 5, 2012. These plans included over 600,000 SF of non-garage building space dedicated to office, hotel, restaurant, and event center uses designed around a campus concept. In the spring of 2013, the proposed development program changed, and the applicant submitted reconfigured subdivision and site

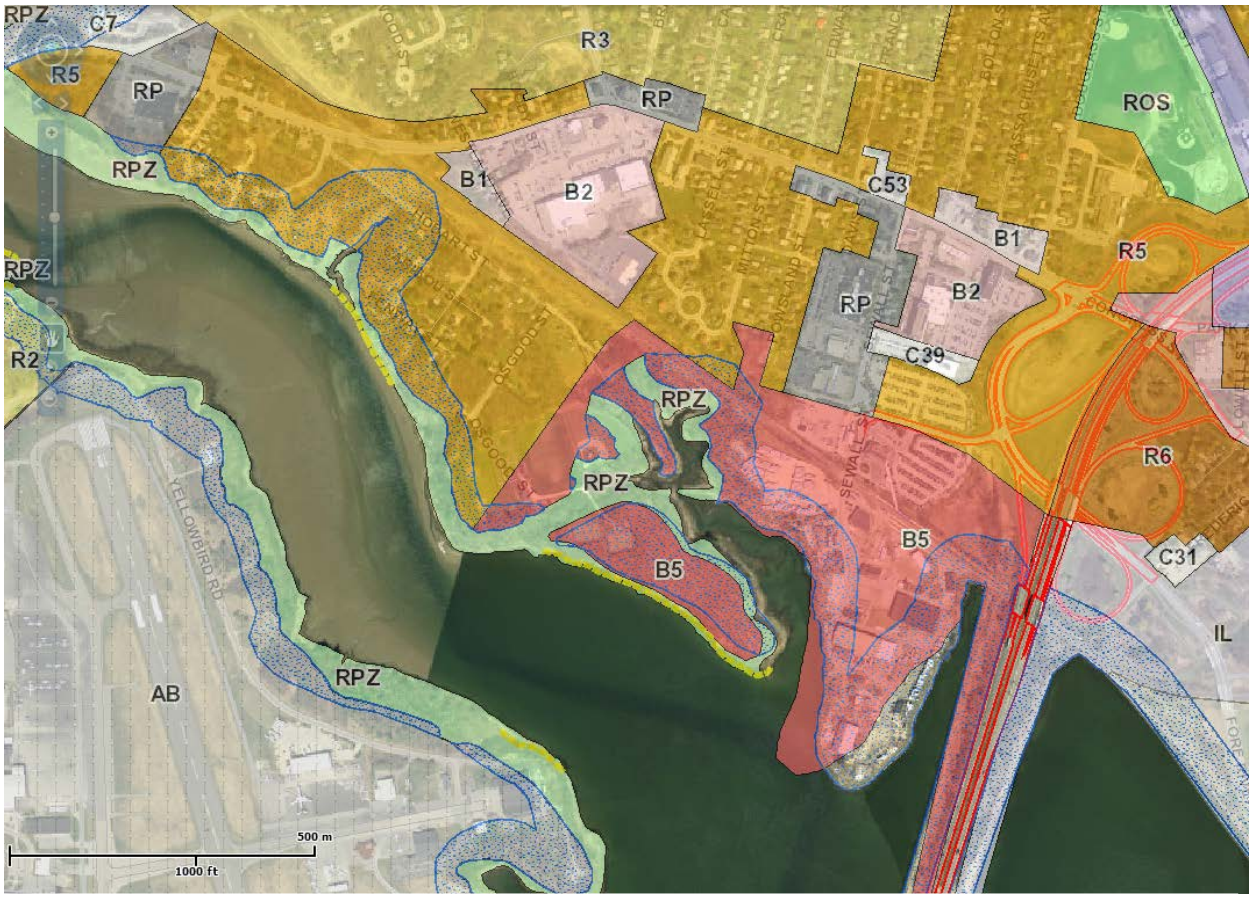


Figure 2: Thompson's Point, zoning context

plans designed to, among other things, retain existing rail-era brick buildings on the site. Amended subdivision and site plans, modified to include these buildings, were approved administratively on June 19, 2013.

In the time since these approvals, efforts to start work on off-site transportation-related improvements required through both MDOT Traffic Movement Permit (TMP) and city review processes has begun. These improvements are funded almost entirely by an EDA grant and include work to enhance bicycle and pedestrian connections, vehicular access to the adjacent highway and street networks, and the surrounding streetscape. The work is scheduled to begin in March 2014 and continue throughout the year.

V. PROPOSED DEVELOPMENT

In the time since the original approvals, the applicant has also engaged in negotiations to obtain purchase and sale agreements for two adjacent parcels critical to the development of the entire Thompson's Point peninsula. The recent acquisition of development rights to these parcels, owned by Suburban Propane and Northern New England Passenger Rail Authority (NNEPRA), has allowed the applicant to change its long-term vision for the site. In this vein, the applicant has submitted this new master development plan for the Forefront at Thompson's Point,. This plan encompasses many of the original programmatic elements of the approved subdivision. However, the physical design, affected by the additional acreage at the site's north end, is markedly different.

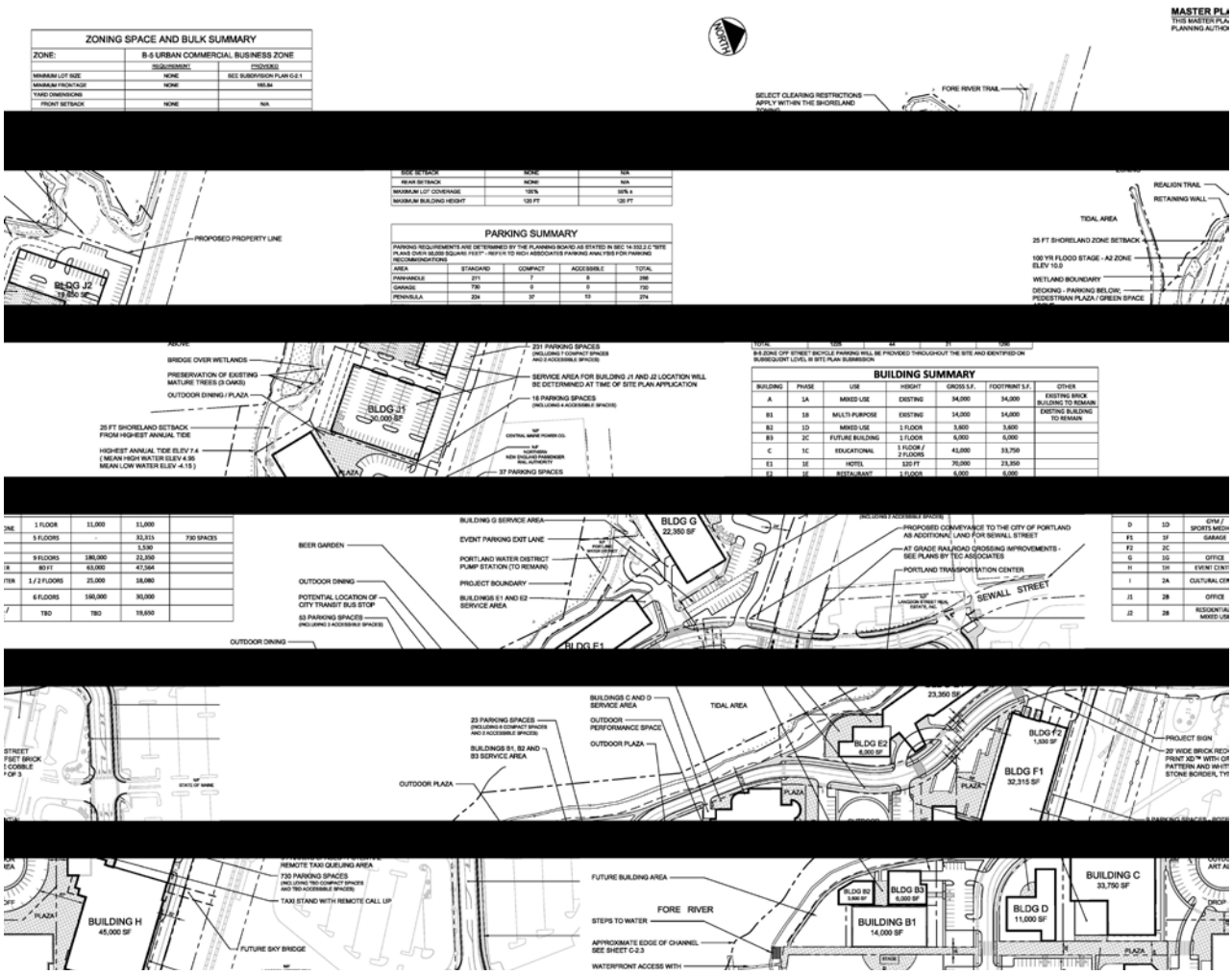


Figure 3: Revised Forefront at Thompson's Point master plan

The original Forefront at Thompson's Point plan demolished all existing structures and, as noted above, developed over 600,000 SF of non-garage square footage, comprised of institutional, office, restaurant, hotel, and event center uses. The centerpiece of the scheme was a 70,000 SF event center and concert hall. The plans included significant open space, surface parking, a perimeter trail, and public access to a shoreline boat launch. The amendments to these plans, approved in June of 2013, modified the plan to retain some of the existing buildings on site.

In the master development plan, much of this program remains. The applicant still envisions office, restaurant, educational/institutional, restaurant, hotel, event center, and garage space. The master development plan also includes live theater space, a post-secondary education complex, an 18,000 SF cultural center, and residential development. This 970,000 SF development program, by incorporating a more diverse mix of uses, including residential, advances the concept of the site as a transit-oriented development. The preliminary development program for the Forefront at Thompson's Point master plan is outlined in Table 1.

With the negotiations to acquire the Suburban Propane and NNEPRA sites and the decision to renovate four of the existing structures on the site under the master plan, the composition of the site has changed dramatically *(Figure 3)*. The master plan retains the trail surrounding the peninsula, but shortens the ring road. The development program is now organized around a stronger central core enclosed by the proposed event center and garage, a hotel and restaurant, the renovated Brick North building (to contain office, retail, and restaurant uses),

Table 1: Forefront at Thompson's Point, Proposed Development Program

Phase	Building	Height	Floor area	Footprint	Units	Rooms	Seats	Surface parking	Garage parking	Total parking
1A	Building A: Office, Café, Retail	Existing	34,000	34,000				71		*71*
1B	Building B1: Multi-Purpose (Live Theater)	Existing	14,000	14,000				436		*507*
	Boat Launch									
1C	Building C: Educational	1-2 Floors	41,000	33,750				(175)		*332*
1D	Building B2: Restaurant	1 Floor	3,600	3,600				(19)		*313*
	Building D: Gym & Medical Office	1 Floor	11,000	11,000						
	Portions of West Side Trail & Outdoor Stage									
1E	Building E1: Hotel & Condominiums	120 ft	70,000	23,350	24	125		144		*457*
	Building E2: Restaurant	1 Floor	6,000	6,000						
	Remainder of West Side Trail									
1F	Building F1: Parking Garage	5 Floors	161,575	32,315				15	730	*1,202*
	Building F2: Parking Garage		1,530	1,530						
1G	Building G: Office	9 Floors	180,000	22,350				58		*1,260*
1H	Building H: Event Center	80 ft	63,000	47,564			4,800	30		*1,290*
2A	Building I: Cultural Center	1-2 Floors	25,000	18,080						*1,290*
2B	Building J1: Office	6 Floors	160,000	30,000				(78)	78	*1,290*
	Building J2: Condominiums	TBD	196,500	19,650	120			(48)	48	
2C	Building B3: Restaurant	1 Floor	6,000	6,000						*1,290*
	TOTAL		***973,205***	***303,189***	***144***	***125***	***4,800***	***434***	***856***	***1,290***

the renovated Brick South building (to be occupied by the Circus Conservatory of America), the cultural center, and outdoor theater space/concert venue. Access from the Thompson's Point Connector Road is retained, and additional pedestrian access is provided via a sky bridge from the Portland Transportation Center.

This application is subject to master development plan review under *Section 14-524(a)3c(iii)* of the city's code. Following master development plan approval, the project will be reviewed under the city's subdivision and site plan ordinances. In addition to these municipal reviews, it should be noted that the original subdivision for the Forefront at Thompson's Point was reviewed under the state's Site Location of Development Act, for which the city had delegated review authority. Per correspondence with the Maine Department of Environmental Protection (MDEP), the city will remain the reviewing entity under the SLDA for the re-envisioned project considered here.

The original Forefront at Thompson's Point was also subject to the following state and federal permitting:

- U.S. Army Corps of Engineers General or Individual Permit (Wetland Impact)

- Natural Resources Protection Act (NRPA) Permit issued by Maine Department of Environmental Protection
- MDOT Traffic Movement Permit (issued by MDOT)
- MDEP Air Emissions License

The applicant has provided evidence of state and federal permits related to the approved subdivision plan *(Attachment J)*. In the final plan submission, the applicant has also provided a letter addressed to the Maine DEP outlining changes from the approved subdivision plan and the intent to comply with the conditions of the original NRPA permit *(Attachment L)*. Similar coordination with respect to other permitting entities will be required during subdivision review. Ultimately, evidence of new or updated permits, or documentation from reviewing entities regarding the applicability of the existing permits, will be required at the time of Level III subdivision and site plan review.

VI. PUBLIC COMMENT

The Planning Division has received no written comments from neighbors on the project. However, as noted in staff's prior workshop memo, the applicant has provided documentation from a neighborhood meeting held on December 23, 2013 *(Attachment J)*. The concerns expressed at this meeting generally focused on parking and traffic impacts, particularly during large events to be held on site. There was also some discussion of design and building height. These concerns were echoed during the board's workshop on January 28, 2014, where members of the public raised concerns regarding traffic impacts, event management, parking supply, trail access, and visual impacts from the abutting neighborhoods.

VII. RIGHT, TITLE, & INTEREST

The applicant has provided a deed demonstrating ownership of the original Thompson's Point site. In addition, the applicant has provided letters from Suburban Propane, Inc. and the Northern New England Passenger Rail Authority indicating that purchase and sale agreements have been signed for those adjacent parcels *(Attachment G)*.

VIII. FINANCIAL & TECHNICAL CAPACITY

The applicant has provided a copy of a letter from TD Bank attesting to the Thompson's Point Development Company's ability to complete the project and "see that it operates effectively over the long term" *(Attachment I)*.

IX. ZONING ANALYSIS

The Forefront at Thompson's Point lies in a B-5 zone, and is also subject to shoreland and floodplain regulations under the city's land use code. Marge Schmuckal, zoning administrator, has provided the following comments on the revised master plan:

> *I am under the realization that this review is only for a Master Plan and is not a site plan review. The applicant states that the team is working on an update to the acoustical study and compliance with B-5 Noise Performance Standards which will be forwarded upon completion. I will need that study during the Site Plan review stage.*
>
> *I have reviewed page C-3.00 where the HAT (Highest Annual Tide) for 2013 is denoted along with the 25 foot shoreland zone setback and the current 100 year flood elevation. All three of these meet the current Land Use Ordinance.*
>
> *The applicant mentions that they will comply with the Shoreland tree clearing certification as part of the Condition of Compliance. Again, I can confirm this regulation during the Site Plan Review process.*

In reference to off-street loading requirements, I will default the final review of this requirement, along with the other B-5 dimensional requirements during the Site Plan review application.

X. MASTER PLAN SUBMISSION REQUIREMENTS (*Section 14-527(e)*)

Section 14-527 of the city's site plan ordinance outlines master development plan submittal requirements. The applicant has generally met these requirements, including the submission of a digital 3D model of the development. In accordance with the submittal requirements, the city has requested a summary of existing and/or proposed easements, covenants, public or private rights-of-way, including the proposed easement to the Department of Public Services to use the private drive system for turn-around access and conditions relating to public use of trails and open space on the site, as requested under previous reviews. This has been included as a condition of approval.

XI. MASTER DEVELOPMENT PLAN STANDARDS (*Section 14-524(a)3.c(iii)*)

Section 14-524 of the city's land use code establishes standards under which master development plan applications must be reviewed. Per this section, master development plans must be:

a. A designated tract of land consisting of a parcel or parcels of contiguous land or land on both sides of a public street, totaling one (1) acre or more;
Altogether, the Thompson's Point site, when expanded to include the adjacent Suburban Propane and NNEPRA parcels, encompasses 32.67 acres.

b. Developed in a comprehensive, design-integrated manner, according to an overall master development plan;
The applicant has submitted a master plan for the Forefront at Thompson's Point which incorporates all major aspects of the site in a comprehensive manner.

c. Consistent with the objectives of this ordinance;
The application and development plan are generally consistent with the objectives of the city's ordinance, including the purpose of the B-5 zone, which is "to provide zones in areas of the peninsula near the central business district where a mixture of uses, including marine, industrial, commercial, and residential, is encouraged. The B-5 and B-5b zones are characterized by larger underdeveloped lots with great potential for denser, clustered, urban mixed use development and more efficient reuse of existing land and buildings. It is anticipated that such denser, mixed uses would rely on a shared infrastructure system, including service alleys, parking lots, public transportation facilities, stormwater management, and driveways."

d. Consistent with the City's Comprehensive Plan and consistent with City Council approved master plans and facility plans for off-premise infrastructure, including but not limited to, trails, pedestrian and bicycle network, view corridors, environmental management, sewer and stormwater, streets, or other facilities (see Section 15 of the Technical Manual);
The Forefront at Thompson's Point master plan is also generally consistent with the city's long-range transportation and economic planning work, including the following goals and policies from the comprehensive plan, among others:

- …Encourage sustainable development patterns and opportunities within the city by promoting efficient land use, conservation of natural resources, and easy access to public transportation, services, and public amenities (21);
- Create local multi-modal centers for the city's commuters and mass transit passengers, building on the presence of existing centers of activity, connected with each other and with regional transportation centers (24);
- Create a variety of job opportunities for the full spectrum of the labor pool which are appropriate to our current and potential skills, provide good pay and benefits, are rewarding/satisfying (37); and

- Encourage higher density housing for both rental and home ownership opportunities, particularly located near services, such as schools, businesses, institutions, employers, and public transportation (44).

e. Developed so as to locate buildings and improvements in a manner that provides usable open space, preserves significant natural features, as defined by the site plan ordinance standards, and preserves existing trees to the maximum extent possible;
As an industrial site, Thompson's Point is largely developed, with very few remaining natural features. Those natural features which do exist include emergent and existing wetlands and stands of trees along the westerly shoreline, at the far western end of panhandle, and along the northeastern shore. The Forefront at Thompson's Point master plan generally reorganizes the site in an efficient manner which allows for minimal wetland alteration, the preservation of some specimen trees, and the creation of significant new open spaces, both in hardscaped and landscaped areas.

In terms of landscape preservation, during the original approval process for the Forefront at Thompson's Point, the city arborist identified mature red oaks and a small stand of sapling white oaks meriting





Figures 4 & 5: Aerial view of the Forefront at Thompson's Point; rendering of the central 'quad area,' including the façade of the proposed event center

preservation in the western panhandle. In the revised submittal, these trees are shown on the master plan and referenced in the landscape narrative, where the applicant has stated that "several significant oak trees have been identified for preservation and all efforts will be made to protect the trees and provide adequate zones around them during construction" *(Attachment N)*. Notes have also been added to the master plan relating to clearing restrictions within the shoreland zone *(Plan 2)*. The applicant states in their narrative that "tree removal…will be certified by our forester to insure consistency with the Shoreland Zoning Vegetation Management requirements."

As noted previously, under the master plan, a central plaza, framed by the event center, renovated Brick North Building, and renovated Brick South building, forms the core element of the site's new open space network *(Figure 5)*. The plan links this plaza with a large, grassed open space area at the southern end of the peninsula, intended for outdoor concerts, via a tree-lined pedestrian walkway which runs the length of the peninsula's spine *(Figure 4)*. Exhibit, outdoor performance, and parking areas flank this corridor to the east and west. Additional, smaller hardscaped areas adjoin most of the site's proposed buildings. The applicant's landscape narrative emphasizes the use of native trees and shrubs, with a naturalized treatment at the perimeter of the site and more formal landscape design at the site's interior.

The plans also show a perimeter trail around the majority of the peninsula, much of which is proposed in the footprint of the existing trail. This path would link with the Fore River Trail and the Portland Trails network to the west. It would transition to sidewalk approximately one-third of the way up the eastern side of the peninsula.

Jeff Tarling, the city's arborist, has indicated his general approval of the master development plan. He writes,

> *The Thompson Point 'Landscape Master Plan' is a new look for many of the landscape treatment recommendations considered for this site in earlier renditions. Particularly important are guidelines for the shoreland zones and the upland parts of the site. 'Tree save' areas are shown for the Red Oak trees growing near the foot of the slope near building 'H' and Area 'A'.*
>
> *Overall, Thompson Point is a very visible and environmentally sensitive site with the location surrounded on three sides by the Fore River and Turning Basin. Creating a Master Plan will help guide future site work and the corresponding landscape treatment needed.*

f. Developed so as to be in conformance with Portland's Historic Preservation Ordinance standards for designated landmarks or for properties within designated historic districts or designated historic landscapes, if applicable. When proposed adjacent to or within one hundred (100) feet of designated landmarks, historic districts or historic landscapes, the Master Plan shall be developed so as to be generally compatible with the major character-defining elements of the landmark or portion of the district in the immediate vicinity of the proposed development;

The site is not located in a historic preservation district; nor is it adjacent to a designated landmark or designated historic landscape. However, the previous review for the Forefront at Thompson's Point included documentation from the Maine Historic Preservation Commission stating that the two existing brick buildings are likely eligible for designation under the National Register of Historic Places due to the lack of other existing early rail-era structures in the city. These are slated for redevelopment under the master plan. It should also be noted that the early 19th century Cumberland and Oxford Canal crossed the site; evidence of the channel and tow path remain visible in the western panhandle area. The previously-approved subdivision and site plans were deemed by the city to have no impact on these historical remnants. The applicant has noted their location and has stated that the master plan will, likewise, have no impact.

g. An efficient use of land which properly considers topography and protects significant natural features including, but not limited to, waterways, wetlands, floodplains and wildlife;
As noted above, the existing Thompson's Point site is largely developed with industrial buildings and associated paved and gravel areas. Generally, the proposed master plan respects the minimal natural features which do remain on the site.

The site is largely flat, with the exception of the northwestern panhandle, where there are several small bluffs and rocky outcroppings. These areas will require regrading under the proposed plans *(Plan 15)*. The panhandle buildings are proposed with a retaining wall.

The site is adjacent to the Fore River and its tidal flats, and as a result, the site houses fresh and saltwater wetlands on its perimeter. As with the original subdivision and site plan applications for the Forefront at Thompson's Point, the master plan proposes minimal activity in these areas, namely a seasonal dock at the southern end of the peninsula in the location of coastal wetlands and several drainage outfalls which coincide with freshwater wetlands in the panhandle area. The applicant has noted that the location and size of the seasonal dock slated for the southern end of the peninsula may change as subsequent subdivision and site plans evolve. All of these plan elements were previously reviewed under the National Resources Protection Act (NRPA) by the Maine Department of Environmental Protection (MDEP) as a product of the prior plans. As noted above, the applicant has provided a letter to MDEP generally stating their intent to comply with the conditions of the previous permit *(Attachment L)*. The original Thompson's Point approval also involved a permit from the Army Corps of Engineers regarding wetland impacts. As previously stated, the applicant will be required to provide evidence of updated permits, or the continued applicability of the previous ones, during Level III subdivision and site plan review.

During the original approval, the Maine Department of Inland Fisheries & Wildlife (MDIFW) reviewed the plans under NRPA and found that the mudflats and riparian zones below the highest annual tide (HAT) line on the western and eastern shorelines qualify as significant migratory shorebird feeding and roosting areas, respectively. This finding resulted in changes to the original plan for the site, including the selection of alternative plantings for shoreline areas to enhance screening between the shore and proposed trail yet minimize the potential for increased predatory activity. The applicant has identified these areas in the revised submittal, and, again, has reiterated the intent to comply with the conditions of the previous permit.

h. An efficient use of land demonstrating full coordination of its own site development and surrounding context including, but not limited to, the land uses and functions contemplated, architecture, open space and pedestrian networks, vehicular access and circulation, and all other infrastructure;
As noted above, in the Forefront at Thompson's Point master plan, the applicant has redesigned the Thompson's Point site to adaptively reuse existing buildings, increase densities in the panhandle area, and introduce a more balanced mix of uses, including residential development. These changes allow for a more efficient use of the site in general, and further the concept of the site as a transit-oriented development. The plans show development clustered at the northern end of the peninsula, with open space as an organizing concept linking the more developed portions of the site with the dominant open space feature at the southern end of the site and the shore. Circulation networks and infrastructure plans have been reviewed and have not elicited major concerns from staff *(Plans 15-19)*.

i. Linked and coordinated with surrounding land uses, infrastructure and off-site public facilities, including but not limited to the public school system, where appropriate, in a manner that is safe, efficient, non-injurious to the public, and an improvement or benefit to the public where possible; and
j. Designed with sizing of street and other infrastructure systems to accommodate the overall service demand of the Master Plan;
As noted during prior review processes, the Thompson's Point site both suffers and benefits from its isolated geography as a peninsula "across the tracks" and on the banks of the Fore River. Because of its isolation, the site essentially serves as its own neighborhood. Efforts have been made to coordinate uses with those surrounding the peninsula – the access to the regional transportation system lends itself to use for regional destinations such as the event center, theater, or higher education facility; the proposed medical and hotel uses integrate well with the neighboring medical office and hotel node immediately adjacent; and the residential use, though certainly different in scale and form, echoes residential uses found to the north. The master plan integrates open space uses in a manner that retains access from the greater neighborhood and provides for connections to regional open space, particularly to the west.

Circulation & Parking System
The site generally has limited vehicular access, although its proximity to a major interstate connection is an asset. The master development plan benefits from prior transportation planning work completed during the original site plan and subdivision review. This work resulted in funding for transportation-related improvements on the Thompson's Point Connector Road, Fore River Parkway, Sewall Street, and Congress Street. These improvements are intended to provide the capacity to handle trips to and from the site via all modes, and, as noted above, are slated for completion in 2014-2015. Likewise, the master plan benefits from developed events management and transportation demand management (TDM) plans created and vetted during prior review processes.

Generally, the site benefits from good transit, pedestrian, and bicycle access. Thompson's Point is located adjacent to the city's Transportation Center, including its local bus, intercity bus, intercity rail, and taxi service. As noted previously, the site also benefits from a high degree of trail connectivity.

The applicant has provided a trip generation and parking analysis, including trip generation calculations, and a revised master circulation plan in the final submittal *(Attachment M and Plan 19)*. The proposal continues to rely on one vehicular access point via the Thompson's Point Connector Road from Fore River Parkway. This three-lane connector road crosses the existing Portland Terminal Company railroad line at grade and, once past the proposed garage entrance, continues as a private two-lane, two-way perimeter road that circumnavigates the peninsula. Access to almost all of the site's buildings is provided via this ring road, with a subsidiary loop providing a connection to the western panhandle. A vehicular way is also provided through the center of the site.

Pedestrian access is proposed via sidewalk from both Sewall Street and the Fore River Parkway via the Thompson's Point Connector Road. (Note that while Sewall Street is a dead-end street with no vehicular access to the Thompson's Point Connector Road or the site, pedestrian, bike, and emergency vehicle access is proposed via a path and emergency gate.) Under the master development plan, the site would also be accessible via pedestrian or bicycle from the existing Portland Trails network to the west. The master plan depicts a skybridge to the Portland Transportation Center, which would ultimately provide a second major pedestrian access point to the north. It should be noted that the original approvals for the project included sidewalk connection on only one side of the Thompson's Point Connector Road across the Portland Terminal Company right-of-way. A waiver was granted for this condition. During prior review processes, staff also identified the need for additional pedestrian signal improvements at the Thompson's Point Connector Road/Fore River Parkway. These plan elements will be considered under

subdivision and site plan review. Generally, Tom Errico, the city's consulting engineer, has stated that he finds the master plan acceptable from a transportation perspective. He writes,

> *In general I find the Master Plan layout to be acceptable with the following comments that can be addressed during the site plan review process (a detailed review of site plan elements has not been conducted and so this should not be considered an approval of the site plan):*
>
> - *I believe the pedestrian crossing from the main entry roadway into the event center area (building H) needs special considerations.*
> - *A sidewalk connection from the back side of parking garage to the main roadway should be included.*
> - *I am concerned about the number of driveways that intersect the main circulation road in the vicinity of the hotel and parking garage.*
> - *The on-street parking spaces on the circulatory roadway do not have access to a sidewalk and will not work well for passengers entering and exiting vehicles.*

As noted in staff's prior memo to the board, the applicant has found that trip generation under the master plan exceeds thresholds from the existing Traffic Movement Permit (TMP), issued for the original site plan/subdivision by the Maine Department of Transportation (MDOT) *(Attachment J)*. The applicant has asked for master plan approval under the existing TMP, with a follow-up traffic analysis to be conducted after the completion of Phase I of the master plan, as the site is expected to approach approved trip generation levels. This analysis would assess actual trip generation and compare it against the TMP-approved trip generation levels. Pending the results of this study and projections for the remainder of the site, additional mitigation would be required. The city has requested a letter from MDOT verifying that they find this approach acceptable. The applicant has provided documentation requesting this letter *(Attachment P)* and has stated that MDOT has verbally agreed to this approach. Of the trip generation estimates and TMP, Tom Errico, the city's consulting traffic engineer, writes,

> *I have reviewed the updated traffic generation estimate conducted by the applicant and I generally concur with their findings. As noted the project is anticipated to exceed the trip threshold established by the current Traffic Movement Permit (TMP) and therefore modification to the TMP will be required in the future. I am comfortable with this approach, but would like to see documentation from MaineDOT supporting this approach. It is my suggestion that during each Site Plan approval phase, the applicant shall submit trip generation information that documents current trip generation levels (through both field monitoring and standard ITE trip generation methods), trip generation estimates for the Phase under consideration, and how the project complies with the TMP. I would note that the TMP is flexible on land use implementation and is relevant as it relates to trip levels during the peak hours of consideration.*

Conditions of approval related to MDOT's acceptance of the TMP approach, as well as Mr. Errico's request for trip generation estimates during Level III subdivision and site plan review, have been suggested.

Vehicular parking is proposed throughout the site, with a total of 1,290 spaces (approximately 856 garage spaces and 434 surface) at full buildout. Most of the proposed surface parking is located at the exterior of the site in double-loaded parking areas. Interior spaces are proposed in the event center garage and under residential and office buildings on the western panhandle. All of the garage parking is proposed for later phases of the project. The applicant's parking analysis calculates peak parking demand under each phase

of development, as well as peak cumulative parking demand at full buildout. It should be noted that the peak cumulative parking demand exceeds the proposed parking supply. Of this, Mr. Errico writes,

> *The application materials indicate that a total parking supply of 1290 parking spaces will be provided during full build-out of the project. According to the parking analysis conducted by Gorrill-Palmer, a parking demand of 1699 parking spaces is estimated during the weekday typical time period and 1877 parking spaces are estimated during evening event conditions. Accordingly, an insufficient parking supply will be provided under full build conditions. During the Site Plan approval process the applicant will be required to display that adequate parking supply will be provided for the proposed uses.*

The revised submittal includes the previous TDM plan, dated September 2011 *(Attachment J).* The TDM plan describes a scheme centered around the creation of what is functionally a transportation management association for the entire peninsula, which would coordinate the various entities on the site in a set of shared transportation demand management strategies designed to maximize the use of adjacent transit infrastructure, increase transit opportunities, reduce peak hour vehicle trip impacts, reduce parking demand, and encourage healthier transportation options. Proposed TDM-related strategies include the promotion of carpooling and car-sharing, the addition of express bus service, and the provision of shuttle service during peak events. This TDM plan will be fully reviewed at the time of Level III subdivision and site plan review. Mr. Errico notes,

> *The applicant has provided the TDM Plan that was developed in 2011 and approved as part of the original approval. In concept I find the TDM Plan to be acceptable but want to emphasize the importance of the measures included in the Plan and how the traffic study and parking analyses assume some level of TDM success. The applicant will be required to update the TDM Plan at the next Site Plan review stage to reflect the proposed implementation schedule (including what specific strategies are being implemented, implementation dates, and specific monitoring activities).*

The applicant has also provided an updated events management plan in the revised submittal *(Attachment O).* This plan restricts events to weekdays after 7 pm or weekends. The plan also includes various strategies, in conceptual form, which are designed to facilitate the movement of large numbers of visitors to and from the site. These include the use of a reversible lane on the Thompson's Point Connector Road, police officers to direct traffic at the Thompson's Point Connector Road/Fore River Parkway, traffic control personnel throughout the site (including the parking garage), and directional signage. As with the TDM plan, it is anticipated that this event management plan will be more fully vetted under subdivision and site plan review.

> *The applicant has provided a general approach to managing event traffic volumes as part of the Master Plan. I would note that a detailed traffic management plan was developed in conjunction with the original application and that plan should continue to be used (if the applicant suggests deviating from the Plan, those details should be provided). I would note that the Traffic Management Plan is a live plan and will be reviewed and adjusted over time as conditions in the area are monitored.*

It should be noted that the applicant has submitted documentation requesting that special events occur on the site during the coming summer. It is assumed that the applicant may not have completed subdivision or site plan review under the master development plan by that time. Of this, Mr. Errico writes,

> *It is my understanding that some events may occur during the summer of 2014 and those events will be permitted through the City Special Event Permit process. I would note that the applicant*

> *would be required to provide details on traffic management and parking under a scenario where the full EDA off-site traffic improvements are not in place. DPS would review the details of the traffic and parking analysis at the time of the requested permit and approval of the details is not issued as part of the Master Plan.*

Master development plan approval should not be construed as approval for these special events.

During the initial review, the city raised concerns regarding pedestrian connections from the Connector Road to the panhandle trails. This concern was voiced previously by Portland Trails, which has noted the potential for through trail traffic coming from the Fore River Trail to the west and the Fore River Parkway pedestrian accommodations to the east. In the revised master plan, the applicant has added a pedestrian connection to the panhandle trail immediately north of Building E1.

John Peverada, the city's parking manager, has repeatedly stressed the need for taxi accommodations in the master development plan. The applicant has indicated in the revised master plan that a taxi queuing area may be provided on the inbound side of the loop road to the north of the event center garage. An additional taxi stand is shown in the circle directly in front of the event center.

Water

Regarding water infrastructure, an existing 12" water main terminates at a fire line supply meter pit at the end of the Sewall Street extension. Per their master utility plan and their utility analysis, the applicant intends to extend 8"+ water onto the site from this main, providing both domestic and fire protection service *(Attachment E and Plan 17)*. The applicant has requested an updated capacity letter from the Portland Water District (PWD). This has not yet been received, and has thus been included as a condition of approval. City staff has not identified areas of major concern with respect to water service provision.

Sewer

As with the original plans for the site, the applicant proposes to connect sanitary sewer services into the PWD pump station directly adjacent to the property. The PWD has previously provided a capacity letter indicating the ability to accept the project's sanitary sewer discharge. An updated letter has not yet been received by the city; as such, it has been included as a condition of approval. At the request of the Department of Public Services, the prior approval also included a condition relating to revised wastewater flow projections and the potential need for upgrades to the PWD pump station. It is assumed that this condition will be addressed during subdivision review. David Margolis-Pineo, of the city's Department of Public Services, adds,

> *The City expects, as originally proposed, that all sources of inflow into the sanitary sewers on Thompson Point be eliminated as build out of the Thompsons Point Master Plan progresses. Also that all abandoned laterals connected to the sanitary system be sealed at the sewer main.*

The applicant has stated in their final narrative that they concur with this approach *(Attachment A)*.

Gas & Electric

In their master utility plan and utility analysis, the applicant shows new gas service extending onto the site from Sewall Street/Thompson's Point Connector Road and underground electric from an existing pole on the southwestern side of the railroad tracks. Public Services has indicated no concerns with this arrangement as proposed.

Stormwater

The applicant has provided a master grading and drainage plan which shows preliminary contour lines *(Plan 15)*. In addition, in the revised submittal, they have included a stormwater schematic which illustrates, in more detail, potential storage and water quality treatments proposed for each of the various stormwater management zones of the site *(Plan 16)*. This diagram includes notes relating the intent to comply with city and MDEP water quality treatment standards, as requested by David Senus, consulting civil engineer, during the preliminary review. Mr. Senus has indicated his satisfaction with the revisions as submitted *(Attachment 5).*

Fire
The applicant has provided an updated fire safety compliance plan showing hydrant locations and fire vehicle turning radii on the proposed master plan layout *(Plan 18).* In addition, the applicant has submitted an assessment from a certified fire protection engineer *(Attachment O)*. Captain Chris Pirone, of the city's Fire Prevention Bureau, has reviewed the submittal and offers the following comments,

> *I am comfortable with the FPE's analysis regarding the issues he addressed in his report, which focused on water supply, hydrants and access roads.*
>
> *However, as requested in the most recent Thompson's Point meeting with their Team, I requested that the FPE report needed to analyze the evacuation procedures from the buildings once outside the buildings and where there staging areas would be.*
>
> *I encourage them to have the FPE contact me to discuss this process which then will need to be added to his report.*
>
> *Lastly, as a reminder, when Fire Chief LaMontagne gave the approval for the single access road the condition he placed on the development was that all buildings would need to have sprinkler and fire alarm systems even if codes did not require them. He also required and approved the event management plan that would always allow free and clear access into the point; basically an emergency access lane which would be maintained by event staff.*

A condition of approval relating to these comments has been suggested.

Schools
Lastly, the plan includes 144 residential units in high-density, high-rise settings. Both of the buildings intended for residential use appear on the western panhandle of the site. While these units may ultimately house families with school-age children, the applicant has stated that they expect "minimal impact on the city's public school system" *(Attachment C).* Any students from the development would likely attend Ocean Avenue Elementary and King Middle Schools.

k. Designed to create a street grid pattern that reflects average city block sizes of the neighborhood for street connectivity;
The master plan, which is proposed with private streets, is not organized around a traditional grid pattern *(Figure 2)*. In this way, it differs from those neighborhoods immediately to the north, which house long rectilinear blocks with limited connectivity. Instead, the project adheres to a campus-like concept, with a central 'quad' created by the hotel, existing Brick South building (slated for use as the Circus Conservatory of America), the Brick North building (slated for mixed use), and the garage and event center. Internal circulation patterns allow vehicles and pedestrians to cut through this quad or to circumnavigate the peninsula. A short loop is also provided to the panhandle area. As described above, vehicular access to the site as a whole, however, remains solely via the single access point at the





Figures 6 & 7: Aerial view of the Forefront at Thompson's Point from the north (above) and southeast, looking over the central open space feature (below)

Thompson's Point Connector Road. Pedestrian and bicycle connectivity is slightly higher, with access via the skybridge and trail, as well as the Thompson's Point Connector Road.

l. Designed as to create a cohesive identity through building scale, massing, and articulation; use of quality exterior materials, architectural detailing at pedestrian scale; consistency of design and materials for streetscape and pedestrian amenities; framing of outdoor open space and linkages; a clear conveyance of the function and significance of various buildings, entrances, and features; and to generally comply with design and development standards of the zone in which it is located;
The drawings for the Forefront at Thompson's Point master plan depict an overall scheme for the site which incorporates existing and new buildings, single-story industrial architecture with high-rise residential/hotel and event center/garage design, and significant open space *(Figures 4-7 and Attachment D)*. The applicant uses several tools to make the site cohere, namely consistent streetscape and landscaping, integrated plaza spaces, integrated design taking cues from the existing brick buildings slated for adaptive reuse, and a logical pattern of form and massing which announces entry and a clear progression onto the site.

The city's site plan standards state that projects "in the…B-5 zone…shall be designed to support the development of dense, mixed use neighborhoods with attractive, safe, and convenient street level pedestrian environments as demonstrated by compliance with all applicable design standards listed in the Design Manual." The B-5 design standards provide guidance related to building and parking lot siting. Generally, these standards are oriented toward more urban environments; many of the design standards reference proximity and orientation toward the street. Given the campus-like concept employed here, where an urban street grid is not used as an organizing concept, many of the standards don't apply. It should be noted that the applicant has generally oriented buildings towards the central spine of the site, with parking toward the perimeter, and has organized the site in an effort to create a dense and mixed-use neighborhood, in keeping with the spirit of the design standards.

m. Inclusive of provisions for the ownership and maintenance of usable open space as appropriate; and
Per the preliminary submittal, the open space slated for the Forefront at Thompson's Point is proposed on both independent and common lots. In the revised submittal, the applicant has stated that open space will be "owned and managed by the applicant's professional property management company. The trail area (easement to the city) will be maintained by Portland Trails; however the ownership and control of access is [to be] managed by the applicant. The boat launch and water access [will be] privately owned but he public [will be] encouraged to use the facilities within the rules established by the owner" *(Attachment X).* It is assumed that further details regarding ownership and maintenance of open space will be addressed under subdivision review.

n. For areas proposed as future development phase(s), the proposed interim conditions shall be managed and maintained to ensure stable, safe and attractive site conditions.
In the final submittal, the applicant has continued to provide a phasing plan consisting of two phases with 11 sub-phases. However, the applicant has also provided a master plan graphic which shows four simplified "sections" which may be used for future subdivision recording purposes *(Plan 22).* It is assumed that, under each of the eventual proposed sections, multiple site plan reviews would occur for distinct buildings which might come online at any time. Given the timing of this submittal, the city has not had an opportunity to fully review this sectional recording/phasing plan. As such, its review has been included as a condition of approval. It should be noted that, while this plan is labeled as a "subdivision plan," approval of the master development plan here should not be construed as approval of the subdivision.

XII. SITE LOCATION OF DEVELOPMENT ACT

As previously noted, under the prior subdivision and site plan review a site law permit was approved for the Forefront at Thompson's Point under the city's delegated review authority. The MDEP has granted the city the authority to continue delegated review of the Forefront at Thompson's Point under state site law. Chapter 14 of the city's *Technical Manual* enumerates standards for local site location of development review. All of these, including the standards regarding financial and technical capacity, traffic movement, and the protection of natural resources, echo master plan, subdivision, and site plan standards outlined in the city's land use ordinance. The applicant has stated their intent to comply with their existing SLDA permit. As noted previously, a formal review will occur at the time of subdivision application.

XIII. MASTER DEVELOPMENT PLAN AMENDMENTS

At the workshop on the Forefront master plan, Planning Board members raised questions regarding potential future amendments to the plan and the formal review process. The land use code includes language related to Planning Board decisions on the master plan, including the following,

> *(Section 14-524(a)3.f.(iv)) Decisions. The Planning Board shall approve, approve with conditions, or deny a MasterDevelopment Plan application based upon the applicable review standards…An approval, including an approval of waivers, establishes the general parameters to be adhered to for the development, including the supporting documentation for floor area ratio and/or residential density, general types of uses, building coverage, generalized open space plans and infrastructure systems.*

Under *Section 14-532(b) Revisions and amendments to Master Plans and approved site plans,* the land use ordinance further defines a "minor" master plan amendment, which, per the ordinance, may be approved administratively. According to the ordinance, a change qualifies as a minor amendment when it is "generally consistent" with the approved master plan layout, circulation, infrastructure, and open spaces, and:

> *(i) Does not propose any new general type of use beyond those approved initially;*
> *(ii) Does not increase the building ground coverage, floor area ratio or residential density of the Master Development Plan;*
> *(iii) Does not decrease any specified area regulations or enumerated parking ratios; and*
> *(iv) Does not substantially change access, circulation, or infrastructure on or adjacent to the site.*

It is implied that changes which do not meet these conditions would require Planning Board review.

XIV. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommends that the Planning Board approve the master development plan for the Forefront at Thompson's Point.

XV. PROPOSED MOTIONS – MASTER DEVELOPMENT PLAN

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on February 11, 2014 for application 2013-262 relevant to the master development plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board finds that the plan **is/is not** in conformance with the master development plan standards of the land use code, subject to the following conditions of approval, which must be met prior to subdivision approval unless otherwise stated:

1. The applicant shall provide a summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site, including the proposed easement to the Department of Public Services to use the private drive system for turn-around access and conditions relating to public use of trails and open space on the site, for review and approval by the Department of Public Services and the Planning Authority;

2. The applicant shall provide correspondence from the Maine Department of Transportation indicating their acceptance of the proposed approach to monitoring and traffic analysis related to the existing Traffic Movement Permit, for review and approval by the city's Department of Public Services;

3. For each Level III site plan/subdivision review, the applicant shall submit trip generation information that documents current trip generation levels and trip generation estimates complying with the TMP, for review and approval by the city's Department of Public Services;

4. The applicant shall provide evidence of water capacity from the Portland Water District, for review and approval by the Planning Authority;

5. The applicant shall provide evidence of sewer capacity from the Department of Public Services, for review and approval by the Planning Authority;

6. The applicant shall submit a revised report from a certified fire protection engineer describing evacuation procedures, add a note to the master development plan indicating that all buildings will include sprinkler and fire alarm systems, and revise the event management plan to indicate that free and clear fire access will be maintained at all times during events, for review and approval by the city's Fire Prevention Bureau; and

7. The applicant shall revise the master phasing plan for review and approval by the Planning Authority.

XVI. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. Zoning administrator review (memo from Marge Schmuckal, 2/6/14)
2. City arborist review (memo from Jeff Tarling, 2/3/14)
3. Traffic Engineer review (memo from Thomas Errico, 2/6/14)
4. Department of Public Services review (memo from David Margolis-Pineo, 1/13/14)
5. Civil Engineer review (memo from David Senus, 2/3/14)
6. Fire Prevention Bureau review (memo from Chris Pirone, 1/30/14)

APPLICANT'S SUBMITTALS

A. Cover Letter (from Bo Kennedy, FST, Inc., dated 1/24/14)
B. Master Development Plan Development Review Application
C. Master Plan Submission Supporting Narrative
D. Site Graphics
E. Utility Analysis
F. Evidence of Right, Title, and Interest
G. Conformity with Applicable Design Standards
H. Letter of Financial Capacity
I. Neighborhood Meeting Minutes
J. Evidence of Prior Permitting
K. Utility Capacity Request Letters
L. Letter to MDEP (from Bo Kennedy, FST, Inc., dated 1/23/14)
M. Trip Generation and Parking Summary (with supporting data)
N. Landscaping Response (from Carroll Associates, dated 1/23/14)
O. Updated Event Management Plan
P. Letter to MDOT (from Randall Dunton, Gorrill-Palmer Consulting Engineers, Inc., dated 1/15/14)
Q. Updated Fire Protection Review (from W. Mark Cummings, PE, dated 1/29/14)

C. PLANS

Plan 1 Overall Existing Conditions Plan
Plan 2 Master Plan
Plan 3 Master Plan Phase I
Plan 4 Master Plan Phase IA
Plan 5 Master Plan Phase IB
Plan 6 Master Plan Phase IC
Plan 7 Master Plan Phase ID
Plan 8 Master Plan Phase IE
Plan 9 Master Plan Phase IF
Plan 10 Master Plan Phase IG
Plan 11 Master Plan Phase IH
Plan 12 Master Plan Phase 2A
Plan 13 Master Plan Phase 2B
Plan 14 Master Plan Phase 2C
Plan 15 Master Grading and Drainage Plan
Plan 16 Master Stormwater Management Strategy Schematic
Plan 17 Master Utility Plan
Plan 18 Master Fire Protection Plan
Plan 19 Master Circulation Plan
Plan 20 Expanded View of Event Center Plaza
Plan 21 Landscape Master Plan
Plan 22 Amended Subdivision Plan (Draft Sectional Recording "Phases")
Plan 23 Master Plan (Draft Sectional Recording "Phases")

CITY OF PORTLAND

Planning & Urban Development

Christine Grimando, AICP, Director

February 14, 2020

Chris Thompson
Forefront Partners I, LP
55 Lisbon Street
Lewiston, ME 04240

Bo Kennedy
Placemaker Partners, LLC
501 Danforth Street
Portland, ME 04102

Project Name:	Forefront at Thompson's Point – Master Development Plan		
Project ID:	2013-262	CBL:	201-A-5
Applicant:	Forefront Partners I, LP		
Planner:	Shukria Wiar		

Dear Mr. Thompson:

Thank you for your letter dated January 30, 2020 requesting a two- year extension of the approval for your Master Development Plan for the Forefront located at Thompson's Point. I understand that you will continue to pursue fulfillment of the Master Development Plan through future Site Plan applications.

In my capacity as Director of the Planning & Urban Development Department and under the provisions of Section 14-532 (d), Expiration of Master Development Plan, I am granting your request to extend the approval for application ID 2013-262 to March 11, 2022.

If there are any questions, please contact Shukria Wiar at 756-8083 or at shukriaw@portlandmaine.gov.

Sincerely,

Christine Grimando, AICP
City Planning Director

Planning & Urban Development
Christine Grimando, AICP
Director

March 1, 2022

Bo Kennedy
Placemaker Partners, LLC
501 Danforth St
Portland, ME 04102

Project Name: Forefront at Thompson's Point – Master Development Plan
Project ID: 2013-262 CBL: 201-A-5
Applicant: Forefront Partners I, LP

Mr. Kennedy:

Thank you for your letter dated January 19, 2022 requesting an extension of the approval of the Master Development Plan for the Forefront at Thompson's Point project.

In my capacity as Director and under the provisions of Land Use Code Sec. 14.13, Extension of Approvals, I am granting your request to extend your approval to March 11, 2024.

If there are any questions, please contact James Rather, Development Review Manager at (207) 874-8699.

Sincerely,



Christine Grimando, AICP
Director, Planning and Urban Development

Planning & Urban Development
Christine Grimando, AICP
Director

To: Brandon Mazer, Chair, and members of the Planning Board

From: Christine Grimando, Planning & Urban Development Director

Date: June 30, 2023

RE: Master Development Plan Pending Proceeding

A question was raised in the course of the review of recent site plan applications for Portland Foreside/58 Fore Street, regarding whether a Master Development Plan (MDP) approved under a previous iteration of the Land Use Code (Code) was subject to the expiration provisions of the current Code, or whether the section in the Code in place at the time of MDP approval (for 58 Fore Street, December 2016, but the question extends to all MDPs) would apply. The Planning & Urban Development Department has determined the current Code's expiration section applies to this and other previously approved MDPs. Discussion of prior and current expiration sections, how pending proceeding is determined, and how the applicable Code standard is determined follows below.

MDP Expiration Under 2016 & 2023 Versions Of The Land Use Code
The current Code states:

> *Master development plans approved under this article shall expire six years from the date of approval if no site work or building construction has commenced.* (sec. 14.12.2) and *Master development plan approvals may be extended by the Planning Authority up to two times, for up to two years from the date of expiration of the original master development plan approval.* (sec. 14.13.4).

The Code in effect in December 2016 states:

> *Master Development Plan approval may be sought separately or currently with the Phase I Final Level III site plan approval, and shall have an initial approval period of six (6) years, with potential extension periods as provided for in section 14-532(d). (14-524(f)(i))*
>
> *Prior to the expiration of the Master Development Plan, an applicant may submit a written request to the Planning Authority for an extension of a Master Development Plan approval and associated waivers. Only two (2) such extensions may be granted by the Planning Authority, and*

each such extension shall be limited to two (2) years from the date of expiration of the Master Development Plan. (14-532(d))

The expiration language currently in effect means that once site work has commenced, the MDP won't expire, whereas the 2016 MDP expiration language included a finite 10 year end, assuming two two-year extensions were granted. Under the current and 2016 versions of the Code, Individual Site Plan approvals, including those that are part of an MDP, expire in one year, with possible extensions up to a maximum of three years. Lapses in construction for a period in excess of 12 months will also result in a site plan expiration. (2016 14-532(c)(1), 2023 14.12.1; 14.13.3)

Pending Proceeding

Pending proceeding is a term that, in context of development applications, indicates that substantive review has begun, which, in turn, determines which set of regulations an application is reviewed under. For the purposes of applications that are within the jurisdiction of a land use (Historic or Planning) Board, pending proceeding status is conferred when the Board holds its first review, whether that is a workshop or public hearing. For the purposes of administrative/staff reviewed applications, this occurs when the first substantive comments are provided. For applications in-review when the City adopts, through Council action or referendum, amendments to the City Code, it is important to understand whether an application is pending in order to determine what standards they are held to. A submitted application, accepted for the purposes of beginning review, does not have pending proceeding status, but a development application that has been before the Board for an initial workshop does, and may continue in the review and approval process under the Code in effect at the time of the first workshop.

Determining when an application has pending proceeding status is not outlined in the Land Use Code, but there are two references to the term in the Land Use Code: 1) Section 14.5.1 states that voluntary, non-binding pre-application meetings do not confer pending proceeding status; and 2) Section 14.3.2 (formerly 2016 Section 14.524(f)(iv)) states MDP a*pproval shall confer pending proceeding status upon the development with the effect of maintaining the applicability of regulations in effect at the time of approval for as long as the master development plan approval remains valid, including permissible extensions if granted*.

Sec. 14.3.2 is the reason a subsequent site plan application (or subdivision application where applicable) that is a component of an MDP is still reviewed under the regulations in effect at the time of the MDP approval, even if standards of the Code are amended over time. Pending proceeding status is one of the benefits of an MDP approval, and it offers a degree of regulatory predictability for both property developers and the City for these large multi-year phased projects. Without pending proceeding status, it would be difficult to predict all of the potential regulatory changes that could impact a project that is expected to be built out over years. For instance, if maximum heights were reduced, or minimum parking standards increased (to name a few examples of standards that could change over time in the City's Code), site plans that are phases of previously approved MDPs are not held to more stringent or restrictive standards that were adopted during a valid MDP approval period.

Though an MDP and its associated applications have pending proceeding status for the life of the MDP's approval, nothing *prohibits* an applicant of an MDP approved under a previous version of the Code from seeking review under the current version of the Code. Becoming more conforming with the adopted Land Use Code is generally something the standards encourage; a previous approval may proceed under the Code it was reviewed under, but it is not compelled to remain non-compliant with current standards.

In the event an applicant proposes to develop a site to meet current regulations that differ from the regulations in effect at the time of MDP approval, they may do so. However, substantive changes to an approved MDP would require an amendment, and substantive amendments related to areas of the Code that have been changed since the application was originally approved would be reviewed under the current Code. An applicant with an approved site plan who wishes to make use of a new provision in the Land Use Code is also free to apply for an amendment, and this also could subject them to new sections of the current Code if the amendment broaches sections that have since been amended. For example, a proposed change to the total housing units would be reviewed for consistency not only with residential density standards, but with other applicable Code requirements such as inclusionary zoning; or, as previously mentioned, if maximum heights were lowered since an approval was granted, and an amendment to a prior approval was submitted to alter heights of buildings, the new standards would apply.

Project Review Letter | 11-6-2024 | PL-003090-2024 | 125 Thompson's Point Road
Submission #1: 9-30-2024
Planner: Natasha Kypfer – nkypfer@portlandmaine.gov – (207) 874-8725

Dear Bo Kennedy and Rob Simmons,

We have completed our preliminary review of your submission of the application (PL-003090-2024), a major site plan project, proposing a new six-story building with 255 residential units and an attached parking structure at 125 Thompson's Point Road, in the B-5 Urban Commercial zone. This development triggers major site plan review by the Planning Board, and is subject to the following regulations:

- Site Plan, Major – Article 14.6

An overview of the City's review can be viewed in the attached project review worksheets and peer review comments.

Next Steps
Please review our feedback and reach out if you have any questions or would like to discuss this feedback in more detail. Please prepare a written response to all feedback, and provide updated plans, documents, and other materials as necessary to address the comments. The applicant shall notify me, as the project review manager, when a resubmission is uploaded to ProjectDox.

The initial Planning Board workshop for this item is tentatively scheduled for January 14, 2025.

Sincerely,
Natasha M. Kypfer

Natasha Kypfer
Senior Planner

Attachments

1. Site Plan Worksheet
2. Zoning Worksheet
3. Design Review Memo, 10-28-2024

General Comments:

- Please add the AE flood zone on the current FEMA map as an overlay on the site plan.
- Please update the title of the supporting narrative to Major Site Plan, instead of Minor (Att. B).
- A number of permits have been received throughout the development of the Master Development Plan from State and Federal agencies and it is unclear what is relevant to this phase and which permits may still be active. Submit a summary of what permits are relevant specifically to this project, including the agency, permit, the date of original issue, dates of expirations, and dates of extensions or notifications as applicable. For example, it is noted that an Army Corps of Engineers self-verification form was included that was submitted for work to be completed for 2023 into 2024, which will likely need to be resubmitted unless the Army Corps has noted that it will remain valid.

Site Plan Review Standards (Sec. 14.6)		
Transportation Standards (Sec. 14.6.1)		
Standard	***Discussion***	***Finding***
Impact on Surrounding Street Systems	Overview: As part of the existing Master Development Plan (MDP), the overall project was reviewed under a Traffic Movement Permit (TMP) application, which addresses impacts on the surrounding street network and for the anticipated increases in traffic congestion. The TMP (Identification #: Reg. 01-00155-A-N) was issued on June 13, 2012 with a traffic study completed as part of the approved MaineDOT TMP, citing for 734 trip ends during the AM peak hour and 1,091 trip ends during the PM peak hour. Further, the TMP received an extension in 2024, through to March 1, 2027. According to the September 4, 2024 traffic memorandum prepared by Gorrill Palmer Associates, the proposed project is not forecasted to exceed the number of trips permitted under the existing TMP. Staff has reviewed the trip generation estimate and would like to review the trip generation calculations for all of the uses, regardless if previously approved from a documentation perspective and ensuring that calculations accurately reflect the scale of proposed uses.	Not Met
	Updates & Additional Information Requested • Staff would like to review the trip generation calculations for all of the uses, regardless if previously approved from a documentation perspective. However, one initial comment on the trip generation estimate is as follows: o The Brewery & Sit-Down Restaurant (14,644 SF) noted in the table should match the area used in the trip generation calculation (4,624 SF).	
Access and Circulation	Overview: The project site is accessed via Thompson's Point Road at the intersection of Fore River Parkway, and includes a public railroad crossing proximate to the two-way driveway, which terminates at a turnaround hammer head. The Thompson's Point Trail (formerly named the Fore River Trail) runs southerly to the development area, with the site's proposed pedestrian circulation well-integrated to the public trail system. Further, a proposed six-foot-wide sidewalk along the front façade of the building connects to the existing sidewalk network throughout the Thompson's Point campus. City Staff are requesting updates to the submitted materials to delineate sidewalk/pavement removal & replacement, current City details reflecting updates from 2022, and dimensions for all parking areas and roadways. Measurements are requested for the intersection of Thompson's Point Road & the site's access road to confirm compliance with MaineDOT sight distance requirements.	Not Met
	Updates & Additional Information Requested • Show limits of removal and replacement of sidewalk/pavement for Utility trenching on site plan.	

	• Update application documents to include current Technical Manual details or reference to each of the City standard details (figure # and name). CAD files can be obtained upon request. • Update the plan set to replace the detectable warning ramps in ROW at drive entrance to align with Standard Detail I-7 of the Technical Manual. • Update the plan set to include dimensions for all interior and exterior parking areas and roadways. • Submit sight distance measurements for the access road intersection with Thompson's Point Road.	
Public Transit Access	Overview: This project is within a quarter mile of fixed transit, as the Greater Portland Metro's BREEZ line services bus stops at both the Portland Transportation Center (PTC) and Thompson's Point, operating Monday - Saturday. The application materials indicate the closest of which transit stop is approximately 665 feet / 0.13 miles walking-distance from the front door of the site. Per the Technical Manual Section 1.17.2, transit shelters shall be located within the site, directly adjacent to the right-of-way on which the public transportation route is established or located within a public sidewalk area long the property frontage.	Met
Parking	Overview: This project proposes to provide 457 parking spaces within a parking garage structure attached to the proposed residential "Building G" residential structure. In addition, 35 off-street parking spaces are proposed along the front façade of the building and the drop-off court by the main entrance. Per the application materials, 26 ADA parking stalls are proposed on-site and 102 bicycle parking spaces are provided in the form of bicycle racks located in front and inside the proposed building. Further, while the Technical Manual Section 1.14 outlines new structured and surface parking lots of five or more spaces to provide Level 2 EV charging or higher to 20% of total parking, this project proposes roughly 10% (46 spaces) through a combination of Level 2 chargers, Level 1 chargers, and EV-ready spaces. City staff are requesting the submission of a parking supply analysis and a parking management plan to understand interactions with other uses on Thompson's Point (e.g., outdoor concerts/events) and backup information for the submitted parking demand analysis. Updated materials should also include consistent information on the number of parking space proposed for the site.	Not Met
	Updates & Additional Information Requested: • Update project documents to list a consistent number of proposed parking spaces for the parking garage structure. • The applicant has conducted a parking analysis for the proposed residential use. City Staff find the estimate of 334 parking spaces per ITE methods to be reasonable, but would also request that the applicant provide a parking management plan if the proposed parking spaces are to be shared with other uses on Thompson's Point. • The applicant also conducted a parking demand analysis for the entire Thompson's Point site, without an outdoor concert/event. The estimate is based upon a mix of methodologies: methods from ITE, client supplied information, and customized calculations. Similar to the trip generation comment above, all back up information shall be provided for documentation purposes. Staff would further note that a parking supply analysis should also be provided with this submission.	
Transportation Demand Management	Overview: A TDM Plan is required for this project, as it exceeds the thresholds as detailed in the LUC Section 14.6.1.E.1. The project has an approved Thompson's Point campus-wide Transportation Demand Management Plan (TDM) for managing and reducing traffic trips and parking demand in place as part of the Master Development Plan (MDP). The provided Attachment P summarizes TDM	Not Met

	initiatives and references previously prepared TDM strategy reports which was approved in 2011, and subsequently updated in 2015 and 2018.	
	Updates & Additional Information Requested • In satisfying this standard, the applicant shall update their Transportation Demand Management Plan and incorporate data, as well as updated data, on concerts and other significant events that occur on the Thompson's Point campus, so that the City can better understand current parking demand and assess whether the mitigation strategies in place are sufficient.	
Environmental Quality Standards (Sec. 14.6.2)		
Standard	***Discussion***	***Finding***
Preservation of Significant Natural Features	Overview: The parcel's current use is as a gravel surface parking lot resulting in the anticipated site disturbance unlikely to disrupt any significant natural features. While the landscaping plan identifies trees to be preserved, it does not include a tree survey as noted below. Further, the applicant attests no known populations of trees or plants present on the site have been classified as Endangered and Threatened in Maine, nor known habitats/communities, present that appear on the state or federal endangered or threatened animal list.	Met
Landscape Preservation	Overview: The submitted landscaping plan notes existing trees identified to preserve and protect (e.g. a handful of significant oaks along the southern property line that had previously been requested for preservation by the former City Arborist), but a tree survey was not included as part of the application submission. Per section 4.3.1. of the Technical Manual, projects are required to submit a tree survey from a licensed land surveyor arborist, forester, or landscape architect clearly identifying the forest type and location, size, and species of all existing trees 10" DBH or greater on the site and in the City right of way. Updates & Additional Information Requested • Submit a tree survey for the site that meets the standards of Section 4.3.1. of the Technical Manual.	Not Met
Site Landscaping and Buffers	Overview: The landscape plan proposes to screen the development from the existing trail, pool and outdoor amenities programing area, and around the entire perimeter of the building itself. The site location is buffered by both the rail line and Fore River, which will sufficiently buffer the proposed site use from the public right-of-way and neighboring campus properties. Further, the site has ±139 feet of street frontage and is required to plant one tree per 25-35 feet on center (4), within the public right-of-way. In their materials, the applicant cites that limited street trees have been proposed in location and quantities where possible, noting underground utility conflicts and that the rest of the site is heavily planted. Section 4.6.4 of the Technical Manual allows for the use of street tree alternatives (e.g., existing trees in the right of way or within 20 feet of the right of way, plantings on public land in the surrounding neighborhood, contribution to the City of Portland Tree Fund). City Staff are requesting if and how street tree alternatives will be used for the site. Updates & Additional Information Requested • Identify what street tree alternatives are proposed to meet the standards of Section 4.6.4. of the Technical Manual.	Not Met
Water Quality, Stormwater Management and Erosion Control	Overview: The September 2024 stormwater report summarizes changes to the water quality treatment zones and providing detailed computations of development tributary to the respective stormwater management systems sized to convey and treat stormwater runoff from the proposed redevelopment. The bulk of the new building, parking structure, central courtyard, and northerly courtyards will drain to a series of roof drains, catch basin inlets, and storm drain piping to convey runoff to a treatment system. City staff are requesting updates to the provided plans and materials, as individually detailed below.	Not Met

	Updates & Additional Information Requested • The project is required to comply with MaineDEP Chapter 500 and City of Portland Technical Manual Section 5 standards for stormwater management, including to be reviewed for a Site Location of Development (SLOD) Permit. As was noted as part of the MDP, this can be reviewed by the City of Portland, but requires evaluation of the site as a whole. This would modify how the amount of required treatment is evaluated, and it is expected based on what information has been provided that the project will meet the requirements for SLOD. o Basic Standards – The Applicant has provided plans and details as required for erosion and sedimentation controls. ▪ Double rows of sediment barrier should be provided adjacent to any resources, including coastal wetlands. ▪ Temporary sediment barrier will also be required downstream of any outfall installations during construction in addition to any of the permanent erosion control measures that have been shown. o General/Redevelopment Standards – The Applicant has provided a detailed description of stormwater treatment for this project, and has related it to the overall site. Based on the information provided, it appears that the project will meet the required thresholds for the State for Stormwater and Site requirements, and the City's thresholds for redevelopment as well. As noted above, the project should provide documentation for the Site Location of Development Permit. Comments on the proposed stormwater systems are provided separately below as well. o Flooding Standards – The Applicant has noted that the Flooding Standard has previously been waived due to the site's discharge to a tidal water body. This remains valid for this phase of the project. • We did not see structure information, including rims and inverts, for stormwater or utility structures included on any of the plans provided. This should be provided as part of the site plan submission. • The site grading should be checked with the proposed stormwater systems. With variations in fill over the tops of the stormwater storage systems, and the need for emergency vehicular access over one of the systems, the layout and inverts of the systems and connecting structures should be reviewed to ensure there are no concerns with cover (either too much or too little). This will require providing invert information for the associated manholes as well. • The Applicant should review the proposed HydroCAD model, specifically, the way that the diversion structures are modeled may not accurately represent what is happening on the site. The models include a 1.4" vertical orifice/grate as part of the model, but this is not shown on the diversion manhole details. In addition, the way the model is routed, with all flow primary, it does not appear to show how flow is diverted into the Jellyfish filters. In addition, the model should be checked to make sure that it matches with other features on the plans, including pipe materials, inverts, and the number of chambers within the storage systems. • The Applicant has noted that the intent of the Inspection and Maintenance Manual has remained the same since approval in June 2012. The Applicant should confirm that the systems proposed as part of this phase of work are specifically included in their O&M plan, and these systems should be added to the Stormwater Maintenance Agreement.	

	• Any floor drains located within the lower levels of the parking garage should be directed through an oil-water separator and be discharged into the sanitary sewer system. It is unclear if any such internal drains are being proposed. The stormwater management plans clearly show that stormwater runoff from the uncovered top parking level will be directed into the storm drain system, which makes sense.	
Public Infrastructure and Community Safety Standards (Sec. 14.6.3)		
Standard	***Discussion***	***Finding***
Consistency with City Master Plans	Overview: The proposed development of the subject property is a permitted use within the B-5 zone, and complies with applicable zoning as established under the City's comprehensive plan, *Portland's Plan 2030*. Staff suggests the applicant include reference to other applicable studies in their narrative materials, such as: One Climate Future and the Peninsula Transportation Plan.	Met
Public Safety and Fire Prevention	Overview: The project site is accessible from Thompson's Point Road, however, for the purposes of emergency vehicle access one access point for ingress/egress is not sufficient for a development of this scale. Further, the included Utility Plan shows the location of all existing and proposed fire hydrants, with a service radius of 100' and 250', meeting the Technical Manual Section 3.2.1 standard of within 500'. Fire & Life Safety reviewers are requiring that the viability of a secondary means of ingress/egress be explored. City Staff are requesting that, at a minimum, options stemming off of Hobart Street and Powsland Street, be explored. Updates & Additional Information Requested • Submit a feasibility analysis of establishing a fire lane from Hobart Street and Powsland Street that meets the standards of Section 3 of the Technical Manual. Based on the materials submitted, additional information and/or implementation of a fire lane may be requested by City Staff.	Not Met
Public Utilities	Overview: Per the applicant's submittal, the existing 12" water main (publicly owned), 15" sewer main (publicly owned), and electrical/communications (private) duct bank serving the project is shown on the accompanying utility plan. The proposed development will construct new utility stubs for the development lot. The Department of Public Works is currently in the process of reviewing the sewer capacity and infrastructure impacts in the area with the Portland Water District. Once this review is complete, City Staff will follow up with any additional comments/requested additional information under a separate cover. City Staff are recommending that an assessment be completed on whether backflow preventers should be installed on the proposed private sanitary sewer lines prior to connection to the City system, as well as exploring the feasibility of relocating the two transformers to a less obtrusive location (e.g., plan left of the parking structure) in the landscaped area. Ability to serve letters will be recommended as a condition of approval. Updates & Additional Information Requested • Submit a written response documenting if consideration has been made in installing backflow preventers on the private sanitary lines. • Submit a written response documenting the feasibility of relocating the two transformers to a less obtrusive location, including, but not limited to plan left of the parking structure in the landscaped area. • When available, submit copies of ability to serve letters from utility providers.	Not Met
Site Design Standards (Sec. 14.6.4)		

Standard	Discussion	Finding
Massing, Ventilation and Wind Impact	Overview: The proposed multi-family residential building is located at the panhandle portion of the property site of the Thompson's Point development, with direct access to the Thompson's Point roadway. Originally envisioned with the MDP as a clustered arrangement of three new buildings, the proposal is for a single multi-family residential building with attached parking structure, six-stories or 68 feet in height. Further, the HVAC equipment is proposed to be located on the roof, with the applicant's noting the equipment will exhaust away from the adjacent residential properties.	Met
Shadow	Overview: Shadow standards are not applicable in the B-5 zone; thus, this development is exempt.	Met
Snow and Ice Loading	Overview: Snow storage is proposed to be located temporarily along the edges of the drive aisles and landscaped areas until such a time when the stockpiles need to be removed from the property. Snow removal on the parking roof deck which is a flat roof and is designed to store snowfall, will be plowed to a drop chute where it can be managed on the ground.	Met
View Corridors	Overview: This site is not located along a public view corridor identified in the Downtown Vision View Corridor Protection Plan.	Met
Historic Resources	Overview: The subject property is not within a Historic District; therefore, this standard does not apply.	Met
Exterior Lighting	Overview: All development must adhere to the site lighting standards provided for in the Technical Manual, Section 12, for: site lighting, architectural and specialty lighting, and street lighting. This project proposes site lighting, with 27 outdoor wall-mounted fixtures proposed in total along the four structure planes; the photometric plan is provided with the submission, as well as cut sheets and lighting specification materials.	Met
Noise and Vibration	Overview: In the City, all HVAC, AHU, emergency generators, and similar equipment are required to meet applicable state and federal emissions requirements and are further required to be located and/or screened in such a manner as to mitigate noise and vibration impacts. Per the application materials, HVAC equipment has not been specified and selected yet, but systems are proposed to be centralized on the roof. Updates & Additional Information Requested • When available, provide an updated roof plan that includes selected HVAC equipment with screening details.	Not Met
Signage and Wayfinding	Overview: Any signage associated with the redevelopment of this project will be required to be reviewed by the Permitting and Inspections Department separately, with a sign permit to meet the standards of Article of the Land Use Code.	Met
Design Standards	Overview: Per the LUC Section 14.6.4.I.a, developments in the B-5 zone shall be designed to support the development of dense, mixed-use neighborhoods with attractive, safe, and convenient street-level pedestrian environments. Updates & Additional Information Requested • Provide revisions based on the attached Design Review Memo, dated October 28, 2024. Please note that supplemental design comments may follow.	Not Met

Zoning Use Review (Article 6)

Use Permissions (Sec. 6.5.6)

Proposed Use	*Permitted, Conditional or Accessory Use*	*Zone*	*Use Std*
Multi-family dwellings	Permitted	B-5	n/a

Zoning Dimensional Review (Article 7)

Dimensional Standards (Table 7-A)

Standard	*Requirement 1*	*Requirement 2*	*Proposed*	*Finding*
Lot Area	None	n/a	4.637 acres	
Lot Area per Dwelling Unit	None	n/a	799 sq. ft.	
Min. Street Frontage	None	n/a	139' ±	
Front Setback	None	n/a	34'	
Rear Setback	None	n/a	39'	
Side Setback	None	n/a	10'	
Stepbacks	None	n/a	None	
Structure Height	120'	n/a	68'	
Max. Lot Coverage	100%	n/a	63%	
Off-Street Parking Spaces	None	n/a	498	
Loading Bays	None	n/a	1	

Other: Please add the AE flood zone on the current FEMA map as an overlay on the site plan.

Subject:	125 Thompson's Point Road
Zone:	B5
Date of Review:	Monday, October 28, 2024 Land Use Code Chapter 14.6.4.I Design standards
Reviewer(s):	Natasha Kypfer (Senior Planner); Zachary Powell (Senior Planner); Sean King (Urban Designer); Kevin Kraft (Director)
Project ID:	PL-003090-2024

I. INTRODUCTION

The project at 125 Thompson's Point for 255 residential units was reviewed according to the *City of Portland Design Manual* section ***(c) B-5 and B-5b Urban Commercial Business Zone*** and section ***(i)*** *two-family, special needs independent living units,* ***multiple-family****, lodging houses, bed and breakfasts and emergency shelters* design standards. In addition, design guidelines identified in the Thompson's Point Master Development Plan were reviewed.

II. DESIGN REVIEW COMMENTS: **bold** text denotes recent updates met, red text denotes standards not met which require resubmission.

(I.) Thompson's Point Master Development Plan standards - *Designed as to create a cohesive identity through building scale, massing, and articulation; use of quality exterior materials, architectural detailing at pedestrian scale; consistency of design and materials for streetscape and pedestrian amenities; framing of outdoor open space and linkages; a clear conveyance of the function and significance of various buildings, entrances, and features; and to generally comply with design and development standards of the zone in which it is located;*

The Master Development Plan approved a layout with a clustered arrangement of new buildings (G, J1 and J2) that expand along the shoreland as a natural boundary and the railroad corridor as an infrastructure boundary.

The proposed multi-family residential building is located at the north property of the Thompson's Point development with direct access to the Thompson's Point roadway. The proposed structure height is six-stories (averaging 68-feet), which is a departure from the existing low-medium building heights located throughout the development. However, the approved Master Development Plan illustrated taller structures at this site to demonstrate the maximum allowable building heights at 125-feet. Staff suggests that the applicant consider an increase to the proposed building height, as shown in figure 1, to add vertical scale towards the center of the proposed building footprint.



Figure 1: Staff diagram in blue from applicant's rendering (view from waterfront)

(c.) B-5 and B-5b Urban Commercial Business Zones

Standard (1) a. Shared Infrastructure: Shared circulation, parking, and transportation infrastructure shall be provided to the extent practicable, with utilization of joint curb cuts, walkways, service alleys, bus pull-out areas, and related infrastructure shared with abutting lots and roadways. Easements for access for abutting properties and shared internal access points at property lines shall be provided where possible to facilitate present or future sharing of access and infrastructure.

Staff comments – The proposed development will utilize the existing Thompson Point private roadway, sidewalk and bicycle facilities as the primary point of entry and exit. Within the site development location, a new two-way drive is proposed to allow access to the drop-off court, building entries, primary structured parking entry and emergency access. Staff recommends a reduction in angled parking spaces to provide prioritization of the pedestrian facilities into the primary building entrance. To encourage the drop-off court as a pedestrian plaza that only allow infrequent vehicular drop-off that is more conducive with a transit-oriented and walkable development.

Standard (1) b. Buildings and uses shall be located close to the street where practicable. Corner lots shall fill into the corner and shall provide an architectural presence and focus to mark the corner.

Staff comments – Thompson's Point development is an anomalous, isolated site located on the water without an established urban context or street connectivity to the city. Therefore, some of the standards of the B-5 are harder to apply in this case due to the irregular configuration of lots that vary in size, orientation, and relationship to the private vehicular road. The proposed residential building is setback from the Thompson Point roadway that Staff finds deviates from this design standard to locate buildings close to the street where practicable. Staff recommends that the applicant provide additional ground-floor activation and pedestrian oriented uses (eg. articulated building entries or active use) to achieve an architectural presence and focus at the street.

Standard (1) c. Buildings shall be oriented toward the street and shall include prominent facades with windows and entrances oriented toward the street. Uses that include public access to a building or commercial/office uses in mixed-use developments shall be oriented toward major streets whenever possible.

Staff comments – The proposed building spans the site with several building wings to create a courtyard building arrangement. Staff finds the facades are balanced with windows and articulated entries throughout the facades, however do not establish a prominent façade oriented toward the street. Staff acknowledges that due to the unique site factors and historical arrangement of existing buildings, strict compliance to require a building location closest to the street may not be appropriate. The proposed exterior façade materials include a variety of fibercement cladding and tones with an organized fenestration pattern that is a departure from the existing buildings found at Thompson Point, which include a mix of adaptive reuse brick industrial-era structures and contemporary buildings.

Staff suggests the applicant create a more pedestrian scaled façade and building orientation towards the Thompson Point roadway. Staff recommends a more cohesive arrangement of exterior façade materials that respond to the existing character of buildings, particularly at the street-facing facades of Brick North & South buildings. Staff suggest a replacement of exterior material at the ground level facing the street for brick and detailing around fenestrations to provide greater articulation at the pedestrian scale.

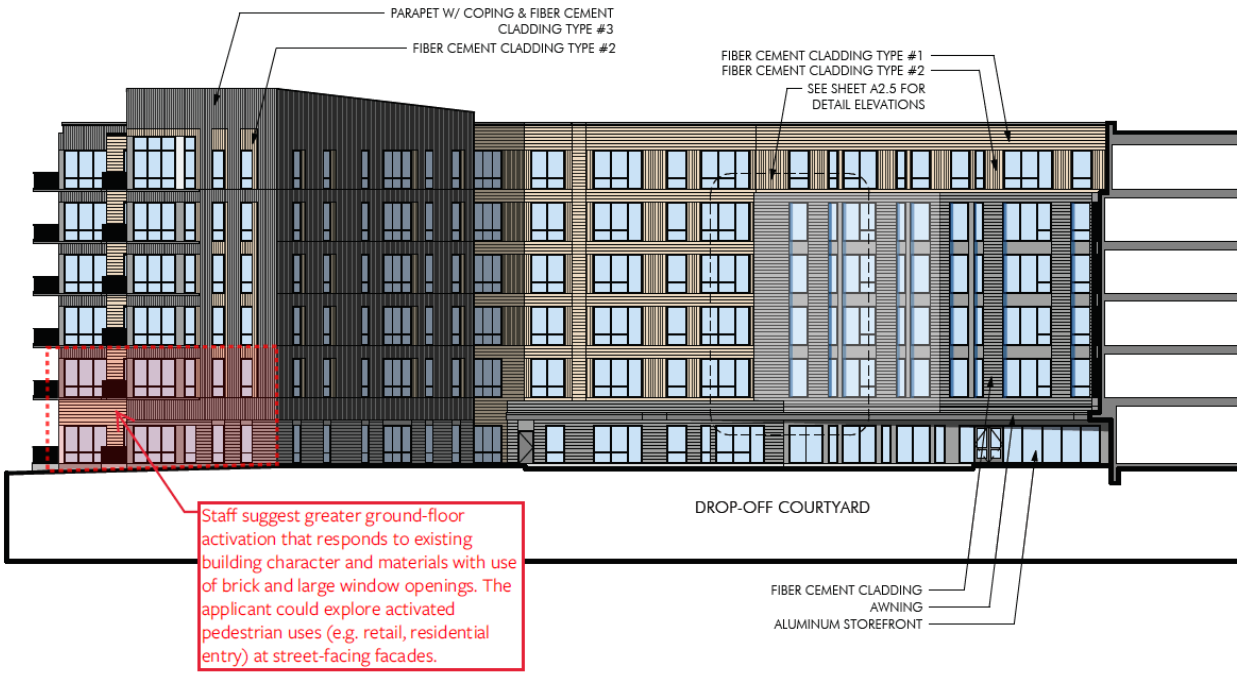


Figure 2: Staff diagram for street-facing facades at Northeast elevation

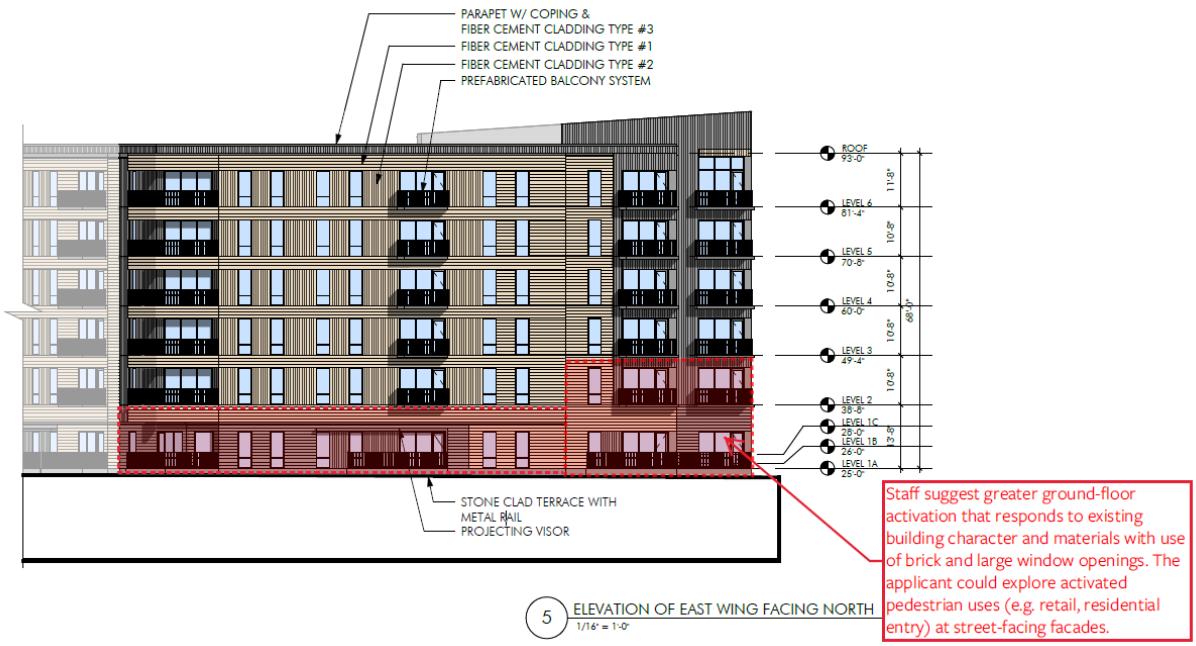


Figure 3: Staff diagram for street-facing facades at East elevation

Standard (1) d. Parking lots shall be located to the maximum extent practicable toward the rear of the property and shall be located along property lines where joint use or combined parking areas with abutting properties are proposed or anticipated.

Staff comments - The proposed development includes structured parking along the north building façade that is accessed via a two-way drive. Staff finds that the structured parking will be visible from abutting properties at the north and recommends that the applicant provide additional screening as appropriate (eg. architectural perforation, vertical landscaping or other façade-fixed material).

In addition, Staff finds the head-in parking spaces after the garage entrance to be unnecessary and recommends this driveway extension function for emergency access only with either a change of surface material (eg. grasscrete) or narrowing of drive aisle with mountable curb. Narrowing the drive aisle may allow for additional screening adjacent to the parking garage façade to reduce the visual impact to abutting properties with views towards Thompson Point.

Section (i) Multiple-family.

1. *The exterior design of the proposed structures, including architectural style, façade materials, roof pitch, building form and height, window pattern and spacing, porches and entryways, cornerboard and trim details, and facade variation in projecting or recessed building elements, shall be designed to complement and enhance the nearest residential neighborhood. The design of exterior facades shall provide positive visual interest by incorporating appropriate architectural elements;*

   Staff comment: The proposed multiple-family residential development is composed of several building wings and a structure parking garage that occupies a single building footprint. The proposed building design includes architectural detailing with varying exterior façade arrangements of fibercement and window detailing that is anomalous to any surrounding context due to the site location. Staff observes

building form variation with roof line expression at several building wings and suggest that the applicant explore additional building height that increases building massing height towards the center of the proposed building footprint.

2. *The proposed development shall respect the existing relationship of buildings to public streets. New development shall be integrated with the existing city fabric and streetscape including building placement, landscaping, lawn areas, porch and entrance areas, fencing, and other streetscape elements;*

   Staff comment: The proposed multiple-family residential development does not respond to any prevailing pattern within the city fabric or streetscape in regards to the building placement due to the isolated site location. Staff suggest that the applicant consider greater pedestrian activation at the transition space between the sidewalk and building façade fronting the street that includes an articulated building entry for residents, in addition to potential outdoor space programming (eg. retail use component, outdoor plaza and pedestrian amenities within close proximity to the street).

3. *Open space on the site for all two-family, special needs independent living unit, bed and breakfast and multiple-family development shall be integrated into the development site. Such open space in a special needs independent living unit or a multiple-family development shall be designed to complement and enhance the building form and development proposed on the site. Open space functions may include but are not limited to buffers and screening from streets and neighboring properties, yard space for residents, play areas, and planting strips along the perimeter of proposed buildings;*

   Staff comment: The proposed multiple-family residential development includes open space function with shared courtyards, outdoor amenities spaces, landscape buffering at the property and private balconies that Staff finds meets this design standard. Staff recommends a pathway connection directly from the Thompson Point roadway to the existing Portland Trail shoreline path.

4. *The design of proposed dwellings shall provide ample windows to enhance opportunities for sunlight and air in each dwelling in principal living areas and shall also provide sufficient storage areas;*

   Staff comment: Staff finds that the proposed multiple-family residential development provides ample windows and sufficient storage for all residential units.

5. *The scale and surface area of parking, driveways and paved areas are arranged and landscaped to properly screen vehicles from adjacent properties and streets;*

   Staff comment: Staff finds that all surface parking, driveways and paved areas are sufficiently screened from adjacent properties and streets.

6. *Two-family or multi-family dwellings shall not be converted to lodging houses unless all units in the building have been vacant for at least one (1) year prior to the date conversion is sought or unless the individual multiple-family units are less than one thousand (1,000) square feet in size. In no event shall any single-family dwelling in the R-5 or R-6 zone be converted in whole or in part to a lodging house.*

   Staff comment: Not applicable as the proposed multiple-family development does not include a lodging house conversion.

Dear Bo Kennedy and Rob Simmons,

We have completed our second review of your submission of the application (PL-003090-2024), a major site plan project, proposing a new six-story building with 255 residential units and an attached parking structure at 125 Thompson's Point Road, in the B-5 Urban Commercial zone. This development triggers major site plan review by the Planning Board, and is subject to the following regulations:

- Site Plan, Major – Article 14.6

An overview of the City's review can be viewed in the attached project review worksheets and peer review comments.

Next Steps
Please review our feedback and reach out if you have any questions or would like to discuss this feedback in more detail. Please prepare a written response to all feedback, and provide updated plans, documents, and other materials as necessary to address the comments. The applicant shall notify me, as the project review manager, when a resubmission is uploaded to ProjectDox.

Staff has scheduled a review meeting with the applicant team for February 5, 2025 at 10AM.

Sincerely,
Natasha M. Kypfer

Natasha Kypfer
Senior Planner

Attachments

1. Site Plan Worksheet
2. Zoning Worksheet
3. Design Review Memo, 10-28-2024

General Comments concerning the Flood Zone:

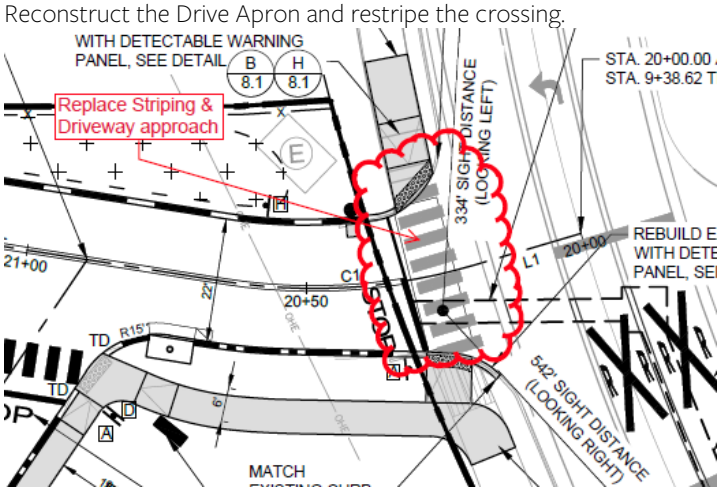
- Regarding the AE Flood Zone, while the Firmette map for the Flood zone was provided in the resubmission, we are requesting these be added as an overlay to the Site Plan, which will then show exactly where the Flood Zone is located on the property. Further, Staff requests not rounding up to Elevation 10.0', NGVD1929.
- The Floodplain Administrator requests to see how the conversion from NAVD88 to NGVD29 was calculated.
- On the Existing Conditions Plan (Sheet C-2.0) and the Site Layout Plan without Easements (Sheet C-3.1A), the Flood Zone line is not clear. Staff requests it be shown in a different color than black, for ease of visibility.

Site Plan Review Standards (Sec. 14.6)		
Transportation Standards (Sec. 14.6.1)		
Standard	***Discussion***	***Finding***
Impact on Surrounding Street Systems	Overview: As part of the existing Master Development Plan (MDP), the overall project was reviewed under a Traffic Movement Permit (TMP) application, which addresses impacts on the surrounding street network and for the anticipated increases in traffic congestion. The TMP (Identification #: Reg. 01-00155-A-N) was issued on June 13, 2012 with a traffic study completed as part of the approved MaineDOT TMP, citing for 734 trip ends during the AM peak hour and 1,091 trip ends during the PM peak hour. Further, the TMP received an extension in 2024, through to March 1, 2027. According to the September 4, 2024 traffic memorandum prepared by Gorrill Palmer Associates, the proposed project is not forecasted to exceed the number of trips permitted under the existing TMP. Staff has reviewed the trip generation for the proposed residential use (255 units) and concurs the project can be expected to generate 101 trips during the AM peak hour and 100 trips during the PM peak hour. After review of the provided addendum materials, Staff has additional requests as outlined below: Updates & Additional Information Requested • Staff have reviewed the trip generation estimate and would like to review the trip generation calculations for all of the uses, regardless if previously approved from a documentation perspective. • One initial comment on the trip generation estimate is: the Brewery & Sit-Down Restaurant (14,644 SF) noted in the table should match the area used in the trip generation calculation (4,624 SF). • Relative to current uses at the Thompson Point campus, the applicant shall provide backup information for the trip generation estimate for: o Halo Event Space o the Office Space with 7 employees; the trip estimate does not match prior trip generation estimates for potential uses o the 4,624 SF or restaurant space associated with Bissell Brewery o Color Me Mine o Cryptozoology Museum o Leisure Time Cocktails o the Brick South Event Space (2,500 Seats) o Building L; data is provided for the office space but it does not match what is noted in the table	Not Met
Access and Circulation	Overview: The project site is accessed via Thompson's Point Road at the intersection of Fore River Parkway, and includes a public railroad crossing proximate to the two-way driveway, which terminates at a turnaround hammer head. The Thompson's Point Trail (formerly named the Fore River Trail) runs southerly to the development area, with the site's proposed pedestrian circulation	Not Met

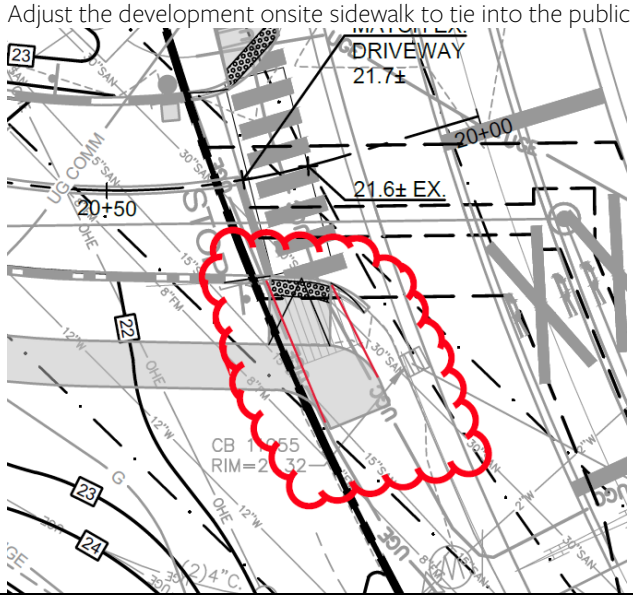
well-integrated to the public trail system. Further, a proposed six-foot-wide sidewalk along the front façade of the building connects to the existing sidewalk network throughout the Thompson's Point campus. City Staff are requesting updates to the re-submitted materials as outlined below:

Updates & Additional Information Requested

- General note: Some of the proposed site work that is proposed falls outside of the development tract, please include the abutting site as part of the larger project boundary on the applicable plan sheets.
- Proposed improvements and existing conditions in the City ROW shall be identified and dimensioned on the plan view sheets. For example, ROW, street, lanes sidewalk, esplanade driveways (and other improvements) widths as well as when a width changes.
- Provide detailed grading plan for the drive entrance onto Thompson's Point Road. The applicant shall update the plans to label and or provide spot grades and slopes for the proposed sidewalk improvements at grade breaks.
- Reconstruct the Drive Apron and restripe the crossing.



- Realign the ADA ramp and landing area to be within the public ROW. Adjust the development onsite sidewalk to tie into the public sidewalk.



Public Transit Access	Overview: This project is within a quarter mile of fixed transit, as the Greater Portland Metro's BREEZ line services bus stops at both the Portland Transportation Center (PTC) and Thompson's Point, operating Monday - Saturday. The application materials indicate the closest of which transit stop is approximately 665 feet / 0.13 miles walking-distance from the front door of the site. Per the Technical Manual Section 1.17.2, transit shelters shall be located within the site, directly adjacent to the right-of-way on which the public transportation route is established or located within a public sidewalk area long the property frontage.	Met
Parking	Overview: This project proposes to provide 457 parking spaces within a parking garage structure attached to the proposed residential "Building G" residential structure. In addition, 35 off-street parking spaces are proposed along the front façade of the building and the drop-off court by the main entrance. Per the application materials, 26 ADA parking stalls are proposed on-site and 102 bicycle parking spaces are provided in the form of bicycle racks located in front and inside the proposed building. Further, while the Technical Manual Section 1.14 outlines new structured and surface parking lots of five or more spaces to provide Level 2 EV charging or higher to 20% of total parking, this project proposes roughly 10% (46 spaces) through a combination of Level 2 chargers, Level 1 chargers, and EV-ready spaces. The applicant has conducted a parking analysis for the proposed residential use. Staff finds the estimate of 334 parking spaces per ITE methods to be reasonable. Staff would also request that the applicant provide a parking management plan if the proposed parking spaces are to be shared with other uses on Thompson's Point. Staff notes that the project will be providing 377 parking spaces for the residential use; this is slightly more than the documented demand of 334 spaces. Further, additional requests are outlined below: Updates & Additional Information Requested: • Please provide a parking management plan, as the proposed parking spaces are to be shared with other uses on Thompson's Point. • The remaining parking spaces (86 spaces on the first floor of the garage and 24 surface parking spaces) are indicated to be used for overall Thompson's Point campus parking needs. These spaces will be managed by Forefront Partners, like all other parking spaces on the campus. The applicant should provide details on how these spaces will be regulated. Will they function like existing spaces and be "Pay to Park"? Will signage, etc. be installed? How will the garage gate system be managed (based on the plans it appears two gate systems are proposed – staff is looking for clarification on how they will operate). • The overall campus parking analysis should be updated to reflect the land use information used in the updated trip generation estimate. The parking generation estimate should be based on the most recent edition of the ITE Parking Generation Manual. • The applicant should document the number of existing and proposed parking spaces on campus and note what spaces are allocated to specific businesses/uses. • Staff has reviewed the revised plan, and the exterior parking layout is acceptable. Parking aisle widths shall be provided for the interior garage.	Not Met
Transportation Demand Management	Overview: A TDM Plan is required for this project, as it exceeds the thresholds as detailed in the LUC Section 14.6.1.E.1. The project has an approved Thompson's Point campus-wide Transportation Demand Management Plan (TDM) for managing and reducing traffic trips and parking demand in place as part of the Master Development Plan (MDP). The provided Attachment P summarizes TDM initiatives and references previously prepared TDM strategy reports which was approved in 2011, and subsequently updated in 2015 and 2018.	Not Met

	Updates & Additional Information Requested
	• As part of the MDP, a wholistic campus-wide approach was undertaken, but with the addition of new housing, City staff has additional questions concerning the overall site integration:
	  o The 2011 MaineDOT Traffic Movement Permit notes that "No sporting events or concerts shall begin between 4pm and 7pm Monday through Friday". The project does not appear to comply with this requirement. The assumption for trip generation associated with concert events was that if the start time is at 7pm or later, there would be minimal impact to the commuter PM peak hour. If concerts begin at 6pm, impacts to the peak hour may occur.
	  o City staff has concerns about parking in the Libbytown neighborhood during events. The applicant should address this concern through possible actions/strategies in the TDM Plan.
	  o City staff has observed traffic congestion on Fore River Parkway extending into Congress Street. The applicant should address this concern through their site monitoring efforts and identify possible mitigation strategies to address this issue.	

Environmental Quality Standards (Sec. 14.6.2)		
Standard	***Discussion***	***Finding***
Preservation of Significant Natural Features	Overview: The parcel's current use is as a gravel surface parking lot resulting in the anticipated site disturbance unlikely to disrupt any significant natural features. While the landscaping plan identifies trees to be preserved, it does not include a tree survey as noted below. Further, the applicant attests no known populations of trees or plants present on the site have been classified as Endangered and Threatened in Maine, nor known habitats/communities, present that appear on the state or federal endangered or threatened animal list.	Met

Landscape Preservation	Overview: The submitted landscaping plan notes existing trees identified to preserve and protect (e.g. a handful of significant oaks along the southern property line that had previously been requested for preservation by the former City Arborist), but a tree survey was not included as part of the application submission. Per section 4.3.1. of the Technical Manual, projects are required to submit a tree survey from a licensed land surveyor arborist, forester, or landscape architect clearly identifying the forest type and location, size, and species of all existing trees 10" DBH or greater on the site and in the City right of way. The tree survey was provided with the second submission, although there are still several outstanding updates required of the landscaping plans and details as outlined below.
	Updates & Additional Information Requested
	• General note: Update the Landscape Plan to use the most current version of the Site Plan.
	• Please include on the landscape plan the species/size/location of the existing large trees to be preserved near the stormwater installation in the SW corner of the project; as while trees are present on Existing Conditions and Demolition plans but were left off landscape plan.
	• Regarding Landscape Details, Sheet L-200:
	  o #1, Tree Protection detail: If any of the existing trees to be preserved grow with a pronounced lean such that fencing in the dripline would place the stem of the tree near the edge or outside of the tree protection zone (TPZ):
	  o An alternative TPZ based on the critical root zone spread should be implemented with a target radius of 12" per 1" of stem diameter at DBH
		Not Met

	▪ If space constraints prohibit the target of 12" per 1" DBH, reductions down to 9" per 1" DBH are acceptable ▪ If more than 30% of the CRZ is impacted by trenching and/or grade changes of more than 4" then post construction remediation (decompaction, organic matter amendments) is warranted for preserved trees o #3, Deciduous Tree in Lawn or Esplanade ▪ If fertilizer packets are to be included when planting landscape trees, please refer to City Code, Chapter 34: Landcare in order to ensure a compliant application	
Site Landscaping and Buffers	Overview: The landscape plan proposes to screen the development from the existing trail, pool and outdoor amenities programing area, and around the entire perimeter of the building itself. The site location is buffered by both the rail line and Fore River, which will sufficiently buffer the proposed site use from the public right-of-way and neighboring campus properties. Further, the site has ±139 feet of street frontage and is required to plant one tree per 25-35 feet on center (4), within the public right-of-way. In their materials, the applicant cites that limited street trees have been proposed in location and quantities where possible, noting underground utility conflicts and that the rest of the site is heavily planted. Section 4 of the Technical Manual allows for the use of street tree alternatives, which the applicant team has determined, due to the existing conditions and high-density of underground utilities that are located in the right-of-way, they will contribute to the City of Portland Tree Fund for a total amount of $95,200, which accounts for 238 trees at the 2014 fee of $400 per tree. The calculation is based on the calculation for multi-family residential projects to provide one tree per unit, which would total 255 trees, although credit has been given for 17 trees as approved by the City Arborist.	Met
Water Quality, Stormwater Management and Erosion Control	Overview: The September 2024 stormwater report summarizes changes to the water quality treatment zones and provides detailed computations of the respective stormwater management systems sized to convey and treat stormwater runoff from the proposed redevelopment. The bulk of the new building, parking structure, central courtyard, and northerly courtyards will drain to a series of roof drains, catch basin inlets, and storm drain piping to convey runoff to a treatment system. City staff are requesting updates to the provided plans and materials, as individually detailed below: Updates & Additional Information Requested • The applicant is depicting a drainage easement within the City's right of way in the Thompson's Point connector road (Sheet C3.1b) to account for a short storm drain extension and connection from the private on-site drainage system. The drainage easement is unnecessary in this situation. The storm drain extension section in the right of way shall be constructed to City standards and will be turned over to the City at the conclusion of the project. The City does not grant easements for private storm drain or sewer lateral connections into the City's infrastructure located in public right of ways. Accordingly, please remove the proposed easement from the plans. • Please add a backflow preventer to sanitary sewer profile 'A' line downstream of SMH-1 as discussed via email on 1/17/2025. • Add a note to the plans stating that EX. SMH -1 shall be jointly inspected by the applicant's engineer, contractor, and the City to confirm a final plan to modify the structure to the rim elevation indicated on the plans.	Not Met

	• Notes should be added to the utility and grading plans indicating that several City and PWD sewer manholes will need to be adjusted to grade in the southerly access road area demarcated as Access Road profile 'C' on the plan set. It appears that a few of these structure adjustments may exceed the maximum adjustment height of 8 brick courses. The applicant should look into this and provide further information. • The applicant should relocate the proposed light pole/base located near Access road 'A' station 20+40 to provide more horizontal clearance with the 30" CSO line.	
Public Infrastructure and Community Safety Standards (Sec. 14.6.3)		
Standard	***Discussion***	***Finding***
Consistency with City Master Plans	Overview: The proposed development of the subject property is a permitted use within the B-5 zone, and complies with applicable zoning as established under the City's comprehensive plan, *Portland's Plan 2030*. Staff suggests the applicant include reference to other applicable studies in their narrative materials, such as: One Climate Future and the Peninsula Transportation Plan.	Met
Public Safety and Fire Prevention	Overview: The project site is accessible from Thompson's Point Road, and during the Master Development Plan (MDP) approval back in 2014, it was determined at the time that for the purposes of emergency vehicle access one access point for ingress/egress was sufficient. Further, the included Utility Plan shows the location of all existing and proposed fire hydrants, with a service radius of 100' and 250', meeting the Technical Manual Section 3.2.1 standard of within 500'. However, City staff, including Fire & Life Safety reviewers, still have concerns, therefore requesting feasibility documentation in light of Section 18.2.3.3 of NFPA 1 Fire Code. Updates & Additional Information Requested • While City staff continues to have concerns regarding emergency access to the site, we also acknowledge that prior discussions during the MDP approval process allowed for the single roadway access site-wide. We will look forward to having a more robust discussion on this item at our meeting scheduled for February 5, 2025, wherein representatives from the applicant team and the City will be present.	Not Met
Public Utilities	Overview: Per the applicant's submittal, the existing 12" water main (publicly owned), 15" sewer main (publicly owned), and electrical/communications (private) duct bank serving the project is shown on the accompanying utility plan. The proposed development will construct new utility stubs for the development lot. Ability to Serve letters have been provided by Unitil, CMP, and DPW for wastewater capacity authorization. Updates & Additional Information Requested • Please forward on the Ability to Serve letter from PWD, once received.	Not Met
Site Design Standards (Sec. 14.6.4)		
Standard	***Discussion***	***Finding***
Massing, Ventilation and Wind Impact	Overview: The proposed multi-family residential building is located at the panhandle portion of the property site of the Thompson's Point development, with direct access to the Thompson's Point roadway. Originally envisioned with the MDP as a clustered arrangement of three new buildings, the proposal is for a single multi-family residential building with attached parking structure, six-stories or 68 feet in height. Further, the HVAC equipment is proposed to be located on the roof, with the applicant's noting the equipment will exhaust away from the adjacent residential properties.	Met
Shadow	Overview: Shadow standards are not applicable in the B-5 zone; thus, this development is exempt.	Met

Snow and Ice Loading	Overview: Snow storage is proposed to be located temporarily along the edges of the drive aisles and landscaped areas until such a time when the stockpiles need to be removed from the property. Snow removal on the parking roof deck which is a flat roof and is designed to store snowfall, will be plowed to a drop chute where it can be managed on the ground.	Met
View Corridors	Overview: This site is not located along a public view corridor identified in the Downtown Vision View Corridor Protection Plan.	Met
Historic Resources	Overview: The subject property is not within a Historic District; therefore, this standard does not apply.	Met
Exterior Lighting	Overview: All development must adhere to the site lighting standards provided for in the Technical Manual, Section 12, for: site lighting, architectural and specialty lighting, and street lighting. This project proposes site lighting, with 27 outdoor wall-mounted fixtures proposed in total along the four structure planes; the photometric plan is provided with the submission, as well as cut sheets and lighting specification materials.	Met
Noise and Vibration	Overview: In the City, all HVAC, AHU, emergency generators, and similar equipment are required to meet applicable state and federal emissions requirements and are further required to be located and/or screened in such a manner as to mitigate noise and vibration impacts. Per the application materials, the majority of the roof top mounted HVAC equipment average approximately 57" - 69" above the roof, and includes electric heat pumps for each dwelling unit. Sheet A1.7 ('Site Line Studies of Roof Top Mechanical Units' with the resubmission. The applicant shares that there will be no cooling towers, nor chillers or generators that could create unwarranted noise to emanate from the site.	Met
Signage and Wayfinding	Overview: Any signage associated with the redevelopment of this project will be required to be reviewed by the Permitting and Inspections Department separately, with a sign permit to meet the standards of Article of the Land Use Code.	Met
Design Standards	Overview: Per the LUC Section 14.6.4.I.a, developments in the B-5 zone shall be designed to support the development of dense, mixed-use neighborhoods with attractive, safe, and convenient street-level pedestrian environments. An initial Design Review Memo, dated October 28, 2024 was provided, with additional recommendations provided below (subsequent to the second submission), which were also shared at the first Planning Board workshop, held on January 14, 2025. Updates & Additional Information Requested • Staff requests that the applicant prepare additional renderings to illustrate the parking garage as viewed from Thompson Point roadway and adjacent properties, particularly from the north side of existing railway tracks. Staff is concerned that the sloped parking decks at the structured garage are not properly screened as visible from the street and from adjacent properties. As outlined in the design review memo, dated October 18, 2024, Staff recommends additional architectural and/or landscape screening elements, such as perforated facade screening to reinforce a horizontal datum, vertical landscaping with vine-trellis systems or other appropriate vegetation. • Staff suggest greater ground-floor activation along building facades oriented towards the Thompson Point roadway. Staff recommends incorporating a pedestrian scaled entry for residents (potentially at the termination of the Level 1 corridor) to allow direct access from the sidewalk and more connectivity to the street. Alternatively, Staff suggests additional architectural articulation that orient the building towards the street with the incorporation of facade materials and organization of materials at a pedestrian scale found throughout the Thompson's Point development.	Not Met

Zoning Use Review (Article 6)

Use Permissions (Sec. 6.5.6)

Proposed Use	*Permitted, Conditional or Accessory Use*	*Zone*	*Use Std*
Multi-family dwellings	Permitted	B-5	n/a

Zoning Dimensional Review (Article 7)

Dimensional Standards (Table 7-A)

Standard	*Requirement 1*	*Requirement 2*	*Proposed*	*Finding*
Lot Area	None	n/a	4.637 acres	
Lot Area per Dwelling Unit	None	n/a	799 sq. ft.	
Min. Street Frontage	None	n/a	139' ±	
Front Setback	None	n/a	34'	
Rear Setback	None	n/a	39'	
Side Setback	None	n/a	10'	
Stepbacks	None	n/a	None	
Structure Height	120'	n/a	68'	
Max. Lot Coverage	100%	n/a	63%	
Off-Street Parking Spaces	None	n/a	498	
Loading Bays	None	n/a	1	

Subject:	125 Thompson's Point Road
Zone:	B5
Date of Review:	Monday, October 28, 2024 Land Use Code Chapter 14.6.4.I Design standards
Reviewer(s):	Natasha Kypfer (Senior Planner); Zachary Powell (Senior Planner); Sean King (Urban Designer); Kevin Kraft (Director)
Project ID:	PL-003090-2024

I. INTRODUCTION

The project at 125 Thompson's Point for 255 residential units was reviewed according to the *City of Portland Design Manual* section ***(c) B-5 and B-5b Urban Commercial Business Zone*** and section ***(i)*** *two-family, special needs independent living units,* ***multiple-family****, lodging houses, bed and breakfasts and emergency shelters* design standards. In addition, design guidelines identified in the Thompson's Point Master Development Plan were reviewed.

II. DESIGN REVIEW COMMENTS: **bold** text denotes recent updates met, red text denotes standards not met which require resubmission.

(I.) Thompson's Point Master Development Plan standards - *Designed as to create a cohesive identity through building scale, massing, and articulation; use of quality exterior materials, architectural detailing at pedestrian scale; consistency of design and materials for streetscape and pedestrian amenities; framing of outdoor open space and linkages; a clear conveyance of the function and significance of various buildings, entrances, and features; and to generally comply with design and development standards of the zone in which it is located;*

The Master Development Plan approved a layout with a clustered arrangement of new buildings (G, J1 and J2) that expand along the shoreland as a natural boundary and the railroad corridor as an infrastructure boundary.

The proposed multi-family residential building is located at the north property of the Thompson's Point development with direct access to the Thompson's Point roadway. The proposed structure height is six-stories (averaging 68-feet), which is a departure from the existing low-medium building heights located throughout the development. However, the approved Master Development Plan illustrated taller structures at this site to demonstrate the maximum allowable building heights at 125-feet. Staff suggests that the applicant consider an increase to the proposed building height, as shown in figure 1, to add vertical scale towards the center of the proposed building footprint.



Figure 1: Staff diagram in blue from applicant's rendering (view from waterfront)

(c.) B-5 and B-5b Urban Commercial Business Zones

Standard (1) a. Shared Infrastructure: Shared circulation, parking, and transportation infrastructure shall be provided to the extent practicable, with utilization of joint curb cuts, walkways, service alleys, bus pull-out areas, and related infrastructure shared with abutting lots and roadways. Easements for access for abutting properties and shared internal access points at property lines shall be provided where possible to facilitate present or future sharing of access and infrastructure.

Staff comments – The proposed development will utilize the existing Thompson Point private roadway, sidewalk and bicycle facilities as the primary point of entry and exit. Within the site development location, a new two-way drive is proposed to allow access to the drop-off court, building entries, primary structured parking entry and emergency access. Staff recommends a reduction in angled parking spaces to provide prioritization of the pedestrian facilities into the primary building entrance. To encourage the drop-off court as a pedestrian plaza that only allow infrequent vehicular drop-off that is more conducive with a transit-oriented and walkable development.

Standard (1) b. Buildings and uses shall be located close to the street where practicable. Corner lots shall fill into the corner and shall provide an architectural presence and focus to mark the corner.

Staff comments – Thompson's Point development is an anomalous, isolated site located on the water without an established urban context or street connectivity to the city. Therefore, some of the standards of the B-5 are harder to apply in this case due to the irregular configuration of lots that vary in size, orientation, and relationship to the private vehicular road. The proposed residential building is setback from the Thompson Point roadway that Staff finds deviates from this design standard to locate buildings close to the street where practicable. Staff recommends that the applicant provide additional ground-floor activation and pedestrian oriented uses (eg. articulated building entries or active use) to achieve an architectural presence and focus at the street.

Standard (1) c. Buildings shall be oriented toward the street and shall include prominent facades with windows and entrances oriented toward the street. Uses that include public access to a building or commercial/office uses in mixed-use developments shall be oriented toward major streets whenever possible.

Staff comments – The proposed building spans the site with several building wings to create a courtyard building arrangement. Staff finds the facades are balanced with windows and articulated entries throughout the facades, however do not establish a prominent façade oriented toward the street. Staff acknowledges that due to the unique site factors and historical arrangement of existing buildings, strict compliance to require a building location closest to the street may not be appropriate. The proposed exterior façade materials include a variety of fibercement cladding and tones with an organized fenestration pattern that is a departure from the existing buildings found at Thompson Point, which include a mix of adaptive reuse brick industrial-era structures and contemporary buildings.

Staff suggests the applicant create a more pedestrian scaled façade and building orientation towards the Thompson Point roadway. Staff recommends a more cohesive arrangement of exterior façade materials that respond to the existing character of buildings, particularly at the street-facing facades of Brick North & South buildings. Staff suggest a replacement of exterior material at the ground level facing the street for brick and detailing around fenestrations to provide greater articulation at the pedestrian scale.

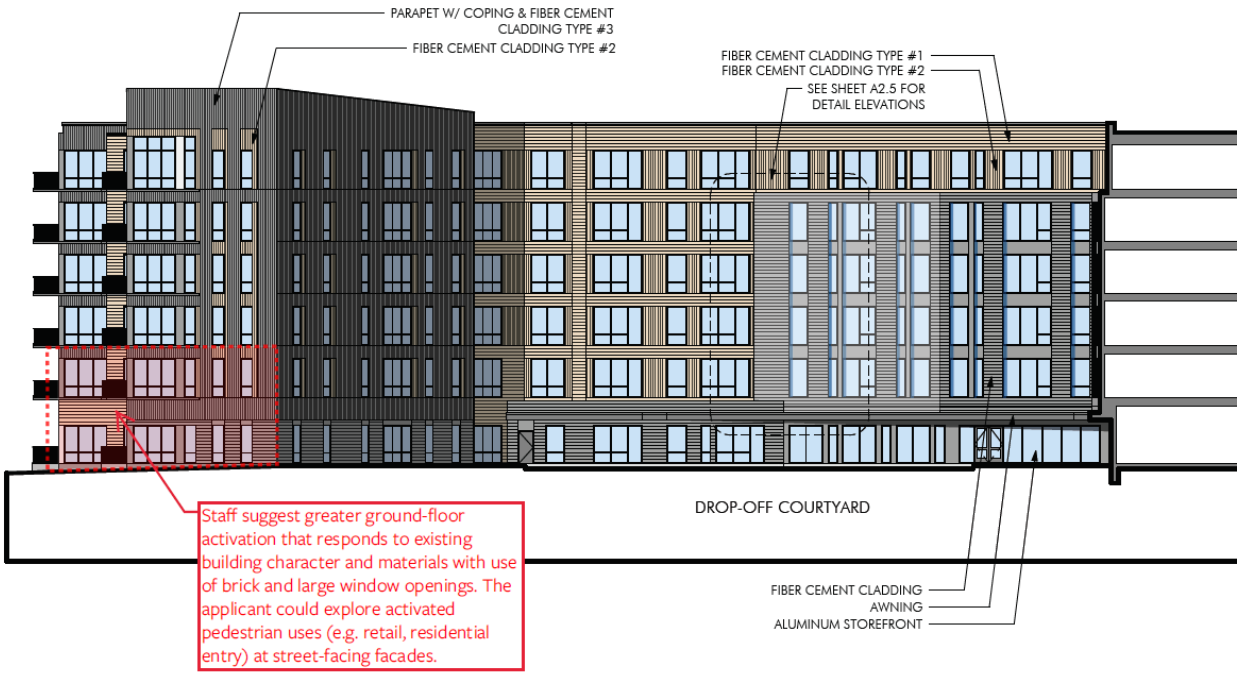


Figure 2: Staff diagram for street-facing facades at Northeast elevation

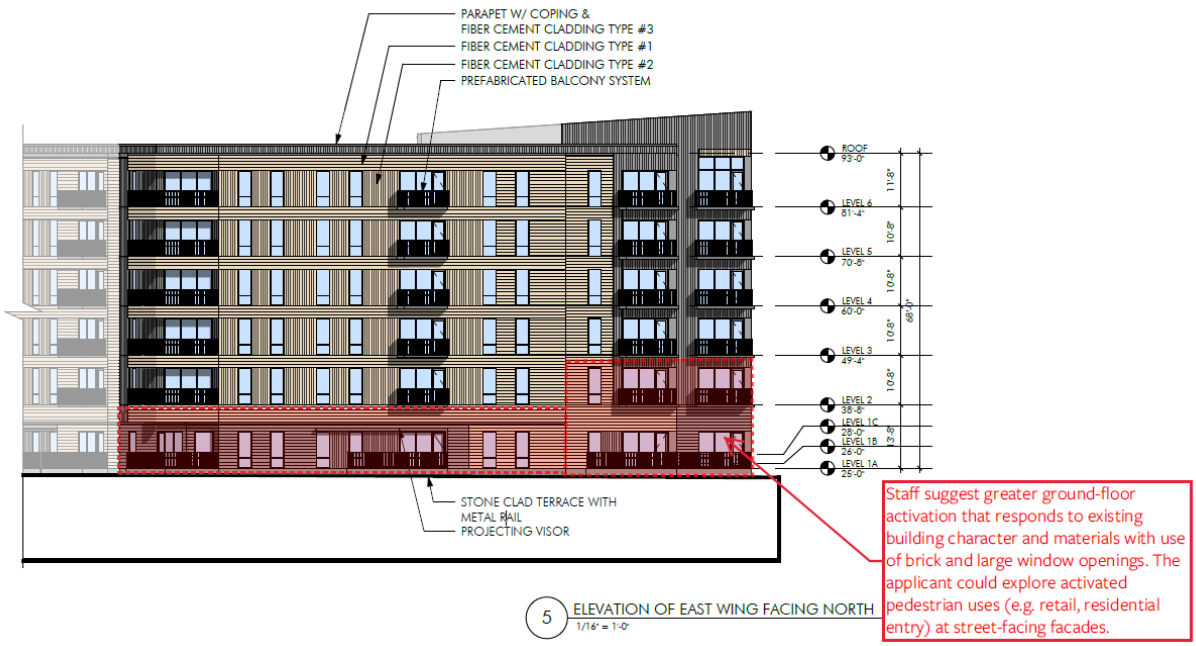


Figure 3: Staff diagram for street-facing facades at East elevation

Standard (1) d. Parking lots shall be located to the maximum extent practicable toward the rear of the property and shall be located along property lines where joint use or combined parking areas with abutting properties are proposed or anticipated.

Staff comments - The proposed development includes structured parking along the north building façade that is accessed via a two-way drive. Staff finds that the structured parking will be visible from abutting properties at the north and recommends that the applicant provide additional screening as appropriate (eg. architectural perforation, vertical landscaping or other façade-fixed material).

In addition, Staff finds the head-in parking spaces after the garage entrance to be unnecessary and recommends this driveway extension function for emergency access only with either a change of surface material (eg. grasscrete) or narrowing of drive aisle with mountable curb. Narrowing the drive aisle may allow for additional screening adjacent to the parking garage façade to reduce the visual impact to abutting properties with views towards Thompson Point.

Section (i) Multiple-family.

1. *The exterior design of the proposed structures, including architectural style, façade materials, roof pitch, building form and height, window pattern and spacing, porches and entryways, cornerboard and trim details, and facade variation in projecting or recessed building elements, shall be designed to complement and enhance the nearest residential neighborhood. The design of exterior facades shall provide positive visual interest by incorporating appropriate architectural elements;*

   Staff comment: The proposed multiple-family residential development is composed of several building wings and a structure parking garage that occupies a single building footprint. The proposed building design includes architectural detailing with varying exterior façade arrangements of fibercement and window detailing that is anomalous to any surrounding context due to the site location. Staff observes

building form variation with roof line expression at several building wings and suggest that the applicant explore additional building height that increases building massing height towards the center of the proposed building footprint.

2. *The proposed development shall respect the existing relationship of buildings to public streets. New development shall be integrated with the existing city fabric and streetscape including building placement, landscaping, lawn areas, porch and entrance areas, fencing, and other streetscape elements;*

   Staff comment: The proposed multiple-family residential development does not respond to any prevailing pattern within the city fabric or streetscape in regards to the building placement due to the isolated site location. Staff suggest that the applicant consider greater pedestrian activation at the transition space between the sidewalk and building façade fronting the street that includes an articulated building entry for residents, in addition to potential outdoor space programming (eg. retail use component, outdoor plaza and pedestrian amenities within close proximity to the street).

3. *Open space on the site for all two-family, special needs independent living unit, bed and breakfast and multiple-family development shall be integrated into the development site. Such open space in a special needs independent living unit or a multiple-family development shall be designed to complement and enhance the building form and development proposed on the site. Open space functions may include but are not limited to buffers and screening from streets and neighboring properties, yard space for residents, play areas, and planting strips along the perimeter of proposed buildings;*

   Staff comment: The proposed multiple-family residential development includes open space function with shared courtyards, outdoor amenities spaces, landscape buffering at the property and private balconies that Staff finds meets this design standard. Staff recommends a pathway connection directly from the Thompson Point roadway to the existing Portland Trail shoreline path.

4. *The design of proposed dwellings shall provide ample windows to enhance opportunities for sunlight and air in each dwelling in principal living areas and shall also provide sufficient storage areas;*

   Staff comment: Staff finds that the proposed multiple-family residential development provides ample windows and sufficient storage for all residential units.

5. *The scale and surface area of parking, driveways and paved areas are arranged and landscaped to properly screen vehicles from adjacent properties and streets;*

   Staff comment: Staff finds that all surface parking, driveways and paved areas are sufficiently screened from adjacent properties and streets.

6. *Two-family or multi-family dwellings shall not be converted to lodging houses unless all units in the building have been vacant for at least one (1) year prior to the date conversion is sought or unless the individual multiple-family units are less than one thousand (1,000) square feet in size. In no event shall any single-family dwelling in the R-5 or R-6 zone be converted in whole or in part to a lodging house.*

   Staff comment: Not applicable as the proposed multiple-family development does not include a lodging house conversion.

Subject:	125 Thompson's Point Road
Zone:	B-5 (Urban Commercial)
Date of Review:	Wednesday, February 12, 2025 Design Review
Reviewer(s):	Natasha Kypfer (Senior Planner); Zach Powell (Senior Planner); Sean King (Urban Designer); Kevin Kraft (Director)
Project ID:	PL-003090-2024

I. INTRODUCTION

The project at 125 Thompson's Point for 255 residential units was reviewed according to the *City of Portland Design Manual* section ***(c) B-5 and B-5b Urban Commercial Business Zone*** and section ***(i)*** *two-family, special needs independent living units,* ***multiple-family****, lodging houses, bed and breakfasts and emergency shelters* design standards under Land Use Code Chapter 14.6.4.l Design (revised 5-6-2024). In addition, design guidelines identified in the Thompson's Point Master Development Plan were reviewed under City's code of ordinance land use chapter 14, section 14-524 (revised 8-5-2013):

II. DESIGN REVIEW COMMENTS: **bold** text denotes recent updates met, red text denotes standards not met which require resubmission.

(l.) Thompson's Point Master Development Plan standards - *Designed as to create a cohesive identity through building scale, massing, and articulation; use of quality exterior materials, architectural detailing at pedestrian scale; consistency of design and materials for streetscape and pedestrian amenities; framing of outdoor open space and linkages; a clear conveyance of the function and significance of various buildings, entrances, and features; and to generally comply with design and development standards of the zone in which it is located;*

The Master Development Plan approved a layout with a clustered arrangement of new buildings (G, J1 and J2) that expand along the shoreland as a natural boundary and the railroad corridor as an infrastructure boundary.

The proposed multi-family residential building is located at the north property of the Thompson's Point development with direct access to the Thompson's Point roadway. The proposed structure height is six-stories (averaging 68-feet), which is a departure from the existing low-medium building heights located throughout the development and allowable based on the maximum building heights of 125 feet.

(c.) B-5 and B-5b Urban Commercial Business Zones
Standard (1) a. Shared Infrastructure: Shared circulation, parking, and transportation infrastructure shall be provided to the extent practicable, with utilization of joint curb cuts, walkways, service alleys, bus pull-out areas, and related infrastructure shared with abutting lots and roadways. Easements for access for abutting properties and shared internal access points at property lines shall be provided where possible to facilitate present or future sharing of access and infrastructure.

Staff comments – The proposed development will utilize the existing Thompson Point private roadway, sidewalk and bicycle facilities as the primary point of entry and exit. Within the site development location, a new two-way drive is proposed to allow access to the drop-off court, building entries, primary structured parking entry and emergency access.

Standard (1) b. Buildings and uses shall be located close to the street where practicable. Corner lots shall fill into the corner and shall provide an architectural presence and focus to mark the corner.

Staff comments – Thompson's Point is an isolated waterfront site without an established urban context. Therefore, some of the standards of the B-5 are harder to apply in this case due to the irregular configuration of lots that vary in size, orientation, and relationship to the private vehicular road. The proposed building is setback from the Thompson Point roadway, however the arrangement of windows, outdoor balconies and exterior façade materials to delineate floors create a strong architectural presence towards the street.

Standard (1) c. Buildings shall be oriented toward the street and shall include prominent facades with windows and entrances oriented toward the street. Uses that include public access to a building or commercial/office uses in mixed-use developments shall be oriented toward major streets whenever possible.

Staff comments – The proposed building spans the site with several wings to create a courtyard building arrangement. Staff has suggested additional architectural detailing at lower levels to mark the corner and building facades facing the street and finds that the resubmitted plans including brick provide a stronger presence at the street and responds to the exterior material selection of existing buildings found in Thompson Point. In addition, the proposed exterior façade materials include fibercement cladding in a variety of tones arranged to reinforce the are organized fenestration pattern of the windows that Staff finds appropriate.

Standard (1) d. Parking lots shall be located to the maximum extent practicable toward the rear of the property and shall be located along property lines where joint use or combined parking areas with abutting properties are proposed or anticipated.

Staff comments - The proposed development includes structured parking along the north building façade that is accessed via a two-way drive. Staff finds that the structured parking will be visible from abutting properties at the north and recommends that the applicant provide additional opaque screening as appropriate (e.g., architectural perforation, vertical landscaping or other façade-fixed material).

Section (i) Multiple-family.

1. *The exterior design of the proposed structures, including architectural style, façade materials, roof pitch, building form and height, window pattern and spacing, porches and entryways, cornerboard and trim details, and facade variation in projecting or recessed building elements, shall be designed to complement and enhance the nearest residential neighborhood. The design of exterior facades shall provide positive visual interest by incorporating appropriate architectural elements;*

   Staff comment: The proposed multiple-family residential development is composed of several building wings and a structure parking garage that occupies a single building footprint. The proposed building design includes architectural detailing with varying exterior façade arrangements of fibercement, brick

and window detailing that Staff finds to respond to existing buildings found at the Thompson Point development.

2. *The proposed development shall respect the existing relationship of buildings to public streets. New development shall be integrated with the existing city fabric and streetscape including building placement, landscaping, lawn areas, porch and entrance areas, fencing, and other streetscape elements;*

   Staff comment: Based on the isolated site location, the proposed multiple-family residential development placement does not respond to any prevailing pattern within the city fabric or streetscape. However, Staff finds the development integrates within the natural site conditions and proximity to surrounding buildings at Thompson Point that are set back from the street.

3. *Open space on the site for all two-family, special needs independent living unit, bed and breakfast and multiple-family development shall be integrated into the development site. Such open space in a special needs independent living unit or a multiple-family development shall be designed to complement and enhance the building form and development proposed on the site. Open space functions may include but are not limited to buffers and screening from streets and neighboring properties, yard space for residents, play areas, and planting strips along the perimeter of proposed buildings;*

   Staff comment: The proposed multiple-family residential development includes open space functions such as shared courtyards, outdoor amenities spaces, landscape buffering at the property, and private balconies that Staff finds meets this design standard. In addition, the development provides a pathway connection to the existing Portland Trail shoreline path.

4. *The design of proposed dwellings shall provide ample windows to enhance opportunities for sunlight and air in each dwelling in principal living areas and shall also provide sufficient storage areas;*

   Staff comment: Staff finds that the proposed multiple-family residential development provides ample windows and sufficient storage for all residential units.

5. *The scale and surface area of parking, driveways and paved areas are arranged and landscaped to properly screen vehicles from adjacent properties and streets;*

   Staff comment: Staff finds that all surface parking, driveways and paved areas are sufficiently screened from adjacent properties and streets.

Order 119-13/14
Passage: 9-0 on 12/16/2013 **Effective 1/15/2014**

MICHAEL F. BRENNAN (MAYOR)
KEVIN J. DONOGHUE (1)
DAVID A. MARSHALL (2)
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CHERYL A. LEEMAN (4)

CITY OF PORTLAND
IN THE CITY COUNCIL

JOHN R. COYNE (5)
JILL C. DUSON(A/L)
JON HINCK (A/L)
NICHOLAS M. MAVODONES (A/L)

AMENDMENT TO PORTLAND CITY CODE
CHAPTER 14. LAND USE
ARTICLE III. Zoning,
DIVISION 12.6. Urban Commercial Mixed Use Zone,
Section 14-230.4

I. BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PORTLAND, MAINE IN CITY COUNCIL ASSEMBLED AS FOLLOWS:

1. *That Chapter 14, Article III, Division* 12.6. *Urban Commercial Mixed Use Zone, Section 14-230.4 of the Portland City Code is hereby amended to read as follows:*

Sec. 14-230.4. Dimensional requirements.

In addition to the provisions of article III, division 25 of this Code, lots in the B-5 and B-5b urban commercial mixed use zones shall meet the following requirements:

...

(e) ~~*Maximum residential density:* Sixty (60) dwelling units per acre.~~

~~(f)~~ *Maximum building height:* Sixty-five (65) feet; except as follows:

1. ~~for~~ For parcels of land ~~I ntch~~in the B-5b located along West Commercial Street south of Danforth Street, maximum building heights shall be as follows:

~~———~~West of the projection of the centerline of the Fletcher Street right-of-way, the maximum building height shall be forty-five (45) feet; and, east of the projection of the centerline of the Fletcher Street right-of-way and west of the projection of the centerline of the Emery Stree~~e~~t right-of-way, the maximum building height shall be fifty-five (55) feet.

———For purposes of this section, a projection of the centerline of a street is defined by extending the centerline of the referenced street right of way along its most southerly block to the centerline of West Commercial Street.

———Furthermore, notwithstanding the exception of roof top structures from building height regulations in Section 14-430(a), no rooftop structure located between the projections of the centerlines of Emery Street and Fletcher Street, as described above, shall exceed a height of sixty-two (62) feet as measured from the average grade of the building at its foundation.

2. For parcels of land located on Thompson's Point and also subject to an approved Master Plan Development: one hundred twenty (120) feet. Thompson's Point is defined as the contiguous parcels of upland occupying the peninsula bounded on the east by Route 295, on the north by the Mountain Division Rail Right of way, and on the south and west by the Fore River and its associated wetlands. Nearby lands that are accessed from Hobart and Osgood Streets are, for the purposes of this provision, not considered part of Thompson's Point.

(~~g~~f) *Minimum building height:*

1. In the B-5 zoning district between Forest Avenue and Franklin Street, within thirty-five (35) feet of any public street, no new construction of any building shall have less than three (3) floors of occupiable or habitable space above the average adjacent grade. This provision shall not apply to:

   a. Accessory building components such as truck loading docks, mechanical equipment enclosures, refrigeration units;

   b. Information kiosks and ticketing booths;

   c. Parking garages;

   d. Public transportation facilities;

e. Additions to buildings existing as of March 9, 2005 provided that the cumulative additions since March 9, 2005 does not exceed 25% of the building footprint on March 9, 2005 except that such restriction shall not apply to those portions of the building addition that are constructed closer to the street line than the building footprint existing as of March 9, 2005;

f. Utility substations, including sewage collection and pumping stations, water pumping stations, transformer stations, telephone electronic enclosures and other similar structures; and

g. Additions to and relocations of designated historic structures or structures determined by the Historic Preservation Committee to be eligible for such designation.

Chapter 14 LAND USE*

***Cross reference(s)--**Buildings and building regulations, Ch. 6; parks, recreation and public buildings, Ch. 18; sewers, Ch. 24; streets, sidewalks and other public places, Ch. 25; vegetation, Ch. 29.

State law reference(s)--Planning, zoning and development, 30 M.R.S.A. Sec. 4501 et seq.

Art. I. In General, § 14-1--14-15
Art. II. Planning Board, § 14-16--14-45
Art. III. Zoning, § 14-46--14-490
Div. 1. Generally, § 14-46--14-59
Div. 1.5 Conditional or Contract Zoning, § 14-60--14-65
Div. 2. R-1 Residential Zone, § 14-66--14-75
Div. 3. R-2 Residential Zone, § 14-76--14-85
Div. 4. R-3 Residential Zone, § 14-86--14-93
Div. 4.5. FH Flexible Housing Zone, § 14-94--14-100
Div. 5. R-4 Residential Zone, § 14-101--14-115
Div. 6. R-5 Residential Zone., § 14-116--14-125
Div. 6.5. R-5A Residential Zone, §14-126--14-134
Div. 7. R-6 Residential Zone, § 14-135—-14-140
Div. 7.01 R-7 Compact Urban Residential Overlay Zone, § 14-141--14-144
Div. 7.1. IR-1 Island Residential Zone, § 14-145.1—-14-145.6
Div. 7.2. IR-2 Island Residential Zone, § 14-145.7—-14-145.12
Div. 7.3. IR-3 Island Residential Zone, § 14-145.13—-14-145.19
Div. 7.5. Island Transfer Station Overlay Zone, § 14-145.20—-14-145.22
Div. 8. R-P Residence-Professional Zone, § 14-146—-14-152
Div. 8.1 USM University of Southern Maine Overlay Zone 14-152--14-152.9
Div. 8.5. R-OS Recreation and Open Space Zone, § 14-153—-14-160
Div. 9. B-1 and B-1b Neighborhood Business Zones, § 14-161—-14-180
Div. 10. B-2 and B-2b Community Business Zone, § 14-181—14-195
Div. 11. A-B Airport Business Zone, § 14-196—-14-215
Div. 12. B-3, B-3b and B-3c Downtown Business Zones, § 14-216—-14-221.1

Div. 12.1. I-B Island Business Zone, § 14-222—14-229.9
Div. 12.5. B-4 Commercial Corridor Zone, § 14-229.10--14-229.30
Div. 12.6. B-5 Urban Commercial Mixed Use Zone, § 14-230—14-230.9
Div. 12.7. O-P Office Park Zone, § 14-230.10-—14-230.16
Div. 13. I-L and I-Lb Industrial Zones, §14-231—-14-245
Div. 14. I-M, I-Ma and I-Mb Industrial Zones, § 14-246-—14-260
Div. 15. I-H and I-Hb Industrial Zones, § 14-261—-14-267
Div. 15.1. B-6 Eastern Waterfront Mixed Zone § 14-268—14-275
Div. 16. Waynflete School Overlay Zone, § 14-276—-14-276.10
Div. 17. B-7 Mixed Development District Zone, § 14-294—14-304
Div. 17.5. Eastern Waterfront Port Zone, §14-300—-14-304
Div. 18. Waterfront Central Zone, § 14-305—-14-317
Div. 18.5 Waterfront Port Development Zone, § 14-318—-14-320.4
Div. 18.7 Waterfront Special Use Zone, § 14-320.5—-14-320.10
Div. 19. R-P Resource Protection Zone, § 14-321—-14-324
Div. 19.5 Helistop Overlay Zone, § 14-325—14-330
Div. 19.7 Reserved, § 14-330.1—14-330.5
Div. 19.8 Downtown Entertainment Overlay Zone, § 14-330.11—14-330.17
Div. 20. Off-Street Parking, § 14-331—-14-350
Div. 21. Off-Street Loading, § 14-351--14-365
Div. 22. Signs, § 14-366--14-372.5
Div. 22.5 Adult Business Establishments, § 14-373—-14-380
Div. 23. Nonconforming Use and Nonconforming Buildings, § 14-381—-14-400
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Div. 25. Space and Bulk Regulations and Exceptions, § 14-421—-14-445
Div. 26. Shoreland Regulations, § 14-446—14-450
Div. 26.5. Flood Plain Management Regulations, § 14-450.1—14-450.30
Div. 26.7. S-P Stream Protection Zone, § 14-451—14-460
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Art.VIII. Regulations of Explosives, § 14-583—14-600
Art. IX. Historic Preservation, § 14-601—-14-750
Div. 1. Generally, § 14-601, 14-602
Div. 2. Historic Preservation Board, § 14-603—-14-609
Div. 3. Categories and Criteria for Designation, § 14-610—-14-613
Div.4. Nomination, Consideration and Designation, § 14-614—-14-629
Div. 5. Interim Protection for Nominations, §14-630-633
Div. 6. Certificates of Appropriateness and Nonapplicability, § 14-634—-14-649
Div. 7. Standards for Review of Application for Certificate of Appropriateness, § 14-650—-14-659
Div. 8. Certificate of Economic Hardship, § 14-660—14-674
Div. 9. Administration, § 14-675—-14-689
Div. 10. Maintenance, § 14-690—-14-694
Div. 11. Penalties, etc., §14-695-—14-700
Div. 12. Landmarks, § 14-701—-14-750
Art. X. Alternative Energy, § 14-751—-14-849
Div. 1. Wind Energy Generation, § 14-753 – 14-770
Art. XI. Public Arts Program, § 14-850--14-854
Reserved, §14-855-—14-860
Art. XII. Relocation of Displaced Tenants, § 14-861--14-899
Art. XIII Reserved, § 14-900, 14-901
Art. XIV. Moratorium on Demolition of Housing Units, § 14-902--14-904
Art. XV. Waterfront Capital Improvement and Economic Redevelopment Zone and Ordinance, § 14-905—14-909
Art. XVI Citizen Advisory Committee, § 14-1000—14-1003

ARTICLE I. IN GENERAL

Sec. 14-1. Reserved.
Sec. 14-2. Reserved.
Sec. 14-3. Reserved.

Sec. 14-4. Reserved.
Sec. 14-5. Reserved.
Sec. 14-6. Reserved.
Sec. 14-7. – 14-15 Reserved.

ARTICLE II. PLANNING BOARD*

***Cross reference(s)--**Administration, Ch. 2; boards generally, § 2-31 et seq.; limitation on term of service on boards, commissions, § 2-32 et seq.

Sec. 14-16. Created.

There is hereby created a planning board.
(Code 1968, § 601.1; Ord. No. 158-68, 5-6-68; Ord. No. 671-75, 12-15-75; Ord. No. 242-76, 5-17-76; Ord. No. 149-79, § 1, 8-6-79)

Sec. 14-17. Composition.

There shall be a planning board of seven (7) members. Members of the planning board shall be residents of the city and shall not be officers or employees of the city or any other agencies or department.
(Code 1968, § 601.1; Ord. No. 158-68, 5-6-68; Ord. No. 671-75, 12-15-75; Ord. No. 242-76, 5-17-76; Ord. No. 149-79, § 1, 8-6-79)

Sec. 14-18. Appointment; terms.

The members of the planning board shall be appointed by the city council for terms of three (3) years. Such members shall serve until their successors are duly elected and qualified. Such terms shall be staggered so that the terms of not more than three (3) members shall expire in any calendar year; providing, however, such service shall not extend to over one hundred twenty (120) days after expiration of their term.
(Code 1968, § 601.1; Ord. No. 158-68, 5-6-68; Ord. No. 671-75, 12-15-75; Ord. No. 242-76, 5-17-76; Ord. No. 149-79, § 1, 8-6-79; Ord. No. 277-83, 11-7-83)

Sec. 14-19. Vacancies.

Permanent vacancies on the planning board shall be filled by

the city council, in the same manner as other appointments hereunder, for the unexpired term of the former member.
(Code 1968, § 601.1; Ord. No. 158-68, 5-6-68; Ord. No. 671-75, 12-15-75; Ord. No. 242-76, 5-17-76; Ord. No. 149-79, § 1, 8-6-79)

Sec. 14-20. Removal of members.

Any member of the planning board may be removed for cause by the city council at any time; provided, however, that before any such removal, such member shall be given an opportunity to be heard in his or her own defense at a public hearing.
(Code 1968, § 601.1; Ord. No. 158-68, 5-6-68; Ord. No. 671-75, 12-15-75; Ord. No. 242-76, 5-17-76; Ord. No. 149-79, § 1, 8-6-79)

Sec. 14-21. Compensation.

Members of the planning board shall serve without compensation.
(Code 1968, § 601.1; Ord. No. 158-68, 5-6-68; Ord. No. 671-75, 12-15-75; Ord. No. 242-76, 5-17-76; Ord. No. 149-79, § 1, 8-6-79)

Sec. 14-22. Chair and vice-chair.

(a) The members of the planning board shall annually elect one (1) of their number as chair to preside at all meetings and hearings and to fulfill the customary functions of that office, and another of their number as vice-chair. The chair may administer oaths. The chair shall have the right, upon request, to designate any person or organization as a specially interested party for purposes of offering evidence and conducting cross-examination at hearings.

(b) In the absence of the chair, the vice-chair shall act as chair and shall have all the powers of the chair. The vice-chair shall have such other powers and duties as may from time to time be provided by the rules of the planning board.
(Code 1968, § 601.2; Ord. No. 158-68, 5-6-68; Ord. No. 671-75, 12-15-75)

Sec. 14-23. Staff secretary; minutes, public records.

The planning director shall designate a member of his or her staff who shall serve as staff secretary of the planning board and attend all of its proceedings. The staff secretary shall provide for the keeping of minutes of the proceedings of the board, showing the vote of each member on every question, or his or her absence or

failure to vote, and shall maintain the permanent records and decisions of all board meetings, hearings and proceedings and all correspondence of the board, as required by statute. Such records shall be public records open to inspection during working hours upon reasonable notice.

(Code 1968, § 601.3; Ord. No. 158-68, 5-6-68; Ord. No. 671-75, 12-15-75)

Sec. 14-24. Quorum and necessary vote.

As to any matter requiring a hearing, no business shall be transacted by the planning board without a quorum, consisting of four (4) members, being present. The concurring vote of at least four (4) members shall be necessary to authorize any action by the board. If less than a quorum is present, the hearing may be adjourned from time to time for a period not exceeding three (3) weeks at any one time. The staff secretary shall notify in writing all members of the date of the adjourned hearing and shall notify such other interested parties as may be directed in the vote of adjournment.

(Code 1968, § 601.4; Ord. No. 158-68, 5-6-68; Ord. No. 671-75, 12-15-75; Ord. No. 242-76, 5-17-76)

Sec. 14-25. Meetings, hearings and procedures.

(a) Regular meetings of the planning board shall be held at the call of the chair or as provided by rule of the board. Special meetings may be called by the chair or any four (4) members of the board or at the request of the city council. Except as otherwise provided in section 14-26, all meetings, hearings and deliberations of the planning board and its committees shall be open to the public in accordance with Title 1, M.R.S.A., Section 401 et seq. Testimony at any hearing may be required by the planning board to be given under oath.

(b) The planning board shall adopt its own rules for the conduct of its business not inconsistent with the statutes of the state and this article. Such rules shall be filed with the staff secretary of the board and with the city clerk. Any and all rule changes shall be placed on a city council public agenda as a communication requiring a public hearing. Any rule may be vetoed, in whole or in part, by order of the council within forty-five (45) days of the date of filing with the city clerk. No rules change shall take effect until that time period has elapsed. If a part of a rule is vetoed, the remainder shall continue in effect. Any rule so adopted, which is not required by the statutes of the state or

by this article, may be waived by the chair upon good cause being shown.

(Code 1968, § 601.5; Ord. No. 158-68, 5-6-68; Ord. No. 671-75, 12-15-75, 12-15-75; Ord. No. 242-76, 5-17-76; Ord. No. 78-89, 8-7-89)

Sec. 14-26. Workshop or informational meetings.

Informal meetings or workshops of the planning board or any of its committees may be held at the call of the board or committee chairperson, as the case may be, for the presentation of information by the planning director, his or her staff, the applicant or others. These meetings will be open for public comment according to the Rules of the Portland planning board. Such meetings, unless open to the public as provided in Title 1, M.R.S.A., Section 401 et seq. (Freedom of Access Act), shall be informational only and shall not be deliberative in nature; shall not be used by the board or committee for the weighing of positions or reasons for or against a proposition; and shall not be used by the board or committee for the formulation of tentative or final decisions on any matter.

(Code 1968, § 601.6; Ord. No. 158-68, 5-6-68; Ord. No. 671-75, 12-15-75; Ord. No. 227-01, 4-2-01)

Sec. 14-27. Record and decisions.

(a) The minutes of the staff secretary, and the transcript if one (1) is made, and all exhibits, papers, applications and requests filed in any proceeding before the planning board and the decision of the board shall constitute the record.

(b) Every final decision of the planning board and every recommendation of the planning board to the city council shall include written findings of fact, and shall specify the reason or reasons for such decision or recommendation.

(c) The staff secretary shall mail notice of any decision of the planning board to the applicant and any designated interested parties within five (5) business days of such decision.

(Code 1968, § 601.7; Ord. No. 158-68, 5-6-68; Ord. No. 671-75, 12-15-75)

Sec. 14-28. Conflicts.

No member of the planning board shall participate in the hearing or disposition of any matter in which he or she has an interest. Any question of whether a member has a conflict of interest sufficient to disqualify the member shall be decided by a

majority vote of the members present, except the member whose possible conflict is being examined; where such vote results in a tie, the subject member shall be disqualified.

(Code 1968, § 601.8; Ord. No. 158-68, 5-6-68; Ord. No. 671-75, 12-15-75)

Sec. 14-29. Appeals.

An appeal from any final decision of the planning board as to any matter over which it has final authority may be taken by any party or by any authorized officer or agent of the city to the superior court in accordance with Rule 80B of the Maine Rules of Civil Procedure. No appeal shall lie concerning any matter as to which the power of the board is limited to the making of a recommendation.

(Code 1968, § 601.9; Ord. No. 158-68, 5-6-68; Ord. No. 671-75, 12-15-75)

Sec. 14-30. Jurisdiction and authority.

In addition to the jurisdiction conferred on it by other provisions of state law and the ordinances of the city and in accordance therewith, the planning board shall have the following jurisdiction and authority:

(a) To prepare and recommend a comprehensive plan to the city council, which plan, upon its adoption by the city council, shall be known as the "Land Development Plan of the City of Portland";

(b) To prepare and recommend to the city council changes in and amendments to the land development plan;

(c) To aid and assist the city council and departments and agencies of the city in implementing general plans and in planning, developing and completing specific projects;

(d) To hear, review and approve, conditionally approve or disapprove level III site plans, subdivisions and conditional use applications;

(e) To hear, review and approve or deny applications for subdivision approval;

(f) To hear, review and offer its recommendations to the city council on applications for zoning changes and amendments to, or revisions of, the zoning ordinance, and to

initiate recommendations for zoning changes and amendments to, or revisions of, the zoning ordinance;

(g) To review and offer its recommendations to the city council on public projects;

(h) To review and approve, conditionally approve, or disapprove site plans for regulated projects in shoreland areas;

(i) To prepare and offer its recommendations to the city council with regard to the city's annual capital improvements program;

(j) To review and approve, conditionally approve, or disapprove urban renewal plans;

(k) Upon reasonable request, to make its special knowledge and expertise available to any official, department, board or agency of the city, county, state or federal governments to aid them in the performance of their respective duties relating to the planning and development of the city and its region, including request from the City Council to review proposed developments in which the developer does not have the right, title or interest in all the property necessary for the proposed development because some or all of that property is owned by the City;

(l) To make such investigations, maps and reports, and recommendations in connection therewith, relating to the planning and development of the city as seem desirable;

(m) To employ or contract with such experts and other assistants as may be necessary or convenient to carry out its duties hereunder and to pay for their services and for such other expenses as may be necessary and proper; provided, however, that such expenditures shall not exceed such funds as may be appropriated for such purposes from time to time by the city council;

(n) To hear, review and offer its recommendations to the city council on petitions for street vacations and discontinuances.

(o) To hear, review and decide appeals where it is alleged there is an error in any decision, requirement, or determination made by the planning authority.

(Code 1968, § 601.10; Ord. No. 158-68, 5-6-68; Ord. No. 671-75, 12-15-75; Ord. No. 86-88, 7-19-88; Ord. No. 137-03/04, 1-21-04; Ord. No. 278-09/10, 7/19/10)

***Editor's Note--**Ord. No. 86-88, adopted July 19, 1988, amended this section by adding subsection (14) to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 86-88.

Sec. 14-31. Committees.

The chair of the planning board shall from time to time assign the members of the board to such regular and special committees as may be established by the board. Such committees shall have no final authority but shall assist the board in the conduct of its business by making recommendations to it concerning such specific items as may be assigned to them for study and report. The board shall adopt such rules as it shall deem appropriate to govern the organization and operation of its committees. Committee meetings deliberative in nature shall be open to the public in accordance with Title 1, M.R.S.A., Section 401 et seq.

(Code 1968, § 601.11; Ord. No. 158-68, 5-6-68; Ord. No. 671-75, 12-15-75)

Sec. 14-32. Notice.

(a) Applications:

1. ***Level I, level II and level III site plans.*** All public notices will be sent according to the section 14-525 of article V (site plan) of this chapter.

2. ***Subdivision, Zoning Map Amendments.*** When an application for subdivision or a request for a zoning map amendment is received or generated by the planning authority, it shall give a dated receipt to the applicant and shall notify, by mail, the following, where applicable.

   a. All property owners within five hundred (500) feet of the proposed subdivision and the clerk and the reviewing authority of municipalities that abut or include any portion of the subdivision. In addition, the planning authority shall notify a

public drinking water supplier if the subdivision is within its source water protection area;

b. All property owners within five hundred (500) feet of the proposed subdivision or proposed zone change site, except that for subdivisions within industrial zones or proposed map amendments for a site within an industrial zone the notice range shall be one thousand (1000) feet;

c. All property owners within the limits of the proposed zoning map amendment and all property owners five hundred (500) feet beyond said area, except that for map amendments to a site located within industrial zone designations the notice range shall be one thousand (1000) feet.

The notice hereunder shall include a brief description of the application, the address or location of the property involved and a telephone number at the City where additional information may be obtained. The cost of said notice shall be charged to the applicant.

(b) Workshops and hearings:

Except for notice of public hearings concerning conditional or contract zoning (which notice is governed by section 14-61), the planning authority shall give notice of public workshops and hearings in the form and manner and to the persons herein specified. The notice shall include the time and place of such workshop or hearing, a brief description of the application and the address or location of the property involved. Where notice by mail is required, such notice shall be mailed at least ten (10) calendar days in advance of the workshop or hearing date by regular United States mail. The cost of said noticing shall be charged to the applicant.

1. Subdivision:

a. ***To the general public.*** In the case of workshops and public hearings, notice as described above shall be given to the general public by publication in a newspaper of general circulation in the City of Portland at least two (2) times, the date of the first publication to be at least ten (10) calendar

days prior to the hearing.

b. ***To the applicant and the owners of the subject property, and other property owners;*** In the case of workshops and public hearings, notice shall be sent by regular United States mail to the applicant, to the owner(s) of the subject property and to all owners of property located within five hundred (500) feet of the subject property, except that for subdivisions within industrial zones the notice range shall be one thousand (1000) feet.

2. Zoning Map Amendment:

a. ***To the general public:*** Except for notice of public hearings concerning conditional or contract zoning (which notice is governed by section 14-61), the notice of public hearing for zoning map amendments must be posted in the municipal office at least 13 days before the public hearing on such application. In addition, notice of said public hearing must be published at least two times in a newspaper of general circulation in the City of Portland. The date of the first publication must be at least twelve days prior to any public hearing and the date of the second publication must be at least seven days prior to the public hearing.

b. ***To property owners within the proposed area proposed for rezoning:*** Except for notice of public hearings concerning conditional or contract zoning (which notice is governed by section 14-61), in the case of workshops and public hearings on zoning map amendments, notice shall be sent by regular United States mail to all property owners within the aarea proposed for rezoning and all property owners five hundred (500) feet beyond said area, except that rezoning to industrial zone designations the notice range shall be one thousand (1000) feet.

3. Zoning Text Amendment.

a. ***To the general public:*** Notice of any zoning text amendment shall be published in a newspaper of general circulation in the City of Portland at

least seven days prior to the public hearing on the proposed amendment.

(c) Required Neighborhood Meeting

An applicant for (a) the subdivision of five or more units or lots or (b) for level III site plan review or (c) a private applicant for rezoning that would permit a Level III development as defined in Section 14-523 (required approvals and applicability), shall conduct a neighborhood meeting according to section 14-524 of article V (site plan) of this chapter.
(Code 1968, § 601.12; Ord. No. 158-68, 5-6-68; Ord. No. 671-75, 12-15-75; Ord. No. 79-89, 8-7-89; Ord. No. 00-51, §1, 8-7-00; Ord. No. 227-01, 4-2-01; Ord. No. 278-09/10, 7-19-10; Ord. No.25 11/12, 8-15-11)

Sec. 14-33. Public hearings.

Public hearings shall be held as required by the various statutes, codes and ordinances pursuant to which matters are brought before the planning board and shall be conducted in accordance with relevant state law, this code and the rules of the board.
Code 1968, § 601.13; Ord. No. 671-75, 12-15-75)

Sec. 14-34. - 14-45. Reserved.

ARTICLE III. ZONING*

***Editor's note--**Ord. No. 109-88, adopted July 19, 1988, provided that Ord. No. 79-88 through Ord. No. 99-88, all adopted July 19, 1988, which amended various sections within this chapter, "shall take effect immediately as an emergency, pursuant to Article II, § 8 of the Portland City Charter, to avoid a gap between the expiration of the moratorium ordinance previously controlling residential development and the implementation of the new development standards and map as adopted" and further provided that "notwithstanding the provisions of 1 M.R.S.A. § 302, this amendment and items 79 through 99 shall be applicable to applications for permits filed on or after July 19, 1988." Ord. No. 99-88 has not been set out herein but is on file in appropriate city offices. The specific amendments effected by Ord. No. 79-88 through Ord. No. 98-88 are too extensive to enumerate herein; for the specific disposition of such ordinances, see the Comparative Table following this Code.

It should be noted that the zoning ordinance, as set out in this article, does not include the text of conditional rezonings enacted as amendments to the zoning map adopted in § 14-49 herein.

Cross reference(s)--Ordinances pertaining to rezoning saved from repeal, § 1-4(13).

State law reference(s)--Zoning ordinances, 30 M.R.S.A. § 4962.

DIVISION 1. GENERALLY

Sec. 14-46. Purpose.

This article, made in accordance with a comprehensive plan, is enacted for the purpose of decreasing congestion in streets; securing safety from fire, panic and other dangers; providing adequate light and air; preventing the over-crowding of land; avoiding undue concentration of population; facilitating the adequate provision of transportation, sewerage, schools, parks and other community facilities and utilities; thus promoting the health, safety, convenience and general welfare of the citizens of the city. This article is made with reasonable consideration, among other things, to the character of each zone and its peculiar suitability for particular uses and with a view to conserving and stabilizing the value of property and encouraging the most appropriate use of land throughout the community.
(Code 1968, § 602.1.A)

Sec. 14-47. Definitions.

The following words shall be defined as set forth below for use in this article. Definitions set forth in the building code of the city shall apply to words not herein defined:

Accessory uses: Uses which are customarily incidental and subordinate to the location, function and operation of permitted uses.

Adult day care facility: A facility which provides a regular program of care and protection for persons over the age of sixteen (16), for consideration, for any part of the day.

Apartment: See "dwelling unit."

Apartment house: See "multifamily dwelling."

Arcade: A covered passageway, generally occurring at the street level of a building, running parallel and adjacent to the street or as a through-block pedestrian connection, which is intended to provide sheltered access to directly adjoining commercial or other uses. Arcades are provided physical definition

by the regular placement of structural elements throughout their length which support enclosed building uses above.

Assembly: A joining together of completely fabricated parts to create a finished product.

Back office use: An office-related use providing support services to a primary or headquarter use, with minimal public visitation and no direct in-person sales or services to the general public. Back office uses may include data processing, or other clerical uses relying heavily on a telecommunications infrastructure and may also include support services to educational institutions or social service agencies as long as no direct in-person services to the general public are provided.

Bed and breakfast: A building in which more than two (2) but not more than nine (9) guest rooms are used to provide or offer overnight accommodations for transient guests. An owner, manager, or operator shall live in the building as a permanent resident. No cooking facilities shall be permitted in any of the guest rooms. The only meal which may be offered is breakfast, which shall be offered only to overnight guests. No owner, operator, director, employee, shareholder, partner, corporate officer or agent of a bed and breakfast facility, hostel, hotel, inn, lodging house, motel, or tourist home (as defined in this code) may, for direct or indirect economic remuneration, arrange for or provide any housing accommodations including but not limited to long term, short term or overnight accommodations for an actual or potential guest, customer, or patron of the business at any off-premises site in the City, unless such a facility is authorized, under the applicable provisions of Portland's Land Use Code, to offer such accommodations as a bed and breakfast, hotel, inn, lodging house, motel or tourist home.

Billboard: A structure, either freestanding or attached to a building, the surface of which is available for hire for advertising purposes.

Biotechnology: The use of biological processes, particularly cellular and molecular to solve problems and/or make useful products for applications in medicine, agriculture and environmental management.

Building, height of: The vertical measurement from grade, or the predevelopment grade on the islands, to the highest point of

the roof beams in flat roofs; to the highest point of the roof beams or the highest point on the deck of mansard roofs; to a level midway between the level of the eaves and highest point of pitched roofs or hip roofs; or to a level two-thirds of the distance from the level of the eaves to the highest point of gambrel roofs. For this purpose the level of the eaves shall be taken to mean the highest level where the plane of the roof intersects the plane of the outside wall on a side containing the eaves.

Business service: Establishments primarily engaged in rendering services to other business establishments on a fee or contract basis such as advertising, mailing services, building maintenance services, employment services, management and consulting services, protective services, personnel services and similar businesses.

Chemical-free night club: An alcohol-free commercial establishment that offers live entertainment, amplified music, and/or dancing, where the primary source of income for such alcohol-free commercial establishment is derived from the entertainment and/or any admission or cover charge.

Clinics: Any establishment where patients are admitted for examination and treatment by one (1) or more professionals such as, but not limited to, physicians, dentists, psychologists or social workers.

Coastal wetland: All tidal and subtidal lands; all lands with vegetation present that is tolerant of salt water and that occurs primarily in a salt water or estuarine habitat; and/or any swamp, marsh, bog, beach, flat or other contiguous low land that is subject to tidal action during the highest tide level for the year in which an activity is proposed as identified in tide tables published by the National Ocean Service. Coastal wetlands may include portions of coastal sand dunes.

Collector or arterial road: A roadway which is classified as a collector or minor, principal or other arterial by the federal functional road classification for Portland, Maine, a map of which is on file with the department of planning and urban development.

Commercial vessel: Any watercraft used principally in a business or trade, including common carriers of passenger or freight, whether for governmental, nonprofit or emergency purposes; but not including pleasure craft used principally for recreational

purposes.

Common areas: Portions of a lodging house which are available for use by all residents of the lodging house. Common areas shall include, but are not limited to, one (1) or more of the following: kitchens, living rooms, recreation rooms, improved basements, and finished porches. Bathrooms, stairways, hallways and storage areas shall not be counted as common areas.

Community Hall: A building or portion of an existing building built for institutional or other non-residential uses and used for social, recreational, artistic, civic, or educational community functions. Such a facility would be open to the public for such functions, which, for example, could include but not be limited to performances, dance, exhibitions, cultural exchange, training programs and workshops, neighborhood meetings or gatherings. As part of these functions and activities, it shall be permissible to serve food, subject to other applicable codes and ordinances. In the R-6 residential zone only, the building can also be used for a farmer's market pursuant to chapter 21 of this code and the requirements set forth therein.

Community living arrangements: A state approved, authorized, certified or licensed group home for eight (8) or fewer mentally handicapped or developmentally disabled persons.

Congregate care facility: A planned residential unit development which provides individual living units with support services which provide assistance to residents. Services to be provided shall include:

(a) Transportation for essential support activities. This service shall be included in the base rent;

(b) Provision of at least one (1) meal per day;

(c) Programmed social activities which are facilitated by staff. This service shall be included in the base rent;

(d) Provision of personal care services including, but not limited to, housekeeping, laundry, and minimal health monitoring; and

(e) Installation of emergency call buttons or systems in each congregate care living unit.

The population of a congregate care facility shall consist of persons fifty-five (55) years of age or older and their spouses and/or disabled persons and their spouses.

Day care facility: A facility which provides a regular program of care and protection for children under the age of sixteen (16), for consideration, for any part of the day.

Drinking establishment: Means and includes any establishment required to be licensed to sell alcoholic beverages for on-premises consumption, which is not regularly used for the purpose of providing full-course meals, as defined in Title 28-A of the Maine Revised Statutes, on the premises.

Drive-through facility: A commercial facility which provides a service directly to a motor vehicle occupant and where the customer drives a motor vehicle onto the premises and to a window or mechanical device through or by which the customer is served with or without exiting the vehicle. Drive-throughs do not include major or minor auto service stations.

Drive-through features: Features associated with drive-throughs including but not limited to designated travel or stacking lanes, intercom systems, menu boards, service windows, kiosks, mechanical devices, etc.

Dwelling: A building or portion thereof used exclusively for residential occupancy, including single-family, two-family and multifamily dwellings, but not including hotels, lodging houses, sheltered care group homes or tourist homes.

Dwelling, one-family: A detached building used exclusively for occupancy by one (1) family.

Dwelling, two-family: A single building containing two dwelling units used exclusively for occupancy by two (2) families living independently of each other.

Dwelling, multifamily: A building or portion thereof containing three (3) or more dwelling units.

Dwelling unit: One (1) or more rooms with private bath and kitchen facilities comprising an independent self-contained dwelling unit.

Earth moving activity means any removal or placement, excavation, filling, stockpiling or grading of soil, earth, loam, sand, gravel, rock and other mineral deposits.

Emergency operations: Emergency operations shall include operations conducted for the public health, safety or general welfare, such as protection of resources from immediate destruction or loss, law enforcement, and operations to rescue human beings and livestock from the threat of destruction or injury.

Emergency shelter: A facility providing temporary overnight shelter to homeless individuals in a dormitory-style or per-bed arrangement.

Essential services: The construction, alteration or maintenance of gas, electrical or communication facilities; steam, fuel, electric power or water transmission or distribution lines, towers and related equipment; telephone cables or lines, poles and related equipment; gas, oil, water, slurry or other similar pipelines; municipal sewage lines, collection or supply systems; and associated storage tanks. Such systems may include towers, poles, wires, mains, drains, pipes, conduits, cables, fire alarms and police call boxes, traffic signals, hydrants and similar accessories, but shall not include service drops or buildings which are necessary for the furnishing of such services.

Fabrication: Manufacturing, excluding the refining or other initial processing of basic raw materials such as metal ores, lumber or rubber. Fabrication relates to stamping, cutting, or otherwise shaping the processed materials into useful objects.

Family: Not more than sixteen (16) individuals living together in a dwelling unit as a single nonprofit housekeeping unit. A group occupying a hotel, fraternity house or sorority house shall not be considered as a family. The family may include necessary servants.

Family amusement centers: Any structure, open to the public, which may contain coin-operated games and similar entertainment and amusement devices.

Fill. Soil, earth, loam, sand, gravel, rock and other mineral deposits.

Filling. The placement of soil, earth, loam, sand, gravel, rock and other mineral deposits. Filling shall include stockpiling

as defined herein.

Floor area: A floor space enclosed by exterior or standard fire walls, exclusive of vent shafts and courts.

Floor area ratio: The proportion of total floor area in a development to the total land area. The ratio is calculated as follows:

$$\frac{\text{8,000 square feet (total floor area)}}{\text{20,000 square feet (total land area)}} = .040 \text{ floor area ratio}$$

Foundation: The supporting substructure of a building or other structure, excluding wooden sills and post supports, but including basements, slabs, frost walls, or other base consisting of concrete, block, brick or similar material.

Freshwater wetland: Freshwater swamps, marshes, bogs and/or similar areas which are:

(a) Of ten (10) or more contiguous acres or of less than ten (10) contiguous acres and adjacent to a surface water body except for any river, stream or brook such that, in a natural state, the combined surface area is in excess of ten (10) acres or of less than ten (10) acres that is depicted on the Shoreland Zoning Map; and

(b) Inundated or saturated by surface or ground water at a frequency and for a duration sufficient to support, and which under normal circumstances do support, a prevalence of wetland vegetation typically adapted for life in saturated soils.

Freshwater wetlands may contain small stream channels or inclusions of land that do not conform to the criteria of this definition.

Gross area: Square footage of land area excluding areas of special flood hazard as defined in section 14-450.5 of this chapter.

Handicapped family unit: A dwelling which provides living facilities for handicapped persons. A handicapped family unit may

also provide counseling and support services. Staff members may also be included in the population.

Handicapped person: A person with a physical or mental impairment which substantially limits one (1) or more of such person's major life activities, a person with a record of having such an impairment, or a person who is regarded as having such an impairment. This term does not include current, illegal use of or addiction to a controlled substance as defined in 21 U.S.C. ' 802.

Health care practitioner: A professional providing medical, therapeutic or other services relating to the diagnosis, treatment or prevention of physical or psychological disabilities.

High impact industrial uses: Industrial activity involving the manufacturing, packaging, assembly, or distribution of finished products from either raw materials or previously prepared material which are generally incompatible with residential, commercial and lower impact industrial uses and sensitive natural areas due to their high generation of traffic, noise levels, emissions, lighting and odors.

Home occupation: A home occupation is a secondary and incidental use of a dwelling unit, conducted entirely within the dwelling unit by one (1) or more persons residing in the dwelling unit.

Hospital: An institution providing health services, primarily for in-patients, and medical or surgical care of the sick or injured, including as an integral part of the institution, such related facilities as laboratories, out-patient departments, training facilities, central service facilities and staff offices.

Hostel: An overnight lodging facility for transient guests that provides sleeping rooms and common areas for cooking. A hostel shall not be used as an emergency shelter. No owner operator, director, employee, shareholder, partner, corporate officer or agent of a bed and breakfast facility, hostel, hotel, inn, lodging house, motel, or tourist home (as defined by this code) may, for direct or indirect economic remuneration, arrange for or provide any housing accommodations including but not limited to long term, short term or overnight accommodations for an actual or potential guest, customer or patron of the business at any off-premises site in the City, unless such a facility is authorized, under the applicable provisions of Portland’s Land

Use Code, to offer such accommodations as a bed and breakfast, hostel, hostel, inn, lodging house, motel or tourist home.

Hotel: A building used for more or less temporary occupancy of individuals who are lodged with or without meals, having ten (10) or more guest rooms. No owner, operator, employee, shareholder, partner, corporate officer or agent of a bed and breakfast facility, hostel, hotel, inn, lodging house, motel, or tourist home (as defined in this code) may, for direct or indirect economic remuneration, arrange for or provide any housing accommodations including but not limited to long term, short term or overnight accommodations for an actual or potential guest, customer, or patron of the business at any off-premises site in the City, unless such a facility is authorized under the applicable provisions of Portland's Land Use Code, to offer such accommodations as a bed and breakfast, hotel, inn, lodging house, motel or tourist home.

Impervious surface: Means any surface which does not absorb rain and includes all buildings, roads, sidewalks, parking areas, and any area paved with bricks, concrete or asphalt.

Impervious surface ratio: The proportion of a site covered by impervious surfaces. Landscaping islands of strips of two hundred (200) square feet or less shall be included in the calculations as impervious surfaces. The ratio is calculated as follows:

$$\frac{\text{5,000 square feet (impervious surfaces)}}{\text{10,000 square feet (gross land area)}} = \text{0.50 impervious surface ratio}$$

Inaccessible area:

(a) Land which is separated from the main portion of the development parcel by means of one (1) or more of the following:

1. Existing easements, rights-of-way or dedicated areas which preclude use in conjunction with the proposed development;

2. Gullies, drainage swales or watercourses, where the land which is separated thereby from the main development parcel is not to be used for the building of units or is not available for active or

passive recreation areas; or

3. Areas which are located more than three hundred (300) feet from the nearest proposed dwelling unit.

(b) Areas which are not to be used for building purposes and are connected to the main portion of the development parcel only by a strip of land which is less than fifty (50) feet wide shall also be deducted as inaccessible areas.

Indoor amusement and recreation centers: Facilities which limit admission either to members or to persons paying an entrance fee and which offer one (1) or more of the following activities: indoor athletics, including exercise and practice facilities, or games of skill or games of chance licensed either by the city or by the State of Maine.

Inn: A building used for more or less temporary occupancy of individuals, who are lodged with or without meals, having ten (10) but no more than fifty (50) rooms. Guest rooms shall not contain separate kitchen facilities. No owner, operator, director, employee, shareholder, partner, corporate officer or agent of a bed and breakfast facility, hostel, hotel, inn, lodging house, motel, or tourist home (as defined in this code) may, for direct or indirect economic remuneration, arrange for or provide any housing accommodations including but not limited to long term, short term or overnight accommodations for an actual or potential guest, customer, or patron of the business at any off-premises site in the City, unless such a facility is authorized, under the applicable provisions of Portland's Land Use Code, to offer such accommodations as a bed and breakfast, hotel, inn, lodging house, motel or tourist home.

Intermediate care facility: A facility which provides, on a regular basis, health-related care and services to individuals who do not require the degree of care and treatment which a hospital or extended care facility is designed to provide but who, because of their mental or physical condition, require such care and services above the level of room and board. Said facility must be licensed as a board care facility pursuant to the regulations promulgated by the State of Maine Department of Human Services.

Kitchen facilities: Facilities used for the preparation of meals, including refrigerators and devices used for the cooking and

preparation of food.

Light manufacturing use: The fully enclosed assembly or fabrication of materials but excluding basic processes such as smelting, refining, distilling, forging, brewing, and similar processes involving converting raw materials to a finished or semifinished product.

Lodging house: A house, building or portion thereof containing two (2) or more rooming units and providing such units, with or without meals, to individuals on not less than a weekly or monthly basis for compensation. A lodging house, except for lodging houses located in the IR-2, IR-3 and I-B zones, shall contain common areas for use by all residents, including a kitchen. A kitchen need not be available as part of the common areas where all meals are provided on a daily basis. No owner, operator, director, employee, shareholder, partner, corporate officer or agent of a bed and breakfast facility, hostel, hotel, inn, lodging house, motel, or tourist home (as defined in this code) may, for direct or indirect economic remuneration, arrange for or provide any housing accommodations including but not limited to long term, short term or overnight accommodations for an actual or potential guest, customer, or patron of the business at any off-premises site in the City, unless such a facility is authorized, under the applicable provisions of Portland's Land Use Code, to offer such accommodations as a bed and breakfast, hotel, inn, lodging house, motel or tourist home.

Long term or extended care facility: An institution or a distinct part of an institution that is licensed or approved to provide full-time convalescent or chronic care, or health care under medical supervision for twenty-four (24) or more consecutive hours, to nine (9) or more individuals who, by reason of advanced age, illness, or infirmity are unable to care for themselves, and who are not related to the governing authority by marriage, blood, or adoption.

Lot: Except when reference is made herein to a lot of record, a lot is a single tract of land located within a single block which at the time of filing for a building permit or certificate of occupancy is designated by its owner or developer as a tract to be used, developed, or built upon as a unit under single ownership or control.

Lot area: The area of land enclosed within the boundary lines

of a lot.

Lot width: The distance parallel to the front of the building measured between side lot lines through that part of the principal building where the lot is narrowest.

Low impact industrial uses: Industrial activity involving the manufacturing, packaging, assembly, or distribution of finished products from previously prepared material, including but not limited to the following: bakeries, breweries, bottling, printing and publishing, pharmaceuticals, machine shops, precision instruments, watchmakers, musical instruments, toys and sporting goods, pottery and ceramics using only previously pulverized clay, wood products, jewelry, assembly of electrical components, canteen services, tool and die shops, and the packaging of foods. Low impact industrial uses do not include the processing of raw materials or salvaging operations. Low impact industrial uses are compatible, due to their size and nature of impact, with residential, commercial and other low impact industrial uses because of the level of traffic generated, emissions levels, lighting and odors generated.

Major auto service station: A business selling gasoline, diesel or propane fuel, with more than two (2) pump islands or with a capacity to fuel more than eight (8) vehicles simultaneously or providing repair services including, but not limited to, tune-ups, engine repair, brake work, muffler replacement, tire repair or similar activities.

Minor auto service stations: A business selling gasoline, diesel or propane fuel with not more than two (2) pump islands, provided that no more than a total of eight (8) vehicles may be fueled simultaneously. Repair services including but not limited to tune-ups, engine repair, brake work, muffler replacement, tire repair or similar activities shall be permitted provided that there shall be no more than two (2) service bays. Such businesses shall not include car washes or vacuums.

Manufactured housing: A structural unit or units designed for residential occupancy, and constructed in a manufacturing facility and then transported by the use of its own chassis or placement on an independent chassis to a building site. The term includes any type of building which is constructed at a manufacturing facility and then transported to a building site where it is utilized for housing and may be purchased or sold by a dealer in the interim.

For purposes of this article, two (2) types of manufactured housing are included. They are:

(a) Those units constructed after June 15, 1976, which the manufacturer certifies are constructed in compliance with the standards required by the United States Government Department of Housing and Urban Development, as such standards are from time to time revised or amended, meaning structures, transportable in one (1) or more sections, which in the traveling mode are fourteen (14) body feet or more in width and are seven hundred fifty (750) or more square feet, and which are built on a permanent chassis and designed to be used as dwellings, with or without permanent foundations, when connected to the required utilities, including the plumbing, heating, air-conditioning and electrical systems contained therein. This term also includes any structure which meets all the requirements of this subparagraph except the size requirements and with respect to which the manufacturer voluntarily files a certification required by the Secretary of the United States Department of Housing and Urban Development and complies with the standards established under the National Manufactured Housing Construction and Safety Standards Act of 1974, United States Code, Title 42, Section 5401 et seq.; and

(b) Those units constructed after June 15, 1976, which the manufacturer certifies are constructed in compliance with the state's Manufactured Housing Act and regulations, meaning structures, transportable in one (1) or more sections, which are not constructed on a permanent chassis and are designed to be used as dwellings on foundations when connected to required utilities, including the plumbing, heating, air-conditioning or electrical systems contained therein.

Any unit which does not fall within the definitions of this section and which is legally sited within the city on December 18, 1989, may be relocated to any location in the city in which manufactured housing is allowed.

Manufactured housing park: A parcel of land under unified ownership approved by the Planning Board under 30-A M.R.S.A. Section 4358 for the placement of single-component manufactured housing.

Manufactured housing park unit space: The area of land on which an individual home is situated within a manufactured housing park and which is reserved for use by the occupants of that home.

Manufactured housing subdivision or development: A parcel of land approved by the Planning Board under 30-A M.R.S.A. Section 4358 for the placement of single-component manufactured housing on individual owned lots.

Marina: Commercial operation providing floats, slips and piers intended primarily for berthing of noncommercial vessels and the provision of related services such as supplies, fuel, equipment and repairs, which may be provided both to tenants and non-tenants.

Military personnel berthing: A building, or portion thereof, which is primarily used as, and intended for, temporary living quarters for military personnel.

Minor business: A business with not more than two (2) pump islands, provided that no more than a total of eight (8) vehicles may be fueled simultaneously. Such businesses shall not include car washes or vacuums. Repair services shall be permitted, provided that there shall be no more than two (2) service bays.

Motel: A building or group of attached or detached buildings containing guest rooms or dwelling units most of which have separate outside entrances and parking space hereby intended to be used principally by automobile transients for compensation. Motels include tourist courts, motor lodges or cabins. No owner, operator, director, employee, shareholder, partner, corporate officer or agent of a bed and breakfast facility, hostel, hotel, inn, lodging house, motel, or tourist home (as defined in this code) may, for direct or indirect economic remuneration, arrange for or provide any housing accommodations including but not limited to long term, short term or overnight accommodations for an actual or potential guest, customer, or patron of the business at any off-premises site in the City, unless such a facility is authorized, under the applicable provisions of Portland's Land Use Code, to offer such accommodations as a bed and breakfast, hotel, inn, lodging house, motel or tourist home.

Multiple-component manufactured housing: Manufactured housing which is constructed and transported in two (2) or more sections of substantially similar size that must be mated to form a habitable

dwelling. For purposes of planned residential unit development and multiplex development, multiple-component manufactured housing shall be considered a dwelling unit.

Nanotechnology: The creation of functional materials, devices and systems through control of matter on the nanometer scale.

Neighborhood Center: A building or portion of a building used for recreational, artistic, social, educational, health, culture, or similar activities and services, usually owend and operated by a public or nonprofit group or agency. A neighborhood center is 10,000 square feet or less.

Net land area: Net land area, as set forth in sections 14-90, 14-120 and 14-130 of this article, shall be calculated by subtracting from gross area the square footage of the following:

(a) 1. Stormwater retention areas;

2. Stormwater detention areas, unless improved for passive or active recreational use;

(b) Existing watercourses, as defined in this section, measured by the area between the top of the banks at the normal high water mark, as defined in this section.

(c) Inaccessible areas, as defined in this section;

(d) Wetlands, as defined in this section;

(e) Areas encumbered by existing easements, dedications or similar restrictions, which limit or preclude the construction of permanent structures or which are for any reason unavailable for use in connection with the proposed development.

(f) Slopes of twenty-five (25) percent or greater. Where a slope of twenty-five (25) percent or greater was altered to less than twenty-five (25) percent within the two (2) years immediately preceding the submission of the application for development, such slope shall also be subtracted from the gross area;

(g) Twenty (20) percent of the area remaining after the deductions of factors (1) through (6) of this definition.

Noncommercial vessel berthing: The use of berthing space for berthing of watercraft other than commercial vessels. Berthing space used in the following manner shall not be counted in computing the number of linear feet under this use category:

(a) Space used principally for sale or repair of vessels;

(b) Commercial vessel tenant space used by a noncommercial vessel for a period not exceeding ten (10) consecutive days while the primary commercial vessel tenant is conducting its business or trade.

Normal high water line (non-tidal waters): That line which is apparent from visible markings, changes in the character of soils due to prolonged action of the water or changes in vegetation, and which distinguishes between predominantly aquatic and predominantly terrestrial land. Areas contiguous with rivers that support non-forested wetland vegetation and hydric soils and that are at the same or lower elevation as the water level of the river during the period of normal high-water are considered part of the river.

Normal high water mark of coastal waters: That line on the shore of tidal waters reached by the shoreward limit of the rise of the medium tides between the spring and the neap.

Normal high water mark of inland waters: That line on the shores and banks of non-tidal waters which is apparent because of the contiguous different character of the soil or the vegetation due to the prolonged action of the water. Relative to vegetation, it is that line where the vegetation changes from predominantly aquatic to predominantly terrestrial (by way of illustration, aquatic vegetation includes but is not limited to the following plants and plant groups--water lily, pond lily, pickerelweed, cattail, wild rice, sedges, rushes, and marsh grasses; and terrestrial vegetation includes but is not limited to the following plants and plant groups--upland grasses, aster, lady slipper, wintergreen, partridge berry, sarsaparilla, pines, cedars, oaks, ashes, alders, elms and maples). In places where the shore or bank is of such character that the high water mark cannot be easily determined (rockslides, ledges, rapidly eroding or sloping banks), the normal high water mark shall be estimated, from places where it can be determined by the above method.

Office complex: Separate office buildings planned, constructed

or managed on an integrated coordinated basis.

On-peninsula: Includes all land located south of I-295.

Off-peninsula: Includes all land located north of I-295.

Personal service: Establishments engaged in providing services involving the care of the person or his apparel, such as laundries, dry cleaning establishments, photographic studios, beauty and barber shops but not including commercial or industrial laundries.

Piers, docks, wharves, bridges and other structures and uses extending over or beyond the normal high water line or within a wetland:

(a) *Temporary:* Structures which remain in or over the water for less than seven (7) months in any period of twelve (12) consecutive months.

(b) *Permanent:* Structures which remain in or over the water for seven (7) months or more in any period of twelve (12) consecutive months.

Place of assembly: A building or portion of a building used as a community hall, neighborhood center, private and fraternal organization or place of religious assembly. This definition shall not include buildings or portions of buildings used as a community hall, neighborhood center, private and fraternal organization or place of religious assembly where fifteen (15) or fewer people, not including the permanent residents of a single family dwelling, assemble.

Place of religious assembly: A building or portion of a building used for religious worship or instruction including, but not limited to, churches, synagogues, masjids, mosques and other places of worship.

Pre-development grade. Pre-development grade is defined as average grade, existing on October 1, 2000, at the corners of the foundation of the proposed structure.

Principal building: The building occupied by the chief or principal use on the premises. When a garage is attached to the principal building in a substantial manner as by a roof or common wall, it shall be considered as a part of the principal building.

Private club or nonprofit social and recreational facility: A private club, or nonprofit social and recreational facility, is open exclusively to members and to their bona fide guests accompanying them, in order to promote fellowship, social living, proper recreation, civic responsibility, neighborhood responsibility, community welfare or other endeavors. It shall be permissible to serve food and meals on such premises provided adequate dining room space and kitchen facility are available and are provided within all regulations of this article and other applicable codes and ordinances.

Processing: Any operation changing the nature of material or materials such as chemical composition or physical qualities. Does not include operations described as fabrication.

Professional office: The office of a doctor, dentist, optometrist, psychologist, accountant, lawyer, architect, engineer or similar professional.

Recent flood plain soils: Recent flood plain soils include the following soil series as described and identified by the National Cooperative Soil Survey:

Alluvial	Medomak
Charles	Ondawa
Cornish	Podunk
Fryeburg	Rumney
Hadley	Saco
Limerick	Suncook
Lovewell	Winooski

Recreation facilities: Any establishment designed or equipped for the conduct of sports or indoor leisure-time recreational

activities.

Registered medical marijuana dispensary: "Registered medical marijuana dispensary" or "dispensary" means a not-for-profit entity registered under 22 M.R.S.A. section 2428 that acqueris, possesses, cultivates, manufactures, delivers, transfers, transports, sells, supplies or dispenses marijuana or related supplies and educational materials to registered patients who have designated the dispensary to cultivate marijuana for their medical use, and the registered primary caregivers of those patients.

Registered medical marijuana cultivation facility: "Registered medical marijuana cultivation facility" means a facility registred under 22 M.R.S.A. section 2428 that cultivates and manufactures marijuana or related supplies for a "registered medical marijuana dispensary" under common management and operating under the same state and local license(s).

Restaurant: Any food service establishment, as defined by section 11-16 of this Code, with indoor seating capacity for ten (10) or more patrons.

Retail: Sale to the ultimate consumer for direct consumption and not for resale; however, retail, combined with gasoline, diesel or propane fuel sales shall be considered a single use for zoning purposes and shall constitute a major or minor auto service station.

Retail establishment: Means (1) any food service establishment as defined by section 11-16 of this Code, with indoor seating capacity for nine (9) or fewer patrons; or (2) any shop or store offering goods or merchandise to the general public for direct consumption and not for resale, but does not include temporary freestanding stands in either case; however, retail establishments combined with gasoline, diesel or propane fuel sales shall be considered a single use for zoning purposes and shall constitute a major or minor auto service station.

Rooming unit: A room or suite of rooms in a house, building or portion thereof rented as living and sleeping quarters, but without full kitchens or bathrooms. In a suite of rooms, each room which provides sleeping accommodations shall be counted as one (1) rooming unit for the purpose of this article. Each rooming unit in a lodging house shall have kitchen privileges unless all meals are provided on a daily basis. There shall be no more than two (2)

persons residing in each rooming unit.

Self-storage facility: Fully enclosed buildings with individual, secured units (accessed with or without supervision) used for the exclusive purpose of storage of non-hazardous business or personal materials.

Setback: The required distance and the land resulting therefrom between a street line and the closest possible line of conforming structure.

Sheltered care group home: A facility which, in addition to providing food and shelter to a defined population, provides guidance or counseling services. Such services are a primary function of the facility.

Shore frontage: The length of a lot bordering on a water body or wetland measured in a straight line between the intersections of the lot lines with the shoreline.

Shoreland zone: The land area located within two hundred fifty (250) feet, horizontal distance, of the normal high water line of any river; within two hundred fifty (250) feet, horizontal distance, of the upland edge of a coastal wetland, including all areas affected by tidal action; within 250 feet of the upland edge of freshwater wetland; or within seventy-five (75) feet, horizontal distance, of the normal high water line of a stream.

Sign: Signs shall be as defined in section 14-367.

Single-component manufactured housing: Manufactured housing which is constructed and transported in one (1) section that is a habitable dwelling unit. For purposes of planned residential unit development and multiplex development, single-component manufactured housing shall not be considered a dwelling unit, except in the FH Flexible Housing Zone.

Special needs independent living unit: A dwelling unit developed and managed by a nonprofit organization for habitation by persons with special social, physical or mental needs beyond strictly economic needs. Such persons shall be provided required levels of supervision, care and/or counseling services appropriate to their special needs, and the services shall be provided by either the sponsoring nonprofit agency or through another entity with which the agency has entered into a contractual arrangement.

Sports complex: One or more facilities located on the same parcel of land where athletic events are held and with a combined seating capacity of at least six thousand (6,000) seats.

Stockpiling. Any placement or creation of piles or loads of soil, loam, sand, gravel, rock or other mineral deposits upon a site for the purpose of storage, warehousing or reserving for future use. Stockpiles shall be considered structures for purposes of dimensional requirements under the Land Use Code.

Stormwater detention area: A storage area for the temporary storage of stormwater runoff which does not contain water during non-storm conditions.

Storm water retention area: A pond or basin used for the permanent storage of stormwater runoff.

Story: That portion of a building included between the surface of any floor and the surface of the floor, or the roof, next above. A half story is a story situated under a sloping roof, the area which at a height four (4) feet above the floor does not exceed two-thirds of the floor area of the story immediately below it and which does not contain an independent apartment or dwelling unit. A story which exceeds eighteen (18) feet in height shall be counted as two (2) stories. A basement shall be counted as a story for the purpose of height measurement where more than one-half of its height is above the average level of the adjoining ground.

Stream: A free-flowing body of water from the outlet of the confluence of two (2) perennial streams as depicted on the most recent edition of a United States Geological Survey 7.5-minute series topographic map, or if not available, a 15-minute series topographic map, to the point where the body of water becomes a river or flows to another water body or wetland within a shoreland area, or any stream designated within a Stream Protection Zone.

Street: A public way established by or maintained under public authority, or a way dedicated to the use of the public and appearing on the official map of the city.

Street line: The line of demarcation between a street and the abutting land.

Structure: Anything constructed or erected of more than one

(1) member which requires a fixed location on the ground or attached to something having a fixed location on the ground.

Studios for artists and craftspeople: A facility for the production of arts and crafts products such as paintings, sculpture or other arts, or the practice of arts such as music or dance, or the production of custom handcrafted, or limited production of products such as furniture, wood, clay and metal products, publications and similar low impact arts and crafts activities.

Temporary wind anemometer tower: A temporary structure which may be installed for no more than two (2) years for data collection purposes and which supports devices for measuring wind speed, direction and other characteristics to assess wind energy potential and design issues for any permanent wind energy installation; often termed "meteorological towers" or "met towers".

Theaters: Any establishment devoted to showing motion pictures, or for dramatic, musical or live performances.

Tourist home: A building in which more than one (1) but not more than nine (9) guest rooms are used to provide or offer overnight accommodations for transient guests. No owner, operator, director, employee, shareholder, partner, corporate officer or agent of a bed and breakfast facility, hostel, hotel, inn, lodging house, motel, or tourist home (as defined in this code) may, for direct or indirect economic remuneration, arrange for or provide any housing accommodations including but not limited to long term, short term or overnight accommodations for an actual or potential guest, customer, or patron of the business at any off-premises site in the City, unless such a facility is authorized, under the applicable provisions of Portland's Land Use code, to offer such accommodations as a bed and breakfast, hotel, inn, lodging house, motel or tourist home.

Transient guest: A person who occupies a facility offering accommodations on an overnight basis for compensation and whose actual occupancy is limited to no more than fifteen (15) days out of any sixty-day period.

Tributary stream: means a channel between defined banks created by the action of surface water, which is characterized by the lack of terrestrial vegetation or by the presence of a bed, devoid of topsoil, containing waterborne deposits or exposed soil, parent material or bedrock; and which is connected hydrologically

with other water bodies. "Tributary stream" does not include rills or gullies forming because of accelerated erosion in disturbed soils where the natural vegetation cover has been removed by human activity.

Truck terminal: A building and premises devoted to handling and temporary warehousing of goods, which may include facilities for the maintenance and repair (except body repairs, frame straightening and painting), fueling and storage of trucks or tractor-trailer combinations.

Upland edge of a wetland: the boundary between upland and wetland. For purposes of a coastal wetland, this boundary is the line formed by the landward limits of the salt tolerant vegetation and/or the maximum spring tide level, including all areas affected by tidal action. For purposes of a freshwater wetland, the upland edge is formed where the soils are not saturated for a duration sufficient to support wetland vegetation; or where the soils support the growth of wetland vegetation but such vegetation is dominated by woody stems that are six (6) meters approximately.

Use: The purpose for which land or structures thereon is designed, arranged or intended to be occupied or used, or for which it is occupied, maintained, rented or leased.

Utility substation: Any sewage or water pumping station, electric power substation, transformer station, telephone equipment enclosures, or other similar structures owned or operated by a public utility.

Vegetation: All live trees, shrubs, ground cover, and other plants including, without limitation, trees both over and under four (4) inches in diameter, measured at four and one-half (4 1/2) feet above ground level.

Warehousing: The storage of goods, wares and merchandise in a warehouse.

Water body: Any river or stream.

Watercourse: Any natural or artificial stream, river, creek, ditch, channel, swale, canal, conduit, culvert, drain, waterway, gully, ravine or wash in which water flows in a definite direction or course, either continuously or intermittently, or which has a definite channel, bed and banks, and includes any area adjacent

thereto subject to inundation by reason of overflow or floodwater.

Water-dependent uses: Those uses that require, for their primary purpose, location on submerged lands or that require direct access to, or location in, coastal or inland waters and which cannot be located away from these waters.

Wetlands associated with shoreland zones: a freshwater or coastal wetland.

Wetlands: Those areas which have two (2) or more of the following:

(a) A water table at or near the surface during the growing season;

(b) Very poorly drained soils, including Sebago mucky peat; or

(c) Obligate wetland vegetation.

For purposes of this definition, "very poorly drained soils" and "obligate wetland vegetation" shall be as defined and illustrated in the United States Department of Interior, Fish and Wildlife Service publication of Wetland Plants of the State of Maine (1986), a copy of which is on file with the planning authority.

Wholesale: Sale for resale, not for direct consumption.

Yard: A space on a lot which is required by this article to be maintained open, unoccupied and unobstructed between lot lines and any structure, except as permitted in this article. In determining the front, rear or side of any accessory building, the orientation of the principal building shall be controlling. In measuring a yard, the building line shall be deemed to mean a line parallel to the lot line drawn through the point of a building or the point of a group of buildings nearest to such lot line. This measurement shall be taken at right angles from the building to the nearest lot line.

Yard, front: A yard adjoining the front lot line, extending between side lot lines, the depth of which shall be the shortest horizontal distance between the front lot line and any structure.

Yard, rear: A yard adjoining the rear lot line, extending

between side lot lines, the depth of which shall be the shortest horizontal distance between the rear lot line and any structure.

Yard, side: A yard adjoining a side lot line extending from the front yard to the rear yard, the width of which shall be the shortest horizontal distance between the side lot line and any structure.

(Code 1968, § 602.27; Ord. No. 625-70, 12-21-70; Ord. No. 499-74, § 11, 8-19-74; Ord. No. 276-77, 5-16-77; Ord. No. 431-82, §§ 3, 4, 2-22-82; Ord. No. 610-82, § 3, 7-7-82; Ord. No. 94-83, 8-3-83; Ord. No. 540-84, 5-7-84; Ord. No. 259-84, § 1, 12-17-84; Ord. No. 548A-85, § 1, 5-6-85; Ord. No. 33-85, §§ 1--3, 7-15-85; Ord. No. 385-87, 4-6-87; Ord. No. 363-88, 5-4-88; Ord. No. 300-88, 5-31-88; Ord. No. 87-88, § 1, 7-19-88; Ord. No. 129-88, 9-7-88; Ord. No. 311-89, 1-30-89; Ord. No. 164-89, 12-11-89; Ord. No. 199-89, 12-18-89; Ord. No. 33-90, § 1, 1-23-91; Ord. No. 33A-91, § 1, 4-17-91; Ord. No. 15-92, § 1, 6-15-92; Ord. No. 168-93, § 1, 1-4-93; Ord. No. 252-94, § 1, 4-4-94; Ord. No. 39-96, § 1, 10-7-96; Ord. No. 164-97, § 1, 1-6-97; Ord. No. 125-97, § 1, 3-3-97; Ord. No. 46-97, § 1, 8-4-97; Ord. No. 164-97, § 1, 12-1-97; Ord. No. 232-99, §1, 3-15-99; Ord. No. 81-99, §2, 10-18-99; Ord No. 94-99, 11-15-99; Ord. No. (Substitute)189-00, §1, 4-24-00; Ord. No. 295-01, § 1, 6-4-01; Ord. No. 187-01/02, § 1, 4-17-02; Ord. No. 77, § 3, 10-21-02; Ord. No. 96-04/05, 11-29-04; Ord. No. 144-05/06, 1-4-06 emerg. Passage; Ord. No. 149-05/06, 1-18-06; Ord. No. 300-05/06, 7-17-06; Ord. No. 296-08/09, 6-15-09; Ord. No. 29-09/10, 8-3-09 emergency passage; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 283, 09/10, 7-19-10 emergency passage; Ord. No. 278-09/10, 7-19-10; Ord. No. 77-10/11, 12-6-10, emergency passage; Ord. No. 149-10/11, 3-7-11; Ord. No. 279-09/10, 6-6-11)

***Editor's note--**Ord. No. 87-88, adopted July 19, 1988, amended the definitions for gross area, intermediate care facility and principal building to read as herein set out and added definitions for net land area, stormwater detention area and stormwater retention area. The definition of net land area was subsequently amended by Ord. No. 129-88, adopted Sept. 7, 1988, to read as herein set out. See the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 87-88.

The amendments passed in Order 144-05/06, 1-4-06 applies retroactively to yard measurements made under the Portland Land Use Code at any time after June 5, 1957, and applies notwithstanding any adverse order or decree.

Cross reference(s)--Definitions and rules of construction generally, § 1-2.

Sec. 14-48. Establishment of zones.

In order to carry out the provisions of this article, the city is hereby divided into the following classes of zones:

(a) R-1 Residential zone

(b) R-2 Residential zone

(c) R-3 Residential zone

(d) FH Flexible housing zone

(e) R-4 Residential zone

(f) R-5 Residential zone

(g) R-5A Residential zone

(h) R-6 Residential zone

(i) R-7 Residential zone

(j) IR-1 Island residential zone

(k) IR-2 Island residential zone

(l) IR-3 Island residential zone

(m) Island transfer station overlay zone

(n) R-P Residence-professional zone

(o) R-OS Recreation and open space zone

(p) B-1 and B-1b Neighborhood business zones

(q) B-2 and B-2b Community business zone

(r) A-B Airport business zone

(s) B-3, B-3b and B-3c downtown business zones

(t) I-B Island business zone

(u) B-4 Commercial corridor zone

(u-1) B-5 Urban commercial mixed use zone

(v) O-P Office park zone

(w) I-L and I-Lb Industrial zones

(x) I-M, I-Ma and I-Mb Industrial zones

(y) I-H and I-Hb Industrial zones

(z) B-6 Eastern Waterfront Mixed Zone

(aa) Reserved

(bb) Waterfront central zone

(cc) Waterfront port development zone

(dd) Waterfront special use zone

(ee) R-P Resource protection zone

(ff) Helistop overlay zone

(gg) Shoreland zone

(hh) Flood plain

(ii) S-P Stream protection zone.

(Code 1968, § 602.1.B; Ord. No. 499-74, § 1, 8-19-74; Ord. No. 536-74, § 1, 8-19-74; Ord. No. 334-76, § 1, 7-7-76; Ord. No. 15-92, § 2, 6-15-92; Ord. No. 101-93, 9-20-93; Ord. No. 164-97, § 2, 1-6-97; Ord. No. 156-01, §1, 1-17-01)

***Editor's note--**Although not expressly amended by the ordinances enacted subsequent to 1976 which created the several classes of zones, § 14-48 has been expanded to encompass all zoning classifications in the city at the discretion of the editor in consultation with the corporation counsel.

Sec. 14-49. Zoning maps.

The zones in section 14-48 are shown upon a map entitled "City of Portland, Maine, Zoning, dated December 2000 and produced by the City of Portland's Department of Planning and Urban Development and the GIS Workgroup" and filed in the office of the Director of Planning and Urban Development, City of Portland, Maine. Such zoning map, with amendments, is hereby adopted as the official zoning map of the City of Portland and as part of this article and incorporated in and made a part of this article.

(Code 1968, § 602.1.C; Ord. No. 213-84, 10-1-84; Ord. No. 15-92, § 3, 6-15-92; Ord. No. 156-01, §2, 1-17-01)

Sec. 14-50. Zone boundaries when uncertain.

Where uncertainty exists with respect to the boundaries of the various zones, as shown on the zoning maps, the following rules shall apply:

(a) Unless otherwise indicated, zone boundary lines are the center lines of streets, alleys, parkways, waterways or rights-of-way of public utilities and railroads or such lines extended. Unless otherwise shown, lines within blocks less than two hundred (200) feet wide are median lines between their sides, and lines within blocks two hundred (200) feet or more wide are one hundred (100) feet distant from the less restricted side of the block.

(b) The depictions of the shoreland zoning districts and stream protection districts on the Shoreland Zoning Maps are illustrative of the general location of such zones. The actual boundaries of these zones shall be determined by measurement of the distance indicated on the maps from the normal high water line of the water body or the upland edge of wetland vegetation. Where such measurement is not the same as the location of the boundary on the Shoreland Zoning Maps, the measurement shall control, unless the Shoreland Zoning Map indicates that the zone boundary shall follow an existing property line.

(Code 1968, § 602.20.A; Ord. No. 15-92, § 4, 6-15-92)

Sec. 14-51. Extension of zone lines.

Where a zone boundary line divides a lot in single or joint ownership of record at the time such line is established, the provisions of this article for the less restricted portion of such lot shall extend not more than thirty (30) feet into the more restricted portion, provided that the lot has at least twenty (20) feet of street frontage in the less restricted zone when taken together with adjacent premises which are under the same or equivalent ownership or control. If such boundary line divides a business or industrial zone from a residence zone, no frontage on a street other than the principal business street in the less restricted zone may be taken into consideration in connection with the right herein granted. This section shall not apply to differing dimensional requirements, including height, within a zoning district.

(Code 1968, § 602.20.B; Ord. No. 35-89, 6-28-89)

Sec. 14-52. Conformity required.

No building or structure shall be erected, altered, enlarged, rebuilt, moved or used, and no premises shall be used unless in conformity with the provisions of this article.
(Code 1968, § 602.1.D)

Sec. 14-53. Minimum requirements established.

In interpreting and applying the provisions of this article, they shall be held to be minimum requirements for the promotion of health, safety, convenience and welfare of the citizens of the city; for reducing the danger from fires; and for improving the city.
(Code 1968, § 602.1.E)

Sec. 14-54. Zone change/zone map fees.

(a) One or more of the following fees will be charged by the city for applications for changes of zone according to the following major zoning classifications and pertinent data relating to the specific zone change:

(1) Zoning Map Amendments: $2,000.00

(2) Zoning Text Amendments: $2,000.00

(3) Combination Zoning Map and Text Amendments: $3,000

(4) Conditional Rezoning: $3,000.00

(5) Applicant shall pay afee to cover the professional and administrative costs for review and analysis associated with the zoning amendment, including but not limited to planning, legal, engineering or other services. The fee shall be based on the hours of review and processing time and prevailing hourly rate for reimbursement of city costs. The city shall periodically invoice the applicant for such costs incurred by the city, which invoice shall be paid promptly by the applicant.

(6) Applicant shall assume payment of cost of all notices, including newspaper publication.

All ordinances that would cost more than the maximum to publish should be printed in separate pamphlet form and advertised only by reference.

(7) ***Waiver of fees:*** The fee for zone change applications may be waived or reduced by the Planning Authority in the case of an application submitted by any governmental body or where an applicant can establish financial hardship.

(8) ***Withdrawal of application:*** If a zone change application is withdrawn by an applicant prior to the submission of the advertisement copy to the newspaper to announce the public hearing, a refund of one-half of the amount of the application fee will be made to the applicant by the city provided that all costs incurred by the city have been paid in full by the applicant.

(b) The following schedule of fees will be charged by the City for zone maps:

Paper maps:	Large $20.00 per sheet	Small (11X17) $5.00 per sheet
Digital Zone Map	$20.00	

(Code 1968, § 602.1.F; Ord. No. 589-75, § 1, 10-20-75; Ord. No. 590-75, § 1, 11-19-75; Ord. No. 693-81, 5-18-81; Ord. No. 523-87, 5-18-87; Ord. No. 327-98, § 2, 5-18-98; Ord. No. 328-98, § 1, 5-18-98; Ord. No. 227-00, §1, 5-15-00; Ord. No. 119-01/02, § 2, 12-3-01; Ord. No.222-09/10, 5-17-10)

Sec. 14-55. Relation to other ordinances.

This article shall not repeal the provisions of any other ordinance relating to the use of buildings or premises; provided, however, that where this article imposes greater restrictions, it shall control.
(Code 1968, § 602.26.A)

Sec. 14-56. Enforcement.

The building authority is authorized to institute or cause to be instituted by the corporation counsel in the name of the city any and all actions, legal or equitable, that may be appropriate or necessary for the enforcement of this article; provided, however, that this section shall not prevent any person entitled to equitable relief from enjoining any act contrary to the provisions of this article.
(Code 1968, § 602.26.C)

Sec. 14-57. Violations.

Any person being the owner or occupant of, having control of or the use of any building or premises or part thereof, who violates any of the provisions of this article, shall be guilty of an offense.
(Code 1968, § 602.26.D; Ord. No. 157-76, 4-21-76)

Sec. 14-58. Reserved.
Sec. 14-59. Reserved.

DIVISION 1.5. CONDITIONAL OR CONTRACT ZONING

Sec. 14-60. Authority and purpose.

Pursuant to 30-A M.R.S.A. Section 4503(9), conditional or contract zoning is hereby authorized for rezoning of property where, for reasons such as the unusual nature or unique location of the development proposed, the city council finds it necessary or appropriate to impose, by agreement with the property owner or otherwise, certain conditions or restrictions in order to ensure that the rezoning is consistent with the city's comprehensive plan. Conditional or contract zoning shall be limited to where a rezoning is requested by the owner of the property to be rezoned. Nothing in this division shall authorize either an agreement to change or retain a zone or a rezoning which is inconsistent with the city's comprehensive plan.
(Ord. No. 31-85, 7-15-85; Ord. No. 88-88, 7-19-88; Ord. No. 62-89, 7-17-89)

Sec. 14-61. Notice and hearing.

The Planning Board shall conduct a public hearing prior to any property being rezoned under this division. Notice of this hearing shall be posted in the city clerk's office at least fourteen (14) days prior to the public hearing and shall be published in a newspaper of general circulation within the city at least two (2) times, the date of the first publication to be at least seven (7) days prior to the hearing. Notice shall also be sent to the owners of all property abutting the property to be rezoned at their last known address. This notice shall contain a copy of the proposed conditions and restrictions, with a map indicating the property to be rezoned.
(Ord. No. 31-85, 7-15-85)

Sec. 14-62. Conditions and restrictions.

Conditions and restrictions imposed under the authority of this division shall relate only to the physical development and operation of the property and may include, by way of example:

(a) Limitations on the number and types of uses permitted;

(b) Restrictions on the scale and density of development;

(c) Specifications for the design and layout of buildings and other improvements;

(d) Schedules for commencement and completion of construction;

(e) Performance guarantees securing completion and maintenance of improvements, and guarantees against defects;

(f) Preservation of open space and buffers, and protection of natural areas and historic sites;

(g) Contributions toward the provision of municipal services required by the development; and

(h) Provisions for enforcement and remedies for breach of any condition or restriction.

(Ord. No. 31-85, 7-15-85)

Sec. 14-63. Amendments.

Except as expressly modified in any contract or conditional rezoning agreement, the use and occupancy of any property within the City of Portland used or occupied pursuant to a contract or conditional rezoning agreement otherwise shall be governed by and comply with the provisions of the Land Use Code of the City of Portland and any applicable amendments thereto or replacement thereof.

(Ord. No. 96-04/05, 11-29-04)

Sec. 14-64. Reserved.

Sec. 14-65. Enforcement.

Notwithstanding language in any contract or conditional zoning to the contrary, any violation of a conditional or contract zone shall be enforced pursuant to 30-A M.R.S.A. §4452, as may be amended from time to time, or in any other manner available by law. No alleged violation of a contract or conditional rezoning may be prosecuted until the City has delivered written notice of the alleged violation(s) to the owner or operator of the property that is subject to the contract or conditional rezoning and given the owner or operator an opportunity to cure the violation(s) within thirty (30) days of receipt of the notice.

In addition, if such an enforcement action should result in a finding that the terms of the conditional or contract zone have been violated, then the City may act to modify or rescind the conditional or contract zone and to rezone the property.
(Ord. No. 96-04/05, 11-29-04)

DIVISION 2. R-1 RESIDENTIAL ZONE*

***Editor's note--**Ord. No. 532-84, adopted May 7, 1984, repealed Div. 2, s;§ 14-66--14-69, and enacted a new Div. 2, §§ 14-66--14-71. The division was formerly derived from Code 1968, § 602-2.2A--D; Ord. No. 499-74, § 2, adopted Aug. 19, 1974; Ord. No. 610-82, § 1, adopted July 7, 1982; and Ord. No. 88-83, §§ 1, 2, adopted Aug. 3, 1983.

Sec. 14-66. Purpose.

The purpose of the R-1 residential zone is:

> To provide for lower density residential development characterized by single-family homes on individual lots in outlying areas of the city and along traffic corridors with limited additional traffic capacity.

(Ord. No. 532-84, 5-7-84)

Sec. 14-67. Permitted uses.

The following uses are permitted in the R-1 residential zone:

(a) *Residential:*

1. Single-family detached dwellings.

2. Handicapped family unit, as defined in section

14-47 (definitions) of this article, for handicapped persons plus staff.

3. Single-family, multiple-component manufactured housing, as defined in section 14-47 (definitions) of this article, except in a National Register Historic District.

4. Single-family, single-component manufactured housing, as defined in section 14-47 (definitions) of this article, on individual lots under separate and distinct ownership, except in a National Register Historic District and until May 1, 1985, on the islands, provided that each unit meets the performance standards listed below:

   a. More than half of the roof area of each unit shall be a double pitched Class C rated shingled roof with a minimum pitch of 3/12.

   b. Each unit shall be installed on a full foundation or a concrete frost wall in accordance with all applicable codes and regulations. Any hitch or tow bar shall be removed from the unit after it is placed on its foundation or frost wall. In the case of a frost wall, vermin proof skirting shall be installed on all sides of the unit. The skirting may consist of either (a) concrete or masonry block or (b) manufactured skirting. If concrete or masonry block skirting is installed, either the exterior siding of the unit shall extend within one (1) foot of grade or decorative masonry siding shall be applied. If manufactured skirting material is installed, the color shall be identical to or compatible with the exterior siding of the unit.

   c. Each unit shall have exterior siding that is residential in appearance, including but not limited to natural materials such as wood clapboards or shakes, or exterior materials which simulate wood. Clapboards or simulated clapboards shall have less then eight (8)

inches of exposure and sheet metal type siding shall not be permitted.

d. Each unit shall have the long side of the unit parallel to the street line where the required street frontage is met.

e. Each unit shall be provided with at least two (2) trees meeting the city's arboricultural specifications and which are clearly visible from the street line and are located so as to visually widen the narrow dimension or proportion of the unit.

f. Each unit shall have all fuel oil supply systems constructed and installed within the foundation wall or underground in accordance with all applicable codes and regulations.

g. No unit shall be horizontally or vertically attached to any other unit or other structure, provided, however, that this provision shall not be deemed to prohibit additions such as porches, garages, room additions or solar greenhouses.

(b) *Other:*

1. Agriculture, including nurseries, greenhouses, and truck gardens, provided that there is no sale of products not produced on the premises; a single stand with no more than two hundred (200) square feet in floor area, for the sale of agricultural products produced on the premises shall be permitted;

2. Parking and storage of agricultural equipment used on the premises, but not within any front yard;

3. Reserved;

4. Parks and other active and passive noncommercial recreation spaces;

5. Accessory uses customarily incidental and

subordinate to the location, function and operation of principal uses, subject to the provisions of section 14-404 (accessory use) of this article;

6. Home occupations subject to the provisions of section 14-410 (home occupation) of this article;

7. Municipal uses, excluding those specifically set forth in section 14-68 of this division.

8. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 532-84, 5-7-84; Ord. No. 260-84, § 1, 12-17-84; Ord. No. 34-85, § 1, 7-15-85; Ord. No. 79-88, § 1, 7-19-88; Ord. No. 86A-89, § 1, 8-21-89; Ord. No. 33-91, § 2, 1-23-91; Ord. No.33-11/12, 1-18-12)

***Editor's note--**Ord. No. 79-88, adopted July 19, 1988, amended this section by adding subsection 14-67(2)g. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 79-88.

Sec. 14-68. Conditional uses.

The following uses are permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses) of this article and any special provisions, standards or requirements specified below:

(a) *Residential:*

1. Sheltered care group homes, as defined in section 14-47 of this article, for up to twelve (12) individuals, plus staff, and serving a primary population which is not handicapped persons, parolees, persons involved in correctional prerelease programs, or current illegal drug users, provided that:

   a. A sheltered care group home shall not be located within five hundred (500) feet of another, as measured along street lines to the respective property lines;

   b. There shall be no open outside stairways or fire escapes above the ground floor;

c. The facility shall make provision for adequate on-site staffing in accordance with applicable state licensing requirements. If a facility is not licensed by the state, there shall be a minimum of one (1) staff person for every ten (10) residents or fraction thereof.

The board of appeals may impose conditions upon a conditional use permit concerning the creation or operation of a sheltered care group home including but not limited to the following: site and building maintenance; lighting, fencing, and other appropriate security measures; screening and buffering of parking areas; compatibility of any additions or alterations with the existing residential structure; compatibility of new structures with the architectural character of the surrounding area; and limitation on the duration of a sheltered care group home permit.

2. Alteration or construction of a single-family detached dwelling to accommodate an accessory dwelling unit within the building and clearly subordinate to the principal dwelling for the benefit of homeowners or tenants provided that:

a. The accessory unit shall be no more than thirty (30) percent of the gross floor area of the principal building and shall have a minimum floor area of four hundred (400) square feet; gross floor area shall exclude any floor area that has less than two-thirds of its floor-to-ceiling height above the average adjoining ground level; gross floor area may include attic space if such space shall be included as habitable space within either dwelling unit;

b. Lot area shall be ten thousand (10,000) square feet for single-family dwellings in existence as of May 1, 1984, and lot area shall be fifteen thousand (15,000) square feet for single-family dwellings constructed after May 1, 1984;

c. There shall be no open, outside stairways or fire escapes above the ground floor;

d. Any additions or exterior alterations such as facade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the single-family appearance of the building;

e. The project shall be subject to article V (site plan) of this chapter for site plan review and approval and the following additional standards:

i. Any additions or exterior alterations, such as façade materials, building form and roof pitch shall be designed to be compatible with the architectural style of the building and preserve the single-family appearance of the building.

ii. The scale and surface area of parking, driveways and paved areas shall be arranged and landscaped to properly screen vehicles from adjacent properties and streets.

f. Either the accessory unit or the principal dwelling shall be occupied by the owner of the lot on which the principal building is located, except for bona fide temporary absences; and

g. Parking shall be provided as required division 20 of this article.

(b) ***Institutional:*** Any of the following conditional uses provided that, notwithstanding section 14-474(a) (conditional uses) of this article or any other provision of this Code, the Planning Board shall be substituted for the board of appeals as the reviewing authority:

1. Elementary, middle, and secondary school;

2. a. Long-term and extended care facilities;

b. Intermediate care facility for thirteen (13) or more persons;

3. Places of assembly;

Such uses shall be subject to the following conditions and standards in addition to the provisions of section 14-474:

a. In the case of expansion of existing such uses onto land other than the lot on which the principal use is located, it shall be demonstrated that the proposed use cannot reasonably be accommodated on the existing site through more efficient utilization of land or buildings, and will not cause significant physical encroachment into established residential areas; and

b. The proposed use will not cause significant displacement or conversion of residential uses existing as of June 1, 1983, or thereafter; and

c. In the case of a use or use expansion which constitutes a combination of the above-listed uses with capacity for concurrent operations, the applicable minimum lot sizes shall be cumulative; and

d. Article V (site plan) sections 14-522 and 14-523 notwithstanding, in the case of places of assembly the proposed use shall be subject to the requirements of article V (site plan) of this chapter; and

e. In the case of community halls:

i. The structure was in existence as of January 4,2010;

ii. The structure was built for institutional

or other non-residential uses;

iii. The structure is operated by, or operated subject to the control of, a not-for-profit entity in accordance with its not-for-profit purposes; and

iv. A parking management plan is submitted for review and approval by the planning board; and

f. In the case of private club or fraternal organizations: any such establishment serving alcoholic beverages or in possession of a license for serving alcoholic beverages shall be located on a large lot, as specified in the minimum lot size provisions of this division.

(c) *Other:*

1. Utility substations, including sewage and water pumping stations and standpipes, electric power substations, transformer stations, telephone electronic equipment enclosures, and other similar structures, provided that such uses are suitably screened and landscaped so as to ensure compatibility with the surrounding neighborhood;

2. Cemeteries;

3. Raising of domestic animals, excluding pigs and reptiles, for noncommercial purposes with no animals kept on any lot less than three (3) acres or closer than one hundred (100) feet to any street or lot line, except domesticated chickens as regulated in Chapter 5, and provided that:

a. The housing, feeding, exercise, and waste disposal areas of the animals will not create undue odor, noise, nuisance, health, or safety hazards to neighboring properties.

4. Day care facilities or home babysitting services not permitted as a home occupation under section 14-410, and nursery schools and kindergartens,

subject to the following conditions:

a. The facility shall be located in a structure in which there is one (1) or more occupied residential units or in an existing accessory structure, unless the facility is located in a principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care or home babysitting use, a nursery school or a kindergarten, or in a nonresidential structure accessory to the principal nonresidential use.

b. The maximum capacity shall be twelve (12) children for facilities located in residential or existing structures accessory thereto, unless the additional standards in subsection v. are met. There shall be no maximum limit on the number of children in a facility located in a principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care or home babysitting use, a nursery school or a kindergarten, or in a nonresidential structure accessory thereto, provided that any such structure that serves more than twelve (12) children shall be subject to review under article V of this chapter.

c. Outdoor play areas shall be screened and buffered from surrounding residences with landscaping and/or fencing to minimize visual and noise impacts.

d. Solid waste shall be stored in covered containers. Such containers shall be screened on all four (4) sides.

e. Day care facilities, nursery schools and kindergartens located either in structures that have been in residential use within the past five (5) years or in existing accessory structures and that serve between thirteen

(13) and twenty-four (24) children shall meet the following additional standards:

i. The facility shall provide a minimum of seventy-five (75) square feet of outdoor play area per child;

ii. The play area shall be located in the side and rear yards only and shall not be located in front yards;

iii. Outside play areas shall be separated from abutting properties by a fence at least forty-eight (48) inches in height;

iv. A ten-foot wide landscaped buffer shall be required outside of the fenced play area, and shall be established in accordance with the landscaping standards of the City's Technical Standards and Guidelines;

v. The minimum lot size for a day care facility, home babysitting service, nursery school or kindergarten located in a residential or existing accessory structure and serving more than twelve (12) children shall be twenty thousand (20,000) square feet;

vi. ***Off-street parking:*** Off street parking is required as provided in division 20 (off-street parking) of this article.

vii. The maximum number of children in a day care facility located in a residential or existing accessory structure shall be twenty-four (24); and

viii. Any additions or exterior alterations such as facade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the residential appearance of

the building.

5. Temporary wind anemometer towers, as defined in sec. 14-47, are permitted provided the following standards are met in addition to sec. 14-430:

   a. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a certificate of occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

   b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

   c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

   d. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

   e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

   f. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including

pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, of the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

6. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 534-84, 5-7-84; Ord. No. 260-84, § 2, 12-17-84; Ord. No. 76-85, § 2, 7-1-85; Ord. No. 79-88, § 2, 7-19-88; Ord. No. 235-91, § 1, 2-4-91; Ord. No. 118-93, § 1, 10-18-93; Ord. No. 133-96, § 1, 11-18-96; Ord. No. 154-96, § 1, 12-16-96; Ord. No. 222-99, §1, 3-01-99; Ord. No. 199-04/05, 4-4-05; Ord. 153-08/09, 2-18-09; Ord. No. 29-09/10, 8-3-09 emergency passage; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 240 09/10, 6-21-10; Ord. No. 9 10/11, 8-2-10; Ord. No. 149-10/11, 3-7-11; Ord. No. 33-11/12, 1-18-12)

Sec. 14-69. Prohibited uses.

Uses that are not expressly enumerated herein as either permitted uses or conditional uses are prohibited.

(Ord. No. 532-84, 5-7-84)

Sec. 14-70. Dimensional requirements.

In addition to the provisions of division 25 (space and bulk regulations and exceptions) of this article, lots in the R-1 zone shall meet or exceed the following minimum requirements:

(a) *Minimum lot size:*

1. Residential: Fifteen thousand (15,000) square feet except as provided for lots of record in section

14-433 (lots of record and accessory structure setbacks for existing buildings) of this article. A lot in an unsewered residential district shall meet the provisions of the state Minimum Lot Size Law, 12 M.R.S.A. Section 4807, or the applicable zoning lot size, whichever is larger.

2. Long-term, extended, or intermediate care facility: Three (3) acres.

3. School: Two (2) acres.

4. Places of assembly:

Large	Two (2) acres
Medium	One (1) acre
Small	Half (1/2) acre

5. Municipal use: Fifteen thousand (15,000) square feet.

6. Animal raising: Three (3) acres.

7. All other uses: Fifteen thousand (15,000) square feet.

Provided that for uses specified in section 14-70(a)2 through 6 above, no minimum lot area shall be required in the following cases:

a. Uses existing as of June 1, 1983;

b. Expansion onto land abutting the lot on which the principal use is located;

c. Expansion onto land other than the lot on which the principal use is located to the extent that such expansion consists of the reuse of surface parking area or nonresidential structures existing and in nonresidential use as of June 1, 1983, provided that such reuse is contained within the lot of record of such structure or parking area as of June 1, 1983;

d. Expansion onto land other than the lot on which the principal use is located of no more than fifteen (15) percent of the total contiguous land area of the existing use, or one (1) acre, whichever is less, within any five-year period.

(b) *Minimum lot area per dwelling unit:* Fifteen thousand (15,000) square feet.

(c) *Minimum street frontage:* Seventy-five (75) feet.

(d) *Minimum yard dimensions:*

(Yard dimensions include setbacks of structures from property lines and setbacks of structures from one another. No structure shall occupy the minimum yard of another structure.)

1. *Front yard:*

Principal or accessory structures: Twenty-five (25) feet.

2. *Rear yard:*

a. Principal or accessory structures with ground coverage greater than one hundred (100) square feet: Twenty-five (25) feet.

b. Accessory detached structures with a ground coverage of one hundred and forty-four (144) square feet or less: Five (5) feet.

Setbacks for swimming pools shall be as provided for in section 14-432 (swimming pools) of this article.

3. *Side yard:*

a. Principal or accessory structures with ground coverage greater than one hundred (100) feet:

Height of Structure *Required Side Yard*

1 story . . . . . 12 feet

1 1/2 stories . . . . . 12 feet

2 stories . . . . . 14 feet

2 1/2 stories . . . . . 16 feet

The width of one (1) side yard may be reduced one (1) foot for every foot that the other side yard is correspondingly increased, but no side yard shall be less than twelve (12) feet. In the case of a lot of record existing as of June 5, 1957, and held under separate and distinct ownership from adjacent lots, the required side yard may be reduced in order to provide a buildable width of up to twenty-four (24) feet, but in no case shall the resulting side yards be less than twelve (12) feet.

b. Accessory detached structure with ground coverage of one hundred and forty-four (144) square feet or less: Five (5) feet.

4. *Side yard on side streets:*

a. Principal or accessory structures: Twenty (20) feet.

(e) *Maximum lot coverage:* Twenty (20) percent of lot area.

(f) *Minimum lot width:* One hundred (100) feet.

(g) *Maximum structure height:*

1. Principal or accessory attached structure: Thirty-five (35) feet.

2. Accessory detached structure: Eighteen (18) feet.

(h) *Maximum floor area for places of assembly on a collector or arterial road:*

Large	Not limited
Medium	9,000 sq. ft.
Small	5,000 sq. ft.

(i) *Maximum floor area for places of assembly not on a collector or arterial road:*

Large	9,000 sq. ft.
Medium	4,500 sq. ft.
Small	2,500 sq. ft.

(Ord. No. 532-84, 5-7-84; Ord. No. 79-88, § 3, 7-19-88; Ord. No. 235-91, § 2, 2-4-91; Ord. No. 118-93, § 2, 10-18-93; Ord. No. 154-96, § 2, 12-16-96; Ord. No.131-08/09, 12-15-08; Ord. No. 127-09/10, 1-4-10 emergency passage)

***Editor's note--**Ord. No. 79-88, § 3, adopted July 19, 1988, amended this section to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 79-88.

Sec. 14-71. Other requirements.

Other requirements are as follows:

(a) *Off street parking:* Off-street parking is required as provided in division 20 (off-street parking) of this article.

(b) *Shoreland and flood plain management regulations:* Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5.

(c) *Storage of vehicles:* Only one (1) unregistered motor vehicle may be stored outside on the premises for a period not exceeding thirty (30) days.

(Ord. No. 532-84, 5-7-84; Ord. No. 15-92, § 5, 6-15-92)

Sec. 14-72 - 14-75. Reserved.

DIVISION 3. R-2 RESIDENTIAL ZONE*

***Editor's note--**Ord. No. 533-54, adopted May 7, 1984, repealed Div. 3, §§ 14-76--14-79, and enacted a new Div. 3, §§ 14-76--14-81. The division was formerly derived from Code 1968, § 602.3.A--D; Ord. No. 499-74, § 2, adopted Aug. 19, 1974; Ord. No. 610-82, § 1, adopted July 7, 1982; and Ord. No. 89-83, §§ 1, 2, adopted Aug. 3, 1983.

Sec. 14-76. Purpose.

The purpose of the R-2 residential zone is:

To provide for low-density residential development characterized by single-family homes on individual lots in outlying areas of the city and along traffic corridors with limited additional traffic capacity.

(Ord. No. 533-84, 5-7-84)

Sec. 14-77. Permitted uses.

The following uses are permitted in the R-2 residential zone:

(a) *Residential:*

1. Single-family detached dwellings.

2. Handicapped family unit, as defined in section 14-47 (definitions) of this article for handicapped persons plus staff.

3. Single-family, multiple-component manufactured housing, as defined in section 14-47 (definitions) of this article, except in a National Register Historic District.

4. Single-family, single-component manufactured housing, as defined in section 14-47 (definitions) of this article, on individual lots under separate and distinct ownership, except in a National Register Historic District and until May 1, 1985, on the islands, provided that each unit meets the performance standards listed below:

   a. More than half of the roof area of each unit shall be a double pitched Class C rated shingled roof with a minimum pitch of 3/12.

   b. Each unit shall be installed on a full foundation or a concrete frost wall in accordance with all applicable codes and regulations. Any hitch or tow bar shall be removed from the unit after it is placed on its foundation or frost wall. In the case of a frost wall, vermin proof skirting shall be installed on all sides of the unit. The skirting

may consist of either (a) concrete or masonry block or (b) manufactured skirting. If concrete or masonry block skirting is installed, either the exterior siding of the unit shall extend within one (1) foot of grade or decorative masonry siding shall be applied. If manufactured skirting material is installed, the color shall be identical to or compatible with the exterior siding of the unit.

c. Each unit shall have exterior siding that is residential in appearance, including but not limited to natural materials such as wood clapboards or shakes, or exterior materials which simulate wood. Clapboards or simulated clapboards shall have less than eight (8) inches of exposure and sheet metal type siding shall not be permitted.

d. Each unit shall have the long side of the unit parallel to the street line where the required street frontage is met.

e. Each unit shall be provided with at least two (2) trees meeting the city's arboricultural specifications and which are clearly visible from the street line and are located so as to visually widen the narrow dimension or proportion of the unit.

f. Each unit shall have all fuel oil supply systems constructed and installed within the foundation wall or underground in accordance with all applicable codes and regulations.

g. No unit shall be horizontally or vertically attached to any other unit or other structure, provided however, that this provision shall not be deemed to prohibit building additions, such as porches, garages, room additions or solar greenhouses.

(b) *Other:*

1. Reserved;

2. Parks and other active and passive noncommercial

recreation spaces;

3. Agriculture, including nurseries, greenhouses, and truck gardens, providing that there is no sale of products not produced on the premises; a single stand with no more than two hundred (200) square feet in floor area, for the sale of agricultural products produced on the premises shall be permitted;

4. Accessory uses customarily incidental and subordinate to the location, function, and operation of principal uses, subject to the provisions of section 14-404 (accessory uses) of this article;

5. Home occupations, subject to the provisions of section 14-410 (home occupation) of this article;

6. Municipal uses, excluding those specifically set forth in section 14-78 of this division.

7. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 533-84, 5-7-84; Ord. No. 261-84, § 1, 12-17-84; Ord. No. 35-85, § 1, 7-15-85; Ord. No. 80-88, § 1, 7-19-88; Ord. No. 86A-89, § 2, 8-21-89; Ord. No. 33-91, § 3, 1-23-91; Ord. No. 33-11/12, 1-18-12)

***Editor's note--**Ord. No. 80-88, § 1, adopted July 19, 1988, amended this section by adding subsection 14-77(b)6. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 80-88.

Sec. 14-78. Conditional use.

The following uses shall be permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses) of this article and any special provisions, standards or requirements specified below:

(a) *Residential:*

1. Sheltered care group home, as defined in section 14-47 of this article, for up to twelve (12) individuals, plus staff, and serving a primary population which is not handicapped persons, parolees, persons involved in correctional prerelease programs, or current illegal drug

users, provided that:

a. A sheltered care group home shall not be located within five hundred (500) feet of another, as measured along street lines to the respective property lines;

b. There shall be no open outside stairways or fire escapes above the ground floor;

c. The facility shall make provision for adequate on-site staffing in accordance with applicable state licensing requirements. If a facility is not licensed by the state, there shall be a minimum of one (1) staff person for every ten (10) residents or fraction thereof.

The board of appeals may impose conditions upon a conditional use permit concerning the creation or operation of a sheltered care group home including but not limited to the following: site and building maintenance; lighting, fencing, and other appropriate security measures; screening and buffering of parking areas; compatibility of any additions or alterations with the existing residential structure; compatibility of new structures with the architectural character of the surrounding area; and limitation on the duration of a sheltered care group home permit.

2. Alteration or construction of a single-family detached dwelling to accommodate an accessory dwelling unit within the building and clearly subordinate to the principal dwelling for the benefit of homeowners or tenants provided that:

a. The accessory unit shall be no more than thirty (30) percent of the gross floor area of the principal building and shall have a minimum floor area of four hundred (400) square feet; gross floor area shall exclude any floor area that has less than two-thirds of its floor-to-ceiling height above the average adjoining ground level; gross floor area may include attic space if such space shall be included as habitable space within either

dwelling unit;

b. Lot area shall be eight thousand (8,000) square feet for single-family dwellings in existence as of May 1, 1984, and lot area shall be ten thousand (10,000) square feet for single-family dwellings constructed after May 1, 1984;

c. There shall be no open, outside stairways or fire escapes above the ground floor;

d. Any additions or exterior alterations such as facade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the single-family appearance of the building;

e. The project shall be subject to article V (site plan) of this chapter for site plan review and approval and the following additional standards:

i. Any additions or exterior alterations, such as façade materials, building form and roof pitch shall be designed to be compatible with the architectural style of the building and preserve the single-family appearance of the building.

ii. The scale and surface area of parking, driveways and paved areas shall be arranged and landscaped to properly screen vehicles from adjacent properties and streets.

f. Either the accessory unit or the principal dwelling shall be occupied by the owner of the lot on which the principal building is located, except for bona fide temporary absences; and

g. Parking shall be provided as required by division 20 of this article.

(b) ***Institutional:*** Any of the following conditional uses provided that, notwithstanding section 14-474 (conditional uses) of this article or any other

provisions of this Code, the Planning Board shall be substituted for the board of appeals as the reviewing authority:

1. Elementary, middle, and secondary school;

2. a. Long-term and extended care facilities;

   b. Intermediate care facility for thirteen (13) or more persons;

3. Places of assembly;

4. College, university, trade school;

Such uses shall be subject to the following conditions and standards in addition to the provisions of section 14-474:

a. Any new institutional use shall demonstrate that it has a lot size of sufficient area to accommodate all proposed and foreseeable future activities and programs, including parking, and to absorb the impacts and growth needs of the institution. Such new use established after April 19, 2012 shall not be eligible for expansion under the provisions of paragraph b below;

b. In the case of expansion of existing such uses onto land other than the lot on which the principal use is located, it shall be demonstrated that the proposed use cannot reasonably be accommodated on the existing site through more efficient utilization of land or buildings, and will not cause significant physical encroachment into established residential area; and

c. The proposed use will not cause significant displacement or conversion of residential uses existing as of June 1, 1983, or thereafter; and

d. In the case of a use or use expansion which constitutes a combination of the above-listed uses with capacity for concurrent operations, the applicable minimum lot sizes shall be cumulative;

and

e. Article V (site plan) sections 14-522 and 14-523 notwithstanding, in the case of places of assembly (including places of religious assembly, community halls and private club or fraternal organizations) and college, university, trade school, the proposed use shall be subject to the requirements of article V (site plan) of this chapter; and

f. In the case of community halls:

i. The structure was in existence as of January 4, 2010.

ii. The structure was built for institutional or other non-residential uses;

iii. The structure is operated by, or operated subject to the control of, a not-for-profit entity in accordance with its not-for-profit purposes; and

iv. A parking management plan is submitted for review and approval by the planning board; and

g. In the case of private club or fraternal organizations: any such establishment serving alcoholic beverages or in possession of a license for serving alcoholic beverages shall be located on a large lot, as specified in the minimum lot size provisions of this section.

(c) *Other:*

1. Utility substations, including sewage and water pumping stations and standpipes, electric power substations, transformer stations, telephone electronic equipment enclosures, and other similar structures, provided that such uses are suitably screened and landscaped so as to ensure compatibility with the surrounding neighborhood;

2. Cemeteries.

3. Day care facilities or home babysitting services not

permitted as a home occupation under section 14-410, and nursery schools and kindergartens, subject to the following conditions:

a. The facility shall be located in a structure in which there is one (1) or more occupied residential units or in an existing accessory structure, unless the facility is located in a principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care or home babysitting use or in a nonresidential structure accessory to the principal nonresidential use.

b. The maximum capacity shall be twelve (12) children for facilities located in residential or existing structures accessory thereto, unless the additional standards in subsection v. are met. There shall be no maximum limit on the number of children in a facility located in a principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care use or home babysitting use, nursery school or kindergarten, or in a nonresidential structure accessory thereto, provided that any such structure that serves more than twelve (12) children shall be subject to review under article V of this chapter.

c. Outdoor play areas shall be screened and buffered from surrounding residences with landscaping and/or fencing to minimize visual and noise impacts.

d. Solid waste shall be stored in covered containers. Such containers shall be screened on all four (4) sides.

e. Day care facilities, home babysitting uses, nursery schools or kindergartens located either in structures that have been in residential use within the past five (5) years or in existing accessory structures and that serve between thirteen (13) and twenty-four (24) children shall meet the following additional standards:

i. The facility shall provide a minimum of seventy-five (75) square feet of outdoor play area per child;

ii. The play area shall be located in the side and rear yards only and shall not be located in front yards;

iii. Outside play areas shall be separated from abutting properties by a fence at least forty-eight (48) inches in height;

iv. A ten-foot wide landscaped buffer shall be required outside of the fenced play area, and shall be established in accordance with the landscaping standards of the City's Technical Standards and Guidelines;

v. The minimum lot size for a day care facility, home babysitting use, nursery school or kindergarten located in a residential or existing accessory structure and serving more than twelve (12) children shall be twenty thousand (20,000) square feet;

vi. ***Off-street parking:*** Off-street parking is required as provided in division 20 (off-street parking) of this article.

vii. The maximum number of children in a day care facility, home babysitting service, nursery school or kindergarten located in a residential or existing accessory structure shall be twenty-four (24); and

viii. Any additions or exterior alterations such as facade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the residential appearance of the building.

4. Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

a. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

d. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

f. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency)

and related meteorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, of the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

5. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 533-84, 5-7-84; Ord. No. 261-84, § 2, 12-17-84; Ord. No. 76-85, § 3, 7-1-85; Ord. No. 80-88, § 2, 7-19-88; Ord. No. 235-91, § 3, 2-4-91; Ord. No. 118-93, § 3, 10-18-93; Ord. No. 133-96, § 2, 11-18-96; Ord. No. 154-96, § 3, 12-16-96; Ord. No. 222-99 §2, 3-01-99; Ord. No. 199-04/05, 4-4-05; Ord. No. 29-09/10, 8-3-09, emergency passage; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 240-09/10, 6-21-10; Ord. No. 9 10/11, 8-2-10; Ord. No. 149-10/11, 3-7-11; Ord. No. 33-11/12, 1-18-12; Ord. No. 131-11/12, 3-19-12)

Sec. 14-79. Prohibited uses.

Uses that are not expressly enumerated herein as either permitted uses or conditional uses are prohibited.

(Ord. No. 533-84, 5-7-84)

Sec. 14-80. Dimensional requirements.

In addition to the provisions of division 25 (space and bulk regulations) of this article, lots in the R-2 zone shall meet or exceed the following minimum requirements:

(a) *Minimum lot size:*

1. Residential: Ten thousand (10,000) square feet except as provided for lots of record in section 14-433 (lots of record and accessory structure setbacks for existing buildings) of this article. A lot in an unsewered residential district shall meet the provisions of the state Minimum Lot Size Law, 12 M.R.S.A. Section 4807, or the applicable zoning lot size, whichever is the larger.

2. Long-term, extended, or intermediate care facility: Three (3) acres.

3. School: Two (2) acres.

4. Places of assembly:

Large	Two (2) acres
Medium	One (1) acre
Small	Half (1/2) acre

5. Municipal use: Ten thousand (10,000) square feet.

6. College, university, trade school: Two (2) acres.

7. All other uses: Ten Thousand (10,000) square feet.

Provided that for uses specified in section 14-80(a)2 through 7 above, no minimum lot area shall be required in the following cases:

a. Uses existing as of June 1, 1983;

b. Expansion of uses onto land abutting the lot on which the principal use is located;

c. Expansion onto land other than the lot on which the principal use is located to the extent that such expansion consists of the reuse of surface parking area or nonresidential structures existing and in nonresidential use as of June 1, 1983, provided that such reuse is contained within the lot of record of such structure or parking area as of June 1, 1983;

d. Expansion onto land other than the lot on which the principal use is located of no more than fifteen (15) percent of the total contiguous land area of the existing use, or one (1) acre, whichever is less, within any five-year period.

(b) ***Minimum area per dwelling unit:*** Ten thousand (10,000)

square feet.

(c) *Minimum street frontage:* Fifty (50) feet.

(d) *Minimum yard dimensions:*

(Yard dimensions include setbacks of structures from property lines and setbacks of structures from one another. No structure shall occupy the minimum yard of another structure.)

1. *Front yard:*

Principal or accessory structures: Twenty-five (25) feet.

2. *Rear yard:*

a. Principal or accessory structures with ground coverage greater than one hundred (100) square feet: Twenty-five (25) feet.

b. Accessory detached structures with a ground coverage of one hundred and forty-four (144) square feet or less: Five (5) feet.

Setbacks for swimming pools shall be as provided for in section 14-432 (swimming pools) of this article.

3. *Side yard:*

a. Principal or accessory structures with ground coverage greater than one hundred (100) square feet:

Height of Structure	*Required Side Yard*
1 story	12 feet
1 1/2 stories	12 feet
2 stories	14 feet
2 1/2 stories	16 feet

The width of one (1) side yard may be reduced one (1) foot for every foot that the other side yard is correspondingly increased, but no side yard shall be less than twelve (12) feet. In the case of a lot of record existing as of June 5, 1957, and held under separate and distinct ownership from adjacent lots, the required side yard may be reduced in order to provide a buildable width of up to twenty-four (24) feet, but in no case shall the resulting side yards be less than twelve (12) feet.

b. Accessory detached structures with ground coverage of one hundred and forty-four (144) square feet or less: Five (5) feet.

4. *Side yard on side streets:*

Principal or accessory structures: Twenty (20) feet.

(e) *Maximum lot coverage:* Twenty (20) percent of lot area.

(f) *Minimum lot width:* Eighty (80) feet.

(g) *Maximum structure height:*

1. Principal or accessory attached structure: Thirty-five (35) feet.

2. Accessory detached structure: Eighteen (18) feet.

(h) *Maximum floor area on a collector or arterial road:*

1. Places of public assembly:

Large	Not limited
Medium	9,000 sq. ft.
Small	5,000 sq. ft.

2. College, university, trade school:

Lot area of 6 acres or larger: 24,000 sq. ft.
Lot area of 4 acres to 5.99 acres: 18,000 sq. ft.

Lot area of 2 acres to 3.99 acres: 12,000 sq. ft.

(i) *Maximum floor area not on a collector or arterial road:*

1. Places of public assembly:

Large	9,000 sq. ft.
Medium	4,500 sq. ft.
Small	2,500 sq. ft.

2. College university, trade school:

Not a permitted use.

(Ord. No. 533-84, 5-7-84; Ord. No. 80-88, § 3, 7-19-88; Ord. No. 235-91, § 4, 2-4-91; Ord. No. 118-93, § 4, 10-18-93; Ord. No. 154-96, § 3, 12-16-96; Ord. No. 131-08/09, 12-15-08; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 131-11/12, 3-19-12)

***Editor's note--**Ord. No. 80-88, § 3, adopted July 19, 1988, amended this section to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 80-88.

Sec. 14-81. Other requirements.

Other requirements are as follows:

(a) *Off-street parking:* Off-street parking is required as provided in division 20 (off-street parking) of this article.

(b) *Shoreland and flood plain management regulations:* Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5.

(c) *Storage of vehicles:* Only one (1) unregistered motor vehicle may be stored outside on the premises for a period not exceeding thirty (30) days.

(Ord. No. 533-84, 5-7-84; Ord. No. 15-92, § 6, 6-15-92)

Sec. 14-82 – 14-85. Reserved.

DIVISION 4. R-3 RESIDENTIAL ZONE*

***Editor's note--**Ord. No. 534-84, adopted May 7, 1984, repealed Div. 4, §§ 14-87--14-90, and enacted a new Div. 4, §§ 14-86--14-91. Formerly, Div. 4 was derived from Code 1968, § 602.4.A--D, and the following ordinances: Ord. No. 49-74, 372-75, 406-75, 34-76, 145-79, 145-81, 303-81, 90-83, and 499-74.

Sec. 14-86. Purpose.

The purpose of the R-3 residential zone is:

> To provide for medium-density residential development characterized by single-family homes on individual lots and also to provide for planned residential unit developments on substantially sized parcels. Such development shall respond to the physical qualities of a site and complement the scale, character and style of the surrounding neighborhood.

(Ord. No. 534-84, 5-7-84; Ord. No. 81-88, § 1, 7-19-88)

***Editor's note--**Ord. No. 81-88, § 1, adopted July 19, 1988, amended § 14-86 to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 81-88.

Sec. 14-87. Permitted uses.

The following uses are permitted in the R-3 residential zone:

(a) *Residential:*

1. Single-family detached dwellings.

2. Planned residential unit development (PRUD) consisting of horizontally attached dwelling units or a series of such dwelling units. No dimensional requirements contained in section 14-90 shall apply with respect to such development, except for those requirements specifically denoted for PRUD. There shall be no open outside stairways or fire escapes above the ground floor. All land shall be owned and used in common and shall be governed and maintained as set forth in section 14-498(i)(3) of article IV (subdivisions) of this chapter. Such development shall be subject to review and approval by the Planning Board with respect to the

requirements of article V (site plan) and article IV (subdivisions) of this chapter, whether or not such development is a subdivision within the meaning of article IV of this chapter, as now enacted or as hereafter amended.

3. Handicapped family unit, as defined in section 14-47 (definitions) of this article, for handicapped persons plus staff.

4. Single-family, multiple-component manufactured housing, as defined in section 14-47 (definitions) of this article, except in a National Register Historic District.

5. Single-family, single-component manufactured housing, as defined in section 14-47 (definitions) of this article, on individual lots under separate and distinct ownership, except in a National Register Historic District and until May 1, 1985, on the islands, provided that each unit meets the performance standards listed below.

   a. More than half of the roofed area of each unit shall be a double pitched Class C rated shingled roof with a minimum pitch of 3/12.

   b. Each unit shall be installed on a full foundation or a concrete frost wall in accordance with all applicable codes and regulations. Any hitch or tow bar shall be removed from the unit after it is placed on its foundation or frost wall. In the case of a frost wall, vermin proof skirting shall be installed on all sides of the unit. The skirting may consist of either (a) concrete or masonry block or (b) manufactured skirting. If concrete or masonry block skirting is installed, either the exterior siding of the unit shall extend within one (1) foot of grade or decorative masonry siding shall be applied. If manufactured skirting material is installed, the color shall be identical to or compatible with the exterior siding of the unit.

   c. Each unit shall have exterior siding that is residential in appearance, including but not limited to natural materials such as wood clapboards or shakes, or exterior materials which

simulate wood. Clapboards or simulated clapboard shall have less than eight (8) inches of exposure and sheet metal type siding shall not be permitted.

d. Each unit shall have the long side of the unit parallel to the street line where the required street frontage is met.

e. Each unit shall be provided with at least two (2) trees meeting the city's arboricultural specifications and which are clearly visible from the street line and are located so as to visually widen the narrow dimension or proportion of the unit.

f. Each unit shall have all fuel oil supply systems constructed and installed within the foundation wall or underground in accordance with all applicable codes and regulations.

g. No unit shall be horizontally or vertically attached to any other unit or other structure, provided however, that this provision shall not be deemed to prohibit building additions, such as porches, garages, room additions or solar greenhouses.

(b) *Other:*

1. Reserved;

2. Parks, and other active and passive noncommercial recreation spaces;

3. Accessory uses customarily incidental and subordinate to the location, function, and operation of principal uses, subject to the provisions of section 14-404 (accessory uses) of this article;

4. Home occupation, subject to the provisions of section 14-410 (home occupation) of this article;

5. Municipal uses, excluding those specifically set forth in section 14-88 of this division.

6. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 534-84, 5-7-84; Ord. No. 262-84, § 1, 12-17-84; Ord. No. 36-85, § 1, 7-15-85; Ord. No. 81-88, §§ 2, 3, 7-19-88; Ord. No. 86A-89, § 3, 8-21-89; Ord. No. 33-91, § 4, 1-23-91; Ord. No. 165-97, § 1, 12-1-97; Ord. No. 33-11/12, 1-18-12)

***Editor's note--**Ord. No. 81-88, §§ 2 and 3, adopted July 19, 1988, amended subsections 14-87(a)2 and (b)5 to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 81-88.

Sec. 14-88. Conditional uses.

The following uses shall be permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses) and any special provisions, standards or requirements specified below:

(a) *Residential:*

1. Sheltered care group homes, as defined in section 14-47 of this article, for up to twelve (12) individuals, plus staff, and serving a primary population which is not handicapped persons, parolees, persons involved in correctional prerelease programs, or current illegal drug users, provided that:

   a. A sheltered care group home shall not be located within five hundred (500) feet of another, as measured alone street lines to the respective property lines;

   b. There shall be no open outside stairways or fire escapes above the ground floor;

   c. The facility shall make provision for adequate on-site staffing in accordance with applicable state licensing requirements. If a facility is not licensed by the state, there shall be a minimum of one (1) staff person for every ten (10) residents or fraction thereof.

The board of appeals may impose conditions upon a conditional use permit concerning the creation or operation of a sheltered care group home including but not limited to the following: site and building maintenance; lighting, fencing, and other appropriate security measures; screening and buffering of parking areas; compatibility of any additions or alterations with the existing residential structure; compatibility of new structures with the architectural character of the surrounding area; and limitation on the duration of a sheltered care group home permit.

2. Alteration or construction of a detached single-family dwelling to accommodate one (1) additional dwelling unit for the benefit of homeowners or tenants, provided that:

   a. The accessory unit shall be no more than thirty (30) percent of the gross floor area of principal building and shall have a minimum floor area four hundred (400) square feet; gross floor area shall exclude any floor area that has less than two-thirds of its floor-to-ceiling height above the average adjoining ground level; gross floor area may include attic space if such space shall be included as habitable space within either dwelling unit;

   b. There shall be no open outside stairways or fire escapes above the ground floor;

   c. Any building additions or exterior alterations such as facade materials, building form, or roof pitch shall be designed to be compatible with the architectural style and to maintain the single-family appearance of the dwelling;

   d. A minimum lot size of six thousand five hundred (6,500) square feet of land area shall be required;

   g. No dwelling unit shall be reduced in size to less than one thousand (1,000) square feet of floor area, exclusive of common areas and

storage in basement or attic;

h. Parking shall be provided as required by division 20 of this article;

i. The project shall be subject to article V (site plan) of this chapter for site plan review and approval and the following additional standards:

i. Any additions or exterior alterations such as facade materials, building form and roof pitch shall be designed to be compatible with the architectural style of the building;

ii. The scale and surface area of parking, driveways and paved areas shall be arranged and landscaped to properly screen vehicles from adjacent properties and streets.

j. Either the accessory unit or principal unit shall be occupied by the lot owner, except for bona fide temporary absences.

(b) *Commercial:*

1. Reserved.

(c) ***Institutional:*** Any of the following conditional uses provided that, notwithstanding section 14-474(a) (conditional uses) of this article or any other provision of this Code, the Planning Board shall be substituted for the board of appeals as the reviewing authority:

1. Elementary, middle, and secondary school;

2. a. Long-term and extended care facilities;

b. Intermediate care facility for thirteen (13) or more persons;

3. Places of assembly;

4. Hospital.

Such uses shall be subject to the following conditions and standards in addition to the provisions of section 14-474:

a. In the case of expansion of existing such uses onto land other than the lot on which the principal use is located, it shall be demonstrated that the proposed use cannot reasonably be accommodated on the existing site through more efficient utilization of land or buildings, and will not cause significant physical encroachment into established residential areas; and

b. The proposed use will not cause significant displacement or conversion of residential uses existing as of June 1, 1983, or thereafter; and

c. In the case of a use or use expansion which constitutes a combination of the above-listed uses with capacity for concurrent operations, the applicable minimum lot sizes shall be cumulative; and

d. Article V (site plan) sections 14-522 and 14-523 notwithstanding, in the case of places of assembly the proposed use shall be subject to the requirements of article V (site plan) of this chapter; and

e. In the case of community halls:

i. The structure was in existence as of January 4, 2010.

ii. The structure was built for institutional or other non-residential uses;

iii. The structure is operated by, or operated subject to the control of, a not-for-profit entity in accordance with its not-for-profit purposes; and

iv. A parking management plan is submitted for review and approval by the planning board; and

f. In the case of private club or fraternal organizations: any such establishment serving alcoholic beverages or in possession of a license for serving alcoholic beverages shall be located on a large lot, as specified in the minimum lot size provisions of this section.

(d) *Other:*

1. Off-street parking of passenger cars as provided in section 14-344 (board of appeals may authorize parking in certain residence zones) of this article;

2. Utility substations, including sewage treatment plants, sewage and water pumping stations and standpipes, electric power substations, transformer stations, and telephone electronic equipment enclosures and other similar structures, provided that such uses are suitably screened and landscaped so as to ensure compatibility with the surrounding neighborhood;

3. Day care facilities or home babysitting services not permitted as a home occupation under section 14-410, and nursery schools and kindergartens subject to the following conditions:

a. The facility shall be located in a structure in which there is one (1) or more occupied residential units or in an existing accessory structure, unless the facility is located in a principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care use, home babysitting use, nursery school or kindergarten, or in a nonresidential structure accessory to the principal nonresidential use.

b. The maximum capacity shall be twelve (12) children for facilities located in residential or existing structures accessory thereto, unless the additional standards in subsection v. are met. There shall be no maximum limit on the number of children in a facility located in a principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care or home babysitting use, or in a nonresidential structure accessory thereto, provided that any such structure that serves more than twelve (12) children shall be subject to review under article V of this chapter.

c. Outdoor play areas shall be screened and buffered from surrounding residences with landscaping and/or fencing to minimize visual and noise impacts.

d. Solid waste shall be stored in covered containers. Such containers shall be screened on all four (4) sides.

e. Day care facilities, home babysitting uses, nursery schools and kindergartens located either in structures that have been in residential use within the past five (5) years or in existing accessory structures and that serve between thirteen (13) and twenty-four (24) children shall meet the following additional standards:

i. The facility shall provide a minimum of seventy-five (75) square feet of outdoor play area per child;

ii. The play area shall be located in the side and rear yards only and shall not be located in front yards;

iii. Outside play areas shall be separated from abutting properties by a fence at least forty-eight (48) inches in height;

iv. A ten-foot wide landscaped buffer shall be required outside of the fenced play area, and shall be established in accordance with the landscaping standards of the City's Technical Standards and Guidelines;

v. The minimum lot size for a day care facility, home babysitting services, nursery school, or kindergarten located in a residential or existing accessory structure and serving more than twelve (12) children shall be twenty thousand (20,000) square feet;

vi. ***Off-street parking:*** Off-street parking is required as provided in division 20 (off-street parking) of this article.

vii. The maximum number of children in a day care facility, home babysitting service, nursery school or kindergarten located in a residential or existing accessory structure shall be twenty-four (24); and

viii. Any additions or exterior alterations such as facade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the residential appearance of the building.

4. Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

a. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be

dismantled and removed from the site within sixty (60) days; and

b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

d. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

f. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required

for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

5. Wind energy systems, as defined and allowed in Article X, Altenrative Energy.

(Ord. No. 534-84, 5-7-84; Ord. No. 262-84, § 2, 12-17-84; Ord. No. 76-85, § 4, 7-1-85; Ord. No. 36-85, § 2, 7-15-85; Ord. No. 67-87, § 1, 11-2-87; Ord. No. 81-88, § 4, 7-19-88; Ord. No. 235-91, § 5, 2-4-91; Ord. No. 118-93, § 5, 10-18-93; Ord. No. 133-96, § 3, 11-18-96; Ord. No. 154-96, § 5, 12-16-96; Ord. No. 222-99, §3, 3-01-99; Ord. No. 199-04/05, 4-4-05; Ord. No. 29-09/10, 8-3-09 emergency passage; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 240-09/10, 6-21-10; Ord. No. 9 10/11, 8-2-10; Ord. No. 149-10/11, 3-7-11; Ord. No. 33-11/12, 1-18-12)

Sec. 14-89. Prohibited uses.

Uses that are not expressly enumerated herein as either permitted uses or conditional uses are prohibited.

(Ord. No. 534-84, 5-7-84)

Sec. 14-90. Dimensional requirements.

In addition to the provisions of division 25 (space and bulk regulations and exceptions) of this article, lots in the R-3 zone shall meet the following minimum requirements:

(a) *Minimum lot size:*

1. Residential: Sixty-five hundred (6,500) square feet except as provided for lots of record is section 14-433 (lots of record and accessory structure setbacks for existing buildings) of this article. A lot in an unsewered residential district shall meet the provisions of the state Minimum Lot Size Law, 12 M.R.S.A. Section 4807 et seq., or the applicable zoning lot size, whichever is larger.

2. Alteration of a detached single-family dwelling to a two-family dwelling: Ten thousand (10,000) square feet.

3. Long-term, extended, or intermediate care facilities: Two (2) acres.

4. School: Two (2) acres.

5. Places of assembly:

Large	Two (2) acres
Medium	One (1) acre
Small	Half (1/2) acre

6. Municipal use: Sixty-five hundred (6,500) square feet.

7. Hospital: Ten (10) acres.

8. Planned residential unit development (PRUD): Three (3) acres gross area, as defined in section 14-47 (definitions) of this article, of continuous land.

9. All other uses: Sixty-five hundred (6,500) square feet.

Provided that for uses specified in section 14-90(a)3 through 8 above, no minimum lot area shall be required in the following cases:

a. Uses existing as of June 1, 1983;

b. Expansion onto land abutting the lot on which the principal use is located;

c. Expansion onto land other than the lot on which the principal use is located to the extent that such expansion consists of the reuse of surface parking area or nonresidential structures existing and in nonresidential use as of June 1, 1983, provided that such reuse is contained within the lot of record of such structure or parking area as of June 1, 1983;

d. Expansion onto land other than the lot on which the principal use is located of no more

than fifteen (15) percent of the total contiguous land area of the existing use, or one (1) acre, whichever is less, within any five-year period.

(b) *Minimum lot area per dwelling unit:*

PRUD: Sixty-five hundred (6,500) square feet of net land area as defined in section 14-47 (definitions) of this article. As part of a site plan and subdivision application, the applicant shall provide a calculation of those factors deducted to determine net land area. In addition, such net area factors shall be delineated on a site plan.

Other uses: Sixty-five hundred (6,500) square feet.

(c) ***Minimum street frontage:*** Fifty (50) feet, except that lots located in a subdivision approved after the effective date of Ord. No. 165-97 pursuant to section 14-497.5 shall meet the street frontage requirements approved as part of the subdivision plan under the terms of that section.

(d) *Minimum yard dimensions:*

(Yard dimensions include setbacks of structures from property lines and setbacks of structures from one another. No structure shall occupy the minimum yard of another structure.)

1. *Front yard:*

Principal or accessory structures: Twenty-five (25) feet.

A front yard need not exceed the average depth of front yards on either side of the lot. A lot of record existing as of June 5, 1957, and less than one hundred (100) feet deep need not be deeper than twenty (20%) percent of the depth of the lot.

2. *Rear yard:*

a. Principal or accessory structures with ground

coverage greater than one hundred (100) square feet: Twenty-five (25) feet.

b. Accessory detached structures with ground coverage of one hundred and forty-four (144) square feet or less: Five (5) feet.

Setbacks for swimming pools shall be as provided for in section 14-432 (swimming pools) of this article.

3. *Side yard:*

a. Principal or accessory structures with ground coverage greater than one hundred (100) square feet:

Height of Structure	*Required Side Yard*
1 story	8 feet
1 1/2 stories	8 feet
2 stories	14 feet
2 1/2 stories	16 feet

The width of one (1) side yard may be reduced one (1) foot for every foot that the other side yard is correspondingly increased, but no side yard shall be less than eight (8) feet in width. In the case of a lot of record existing as of June 5, 1957, and held under separate and distinct ownership from adjacent lots, the required side yard may be reduced in order to provide a buildable width of up to twenty-four (24) feet, but in no case shall the resulting side yards be less than eight (8) feet.

b. Accessory detached structures with ground coverage of one hundred and forty-four (144) square feet or less: Five (5) feet.

4. *Side yard on side street:*

a. Principal or accessory structures: Twenty (20)

feet.

(e) *Maximum lot coverage:* Thirty-five (35) percent of lot area.

(f) *Minimum lot width:* Sixty-five (65) feet.

(g) *Maximum structure height:* Principal or accessory attached structure: Thirty-five (35) feet.

Accessory detached structure: Eighteen (18) feet.

(h) 1. *Maximum number of units in a building (PRUD of five (5) acres of more):* Six (6) units.

2. *Maximum number of units in a building (PRUD of less than five (5) acres):* Two (2) units.

(i) *Maximum average number of units in a building (PRUD of five (5) acres of more):* Five (5) units.

(j) *Maximum length of building (PRUD):* One hundred (100) feet for buildings without garages; one hundred forty (140) feet for buildings with integral garages.

(k) *Minimum building setback from external subdivision property lines (PRUD):*

1. Three (3) or fewer dwelling units in building: Twenty-five (25) feet.

2. Four (4) or more dwelling units in building: Thirty-five (35) feet.

(l) *Minimum distance between detached PRUD dwelling unit:* Sixteen (16) feet.

(m) *Reserved.*

(n) *Minimum recreation open space area (PRUD):* Three hundred (300) square feet per dwelling unit of common area designated on the site for recreation purposes. Such recreation areas shall be level graded, dry, accessible and properly drained. At a minimum, a contiguous area of six thousand (6,000) square feet with a minimum dimension

of fifty (50) feet shall be provided and shall include one (1) or more of the uses set forth in section 14-526 (d) 9. and the planned residential unit development standards in the City of Portland Design Manual but shall at least provide usable recreation space. Such recreation areas shall be located at least twenty-five (25) feet from dwelling units.

(o) No habitable space in a PRUD shall be below grade, except basements that are a part of and below ground units.

(p) *Maximum floor area for places of assembly on a collector or arterial road:*

Large	Not limited
Medium	9,000 sq. ft.
Small	5,000 sq. ft.

(q) *Maximum floor area for places of assembly not on a collector or arterial road:*

Large	9,000 sq. ft.
Medium	4,500 sq. ft.
Small	2,500 sq. ft.

(Ord. No. 534-84, 5-7-84; Ord. No. 81-88, § 5, 7-19-88; Ord. No. 385-89, §§ 1, 2, 4-3-89; Ord. No. 235-91, § 6, 2-4-91; Ord. No. 118-93, § 6, 10-18-93; Ord. No. 154-96, § 6, 12-16-96; Ord. No. 165-97, § 2, 12-1-97; Ord. No. 95-04/05, 11-15-04; Ord. No. 131-08/09, 12-15-08; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 40-12/13, 9-5-12)

***Editor's note--**Ord. No. 81-88, § 5, adopted July 19, 1988, amended § 14-90 to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 81-88.

Sec. 14-91. Other requirement.

Other requirements are as follows:

(a) *Off-street parking:* Off-street parking is required as provided in division 20 (off-street parking) of this article.

(b) *Shoreland and flood plain management regulations:* Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood

hazard zone shall be subject to the requirements of division 26 and/or division 26.5.

(c) *Storage of vehicles:* Only one (1) unregistered motor vehicle may be stored outside on the premises for a period not exceeding thirty (30) days.

(Ord. No. 534-84, 5-7-84; Ord. No. 15-92, § 7, 6-15-92)

Secs. 14-92. Reserved.
Secs. 14-93. Reserved.

DIVISION 4.5. FH FLEXIBLE HOUSING ZONE

Sec. 14-94. Purpose.

The intention of this division is to establish an overlay zone in which manufactured housing development is permitted in addition to those uses permitted in the underlying residential zone. The purpose of this division is to accommodate additional housing types in appropriate areas of the city, while protecting the value and integrity of established residential neighborhoods and ensuring a balanced and orderly pattern of residential development.

(Ord. No. 610-82, § 2, 7-7-82; Ord. No. 130-82, § 1, 9-20-82; Ord. No. 200-89, § 1, 12-18-89)

Sec. 14-95. Manufactured housing park or subdivision.

Notwithstanding any other provision of this article, no manufactured housing park or subdivision shall be permitted in any zone except as provided in this section.

(a) Manufactured housing park or subdivision, as defined in section 14-47, shall be permitted in the flexible housing zone, the Planning Board shall be the reviewing authority. Such development shall be in accordance with the space and bulk and other requirements applicable to similar uses permitted in the underlying zone, except those standards set forth in section 14-96, and shall also meet the following additional requirement:

1. Reserved.

2. Such development shall be subject to approval by the Planning Board with respect to each and every requirement of article VI of this chapter,

including the special requirements of section 14-499.5, whether or not such development is a subdivision within the meaning of article IV of this chapter, as now enacted or as hereafter amended and shall also be subject to article V of this chapter.

3. Whether or not the underlying zone permits planned residential unit development, a manufactured housing park shall be a planned residential unit development, subject to the provisions of this section, section 14-499.5 and section 14-526 9. All land, including but not limited to private streets, private driveways, utility location areas, common parking areas and common recreation open space, shall be owned and used in common. Manufactured housing parks shall not be subject to the net land area calculations set forth in section 14-47.

4. Single-component manufactured housing shall be prohibited from being horizontally or vertically attached to any other unit or structure. (Provided, however, that this provision shall not be deemed to prohibit building additions, such as porches, garages, room additions or solar greenhouses.)

(Ord. No. 610-82, § 2, 7-7-82; Ord. No. 130-82, § 1, 9-20-82; Ord. No. 263-84, § 1, 12-17-84; Ord. No. 200-89, § 2, 12-18-89; Ord. No. 278-09/10, 7-19-10)

Sec. 14-96. Additional dimensional requirements and performance standards for manufactured housing parks.

Notwithstanding the provisions of section 14-95 and the dimensional requirements for underlying zones, the following dimensional requirements shall apply to manufactured housing parks:

(a) Minimum manufactured housing park unit space size: Four thousand five hundred (4,500) square feet. A manufactured housing park unit space in an unsewered residential district shall meet the provisions of 12 M.R.S.A. 4807 et seq., or the applicable zoning lot size, whichever is larger.

(b) Maximum manufactured housing park unit space coverage: Fifty (50) percent.

(c) Minimum street frontage for manufactured housing park: Fifty (50) feet.

(d) Minimum open space requirement: Ten (10) percent of the combined area of the individual unit spaces within the manufactured housing park.

(e) Minimum yard dimensions:

(Yard dimensions include setbacks from unit space boundaries and setbacks of structures from one another. No structure shall occupy the yard of another structure.):

1. Front yard: Principal or accessory structures: Twenty (20) feet.

2. Rear yard:

   a. Principal or accessory structures with ground coverage greater than one hundred (100) square feet: Twenty (20) feet.
   b. Accessory detached structures with ground coverage of one hundred (100) square feet or less: Five (5) feet.

3. Side yard: Principal or accessory structures: Ten (10) feet.

4. Unit spaces located within a shoreland zone shall meet the lot area and lot width requirements for the underlying zone and shall also meet all applicable shoreland zoning standards.

(f) All manufactured housing park unit spaces within a manufactured housing park shall be shown on a manufactured housing plan showing unit space boundaries, unit space sizes, and unit space dimensions. Such unit spaces shall be under unified ownership with all other unit spaces within the manufactured housing park. The manufactured housing park plan shall also contain a note that city services shall not be provided on private streets within the manufactured housing park. Individual leases for unit spaces shall disclose that city services shall not be provided on private streets within the

manufactured housing park.

(g) All single-family single-component manufactured housing units in a manufactured housing park shall meet the following performance standards:

1. More than half of the roof area of each unit shall be a double-pitched Class C rated shingled roof with a minimum pitch of 3/12.

2. Each unit shall be installed on a full foundation, a concrete frost wall, or a reinforced floating concrete pad which shall be certified by an engineer if it is to be placed on soil with high frost susceptibility, in accordance with all applicable codes and regulations. Any hitch or tow bar shall be removed from the unit after it is placed on its foundation or frost wall. In the case of a frost wall, vermin-proof skirting shall be installed on all sides of the unit. The skirting may consist of either (a) concrete or masonry block or (b) manufactured skirting. If concrete or masonry block skirting is installed, either the exterior siding of the unit shall extend within one (1) foot of grade or decorative masonry siding shall be applied. If manufactured skirting material is installed, the color shall be identical to or compatible with the exterior siding of the unit.

3. Each unit shall have exterior siding that is residential in appearance, including but not limited to natural materials such as wood clapboards or shakes, or exterior materials which simulate wood. Clapboard or simulated clapboards shall have less than eight (8) inches of exposure, and sheet metal type siding shall not be permitted.

4. Each unit shall be provided with at least two (2) trees meeting the city's arboricultural specifications and which are clearly visible from the street line and are located so as to visually widen the narrow dimension or proportion of the unit.

5. Each unit shall have all fuel oil supply systems

constructed and installed within the foundation wall or underground in accordance with all applicable codes and regulations.

6. No unit shall be horizontally or vertically attached to any other unit or other structure, provided, however, that this provision shall not be deemed to prohibit building additions, such as porches, garages, room additions or solar greenhouses.

(Ord. No. 200-89, § 3, 12-18-89)

Sec. 14-97 - 14-100. Reserved.

DIVISION 5. R-4 RESIDENTIAL ZONE*

***Editor's note--**Ord. No. 535-84, adopted May 7, 1984, repealed former Div. 5, §§ 14-101--14-104, and enacted a new Div. 6, §§ 14-101--14-106. The result of this action was that this Art. III contained no division designated 5. The editor has, therefore, in agreement with the city, retained the division designation 5. Formerly §§ 14-101--14-104 were derived from Code 1968, § 602.5.A--D; Ord. No. 499-74, § 2, adopted Aug. 19, 1974; and Ord. No. 91-83, §§ 1, 2, adopted Aug. 3, 1983.

Sec. 14-101. Purpose.

The purpose of the R-4 residential zone is:

(a) To preserve the unique character of the Western Promenade area of the city by controlling residential conversions and by allowing the continued mix of single-family, two-family, and low-rise multifamily dwellings and other compatible development at medium densities.

(Ord. No. 535-84, 5-7-84)

Sec. 14-102. Permitted uses.

The following uses are permitted in the R-4 residential zone:

(a) *Residential:*

1. Single-family detached dwellings;

2. New construction of two-family dwellings;

3. Reserved;

4. Handicapped family unit, as defined in section 14-47 (definitions) of this article, for handicapped persons plus staff;

5. Single-family, multiple-component manufactured housing, as defined in section 14-47 (definitions) of this article, except in a National Register Historic District;

6. Single-family, single-component manufactured housing, as defined in section 14-47 (definitions) of this article, on individual lots under separate and distinct ownership, except in a National Register Historic District, provided that each unit meets the performance standards listed below:

   a. More than half of the roof area of each unit shall be double pitched Class C rated shingled roof with a minimum pitch of 3/12.

   b. Each unit shall be installed on a full foundation or a concrete frost wall in accordance with all applicable codes and regulations. Any hitch or tow bar shall be removed from the unit after it is placed on its foundation or frost wall. In the case of a frost wall, vermin proof skirting shall be installed on all sides of the unit. The skirting may consist of either (a) concrete or masonry block or (b) manufactured skirting. If concrete or masonry block skirting is installed, either the exterior siding of the unit shall extend within one (1) foot of grade or decorative masonry siding shall be applied. If manufactured skirting material is installed, the color shall be identical to or compatible with the exterior siding of the unit.

   c. Each unit shall have exterior siding that is residential in appearance, including but not limited to natural materials such as wood clapboards or shakes, or exterior materials

which simulate wood. Clapboards or simulated clapboards shall have less than eight (8) inches of exposure and sheet metal type siding shall not be permitted.

d. Each unit shall have the long side of the unit parallel to the street line where the required street frontage is met.

e. Each unit shall be provided with at least two (2) trees meeting the city's arboricultural specifications and which are clearly visible from the street line and are located so as to visually widen the narrow dimension or proportion of the unit.

f. Each unit shall have all fuel oil supply systems constructed and installed within the foundation wall or underground in accordance with all applicable codes and regulations.

g. No unit shall be horizontally or vertically attached to any other unit or other structure, provided however, that this provision shall not be deemed to prohibit building additions, such as porches, garages, room additions or solar greenhouses.

(b) *Other:*

1. Cemeteries;

2. Parks, and other active and passive noncommercial recreation spaces;

3. Accessory uses customarily incidental and subordinate to the location, function, and operation of principal uses, subject to the provisions of section 14-404 (accessory use) of this article;

4. Home occupations subject to the provisions of section 14-410 (home occupation) of this article;

5. Municipal uses, excluding those specifically set

forth in section 14-103 of this division.

6. Special needs independent living units, provided that a building housing special needs independent living units shall not house other types of residential or other permitted uses. The owner of a special needs independent living unit building shall file in the Cumberland County Registry of Deeds a statement under oath that the building is a special needs independent living unit building and that any future change of use to a permitted residential use shall require a change in use review by the City of Portland and a decrease in the number of units in the building in accordance with the Portland City Code, chapter 14. The owner shall file proof of such recording with the building inspections division prior to the issuance of any certificates of occupancy for the new uses.

7. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 535-84, 5-7-84; Ord. No. 264-84, § 1, 12-17-84; Ord. No. 67-87, § 2, 11-2-87; Ord. No. 82-88, § 1, 7-19-88; Ord. No. 86A-89, § 4, 8-21-89; Ord. No. 33-91, § 5, 1-23-91; Ord. No. 33A-91, § 2, 4-17-91)

***Editor's note--**Ord. No. 82-88, § 1, adopted July 19, 1988, amended § 14-102 by adding subsection (b)5 to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 82-88.

Sec. 14-103. Conditional uses.

The following uses shall be permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses) of this article and any special provisions, standards or requirements specified below:

(a) *Residential:*

1. Sheltered care group homes, as defined in section 14-47 of this article, for up to twelve (12) individuals, plus staff, and serving a primary population which is not handicapped persons, parolees, persons involved in correctional

prerelease programs, or current illegal drug users, provided that:

a. A sheltered care group home shall not be located within five hundred (500) feet of another, as measured along street lines to the respective property lines;

b. There shall be no open outside stairways or fire escapes above the ground floor;

c. The facility shall make provision for adequate on-site staffing in accordance with applicable state licensing requirements. If a facility is not licensed by the state, there shall be a minimum of one (1) staff person for every ten (10) residents or fraction thereof.

The board of appeals may impose conditions upon a conditional use permit concerning the creation or operation of a sheltered care group home including but not limited to the following: site and building maintenance; lighting, fencing, and other appropriate security measures; screening and buffering of parking areas; compatibility of any additions or alterations with the existing residential structure; compatibility of new structures with the architectural character of the surrounding area; and limitation on the duration of a sheltered care group home permit.

2. Alteration of an existing structure to accommodate one (1) or more dwelling units provided that:

a. No additional dwelling unit shall have less than six hundred (600) square feet of floor area, exclusive of common hallways and storage in basement and attic;

b. No open outside stairways or fire escapes above the ground floor shall be or have been constructed in the immediately preceding five (5) years;

c. The alteration will not result in a total

cubic volume increase of more than ten (10) percent within the immediately preceding five (5) years;

d. A lower level dwelling unit shall have a minimum of one-half of its floor-to-ceiling height above the average adjoining ground level;

e. No existing dwelling unit shall be decreased to less than one thousand (1,000) square feet of floor area;

f. Three thousand (3,000) square feet of land area per dwelling unit shall be required;

g. The project shall be subject to article V (site plan) of this chapter for site plan review and approval.

h. Parking shall be provided as required in division 20 of this article.

3. Multiplex development with three (3) or more horizontally or vertically attached, or a series of such attached dwelling units and the construction of at least one (1) building, provided that:

a. No open outside stairways or fire escapes above the ground floor shall be constructed;

b. No habitable space in a dwelling unit shall be below grade, except basements that are a part of and below aboveground units.

c. Three thousand (3,000) square feet of land area per dwelling unit shall be required for the first three (3) dwelling units with a requirement of six thousand (6,000) square feet of land area per dwelling unit for additional dwelling units;

d. No dwelling unit shall have less than six hundred (600) square feet of floor area, exclusive of common hallways and storage in

basement and attic;

The project shall be subject to article V (site plan) of this chapter for Planning Board site plan review and approval.

(b) ***Institutional:*** Any of the following conditional uses provided that, notwithstanding section 14-474(a) (conditional uses) of this article or any other provision of this Code, the Planning Board shall be substituted for the board of appeals as the reviewing authority:

1. Elementary, middle, and secondary school (except as otherwise provided in section 14-276.10);

2. Places of assembly;

Such uses shall be subject to the following conditions and standards in addition to the provisions of section 14-474:

a. In the case of expansion of existing such uses onto land other than the lot on which the principal use is located, it shall be demonstrated that the proposed use cannot reasonably be accommodated on the existing site through more efficient utilization of land or buildings, and will not cause significant physical encroachment into established residential areas: and

b. The proposed use will not cause significant displacement or conversion of residential uses existing as of June 1, 1983, or thereafter; and

c. In the case of a use or use expansion which constitutes a combination of the above-listed uses with capacity for concurrent operations, the applicable minimum lot sizes shall be cumulative; and

d. Article V (site plan) sections 14-522 and 14-523 notwithstanding, in the case of places of assembly the proposed use shall be subject to

the requirements of article V (site plan) of this chapter; and

e. Community halls:

i. The structure was in existence as of January 4, 2010;

ii. The structure was built for institutional or other non-residential uses;

iii. The structure is operated by, or operated subject to the control of, a not-for-profit entity in accordance with its not-for-profit purposes; and

iv. A parking management plan is submitted for review and approval by the planning board; and

f. Private club or fraternal organizations: any such establishment serving alcoholic beverages or in possession of a license for serving alcoholic beverages shall be located on a large lot, as specified in the minimum lot size provisions of this section.

(c) *Other:*

1. Off-street parking of passenger cars as provided in section 14-344 (board of appeals may authorize parking in certain residential zones) of this article;

2. Utility substations, including sewage and water pumping stations and standpipes, electric power substations, transformer stations, and telephone electronic equipment enclosures and other similar structures, provided that such uses are suitably screened and landscaped so as to ensure compatibility with the surrounding neighborhood;

3. Day care facilities or home babysitting services not permitted as a home occupation under section 14-410, and nursery schools and kindergartens,

subject to the following conditions:

a. The facility shall be located in a structure in which there is one (1) or more occupied residential units or in an existing accessory structure, unless the facility is located in a principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care or home babysitting use or in a nonresidential structure accessory to the principal nonresidential use.

b. The maximum capacity shall be twelve (12) children for facilities located in residential or existing structures accessory thereto, unless the additional standards in subsection v. are met. There shall be no maximum limit on the number of children in a facility located in a principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care use, home babysitting use, nursery school, or kindergarten or in a nonresidential structure accessory thereto, provided that any such structure that serves more than twelve (12) children shall be subject to review under article V of this chapter.

c. Outdoor play areas shall be screened and buffered from surrounding residences with landscaping and/or fencing to minimize visual and noise impacts.

d. Solid waste shall be stored in covered containers. Such containers shall be screened on all four (4) sides.

e. Day care facilities, nursery schools and kindergartens located either in structures that have been in residential use within the past five (5) years or in existing accessory structures and that serve between thirteen (13) and twenty-four (24) children shall meet

the following additional standards:

i. The facility shall provide a minimum of seventy-five (75) square feet of outdoor play area per child;

ii. The play area shall be located in the side and rear yards only and shall not be located in front yards;

iii. Outside play areas shall be separated from abutting properties by a fence at least forty-eight (48) inches in height;

iv. A ten-foot wide landscaped buffer shall be required outside of the fenced play area, and shall be established in accordance with the landscaping standards of the City's Technical Standards and Guidelines;

v. The minimum lot size for a day care facility, home babysitting service, nursery school, or kindergarten located in a residential or existing accessory structure and serving more than twelve (12) children shall be twenty thousand (20,000) square feet;

vi. ***Off-street parking:*** Off-street parking is required as provided in division 20 (off-street parking) of this article.

vii. The maximum number of children in a day care facility, home babysitting service, nursery school, or kindergarten located in a residential or existing accessory structure shall be twenty-four (24); and

viii. Any additions or exterior alterations such as facade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the residential appearance of

the building.

4. Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

   a. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

   b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

   c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

   d. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

   e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

   f. Towers and associated guy wires shall be

sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

5. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 535-84, 5-7-84; Ord. No. 264-84, § 2, 12-17-84; Ord. No. 76-85, § 5, 7-1-85; Ord. No. 67-87, § 3, 11-2-87; Ord. No. 82-88, §§ 2, 3, 7-19-88; Ord. No. 235-91, § 7, 2-4-91; Ord. No. 118-93, § 7, 10-18-93; Ord. No. 133-96, § 4, 11-18-96; Ord. No. 154-96, § 7, 12-16-96; Ord. No. 222-99, §4, 3-01-99; Ord. No. 29-09/10, 8-3-09 emergency passage; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 240-09/10, 6-21-10; Ord. No. 9 10/11, 8-2-10; Ord. No. 138-09/10, 1-20-10; Ord. No. 149-10/11, 3-7-11; Ord. No. 33-11/12, 1-18-12)

***Editor's note--**Ord. No. 82-88, §§ 2, 3, adopted July 19, 1988, amended this section by amending subsection 14-103(a) and by deleting subsection (b)3, municipal use. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 82-88.

Sec. 14-104. Prohibited uses.

Uses that are not expressly enumerated herein as either permitted uses or conditional uses are prohibited.

(Ord. No. 535-84, 5-7-84)

Sec. 14-105. Dimensional requirements.

In addition to the provisions of division 25 of this article (space and bulk regulations and exceptions), lots in the R-4 zone shall meet the following requirements:

(a) *Minimum lot size:*

1. Residential: Six thousand (6,000) square feet except as provided for lots of record in section 14-433 (lots of record and accessory structure setbacks for existing buildings) of this article.

2. Multiplex: Nine thousand (9,000) square feet.

3. School: Thirty thousand (30,000) square feet.

4. Places of assembly:

Large	30,000 sq. ft.
Medium	15,000 sq. ft.
Small	7,500 sq. ft.

5. Municipal use: Six thousand (6,000) square feet.

6. All other uses: Six thousand (6,000) square feet.

Provided that for uses specified in section 14-105(a)3 through 5 above, no minimum lot area shall be required in the following cases:

a. Uses existing on June 1, 1983;

b. Expansion onto land abutting the lot on which the principal use is located;

c. Expansion onto land other than the lot on which the principal use is located to the extent that such expansion consists of the reuse of surface parking area or nonresidential structures existing and in nonresidential use as of June 1, 1983, provided that such reuse is contained within the lot of record of such structure or parking area as of June 1, 1983;

7. Expansion onto land other than the lot on which the

principal use is located of no more than fifteen (15) percent of the total contiguous land area of the existing use, or one (1) acre, whichever is less, within any five-year period.

(b) *Minimum lot area per dwelling unit:* Three thousand (3,000) square feet, except as provided for a multiplex. This requirement may be reduced by up to twenty (20) percent for a special needs independent living unit.

(c) *Minimum street frontage:* Fifty (50) feet.

(d) *Minimum yard dimensions:*

(Yard dimensions include setbacks of structures from property lines and setbacks of structures from one another. No structure shall occupy the minimum yard of another structure.)

1. *Front yard:*

Principal or accessory structures: Twenty-five (25) feet.

A front yard need not exceed the average depth of front yards on either side of the lot. A lot of record existing as of June 5, 1957, and less than one hundred (100) feet deep need not be deeper than twenty (20) percent of the depth of the lot.

2. *Rear yard:*

a. Principal or accessory structures with ground coverage greater than one hundred (100) square feet: Twenty-five (25) feet.

b. Accessory detached structures with a ground coverage of one hundred and forty-four (144) square feet or less: Five (5) feet.

Setbacks for swimming pools shall be as provided for in section 14-432 (swimming pools) of this article.

3. *Side yard:*

a. Principal or accessory structures with ground coverage greater than one hundred (100) square feet:

Height of Structure	*Required Side Yard*
1 story	10 feet
1 1/2 stories	10 feet
2 stories	14 feet
2 1/2 stories	16 feet

The width of one (1) side yard may be reduced one (1) foot for every foot that the other side yard is correspondingly increased, but no side yard shall be less than ten (10) feet. In the case of a lot of record existing as of June 5, 1957, and held under separate and distinct ownership from adjacent lots, the required side yard may be reduced in order to provide a buildable width of up to twenty-four (24) feet, but in no case shall the resulting side yards be less than ten (10) feet.

b. Accessory detached structures with ground coverage of one hundred and forty-four (144) square feet or less: Five (5) feet.

4. *Side yard on side streets:*

Principal or accessory structures: Twenty (20) feet.

A side yard on a side street need not exceed the average depth of front setback directly abutting the lot.

(e) *Maximum lot coverage:* Thirty (30) percent of lot area.

(f) *Minimum width of lot:* Sixty (60) feet.

(g) *Maximum structure height:*

1. Principal structure: Thirty-five (35) feet.

2. Accessory detached structure: Eighteen (18) feet.

(h) *Maximum floor area for places of assembly on a collector or arterial road:*

Large	Not limited
Medium	4,500 sq. ft.
Small	2,250 sq. ft.

(i) *Maximum floor area for places of assembly not on a collector or arterial road:*

Large	4,500 sq. ft.
Medium	2,250 sq. ft.
Small	1,125 sq. ft.

(Ord. No. 535-84, 5-7-84; Ord. No. 82-88, § 4, 7-19-88; Ord. No. 235-91, § 9, 2-4-91; Ord. No. 33A-91, § 3, 4-17-91; Ord. No. 118-93, § 8, 10-18-93; Ord. No. 154-96, § 8, 12-16-96; Ord. No. 131-08/09, 12-15-08; Ord. No. 127-09/10, 1-4-10 emergency passage)

***Editor's note--**Ord. No. 82-88, § 4, adopted July 19, 1988, amended § 14-105 to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 82-88.

Sec. 14-106. Other requirements.

[Other requirements are as follows:]

(a) *Off-street parking:* Off-street parking is required as provided in division 20 (off-street parking) of this article.

(b) *Shoreland and flood plain management regulations:* Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5.

(c) *Storage of vehicles:* Only one (1) unregistered motor vehicle may be stored outside on the premises for a period not exceeding thirty (30) days.

Sec. 14-107 – 14-115. Reserved.

DIVISION 6. R-5 RESIDENTIAL ZONE*

***Editor's note--**Ord. No. 536-84, adopted May 7, 1984, repealed former Div. 6, §§ 14-116--14-119, and enacted in lieu thereof a new Div. 7, §§ 14-116--14-121. However, in order to avoid duplication of subsequent division numbers and in consultation with the city, the provisions have been retained as Div. 6. Sections 14-116--14-119 were formerly derived from Code 1968, § 602.5.A--D, and Ord. Nos. 207-72, 499-74, 193-82, 92-83, 422-83.

Sec. 14-116. Purpose.

The purpose of the R-5 residential zone is:

To provide appropriate areas of the city for medium-density residential development characterized by single-family and low-intensity multifamily dwellings on individual lots; to ensure the stability of established medium-density neighborhoods by controlling residential conversions; and to provide for planned residential unit development on substantially sized parcels. Such PRUD development shall respond to the physical qualities of a site and complement the scale, character and style of the surrounding neighborhood.

(Ord. No. 536-84, 5-7-84; Ord. No. 83-88, § 1, 7-19-88)

***Editor's note--**Ord. No. 83-88, § 1, adopted July 19, 1988, amended § 14-116 to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 83-88.

Sec. 14-117. Permitted uses.

The following uses are permitted in the R-5 residential zone:

(a) *Residential:*

1. Single- and two-family dwellings; except that development of two (2) or more two-family dwellings on contiguous lots within any two-year period shall be subject to review as specified under the provisions of 14-117(a)2e if such lots were under

single ownership at any time within the two-year period immediately prior to development of the first such lot. No building reviewed as a two-family dwelling in accordance with article V (site plan) of this chapter or not reviewed under article V shall be altered or enlarged to include any additional dwelling unit within five (5) years from the date of issuance of the building permit. Any building reviewed as a two-family dwelling in accordance with article V (site plan) which is altered or enlarged to include any additional dwelling unit after this five-year period shall be reviewed as a level I site plan pursuant to article V of this chapter.

2. Multiplex development with three (3) or more horizontally or vertically attached dwelling units or a series of such attached dwelling units and the construction of at least one (1) building on a parcel of less than two (2) acres, provided that:

   a. The land area requirement for a multiplex shall be six thousand (6,000) square feet of land area per dwelling unit; except that a multiplex with two hundred fifty (250) feet or more of street frontage needs only forty-five hundred (4,500) square feet of land area per dwelling unit;

   b. No dwelling unit shall have less than six hundred (600) square feet of floor area, exclusive of common hallways and storage in basement and attic;

   c. No open outside stairways or fire escapes above the ground floor shall be constructed;

   d. No habitable space in a dwelling unit shall be below grade, except basements that are a part of and below aboveground units;

   e. Such development shall be subject to article V (site plan) of this chapter for site plan review approval and shall conform to the R-5 Design Standards.

3. Planned residential unit development (PRUD) consisting of horizontally or vertically attached dwelling units, or a series of such dwelling units. No dimensional requirements contained in section 14-120 shall apply with respect to such development, except for those requirements specifically denoted for PRUD. There shall be no open outside stairways or fire escapes above the ground floor. All land shall be owned and used in common and shall be governed and maintained as set forth in section 14-498(i)(3) of this chapter. Such development shall be subject to review and approval by the Planning Board with respect to the requirements of article V (site plan) and article IV (subdivisions) of this chapter, whether or not such development is a subdivision within the meaning of article IV of this chapter, as now enacted or as hereafter amended.

4. Handicapped family unit, as defined in section 14-47 (definitions) of this article, for handicapped persons plus staff.

5. Single-family, multiple-component manufactured housing, as defined in section 14-47 (definitions) of this article, except in a National Register Historic District.

6. Single-family, single-component manufactured housing, as defined in section 14-47 (definitions) of this article, on individual lots under separate and distinct ownership, except in a National Register Historic District, provided that each unit meets the performance standards listed below:

   a. More than half of the roof area of each unit shall be a double pitched Class C rated shingled roof with a minimum pitch of 3/12.

   b. Each unit shall be installed on a full foundation or a concrete frost wall in accordance with all applicable codes and regulations. Any hitch or tow bar shall be removed from the unit after it is placed on

its foundation or frost wall. In the case of a frost wall, vermin proof skirting shall be installed on all sides of the unit. The skirting may consist of either (a) concrete or masonry block or (b) manufactured skirting. If concrete or masonry block skirting is installed, either the exterior siding of the unit shall extend within one (1) foot of grade or decorative masonry siding shall be applied. If manufactured skirting material is installed, the color shall be identical to or compatible with the exterior siding of the unit.

c. Each unit shall have exterior siding that is residential in appearance, including but not limited to natural materials such as wood clapboards or shakes, or exterior materials which simulate wood. Clapboards or simulated clapboards shall have less than eight (8) inches of exposure and sheet metal type siding shall not be permitted.

d. Each unit shall have the long side of the unit parallel to the street line where the required street frontage is met.

e. Each unit shall be provided with at least two (2) trees meeting the city's arboricultural specifications and which are clearly visible from the street line and are located so as to visually widen the narrow dimension or proportion of the unit.

f. Each unit shall have all fuel oil supply systems constructed and installed within the foundation wall or underground in accordance with all applicable codes and regulations.

g. No unit shall be horizontally or vertically attached to any other unit or other structure, provided however, that this provision shall not be deemed to prohibit building additions, such as porches, garages, room additions or solar greenhouses.

(b) *Other:*

1. Parks, and other active and passive noncommercial recreation spaces;

2. Accessory uses customarily incidental and subordinate to the location, function, and operation of principal uses, subject to the provisions of section 14-404 (accessory use) of this article;

3. Home occupation, subject to the provisions of section 14-410 (home occupation) of this article;

4. Municipal uses, excluding those specifically set forth in section 14-118 of this division.

5. Special needs independent living units on lots of less than two (2) acres, provided that a building housing special needs independent living units shall not house other types of residential or other permitted uses. The owner of a special needs independent living unit building shall file in the Cumberland County Registry of Deeds a statement under oath that the building is a special needs independent living unit building and that any future change of use to a permitted residential use shall require a change in use review by the City of Portland and a decrease in the number of units in the building in accordance with the Portland City Code, chapter 14. The owner shall file proof of such recording with the building inspections division prior to the issuance of any certificates of occupancy for the new uses.

6. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 536-84, 5-7-84; Ord. No. 265-84, § 1, 12-17-84; Ord. No. 98-86, § 1, 10-6-86; Ord. No. 83-88, §§ 2, 3, 7-19-88; Ord. No. 387-89, 4-3-89; Ord. No. 86A-89, § 5, 8-21-89; Ord. No. 95-89, § 1, 9-6-89; Ord. No. 279-90, § 1, 3-10-90; Ord. No. 33-91, § 6, 1-23-91; Ord. No. 33A-91, § 4, 4-17-91; Ord. No. 220-95, 4-3-95; Ord. No. 165-97, § 3, 12-1-97; Ord. No. 56-08/09, 9-3-08; Ord. No. 278-09/10, 7-19-10; Ord. No. 33-11/12, 1-18-12)

***Editor's note--**Ord. No. 83-88, §§ 2, 3, adopted July 19, 1988, amended

subsections 14-117(a) and (b)4 to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 83-88. Ord. No. 95-89, § 1, adopted Sept. 6, 1989, amended subsection (a)1 of § 14-117 to read as set out and, as amended, further ordained "that the prohibition upon unit additions contained in this ordinance shall not apply where a building permit has been issued. Additions proposed to such buildings shall require major site plan review and all other reviews required by this chapter."

Sec. 14-118. Conditional uses.

The following uses shall be permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses) and any special provisions, standards or requirements specified below:

(a) *Residential:*

1. Reserved.

2. Sheltered care group homes, as defined in section 14-47 of this article, for up to twelve (12) individuals, plus staff, and serving a primary population which is not handicapped persons, parolees, persons involved in correctional prerelease programs, or current illegal drug users, provided that:

   a. A sheltered care group home shall not be located within five hundred (500) feet of another, as measured along street lines to the respective property lines;

   b. There shall be no open outside stairways or fire escapes above the ground floor;

   c. The facility shall make provision for adequate on-site staffing and supervision of residents in accordance with applicable state licensing requirements. If a facility is not licensed by the state, there shall be a minimum of one (1) staff person for every ten (10) residents or fraction thereof.

   The board of appeals may impose conditions upon a conditional use permit concerning the creation or

operation of a sheltered care group home including but not limited to the following: site and building maintenance; lighting, fencing, and other appropriate security measures; screening and buffering of parking areas; compatibility of any additions or alterations with the existing residential structure; compatibility of new structures with the architectural character of the surrounding area; and limitation on the duration of the sheltered care group home permit.

3. Alteration of a structure existing and not in residential use as of January 1, 1984, to three (3) or more dwelling units, provided that:

   a. No dwelling unit shall have less than six hundred (600) square feet of floor area, exclusive of common hallways and storage in basement and attic;

   b. No open outside stairways or fire escapes above the ground floor shall be constructed or have been constructed in the immediately preceding five (5) years;

   c. A lower level dwelling unit shall have a minimum of one-half of its floor-to-ceiling height above the average adjoining ground level;

   d. Three thousand (3,000) square feet of land area per dwelling unit shall be required;

   e. On-site parking shall be required as specified in division 20 (off-street parking) of this article, for the combined uses of the site;

   f. The project shall be subject to article V (site plan) of this chapter for site plan review and approval and the following additional standards:

      1. Any addition or exterior alterations such as facade materials, building form, and roof pitch shall be designed to be

compatible with the architectural style of the structure;

2. The scale and surface area of parking, driveways, and paved areas shall be arranged and landscaped to be compatible in size and scale with neighboring properties in the area and to properly screen vehicles from adjacent properties and streets.

4. Conversions of existing two-family or multiplex structures into lodging houses, provided that a lodging house shall not be located within five hundred (500) feet of another as measured along street lines to the respective property lines.

5. Alteration of a single-family dwelling existing as of September 3, 2008 on a nonconforming lot to accommodate an accessory dwelling unit within and clearly subordinate the principal structure provided that:

a. The accessory unit shall have a minimum floor area of four hundred (400) square feet that represents no more than thirty (30) percent of the gross floor area of the principal dwelling unit Gross floor area shall exclude any floor area that has less than two-thirds of its floor-to-ceiling height above the average adjoining ground level and may include the attic if such space is habitable.

b. The principal dwelling unit shall be located on a lot of no less than four thousand (4,000) square feet and no more than six thousand (6,000) square feet;

c. Either the accessory or principal dwelling unit shall be occupied by the owner of the lot, except for bona fide absences of a temporary nature;

d. Parking shall be provided as required by Division 20 of this article.

e. There shall be no open, outside stairways or fire escapes above the ground floor; and

f. The project shall be subject to Article V for site plan review and approval and the following additional standards:

i. Any additions or exterior alterations such as façade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the single family appearance of the building; and

ii. The scale and surface area of parking, driveways and paved areas shall be arranged and landscaped properly to screen vehicles from adjacent properties and streets.

(b) ***Institutional:*** Any of the following conditional uses provided that, notwithstanding section 14-474(a) (conditional uses) of this article, or any other provision of this Code, the Planning Board shall be substituted for the board of appeals as the reviewing authority:

1. Elementary, middle, and secondary school;

2. a. Long-term and extended care facilities;

b. Intermediate care facility for thirteen (13) or more persons;

3. Places of assembly;

4. Reserved;

5. Hospital;

6. College, university, trade school.

Such uses shall be subject to the following conditions

and standards in addition to the provisions of section 14-474:

a. In the case of expansion of existing such uses onto land other than the lot on which the principal use is located, it shall be demonstrated that the proposed use cannot reasonably be accommodated on the existing site through more efficient utilization of land or buildings, and will not cause significant physical encroachment into established residential areas; and

b. The proposed use will not cause significant displacement or conversion of residential uses existing as of June 1, 1983, or thereafter; and

c. In the case of a use or use expansion which constitutes a combination of the above-listed uses with capacity for concurrent operations, the applicable minimum lot sizes shall be cumulative; and

d. Article V (site plan) sections 14-522 and 14-523 notwithstanding, in the case of places of assembly the proposed use shall be subject to the requirements of article V (site plan) of this chapter; and

e. In the case of community halls:

i. The structure was in existence as of January 4, 2010;

ii. The structure was built for institutional or other non-residential uses;

iii. The structure is operated by, or operated subject to the control of, a not-for-profit entity in accordance with its not-for-profit purposes; and

iv. A parking management plan is submitted

for review and approval by the planning board; and

f. In the case of private club or fraternal organizations: any such establishment serving alcoholic beverages or in possession of a license for serving alcoholic beverages shall be located on a large lot, as specified in the minimum lot size provisions of this section.

d. A college, university or trade school may build principal structures to a height of fifty-five (55) feet, not including the USM overlay zone, if the following standards can be met:

(i) Lot size: 10 acres which may include adjacent land owned by the institution on both sides of a public street.

(ii) Minimum setback between buildings on-site: 20 feet.

(iii) Minimum setback from external property boundary: 30 feet, except that parking garages over 35 feet in height must be located 50 feet from external property boundaries when adjacent to an adjoining residential use.

(iv) The area between the structure and adjoining residential uses must be adequately screened with appropriate landscaping or other features to buffer the building and effects thereof (i.e. noise, light, etc) from abutting properties.

(c) *Other:*

1. Off-street parking of passenger cars as provided in section 14-344 (board of appeals may authorize parking in certain residential zones) of this article;

2. Utility substations such as water and sewage pumping stations and standpipes, electric power substations, transformer stations, and telephone electronic equipment enclosures and other similar structures, provided that such uses are suitably screened and landscaped so as to ensure compatibility with the surrounding neighborhood;

3. Day care facilities or home babysitting services not permitted as a home occupation under section 14-410, and nursery schools and kindergartens subject to the following conditions:

   a. The facility shall be located in a structure in which there is one (1) or more occupied residential units or in an existing accessory structure, unless the facility is located in a principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care or home babysitting use or in a nonresidential structure accessory to the principal nonresidential use.

   b. The maximum capacity shall be twelve (12)children for facilities located in residential or existing structures accessory thereto, unless the additional standards in subsection v. are met. There shall be no maximum limit on the number of children in a facility located in a principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care use, home babysitting use, nursery school, or kindergarten, or in a nonresidential structure accessory thereto, provided that any such structure that serves more than twelve (12) children shall be subject to review under article V of this chapter.

   c. Outdoor play areas shall be screened and buffered from surrounding residences with landscaping and/or fencing to minimize visual

and noise impacts.

d. Solid waste shall be stored in covered containers. Such containers shall be screened on all four (4) sides.

e. Day care facilities, nursery schools and kindergartens located either in structures that have been in residential use within the past five (5) years or in existing accessory structures and that serve between thirteen (13) and twenty-four (24) children shall meet the following additional standards:

i. The facility shall provide a minimum of seventy-five (75) square feet of outdoor play area per child;

ii. The play area shall be located in the side and rear yards only and shall not be located in front yards;

iii. Outside play areas shall be separated from abutting properties by a fence at least forty-eight (48) inches in height;

iv. A ten-foot wide landscaped buffer shall be required outside of the fenced play area, and shall be established in accordance with the landscaping standards of the City's Technical Standards and Guidelines;

v. The minimum lot size for a day care facility, home babysitting service, nursery school, or kindergarten located in a residential or existing accessory structure and serving more than twelve (12) children shall be twenty thousand (20,000) square feet;

vi. ***Off-street parking:*** Off-street parking is required as provided in division 20 (off-street parking) of this article.

vii. The maximum number of children in a day care facility, home babysitting service, nursery school or kindergarten located in a residential or existing accessory structure shall be twenty-four (24); and

viii. Any additions or exterior alterations such as facade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the residential appearance of the building.

4. Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

a. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

d. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength,

stability, security, grounding, icing impacts and maintenance; and

e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

f. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

5. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 536-84, 6-7-84; Ord. No. 265-84, § 2, 12-17-84; Ord. No. 76-85, § 6, 7-1-85; Ord. No. 83-88, § 4, 7-19-88; Ord. No. 235-91, § 10, 2-4-91; Ord. No. 118-93, § 9, 10-18-93; Ord. No. 133-96, § 5, 11-18-96; Ord. No. 154-96, § 9, 12-16-96; Ord. No. 222-99, §5, 3-01-99; Ord. No. 94-07/08, 11-5-07; Ord. No. 56/08/09, 9-3-08; Ord. No. 29-09/10, 8-3-09 emergency passage; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 240-09/10, 6-21-10; Ord. No. 9 10/11, 8-2-10; Ord. No. 149-10/11, 3-7-11; Ord. No. 33-11/12, 1-18-12)

***Editor's note--**Ord. No. 83-88, § 4, adopted July 19, 1988, amended § 14-118 by deleting subsection (b)5. See also the editor's note to Art. III of

this chapter for additional provisions relative to Ord. No. 83-88.

Sec. 14-119. Prohibited uses.

Uses that are not expressly enumerated herein as either permitted uses or conditional uses are prohibited.
(Ord. No. 536-84, 5-7-84)

Sec. 14-120. Dimensional requirements.

(a) In addition to the provisions of division 25 (space and bulk regulations and exceptions) of this article, lots in the R-5 zone shall meet the following minimum requirements:

1. *Minimum lot size:*

a. Residential: Six thousand (6,000) square feet except as provided for lots of record in section 14-433 (lots of record and accessory structure setbacks for existing buildings) of this article. A lot in an unsewered residential district shall meet the provisions of the state Minimum Lot Size Law, 12 M.R.S.A. section 4807, or the applicable zoning lot size, whichever is larger.

b. Reserved.

c. Long-term, extended, or intermediate care facility: Two (2) acres.

d. School: Thirty thousand (30,000) square feet.

e. Places of assembly:

Large	43,560 sq. ft.
Medium	21,780 sq. ft.
Small	10,890 sq. ft.

f. Municipal use: Six thousand (6,000) square feet.

g. Hospital: Five (5) acres.

h. College, university, trade school: Two (2) acres.

i. Multiplex: Nine thousand (9,000) square feet.

j. Planned residential unit development (PRUD): Two (2) acres gross area, as defined in section 14-47 (definitions) of this article, of contiguous land.

k. All other uses: Six thousand (6,000) square feet.

l. Lodging houses: Nine thousand (9,000) square feet.

Provided that for uses specified in section 14-120 (1)(c) through (i) above, no minimum lot area shall be required in the following cases:

i. Uses existing as of June 1, 1983;

ii. Expansion of uses onto land abutting the lot on which the principal use is located;

iii. Expansion onto land other than the lot on which the principal use is located to the extent that such expansion consists of the reuse of surface parking area or nonresidential structures existing and in nonresidential use as of June 1, 1983, provided that such reuse is contained within the lot of record of such structure or parking area as of June 1, 1983;

iv. Expansion onto land other than the lot on which the principal use is located of no more than fifteen (15) percent of the total contiguous land area of the existing use, or one (1) acre, whichever is less, within any five-year period.

2. *Minimum lot area per dwelling unit:*

PRUD: Three thousand (3,000) square feet of net land area as defined in section 14-47 (definitions) of this article. As part of a site plan and subdivision application, the applicant shall provide a calculation of those factors deducted to determine net land area. In addition, such net area factors shall be delineated on a site plan.

Special needs independent living units: Four thousand eight hundred (4,800) square feet; except that special needs independent living units with two hundred fifty (250) feet or more of frontage shall require three thousand six hundred (3,600) square feet.

Other uses: Three thousand (3,000) square feet, except as provided for a multiplex.

3. *Minimum street frontage:* Fifty (50) feet.

4. *Minimum yard dimension:*

(Yard dimensions include setbacks of structures from property lines and setbacks of structures from one another. No structure shall occupy the minimum yard of another structure.)

a. *Front yard:*

Principal or accessory structures: Twenty (20) feet.

A front yard need not exceed the average depth of front yards on either side of the lot. A lot of record existing as of June 5, 1957, and less than one hundred (100) feet deep need not be deeper than twenty (20) percent of the depth of the lot.

b. *Rear yard:*

i. Principal or attached accessory structures with ground coverage greater than one hundred (100) square feet: Twenty (20) feet.

ii. Accessory detached structures with ground coverage of one hundred and forty-four(144) square feet or less: Five (5) feet.

Setbacks from swimming pools shall be as provided in section 14-432 (swimming pools) of this article.

c. *Side yard:*

i. Principal or accessory structures with ground coverage greater than one hundred (100) square feet:

Height of Structure	*Required Side Yard*
1 story	8 feet
1 1/2 stories	8 feet
2 stories	12 feet
2 1/2 stories	14 feet

The width of one (1) side yard may be reduced one (1) foot for every foot that the other side yard is correspondingly increased, but no side yard shall be less than eight (8) feet in width. In the case of a lot of record existing as of June 5, 1957, and held under separate and distinct ownership from adjacent lots, the required side yard may be reduced in order to provide a buildable width of up to twenty-four (24) feet, but in no case shall the resulting side yards be less than eight (8) feet.

ii. Accessory detached structures with ground coverage of one hundred and forty-four(144) square feet or less: Five (5) feet.

d. *Side yard on side street:*

Principal or accessory structures: Fifteen (15) feet.

5. *Maximum lot coverage:* Forty (40) percent of lot area.

6. *Minimum lot width:*

Multiplex: Ninety (90) feet.

Other uses: Sixty (60) feet.

7. *Maximum structure height:*

Principal or attached accessory structure: Thirty-five

(35) feet.

Accessory detached structure: Eighteen (18) feet.

Principal and accessory attached structure (PRUD): Thirty-five (35) feet.

8. a. *Maximum number of units in a building (PRUD):* Twelve (12) units

   b. *Maximum number of units in a multiplex building:* Six (6) units.

9. *Maximum length of building (PRUD):* One hundred forty (140) feet.

10. *Maximum length of accessory garage structure (PRUD):* Sixty (60) feet.

11. *Minimum building setback from external subdivision property lines (PRUD):*

   a. *Building length of one hundred (100) feet or less:* Twenty-five (25) feet.

   b. *Building length greater than one hundred (100) feet:* Thirty-five (35) feet.

12. *Minimum recreation open space area (PRUD):* Three hundred (300) square feet per dwelling unit of common area designated for recreation purposes. Such recreation areas shall be level graded, dry, accessible and properly drained. At a minimum, a contiguous area of six thousand (6,000) square feet, with a minimum dimension of fifty (50) feet, shall be provided and shall include one (1) or more of the uses set forth in section 14-526(d) 9. and the planned residential unit development standards in the City of Portland Design Manual, but shall at least be usable as a multipurpose game field. Such recreation areas shall be located at least twenty-five (25) feet from dwelling units.

13. No habitable space in a PRUD shall be below grade, except basements that are part of and below aboveground units.

14. a. ***Minimum rooming unit area for lodging houses:*** Two hundred (200) square feet of combined rooming unit and common area per rooming unit. Each individual rooming unit shall be a minimum of eighty (80) square feet.

b. ***Minimum land area per lodging house rooming unit:*** One thousand (1,000) square feet.

15. ***Maximum floor area for places of assembly on a collector or arterial road:***

Large	Not limited
Medium	4,500 sq. ft.
Small	2,250 sq. ft.

16. ***Maximum floor area for places of assembly not on a collector or arterial road:***

Large	4,500 sq. ft.
Medium	2,250 sq. ft.
Small	1,125 sq. ft.

(b) ***Small residential lot development:*** Single family homes may be built on small lots located in the R-5 and may use the dimensional requirements below if one of the following conditions is met:

The lot is:

Vacant as of (date of enactment); or used exclusively for parking; or contains structure(s) not used for residential purposes; or created from a single lot division of a developed lot and results in a lot meeting the dimensional requirements of § 14-120(b) with the remaining developed portion meeting the dimensional requirements of §14-120(a)(1)-(14) except as expressly provided in Section 14-120(b).

1. ***Minimum lot size***: Five thousand (5,000) square feet.

2. ***Maximum lot size:***

a. Lots that are vacant as of September 3, 2008, used

exclusively for parking, or contain structure(s) not used for residential purposes: Six thousand (6,000) square feet.

b. Original developed lot prior to the single lot division that results in a lot meeting the dimensional requirements of §14-120(b) with the remaining developed portion meeting the dimensional requirements of §14-120(a)(1)-(14): Thirteen thousand (13,000) square feet.

3. *Yard dimensions:*

a. *Side yard:*

i. Principal or attached accessory structures with ground coverage greater than one hundred (100) square feet: Seven (7) feet.

The width of one (1) side yard may be reduced one (1) foot for every foot that the other side yard is correspondingly increased, but no side yard shall be less than four (4) feet in width.

ii. Side yard on side street: Ten (10) feet.

4. *Minimum lot width:* Forty (40).

5. *Minimum street frontage:* Forty (40).

6. *Maximum lot coverage: Fifty (50) percent.*

(Ord. No. 536-84, 5-7-84; Ord. No. 98-86, § 2, 10-6-86; Ord. No. 83-88, § 5, 7-19-88; Ord. No. 386-89, §§ 1, 2, 4-3-89; Ord. No. 235-91, § 11, 2-4-91; Ord. No. 33A-91, § 5, 4-17-91; Ord. No. 118-93, § 10, 10-18-93; Ord. No. 154-96, § 10, 12-16-96; Ord. No. 165-97, § 4, 12-1-97; ORd. No. 56-08/09, 9-3-08; Ord. No. 131-08/09, 12-15-08; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 278-09/10, 7-19-10; Ord. No. 275-10/11, 10-18-10)

***Editor's note--**Ord. No. 83-88, § 5, adopted July 19, 1988, amended § 14-120 to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 83-88.

Sec. 14-121. Other requirements.

(a) ***Off-street parking:*** Off-street parking is required as provided in division 20 (off-street parking) of this article.

(b) ***Shoreland and flood plain management regulations:*** Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5.

(c) ***Storage of vehicles:*** Only one (1) unregistered motor vehicle may be stored outside on the premises for a period not exceeding thirty (30) days.

(d) ***Small residential lot development*** shall conform to the site plan standards of § 14-526.

(Ord. No. 536-84, 5-7-84; Ord. No. 15-92, § 9, 6-15-92; Ord. No. 56-08/09, 9-3-08)

Sec. 14-122 - 14-125. Reserved.

DIVISION 6.5. R-5A RESIDENTIAL ZONE*

***Editor's note--**Ord. No. 537-84, adopted May 7, 1984, repealed a nonexistent Div. 6.5 and enacted a new Div. 8. However, in order to avoid duplication of division numbers and in consultation with the city, the provisions have been included as a new Div. 6.5, §§ 14-126--14-131.

Sec. 14-126. Purpose.

The purpose of the R-5A residential zone is:

(a) To provide for moderate-density residential development in off-peninsula sections that can provide a unique residential living experience with a high degree of natural site amenities; and to provide areas of the city in the general proximity of the peninsula that have the capability for adequate municipal services, including traffic corridors with adequate traffic capacity, that can appropriately accommodate a more intensive use of land than other lower-density zoned land and be compatible with surrounding neighborhoods; and to increase affordable housing opportunities in off-peninsula locations by providing a moderate-density

zone.

(Ord. No. 537-84, 5-7-84; Ord. No. 84-88, § 1, 7-19-88)

***Editor's note--**Ord. No. 84-88, § 1, adopted July 19, 1988, amended § 14-126 to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 84-88.

Sec. 14-127. Permitted uses.

The following uses are permitted in the R-5A residential zone:

(a) *Residential:*

1. Single-, two-and three-family dwellings.

2. Planned residential unit development (PRUD) consisting of horizontally or vertically attached dwelling units or a series of such dwelling units. No dimensional requirements contained in section 14-130 shall apply with respect to such developments except for those requirements specifically denoted for PRUD. There shall be no open outside stairways or fire escapes above the ground floor. The planned residential unit development shall be implemented through conditional or contract zoning, as described in division 1.5, for specific sites and proposed development meeting the overall requirements specified herein. All land shall be owned and used in common and shall be governed and maintained as set forth in section 14-498(i)(3) of article IV (subdivisions). Such development shall be subject to review and approval by the Planning Board with respect to the requirements of article V (site plan) and article IV (subdivisions) of this chapter, whether or not such development is a subdivision within the meaning of article IV of this chapter, as now enacted or as hereafter amended.

3. Handicapped family unit, as defined in section 14-47 (definitions) of this article, for handicapped persons plus staff.

4. Single-family, multiple-component manufactured housing, as defined in section 14-47 (definitions) of this article, except in a National Register Historic District.

5. Single-family, single-component manufactured housing, as defined in section 14-47 (definitions) of this article, on individual lots under separate and distinct ownership, except in a National Register Historic District, provided that each unit meets the performance standards listed below:

   a. More than half of the roof area of each unit shall be a double pitched Class C rated shingled roof with a minimum pitch of 3/12.

   b. Each unit shall be installed on a full foundation or a concrete frost wall in accordance with all applicable codes and regulations. Any hitch or tow bar shall be removed from the unit after it is placed on its foundation or frost wall. In the case of a frost wall, vermin proof skirting shall be installed on all sides of the unit. The skirting may consist of either (a) concrete or masonry block or (b) manufactured skirting. If concrete or masonry block skirting is installed, either the exterior siding of the unit shall extend within one (1) foot of grade or decorative masonry siding shall be applied. If manufactured skirting material is installed, the color shall be identical to or compatible with the exterior siding of the unit.

   c. Each unit shall have exterior siding that is residential in appearance, including but not limited to natural materials such as wood clapboards or shakes, or exterior materials which simulate wood. Clapboards or simulated clapboards shall have less than eight (8) inches of exposure and sheet metal type siding shall not be permitted.

   d. Each unit shall have the long side of the unit

parallel to the street line where the required street frontage is met.

e. Each unit shall be provided with at least two (2) trees meeting the city's arboricultural specifications and which are clearly visible from the street line and are located so as to visually widen the narrow dimension or proportion of the unit.

f. Each unit shall have all fuel oil supply systems constructed and installed within the foundation wall or underground in accordance with all applicable codes and regulations.

g. No unit shall be horizontally or vertically attached to any other unit or other structure, provided however, that this provision shall not be deemed to prohibit building additions, such as porches, garages, room additions or solar greenhouses.

(b) *Other:*

1. Parks and other active and passive noncommercial recreation spaces;

2. Accessory uses customarily incidental and subordinate to the location, function, and operation of principal uses, subject to the provisions of section 14-404 (accessory use) of this article;

3. Home occupation, subject to the provisions of section 14-410 (home occupation) of this article;

4. Municipal use;

5. Intermediate, extended and long-term care facilities.

6. Wind energy systems, as defined and allowed in Article X, ALtenrative Energy.

(Ord. No. 537-84, 5-7-84; Ord. No 266-84, § 1, 12-17-84; Ord. No. 84-88, §§ 2, 3, 7-19-88; Ord. No. 86A-89, § 6, 8-21-89; Ord. No. 33-91, § 7, 1-23-91; Ord. No.

***Editor's note--**Ord. No. 84-88, §§ 2, 3, adopted July 19, 1988, amended § 14-127 to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 84-88.

Sec. 14-128. Conditional use.

The following uses shall be permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses) of this article and any special provisions, standards or requirements specified below:

(a) *Residential:*

1. Sheltered care group homes, as defined in section 14-47 of this article, for up to twelve (12) individuals, plus staff, and serving a primary population which is not handicapped persons, parolees, persons involved in correctional prerelease programs, or current illegal drug users, provided that:

   a. A sheltered care group home shall not be located within five hundred (500) feet of another, as measured along street lines to the respective property lines.

   b. There shall be no open outside stairways or fire escapes above the ground floor.

   c. The facility shall make provision for adequate on-site staffing in accordance with applicable state licensing requirements. If a facility is not licensed by the state, there shall be a minimum of one (1) staff person for every ten (10) residents or fraction thereof.

   The board of appeals may impose conditions upon a conditional use permit concerning the creation or operation of a sheltered care group home including but not limited to the following: site and building maintenance; lighting, fencing, and other appropriate security measures; screening and

buffering of parking areas; compatibility of any additions or alterations with the existing residential structure; compatibility of new structures with the architectural character of the surrounding area; and limitation on the duration of the sheltered care group home permit.

(b) *Other:*

1. Utility substations, including water and sewage pumping stations and standpipes, electric power substations, transformer stations and telephone electronic equipment enclosures, and other similar structures, provided that such uses are suitably screened and landscaped so as to ensure compatibility with the surrounding neighborhood.

2. Nursery schools and kindergartens.

3. Day care facilities or home babysitting services not permitted as a home occupation under section 14-410, subject to the following conditions:

   a. The facility shall be located in a structure in which there is one (1) or more occupied residential units or in an existing accessory structure, unless the facility is located in a principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care or home babysitting use or in a nonresidential structure accessory to the principal nonresidential use.

   b. The maximum capacity shall be twelve (12) children for facilities located in residential or existing structures accessory thereto, unless the additional standards in subsection v. are met. There shall be no maximum limit on the number of children in a facility located in a principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care or home babysitting use, or in a nonresidential structure

accessory thereto, provided that any such structure that serves more than twelve (12) children shall be subject to review under article V of this chapter.

c. Outdoor play areas shall be screened and buffered from surrounding residences with landscaping and/or fencing to minimize visual and noise impacts.

d. Solid waste shall be stored in covered containers. Such containers shall be screened on all four (4) sides.

e. Day care facilities, nursery schools and kindergartens located either in structures that have been in residential use within the past five (5) years or in existing accessory structures and that serve between thirteen (13) and twenty-four (24) children shall meet the following additional standards:

i. The facility shall provide a minimum of seventy-five (75) square feet of outdoor play area per child;

ii. The play area shall be located in the side and rear yards only and shall not be located in front yards;

iii. Outside play areas shall be separated from abutting properties by a fence at least forty-eight (48) inches in height;

iv. A ten-foot wide landscaped buffer shall be required outside of the fenced play area, and shall be established in accordance with the landscaping standards of the City's Technical Standards and Guidelines;

v. The minimum lot size for a day care facility located in a residential or existing accessory structure and serving more than twelve (12) children shall be

twenty thousand (20,000) square feet;

vi. ***Off-street parking***: Off-street parking is required as provided in division 20 (off-street parking) of this article.

vii. The maximum number of children in a day care facility located in a residential or existing accessory structure shall be twenty-four (24); and

viii. Any additions or exterior alterations such as facade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the residential appearance of the building.

4. Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

a. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

d. The applicant shall provide a safety report prepared and stamped by a licensed

professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

f. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

5. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 537-84, 5-7-84; Ord. No. 266-84, § 2, 12-17-84; Ord. No. 76-85, § 7, 7-1-85; Ord. No. 235-91, § 12, 2-4-91; Ord. No. 133-96, § 6, 11-18-96; Ord. No. 29-09/10, 8-3-09 emergency passage; Ord. No. 240-09/10, 6-21-10; Ord. No. 33-11/12, 1-18-12)

Sec. 14-129. Prohibited uses.

Uses that are not expressly enumerated herein as either permitted uses or conditional uses are prohibited.
(Ord. No. 537-84, 5-7-84)

Sec. 14-130. Dimensional requirements.

In addition to the provisions of division 25 (space and bulk regulations and exceptions) of this article, lots in the R-5A zone shall meet or exceed the following requirements:

(a) *Minimum lot size:*

Residential: Six thousand (6,000) square feet except as provided for lots of record in section 14-433 (lots of record and accessory structure setbacks for existing buildings) of this article. A lot in an unsewered residential district shall meet the provisions of the state Minimum Lot Size Law, 12 M.R.S.A. Section 4807-A, or the applicable zoning lot size, whichever is the largest.

Planned residential unit development (PRUD): Three (3) acres gross area, as defined in section 14-47 (definitions) of this article, of contiguous land.
Intermediate, extended or long-term care facilities: One and one-half (1 1/2) acres.

(b) *Minimum lot area per dwelling unit:* Sixteen hundred (1,600) square feet.

Planned residential unit development (PRUD): Sixteen hundred (1,600) square feet of net land area as defined in section 14-47 (definitions) of this article. As part of a site plan and subdivision application, the applicant shall provide a calculation of those factors deducted to determine net land area. In addition, such net area factors shall be delineated on a site plan.

(c) *Minimum street frontage:* Fifty (50) feet. PRUD development: Fifty (50) feet.

(d) *Minimum yard dimensions:*

(Yard dimensions include setbacks of structures from property lines and setbacks of structures from one another. No structure shall occupy the minimum yard of another structure.)

1. *Front yard:*

Principal or accessory structures: Twenty-five (25) feet.

2. *Rear yard:*

a. Principal or accessory structures with ground coverage greater than one hundred (100) square feet: Twenty-five (25) feet.

b. Accessory detached structures with a ground coverage of one hundred and forty-four(144) square feet or less: Five (5) feet.

Setbacks for swimming pools shall be as provided for in section 14-432 (swimming pools) of this article.

3. *Side yard:*

a. Principal or accessory structures with ground coverage greater than one hundred (100) square feet:

Height of Structure	*Required Side Yard*
1 story	10 feet
1 1/2 stories	10 feet
2 stories	14 feet
2 1/2 stories	16 feet

The width of one (1) side yard may be reduced one (1) foot for every foot that the other side yard is correspondingly increased, but no side yard shall be less than ten (10) feet. In the case of a lot of

record existing as of June 5, 1957, and held under separate and distinct ownership from adjacent lots, the required side yard may be reduced in order to provide a buildable width of up to twenty-four (24) feet, but in no case shall the resulting side yards be less than ten (10) feet.

b. Accessory detached structures with ground coverage of one hundred and forty-four(144) square feet or less: Five (5) feet.

4. *Side setback on side streets:*

Principal or accessory structures: Twenty (20) feet.

(e) *Maximum lot coverage:* Thirty (30) percent of lot area.

(f) *Minimum lot width:* Sixty (60) feet.

Minimum building setback from external subdivision property lines (PRUD):

a. Building length of one hundred (100) feet or less: Twenty-five (25) feet.

b. Building length of greater than one hundred (100) feet: Thirty-five (35) feet.

(g) Minimum recreation open space area (PRUD): Two hundred (200) square feet per dwelling unit of common area designated on the site for recreation purposes. Such recreation areas shall be level graded, dry, accessible and properly drained. At a minimum, a contiguous area of six thousand (6,000) square feet, with a minimum dimension of fifty (50) feet, shall be provided and shall include one (1) or more of the uses set forth in section 14-526 (d) 9. and the planned residential unit development standards in the City of Portland Design Manual, but shall at least be usable as a multipurpose game field. Such recreation areas shall be located at least twenty-five (25) feet from dwelling units.

(Ord. No. 537-84, 5-7-84; Ord. No. 84-88, § 4, 7-19-88; Ord. No. 58-97, § 2, 8-18-97; Ord. No. 165-97, § 5, 12-1-97; Ord. No. 131-08/09, 12-15-08; Ord. No. 278-09/10, 7-19-10)

***Editor's note--**Ord. No. 84-88, § 4, adopted July 19, 1988, amended § 14-130 to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 84-88.

Sec. 14-131. Other requirements.

[Other requirements are as follows:]

(a) ***Off-street parking:*** Off-street parking is required as provided in division 20 (off-street parking) of this article.

(b) ***Shoreland and flood plain management regulations:*** Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5.

(c) ***Storage of vehicles:*** Only one (1) unregistered motor vehicle may be stored outside on the premises for a period not exceeding thirty (30) days.

(Ord. No. 537-84, 5-7-84; Ord. No. 15-92, § 10, 6-15-92)

Sec. 14-132. Reserved.
Sec. 14-133. Reserved.
Sec. 14-134. Reserved.

DIVISION 7. R-6 RESIDENTIAL ZONE*

***Editor's note--**Ord. No. 538-84, adopted May 7, 1984, repealed Div. 7, §§ 14-131--14-134, and enacted a new Div. 9, §§ 14-135--14-139, 14-145. However, in order to avoid duplication of division numbers and in consultation with the city, the provision has been included as Div. 7.

Sec. 14-135. Purpose.

The purpose of the R-6 residential zone is:

(a) To set aside areas on the peninsula for housing characterized primarily by multifamily dwellings at a high density providing a wide range of housing for differing types of households; and to conserve the existing housing stock and

residential character of neighborhoods by controlling the scale and external impacts of professional offices and other nonresidential uses.

(b) In cases of qualifying small, vacant, underutilized lots located in the urban residential and business zone, to encourage new housing development consistent with the compact lot development pattern typically found on the peninsula.

(Ord. No. 538-84, 5-7-84; Ord. No. 78-03/04, 10-20-03)

Sec. 14-136. Permitted uses.

The following uses are permitted in the R-6 residential zone:

(a) *Residential:*

1. Single- and two-family dwellings. No building reviewed as a two-family dwelling in accordance with section article V (site plan) of this chapter shall be altered to include any additional dwelling unit within five (5) years from the date of issuance of the building permit. Any building reviewed as a two-family dwelling in accordance with article V (site plan) of this chapter or not reviewed under article V, which is altered or enlarged to include any additional dwelling unit after this five-year period, shall be reviewed as a pursuant to article V of this chapter.

2. Multifamily dwellings, provided that any alteration of a structure in residential use on December 2, 1987:

   a. Shall not result in the creation of any additional dwelling unit of less than six hundred (600) square feet of floor area, exclusive of common hallways and storage in basement and attic; and

   b. Shall not result in any existing dwelling unit being reduced in size to less than one thousand (1,000) square feet of floor area, exclusive of common areas and storage in basement and attic;

c. Parking shall be provided as required by division 20 of this article;

d. No open outside stairways or fire escapes above the ground floor shall be constructed;

e. A below-grade dwelling unit shall be permitted only if access is provided directly to the outside of the building;

f. Such development shall be subject to article V (site plan) of this chapter for site plan review and approval.

3. Handicapped family unit, as defined in section 14-47 (definitions) of this article, for handicapped persons plus staff.

4. Single-family, multiple-component manufactured housing, as defined in section 14-47 (definitions) of this article, except in a National Register Historic District.

5. Single-family, single-component manufactured housing, as defined in section 14-47 (definitions) of this article, on individual lots under separate and distinct ownership, except in a National Register Historic District, provided that each unit meets the performance standards listed below:

a. More than half of the roof area of each unit shall be a double pitched Class C rated shingled roof with a minimum pitch of 3/12.

b. Each unit shall be installed on a full foundation or a concrete frost wail in accordance with all applicable codes and regulations. Any hitch or tow bar shall be removed from the unit after it is placed on its foundation or frost wall. In the case of a frost wall, vermin proof skirting shall be installed on all sides of the unit. The skirting may consist of either (a) concrete or masonry block or (b) manufactured skirting. If concrete or masonry block skirting is

installed, either the exterior siding of the unit shall extend within one (1) foot of grade or decorative masonry siding shall be applied. If manufactured skirting material is installed, the color shall be identical to or compatible with the exterior siding of the unit.

c. Each unit shall have exterior siding that is residential in appearance, including but not limited to natural materials such as wood clapboards or shakes, or exterior materials which simulate wood. Clapboards or simulated clapboards shall have less than eight (8) inches of exposure and sheet metal type siding shall not be permitted.

d. Each unit shall have the long side of the unit parallel to the street line where the required street frontage is met.

e. Each unit shall be provided with at least two (2) trees meeting the city's arboricultural specifications and which are clearly visible from the street line and are located so as to visually widen the narrow dimension or proportion of the unit.

f. Each unit shall have all fuel oil supply systems constructed and installed within the foundation wall or underground in accordance with all applicable codes and regulations.

g. No unit shall be horizontally or vertically attached to any other unit or other structure, provided however, that this provision shall not be deemed to prohibit building additions, such as porches, garages, room additions or solar greenhouses.

(b) *Other:*

1. Lodging house;

2. Cemeteries;

3. Parks, and other active and passive noncommercial recreation spaces;

4. Accessory uses customarily incidental and subordinate to the location, function, and operation of principal uses, subject to the provisions of section 14-404 (accessory use) of this article;

5. Home occupation subject to the provisions of section 14-410 (home occupation) of this article;

6. Municipal uses, excluding those specifically set forth in section 14-137 of this division;

7. Special needs independent living units, provided that a building housing special needs independent living units shall not house other types of residential or other permitted uses. The owner of a special needs independent living unit building shall file in the Cumberland County Registry of Deeds a statement under oath that the building is a special needs independent living unit building and that any future change of use to a permitted residential use shall require a change in use review by the City of Portland and a decrease in the number of units in the building in accordance with the Portland City Code, chapter 14. The owner shall file proof of such recording with the building inspections division prior to the issuance of any certificates of occupancy for the new uses.

8. Conversion of a structure existing on March 3, 1997, into a bed and breakfast with up to four (4) guest rooms, subject to the standards of article V (site plan).

9. Hostels, provided the applicant submits a site plan and operations plan demonstrating compliance with the following conditions:

   a. No more than ten (10) overnight transient guests shall be permitted in the facility at any one time.

b. All applicable provisions of Article V of this chapter shall be met.

c. Parking shall be provided in compliance with Division 20 of this Article.

d. No unaccompanied minors under the age of eighteen (18) shall be permitted in the facility.

e. The length of stay for transient guests shall not exceed fifteen (15) days out of any sixty-day period.

f. An owner, manager or operator shall live in the building as a permanent resident.

g. The building shall meet the applicable occupant load requirements as defined by the International Building Code and the NFPA Life Safety Code, as such codes are amended or adopted by the city.

10. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 538-84, 5-7-84; Ord. No. 267-84, § 1, 12-17-84; Ord. No. 67-87, § 4, 11-2-87; Ord. No. 85-88, §§ 1, 2, 7-19-88; Ord. No. 86A-89, § 7, 8-21-89; Ord. No. 95-89, § 2, 9-6-89; Ord. No. 279-90, § 2, 3-19-90; Ord. No. 33-91, § 8, 1-23-91; Ord. No. 33A-91, § 6, 4-17-91; Ord. No. 125-97, § 2, 3-3-97; Ord. No. 278-09/10, 7-19-10; Ord. No. 279-09/10, 6-6-11; Ord. No. 33-11/12, 1-18-12)

***Editor's note--**Ord. No. 85-88, §§ 1, 2, adopted July 19, 1988, amended § 14-136 to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 85-88. Ord. No. 95-89, § 2, adopted Sept. 6, 1989, amended subsection (1)a of § 14-136 to read as set out and, as amended, further ordained "that the prohibition upon unit additions contained in this ordinance shall not apply where a building permit has been issued. Additions proposed to such buildings shall require major site plan review and all other reviews required by this chapter."

Sec. 14-137. Conditional uses.

The following uses shall be permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses) of this article and any special

provisions, standards or requirements specified below:

(a) ***Residential:***

1. Reserved.

2. Sheltered care group homes, as defined in section 14-47 of this article, for up to twelve (12) individuals, plus staff, and serving a primary population which is not handicapped persons, parolees, persons involved in correctional prerelease programs, or current illegal drug users, provided that:

   a. A sheltered care group home shall not be located within five hundred (500) feet of another, as measured along street lines to the respective property lines.

   b. There shall be no open outside stairways or fire escapes above the ground floor.

   c. The facility shall make provision for adequate on-site staffing and supervision of residents in accordance with applicable state licensing requirements. If a facility is not licensed by the state, there shall be a minimum of one (1) staff person for every ten (10) residents or fraction thereof.

   The board of appeals may impose conditions upon a conditional use permit concerning the creation or operation of a sheltered care group home including but not limited to the following: site and building maintenance; lighting, fencing, and other appropriate security measures; screening and buffering of parking areas; compatibility of any additions or alterations with the existing residential structure; compatibility of new structures with the architectural character of the surrounding area; and limitation on the duration of the sheltered care group home permit.

3. Conversion of a structure existing on March 3, 1997, into a bed and breakfast with five (5) to

nine (9) guest rooms.

(b) ***Institutional:*** Any of the following conditional uses provided that, notwithstanding section 14-474(a) (conditional uses) of this article or any other provision of this Code, the Planning Board shall be substituted for the board of appeals as the reviewing authority:

1. Elementary, middle, and secondary school except as otherwise provided in section 14-276.10;

2. a. Long-term and extended care facilities;

   b. Intermediate care facility for thirteen (13) or more persons;

3. Intermediate care facility;

4. Places of assembly;

5. Hospital;

6. College, university, trade school.

Such uses shall be subject to the following conditions and standards in addition to the provisions of section 14-474:

a. In the case of expansion onto land of existing such uses other than the lot on which the principal use is located, it shall be demonstrated that the proposed use cannot reasonably be accommodated on the existing site through more efficient utilization of land or buildings, and will not cause significant physical encroachment into established residential areas; and

b. The proposed use will not cause significant displacement or conversion of residential uses existing as of June 1, 1983, or thereafter; and

c. In the case of a use or use expansion which constitutes a combination of the above-listed

uses with capacity for concurrent operations, the applicable minimum lot sizes shall be cumulative; and

d. Article V (site plan) sections 14-522 and 14-523 notwithstanding, in the case of places of assembly the proposed use shall be subject to the requirements of article V (site plan) of this chapter; and

e. In the case of community halls:

i. The structure was in existence as of January 4, 2010.

ii. The structure was built for institutional or other non-residential uses;

iii. The structure is operated by, or operated subject to the control of, a not-for-profit entity in accordance with its not-for-profit purposes; and

iv. A parking management plan is submitted for review and approval by the planning board; and

f. In the case of private club or fraternal organizations: any such establishment serving alcoholic beverages or in possession of a license for serving alcoholic beverages shall be located on a large lot, as specified in the minimum lot size provisions of this section.

(c) *Other:*

1. Utility substations, such as water and sewage pumping stations and standpipes, electric power substations, transformer stations, and telephone electronic equipment enclosures and other similar structures, provided that such uses are suitably screened and landscaped so as to ensure compatibility with the surrounding neighborhood;

2. Professional offices of a member of a recognized profession maintained for the conduct of that profession. Professional office uses exclude personal services, retail services, and veterinarians.

The illustrative examples that follow indicate the type of professional offices permitted: health care practitioner, attorney, social worker, engineer, architect, accountant, real estate agent, insurance agent.

Professional office uses shall meet the following standards in addition to provisions of section 14-474, except that subsections a., b., c. and d. of this section 14-137(c)2 shall not apply to the use of any building not designed or constructed for residential use, which was not in actual use as a residence on April 18, 1984, or thereafter.

a. A professional office shall not be located within five hundred (500) feet of another as measured along the street line to the respective property lines.

b. A building with one (1) or more professional offices shall have at least fifty (50) percent of the total floor area of the building devoted to residential uses.

c. The total number of individuals working in a building of professional offices shall not exceed the equivalent of four (4) full-time employees.

d. Any additions or exterior alterations shall be compatible with the architecture of the building and maintain the residential appearance of the building. Construction of a new building shall be compatible with the architectural character of the surrounding area.

e. The scale and surface area of parking, driveways, and paved areas shall be arranged

and landscaped to be compatible in size and scale with neighboring properties in the area and to properly screen vehicles from adjacent properties and streets.

f. Off-street parking is required as provided in division 20 (off-street parking) of this article.

3. Chancellery.

4. Nursery school and kindergarten.

5. Off-street parking for passenger cars for uses permitted in the R-6 zone.

6. Day care facilities or home babysitting services not permitted as a home occupation under section 14-410, subject to the following conditions:

a. The facility shall be located in a structure in which there is one (1) or more occupied residential units or in an existing accessory structure, unless the facility is located in a principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care or home babysitting use or in a nonresidential structure accessory to the principal nonresidential use.

b. The maximum capacity shall be twelve (12) children for facilities located in residential or existing structures accessory thereto, unless the additional standards in subsection v. are met. There shall be no maximum limit on the number of children in a facility located in a principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care or home babysitting use, or in a nonresidential structure accessory thereto, provided that any such structure that serves more than twelve (12) children shall be subject to review under

article V of this chapter.

c. Outdoor play areas shall be screened and buffered from surrounding residences with landscaping and/or fencing to minimize visual and noise impacts.

d. Solid waste shall be stored in covered containers. Such containers shall be screened on all four (4) sides.

e. Day care facilities, nursery schools and kindergartens located either in structures that have been in residential use within the past five (5) years or in existing accessory structures and that serve between thirteen (13) and twenty-four (24) children shall meet the following additional standards:

i. The facility shall provide a minimum of seventy-five (75) square feet of outdoor play area per child;

ii. The play area shall be located in the side and rear yards only and shall not be located in front yards;

iii. Outside play areas shall be separated from abutting properties by a fence at least forty-eight (48) inches in height;

iv. A ten-foot wide landscaped buffer shall be required outside of the fenced play area, and shall be established in accordance with the landscaping standards of the City's Technical Standards and Guidelines;

v. The minimum lot size for a day care facility located in a residential or existing accessory structure and serving more than twelve (12) children shall be twenty thousand (20,000) square feet;

vi. ***Off-street parking:*** Off-street parking is

required as provided in division 20 (off-street parking) of this article.

vii. The maximum number of children in a day care facility located in a residential or existing accessory structure shall be twenty-four (24); and

viii. Any additions or exterior alterations such as facade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the residential appearance of the building.

7. Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

a. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

d. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how

the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

f. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

8. Hostels, provided the applicant submits a site plan and operations plan demonstrating compliance with the following conditions:

a. No more than twenty (20) overnight transient guests shall be permitted in the facility at any one time.

b. All applicable provisions of Article V of this

chapter shall be met.

c. Parking shall be provided in compliance with Division 20 of this Article.

d. No unaccompanied minors under the age of eighteen (18) shall be permitted in the facility.

e. The length of stay for transient guests shall not exceed fifteen (15) days out of any sixty-day period.

f. An owner, manager or operator shall live in the building as a permanent resident.

g. The building shall meet the applicable occupant load requirements as defined by the International Building Code and the NFPA Life Safety Code, as such codes are amended or adopted by the city.

9. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 538-84, 5-7-84; Ord. No. 267-84, § 2, 12-17-84; Ord. No. 76-85, § 8, 7-1-85; Ord. No. 85-88, § 3, 7-19-88; Ord. No. 235-91, § 13, 2-4-91; Ord. No. 118-93, § 11, 10-18-93; Ord. No. 133-96, § 7, 11-18-96; ; Ord. No. 154-96, § 11, 12-16-96; Ord. No. 125-97, § 3, 3-3-97; Ord. No. 232-99, §2, 3-15-99; Ord. No. 77-02/03, § 2, 10-21-02; Ord. No. 29-09/10, 8-3-09 emergency passage; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 138-09/10, 1-20-10; Ord. No. 240-09/10, 6-21-10; Ord. No. 9 10/11, 8-2-10; Ord. No. 149-10/11, 3-7-11; Ord. No. 279-09/10, 6-6-11; Ord. No. 33-11/12, 1-18-12)

Sec. 14-138. Prohibited uses.

Uses that are not expressly enumerated herein as either permitted uses or conditional uses are prohibited.
(Ord. No. 538-84, 5-7-84)

Sec. 14-139. Dimensional requirements.

(a) In addition to the provisions of division 25 (space and bulk regulations and exceptions) of this article, lots in the R-6 zone shall meet or exceed the following minimum requirements:

1. *Minimum lot size:*

a. Residential: Forty-five hundred (4,500) square feet, except as provided for lots of record in section 14-433 (lots of record and accessory structure setbacks for existing buildings) of this article.

b. Reserved.

c. Long-term and extended care facilities: Ten thousand (10,000) square feet for the first nine (9) residents plus seven hundred fifty (750) square feet for each additional resident, up to a total of two (2) acres.

d. Intermediate care facility: One (1) acre.

e. School: Thirty thousand (30,000) square feet.

f. Places of assembly;

Large	30,000 sq. ft.
Medium	15,000 sq. ft.
Small	7,500 sq. ft.

g. Municipal use: Forty-five hundred (4,500) square feet.

h. Hospital: Two (2) acres.

i. All other uses: Forty-five hundred (4,500) square feet.

j. Lodging house: Four thousand five hundred (4,500) square feet.

2. a. ***Minimum area per dwelling unit:*** One thousand (1,000) square feet per dwelling unit; and in the case of building additions and new construction, one thousand two hundred (1,200) square feet for each dwelling unit after the first three (3) units. This requirement may be reduced by up to twenty (20) percent for a special needs independent living unit.

b. ***Minimum rooming unit areas for lodging houses:*** Two hundred (200) square feet of combined rooming unit and common area for each rooming unit. Each individual rooming unit shall be a minimum of eighty (80) square feet.

c. ***Minimum land area per lodging house rooming unit:*** Two hundred fifty (250) square feet.

d. ***Minimum land area per intermediate care facility resident:*** Eight thousand (8,000) square feet for the first thirty-five (35) residents, plus three hundred fifty (350) square feet for each additional resident.

3. ***Minimum street frontage:*** Forty (40) feet.

4. ***Minimum yard dimensions:*** (Yard dimensions include setbacks of structures from property lines and setbacks of structures from one another. No structure shall occupy the minimum yard of another structure.)

a. ***Front yard:***

Principal or accessory structures: Ten (10) feet.

A front yard need not exceed the average depth of front yards on either side of the lot. A lot of record existing as of June 5, 1957, and less than one hundred (100) feet deep need not be deeper than twenty (20) percent of the depth of the lot.

b. ***Rear yard:***

i. Principal and attached accessory structures with ground coverage greater than one hundred (100) square feet: Twenty (20) feet.

ii. Detached accessory structures with a ground coverage of one hundred and forty-four(144) square feet or less: Five (5) feet.

iii. Setbacks for swimming pools shall be as provided for in section 14-432 (swimming pools) of this article.

c. *Side yard:*

i. Principal and attached accessory structures with ground coverage greater than one hundred (100) square feet:

Height of Structure	*Required Side Yard*
1 story	10 feet
2 stories	10 feet
3 stories	10 feet
4 stories	12 feet
5 stories	15 feet

The width of one (1) side yard may be reduced one (1) foot for every foot that the other side yard is correspondingly increased, but no side yard shall be less than ten (10) feet. In the case of a lot of record existing as of June 5, 1957, and held under separate and distinct ownership from adjacent lots, the required side yard may be reduced in order to provide a buildable width of up to twenty-four (24) feet, but in no case shall the resulting side yards be less than ten (10) feet.

ii. Detached accessory structures with ground coverage of one hundred and forty-four(144) square feet or less: Five (5) feet.

iii. Setbacks for swimming pools shall be as provided for in section 14-432 (swimming pools) of this article.

d. *Side yard on side streets:*

i. Principal or accessory structures: Ten (10) feet.

5. ***Maximum lot coverage:*** Forty (40) percent of lot area for lots which contain twenty (20) or more dwelling units;

fifty (50) percent for lots which contain fewer than twenty (20) dwelling units.

6. *Minimum lot width:* Forty (40) feet.

7. *Maximum structure height:*

Principal and attached accessory structure: Forty-five (45) feet.

Accessory detached structure: Eighteen (18) feet.

8. *Open space ratio:*

a. *Uses other than bed and breakfast.* Twenty (20) percent for those lots which contain fewer than twenty (20) dwelling units; thirty (30) percent for those lots which contain twenty (20) or more dwelling units. This area shall not include parking areas or other impervious surfaces as defined in section 14-47.

b. *Bed and breakfasts.* A bed and breakfast that is located on a lot that has at least twenty (20) percent open space on the date of filing of the application for site plan shall not reduce the open space on the lot below twenty (20) percent of the lot area. A bed and breakfast located on a lot that does not have at least twenty (20) percent open space on the date of filing of the application for site plan review, and that is legally nonconforming as to the open space requirement of this section, shall not reduce the open space on the lot below the level in existence on the date of the application for site plan review. Open space areas shall not include parking areas or other impervious surface areas as defined in section 14-47.

9. A below-grade dwelling unit shall be permitted only if the primary access for the dwelling unit is provided directly to the outside of the building.

10. *Minimum gross floor area for bed and breakfasts:* Two thousand (2,000) square feet of gross floor area for the first three (3) guest rooms and five hundred (500) square

feet of floor area for each additional guest room.

11. *Maximum floor area for places of assembly on a collector or arterial road:*

Large	Not limited
Medium	4,500 sq. ft.
Small	2,250 sq. ft.

12. *Maximum floor area for places of assembly not on a collector or arterial road:*

Large	4,500 sq. ft.
Medium	2,250 sq. ft.
Small	1,125 sq. ft.

(b) *Small residential lot development:* Residential uses on small, vacant lots located in the R-6 are subject to site plan review and may use the dimensional requirements below if all of the following conditions are met:

The lot is:

Vacant or is used exclusively for parking or contains structure not used for residential purposes as of January 1, 2005; and the lot existed as of January 1, 2005.

1. *Minimum lot size*: None

2. *Maximum lot size:* Ten thousand (10,000) square feet.

3. *Yard dimensions:*

a. *Front yard:*

No more than ten (10) feet.

b. *Rear yard:*

None, except that rear yards between two (2) buildings on the same or different lots shall maintain a minimum ten (10) foot setback between

buildings or the sum of the heights of the abutting buildings and proposed buildings divided by five (5), whichever is greater; and that either the rear yard or one of the side yards shall be at least fifteen (15) feet; provided, however, detached accessory structures with a ground floor area of one hundred (100) square feet or less need not have a setback more than five (5) feet from the property line. Not withstanding the foregoing, no structure shall be closer than four (4) feet to side property line.

c. *Side yard:*

None, except that side yards between two (2) buildings on the same or different lots shall maintain a minimum ten (10) foot setback between buildings or the sum of the heights of the existing buildings and proposed buildings divided by five (5), whichever is greater and that either the rear yard or one of the side yards shall be at least fifteen (15) feet; Provided, however, detached accessory structures with a ground floor area of one hundred (100) square feet or less need not have a setback more than five (5) feet from the property line. Notwithstanding the foregoing, no structure shall be closer than four (4) feet to side property line. On a corner lot no side yard is required on that side of the lot which abuts any street. A principal structure on a corner lot shall not be more than ten (10) feet from the street.

4. ***Minimum principal structure height:*** Two (2) stories of living space above the grade of the adjacent street frontage, except for porches, entryways, attached garages and accessory detached structures.

5. ***Maximum principal structure height:*** Forty five (45) feet.

6. ***Open space requirement:*** All lots used for residential purposes shall provide an attached exterior deck, porch, patio or balcony for each dwelling unit, except where a designated open space equal to ten (10) percent or more of the lot area is located on site and maintained as open

space, then the number of exterior decks, porches, patios or balconies may be reduced by up to fifty (50) percent. The designated open space, if provided, shall have a minimum width and length of at least fifteen (15) feet, a slope of no greater than ten (10) percent and shall be used exclusively as recreational open space i.e. it shall not be used for vehicular circulation, parking, etc.. All required decks, porches, patios or balconies shall meet the requirements of the Planning and Development Design Manual.

7. *Minimum lot width:* None.

8. *Minimum land area per dwelling:* Seven hundred and twenty-five (725) square feet.

(Ord. No. 538-84, 5-7-84; Ord. No. 634-86, § 1, 7-7-86; Ord. No. 264-87, § 1, 3-16-87; Ord. No. 85-88, § 4, 7-19-88; Ord. No. 230-90, § 1, 3-5-90; Ord. No. 33-91, § 9, 1-23-91; Ord. No. 235-91, § 14, 2-4-91; Ord. No. 33A-91, 4-17-91; Ord. No. 118-93, § 12, 10-18-93; Ord. No. 154-96, § 12, 12-16-96; Ord. No. 125-97, § 4, 3-3-97; Ord. No. 245-97, §§ 1, 2, 4-9-97; Ord. No. 232-99; §3, 3-15-99; Ord. No. 78-03/04, 10-20-03; Ord. No. 21-04/05, 8-2-04, Ord. No. 145-04/05, 2-23-05; Ord. No. 254-05/06, 6-5-06; Ord. No. 131-08/09, 12-15-08; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 65-10/11, 10-18-10)

***Editor's note--**Ord. No. 85-88, § 4, adopted July 19, 1988, amended § 14-139 to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 85-88.

Sec. 14-140. Other requirements.

(a) *Off-street parking:* Off-street parking is required as provided in division 20 (off-street parking) of this article.

(b) *Storage of vehicles:* Only one (1) unregistered motor vehicle may be stored outside on the premises for a period not exceeding thirty (30) days.

(c) *Shoreland and flood plain management regulations:* Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5.

(d) *Small residential lot development* shall conform to the site plan standards of §14-526.

(Ord. No. 538-84, 5-7-84; Ord. No. 85-88, § 5, 7-19-88; Ord. No. 15-92, § 11,

6-15-92; Ord. No. 37-98, § 1, 5-4-98; formerly §14-145--renumbered per Ord. No. 122, 12-20-99; Ord. No. 78-03/04, 10-20-03; Ord. No. 254-05/06, 6-5-06; Ord. No. 240-09/10, 6-21-10)

***Editor's note--**Ord. No. 85-88, § 5, adopted July 19, 1988, amended § 14-145(a) to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 85-88.

DIVISION 7.01. R-7 COMPACT URBAN RESIDENTIAL OVERLAY ZONE

Section 14-141. Purpose.

The purpose of the R-7 Compact Urban Residential Overlay Zone is to encourage and accommodate compact residential development on appropriate locations on the Portland peninsula, pursuant to the New Vision for Bayside element of the comprehensive plan and housing plans of the City of Portland. Sites suitable for in-city living should be within walking distance of downtown or other work places, shopping and community facilities and have access to public or private off-site parking or transit service. The intent of this zone is to foster increased opportunities for compact in-city living for owners and renters representing a variety of income levels and household types.

Locations for siting the R-7 Zone are intended to be located on the peninsula of Portland, in the area encompassed in the Bayside plan, and other peninsula R-6 locations characterized by moderate to high density multi-family housing in a form and density exceeding that allowed in the R-6 Zone and where infill development opportunities exist; and areas on the peninsula with mixed business and residential zoning and uses which can accommodate higher density infill residential development without negatively impacting the existing neighborhood or adjacent properties. It may be appropriate in some cases to rezone to R-7 overlay through conditional or contract zoning to ensure that the new development is architecturally appropriate and compatible with the surrounding neighborhood.
(Ord. No. 122, 12-20-99)

Sec. 14-142. Permitted Uses.

Permitted uses in the R-7 Compact Urban Residential Overlay Zone, shall be the uses permitted in the R-6 Zone, except that:

(a) Residential uses shall comply with the following dimensional requirements:

1. Minimum Lot Size: None

2. Minimum Frontage: None

3. Minimum Yard Dimensions:

   a. Front yard: None

   b. Rear and side yard: Five (5) feet.

   c. Side yard on side street: None

4. Maximum Lot Coverage: 100%

5. Maximum Residential Density: Four hundred thirty five (435) square feet of land area per dwelling unit is required.

6. Maximum Building Height: Fifty (50) Feet

(b) Off-street parking is required as provided in division 20 (off-street parking) of this article;

(c) Residential development in the R-7 Zone shall be reviewed by the Planning Board for compliance with Article IV, Subdivisions, and Article V, Site Plan;

(d) Any new dwelling unit constructed in the R-7 Zone shall contain a minimum of 400 square feet of habitable floor area;

(e) All other uses in the R-7 Zone shall observe the requirements of the R-6 Zone.

(Ord. No. 122, 12-20-99; Ord. No. 84-08/09, 10-20-08; Ord. No. 240-09/10, 6-21-10)

Sec. 14-143. Design Standards.

Residential development in the R-7 Zone shall be reviewed by the Planning Board under Article V, Site Plan. Such development shall also comply with the following development standards. The general intent of these development standards is to achieve an attractive and comfortable city neighborhood environment. Varied

and human-scaled building facades are key to making a place "pedestrian-oriented." Building designs should provide a high level of visual interest, without creating a chaotic image. Residences should include design elements that enhance the streetscape and address the street.

(a) Porches and bays should face the street.

(b) Primary ground floor residential entries to multi-family buildings must orient to street, not to interior blocks or parking lots. Secondary and upper-floor entries from the interior of a block are acceptable. The front door to single-family homes, duplexes, and townhouses must be visible from the street.

(c) The design approach shall provide an architecture that will be a visible and permanent expression of the character of the neighborhood;

(d) The facade shall be varied and articulated to provide visual interest to pedestrians;

(e) Reinforce the public realm of the public open space, sidewalks and streets through appropriately scaled entries, porches, fenestration, landscaping, and architectural details;

(f) Provide visual and acoustical privacy between units;

(g) Maximize natural light and ventilation within units.

(Ord. No. 122, 12-20-99)

Sec. 14-144. Reserved.

Sec. 14-145. Reserved.

(Ord. No. 122, 12-20-99)

DIVISION 7.1. IR-1 ISLAND RESIDENTIAL ZONE

Sec. 14-145.1. Purpose.

The purpose of the IR-1 island residential zone is to provide for low intensity residential, recreational, and rural uses in the less developed areas of the islands in order to preserve the rustic character of the islands, to protect groundwater resources and natural and scenic areas, and to permit only appropriate low

intensity development in areas lacking adequate public facilities and services.
(Ord. No. 27-85, § 1, 7-15-85)

Sec. 14-145.2. Permitted uses.

The following uses are permitted in the IR-1 island residential zone:

(a) Single-family detached dwellings.

(b) Planned residential unit development with a minimum gross area, as defined in section 14-47 (definitions) of this article, of at least five, (5) acres of contiguous land, consisting of detached dwellings. Minimum yard dimensions (section 14-145.5(c)), street frontage (section 14-145.5(b)), and lot width (section 14-145.5(e)) shall be reduced up to fifty (50) percent of what would otherwise be required. Minimum lot area (section 14-145.5(a)) shall be reduced up to fifty (50) percent provided there is an equivalent corresponding increase in common or public open space that is usable for passive or active recreational opportunities or that serves as a buffer between buildings or between the development and the surrounding neighborhood.

All area in such a development which is to be owned or used in common shall be governed and maintained as set forth in section 14-498(i)(3), article IV (subdivisions) of this chapter.

The density for a planned residential unit development shall not exceed one (1) dwelling unit per forty thousand (40,000) square feet of net area. Net area shall be determined by subtracting from the gross area of the site the area of street rights-of-way, slopes of fifteen (15) percent or greater, wetland.

Such development shall be subject to review and approval by the Planning Board with respect to the requirements of article V (site plan) and article IV (subdivisions) of this chapter, whether or not such development is a subdivision within the meaning of article IV of this chapter as now enacted or as hereafter amended.

(c) Agriculture.

(d) Boat houses and store houses for fishing equipment.

(e) Parking and storage of equipment related to agriculture or commercial fishing.

(f) Accessory uses customarily incidental and subordinate to the location, function, and operation of principal uses, subject to the provisions of section 14-404 (accessory use) of this article, including but not limited to (a) home occupations, (b) temporary private tenting with one (1) tent accessory to a principal residential use provided that adequate water supplies and sanitation facilities are available in connection with the principal residential use, and (c) road side stands less than two hundred (200) square feet in floor area for the sale of agricultural products produced on the premises and the sale of fish and shellfish caught by the occupant of the dwelling or principal structure.

(g) Handicapped family unit, as defined in section 14-47, for handicapped persons, plus staff.

(h) Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 27-85, § 1, 7-15-85; Ord. No. 160-89, § 1, 12-11-89; Ord. No. 33-91, § 10, 1-23-91; Ord. No. 33-11/12, 1-18-12)

Sec. 14-145.3. Conditional uses.

The following uses are permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses) of this article and any special provisions, standards or requirements specified below:

(a) *Residential:*

1. Accessory dwelling unit within and clearly subordinate to a principal single-family detached dwelling, provided that:

   a. The accessory unit shall be no more than thirty-five (35) percent of the gross habitable floor area of the building and shall

have a minimum floor area of four hundred (400) square feet;

b. Lot area shall be seventy thousand (70,000) square feet;

c. There shall be no open outside stairways or fire escapes above the ground floor;

d. Any additions or exterior alterations such as facade materials, building form, roof pitch and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the single-family appearance of the building. The exterior design of new construction including facade materials, building form, roof pitch and exterior doors shall have a single-family appearance;

e. A lower level dwelling unit shall have a minimum two-thirds of its floor-to-ceiling height above the average adjoining ground level;

f. Either the accessory unit or the principal dwelling shall be occupied by the owner of the lot on which the principal building is located, except for bonafide temporary absences; and

g. All sanitary waste shall be disposed of by a public sewer, subsurface sewerage system or other method in compliance with state and local regulations.

(b) ***Institutional:*** Any of the following uses provided that, notwithstanding section 14-474(a) (conditional uses) of this article or any other provision of this Code, the Planning Board shall be substituted for the board of appeals as the reviewing authority:

1. Schools and other educational facilities including seasonal camps other than campgrounds;

2. Places of assembly, excluding yacht clubs and marinas;

3. Municipal uses, provided that outside storage and parking areas are suitably screened and landscaped to ensure compatibility with the surrounding neighborhood;

Such uses shall be subject to the following standards if the total land area is two (2) acres or more:

a. In the case of expansion of existing such uses onto land other than the lot on which the principal use is located, it shall be demonstrated that the proposed use cannot reasonably be accommodated on the existing site through more efficient utilization of land or buildings, and will not cause significant physical encroachment into established residential area;

b. The proposed use will not cause significant displacement or conversion of residential uses existing as of July 15, 1985, or thereafter; and

c. In the case of a use or use expansion which constitutes a combination of the above listed uses with capacity for concurrent operations, the applicable minimum lot sizes shall be cumulative.

d. Article V (site plan) sections 14-522 and 14-523 notwithstanding, in the case of places of assembly the proposed use shall be subject to the requirements of article V (site plan) of this chapter; and

e. In the case of community halls:

i. The structure was in existence as of January 4, 2010.

ii. The structure was built for

institutional or other non-residential uses;

iii. The structure is operated by, or operated subject to the control of, a not-for-profit entity in accordance with its not-for-profit purposes; and

iv. A parking management plan is submitted for review and approval by the planning board; and

f. In the case of private club or fraternal organizations: any such establishment serving alcoholic beverages or in possession of a license for serving alcoholic beverages shall be located on a large lot, as specified in the minimum lot size provisions of this section.

(c) *Other:*

1. Utility substations including sewage and water pumping stations and standpipes, electric power substations, transformer stations, telephone electronic equipment enclosures, and other similar structures, provided that such uses are suitably screened and landscaped so as to ensure compatibility with the surrounding neighborhood;

2. Nursery schools and kindergarten;

3. Cemeteries;

4. Raising of domesticated animals, excluding pigs and reptiles, with no animals kept on any lot less than three (3) acres or closer than one hundred (100) feet to any street or lot line, except domesticated chickens as regulated in chapter 5, and provided that such use will not create any odor, noise, health or safety hazards, or other nuisance to neighboring properties;

5. Wharves, piers, docks, or landing ramps;

6. Campgrounds, excluding recreational vehicles,

licensed by the State of Maine Department of Human Services provided that:

a. No tent shall be located within seventy-five (75) feet of the perimeter of site;

b. The land area of the park shall not be less than the equivalent of five thousand (5,000) square feet of land area per tent site exclusive of the roadway network;

c. Site plan review and approval by the Planning Board shall be required.

7. Day care facilities or home babysitting services not permitted as a home occupation under section 14-410, subject to the following conditions:

a. The facility shall be located in a structure in which there is one (1) or more occupied residential units or in an existing accessory structure, unless the facility is located in a principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care or home babysitting use or in a nonresidential structure accessory to the principal nonresidential use.

b. The maximum capacity shall be twelve (12) children for facilities located in residential or existing structures accessory thereto, unless the additional standards in subsection v. are met. There shall be no maximum limit on the number of children in a facility located in a principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care or home babysitting use, or in a nonresidential structure accessory thereto, provided that any such structure that serves more than twelve (12) children shall be subject to review under article V of this chapter.

c. Outdoor play areas shall be screened and buffered from surrounding residences with landscaping and/or fencing to minimize visual and noise impacts.

d. Solid waste shall be stored in covered containers. Such containers shall be screened on all four (4) sides.

e. Day care facilities, nursery schools and kindergartens located either in structures that have been in residential use within the past five (5) years or in existing accessory structures and that serve between thirteen (13) and twenty-four (24) children shall meet the following additional standards:

i. The facility shall provide a minimum of seventy-five (75) square feet of outdoor play area per child;

ii. The play area shall be located in the side and rear yards only and shall not be located in front yards;

iii. Outside play areas shall be separated from abutting properties by a fence at least forty-eight (48) inches in height;

iv. A ten-foot wide landscaped buffer shall be required outside of the fenced play area, and shall be established in accordance with the landscaping standards of the City's Technical Standards and Guidelines;

v. The minimum lot size for a day care facility located in a residential or existing accessory structure and serving more than twelve (12) children shall be twenty thousand (20,000) square feet;

vi. ***Off-street parking:*** Off-street parking is required as provided in division 20 (off-street parking) of this article.

vii. The maximum number of children in a day care facility located in a residential or existing accessory structure shall be twenty-four (24); and

viii. Any additions or exterior alterations such as facade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the residential appearance of the building.

8. Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

a. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

d. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength,

stability, security, grounding, icing impacts and maintenance; and

e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

f. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

9. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 27-85, § 1, 7-15-85; Ord. No. 160-89, § 2, 12-11-89; Ord. No. 133-96, § 8, 11-18-96; Ord. No. 153-08/09; Ord. No. 29-09/10, 8-3-09 emergency passage; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. 240-09/10, 6-21-10; Ord. No. 9 10/11, 8-2-10; Ord. No. 33-11/12, 1-18-12)

Sec. 14-145.4. Prohibited uses.

Uses that are not expressly enumerated herein as either permitted uses or conditional uses are prohibited.

(Ord. No. 27-85, § 1, 7-15-85)

Sec. 14-145.5. Dimensional requirements.

In addition to the provisions of division 25 (space and bulk regulations and exceptions) of this article, lots in the IR-1 zone shall meet the following minimum requirements:

(a) *Minimum lot size*

1. Residential: Forty thousand (40,000) square feet for lots with public water; sixty thousand (60,000) square feet for lots without public water; except as provided in section 14-433 (lots of record and accessory structure setbacks for existing buildings) and section 14-145.3(a)1 of this article.

2. Schools and other educational facilities: Forty thousand (40,000) square feet.

3. Places of assembly:

Large	30,000 sq. ft.
Medium	15,000 sq. ft.
Small	7,500 sq. ft.

4. Seasonal camps and campgrounds: Ten (10) acres.

5. Animal raising: Three (3) acres.

6. In issuing any permit for new development, the building or planning authority shall require that any lot located in the IR-1 zone shall be at least forty thousand (40,000) square feet in area when the lot is to be serviced by a subsurface wastewater disposal system, except those lots which are located in a subdivision approved by the Planning Board after June 8, 1968, and excluding Peaks Island.

7. Excluding Peaks Island from this subsection h., any property owner whose lot does not meet the minimum lot size requirements outlined in subsection g. of this section may, for purposes of this section only, merge two (2) or more separate lots on the

same island in order to meet these requirements. Where the lots so merged are not contiguous, the property owner shall grant to the city as holder a conservation easement upon the lot or lots which will not contain the principal structure. The conservation easement shall contain both an existing legal description and a city assessor's chart, block and lot description. The building authority shall be authorized to accept such conservation easements on behalf of the city. Said easement shall be recorded by the applicant in the registry of deeds. A copy of the recorded easement and copies of the deeds for both lots shall be submitted to the building authority prior to issuance of a building permit. The property over which the conservation easement has been granted shall be used for passive recreational and conservation purposes only, and shall be subject to the following restrictions:

a. No structure shall be permitted on this property.

b. No parking or storage of vehicles or machinery shall be permitted on this property at any time.

c. No area of this property shall be paved.

d. No exterior storage for commercial use shall be permitted on this property.

e. The easement deed shall reference the lot which is benefited by this conservation easement. No conservation easement shall be used to benefit more than one (1) lot.

Conservation easements shall only be granted over lots which conform either to the provisions of section 14-433 or to the minimum lot sizes set forth in (a)1 of this section. Conservation easements shall not be granted over any lot which is encumbered by any other easement which prohibits all construction on that lot. A conservation easement may also name as a holder or grant a

third-party right of enforcement to a nonprofit corporation or charitable trust, the purposes or powers of which include retaining or protecting the natural, scenic or open space values of real property; assuring the availability of real property for agricultural, forest, recreational or open space use; protecting natural resources; or maintaining or enhancing air or water quality of real property.

Nothing in this section shall be construed to allow an owner of a currently existing and developed lot to convey or permit a portion of that lot to be used to fulfill the requirements of this section if such conveyance would render the existing lot nonconforming under the terms of this chapter. The lot upon which a building is to be constructed shall meet the minimum lot size requirements of section 14-433.

8. Where an existing subsurface wastewater disposal system serving an existing structure requires replacement, the replacement system shall meet the applicable requirements of CMR 241 Section 2-E. The land area requirements in subsection g. of this section shall not apply to such a replacement system.

For purposes of this subsection, the mean high tide mark shall be considered to be the shoreline lot line.

(b) *Minimum street frontage:*

One hundred (100) feet, except that a lot of record as described in section 14-433 (lots of record and accessory structure setbacks for existing buildings) and lots created after July 15, 1985, which are not part of a subdivision need not provide street frontage if access is available by means of a permanent easement or right-of-way which existed as of July 15, 1985. Such easement or right-of-way shall have a minimum width of sixteen (16) feet and a minimum travel width of eight (8) feet except that an easement or right-of-way providing access for three (3) or more lots or providing the only means of access to a parcel or parcels of three (3) acres

or more, shall conform to the requirements contained within the City of Portland Technical Manual and meet the construction requirements of article III of chapter 25 (street acceptances) of this Code. Such easement or right-of-way shall be sufficient to permit municipal service delivery.

(c) *Minimum yard dimensions:*

Yard dimensions shall include setbacks of structures from property lines and setbacks of structures from one another. No structure shall occupy the minimum yard of another structure.

1. *Front yard:* Principal or accessory structures: Thirty (30) feet.

2. *Rear yard:* Principal or accessory structures with ground coverage greater than one hundred (100) square feet: Thirty (30) feet.

   Accessory detached structures with ground coverage of one hundred and forty-four (144) square feet or less: Ten (10) feet.

3. *Side yard:* Principal or accessory structures with ground coverage greater than one hundred (100) square feet: Twenty (20) feet.

   Accessory detached structures with ground coverage of one hundred and forty-four (144) square feet or less: Fifteen (15) feet, except that the minimum distance from a principal structure may be five (5) feet.

4. *Side yard on side streets:* Principal or accessory structures: Twenty (20) feet.

(d) *Maximum lot coverage:* Twenty (20) percent of lot area.

(e) *Minimum lot width:* One hundred (100) feet.

(f) *Maximum structure height:*

1. Principal or accessory attached structure:

Thirty-five (35) feet.

2. Accessory detached structure: Eighteen (18) feet.

(g) *Maximum floor area for places of assembly on a collector or arterial road:*

Large	Not limited
Medium	4,500 sq. ft.
Small	2,250 sq. ft.

(h) *Maximum floor area for places of assembly not on a collector or arterial road:*

Large	4,500 sq. ft.
Medium	2,250 sq. ft.
Small	1,125 sq. ft.

(Ord. No. 27-85, § 1, 7-15-85; Ord. No. 160-89, § 3, 12-11-89; Ord. No. 218-04/05, 5-2-05; Ord. No. 131-08/09, 12-15-08; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 278-09/10, 7-19-10)

Sec. 14-145.6. Other requirements

Other requirements include the following:

(a) Off-street parking shall be required as provided in division 20 (off-street parking) of this article.

(b) *Shoreland and flood plain management regulations:* Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5.

(c) *Storage of vehicles:* Only one (1) unregistered motor vehicle may be stored outside on the premises and not for a period exceeding thirty (30) days.

(Ord. No. 27-85, § 1, 7-15-85; Ord. No. 15-92, § 12, 6-15-92)

DIVISION 7.2. IR-2 ISLAND RESIDENTIAL ZONE

Sec. 14-145.7. Purpose.

The purpose of the IR-2 island residential zone is to protect

the character of existing developed residential neighborhoods on the islands and to allow infill where there are adequate public services available. Expansion or extension of an existing IR-2 zone should be strictly limited, generally focused toward areas adjacent to existing village IR-2 areas, and restricted by such factors as adequacy of access, whether adequate water will be available for private use and for fire protection, and whether soils in the area are adequate for subsurface water disposal or whether public sewers are available. IR-2 rezoning on substantially sized parcels should not be considered for those sites that should be more appropriately zoned I or IR-3.

(Ord. No. 28-85, § 1. 7.15-85)

Sec. 14-145.8. Permitted use.

The following uses are permitted in the IR-2 island residential zone:

(a) Single-family detached dwellings.

(b) Planned residential unit development with a minimum gross area, as defined in section 14-47 (definitions) of this article, of at least five (5) acres of contiguous land, consisting of detached dwellings. Minimum yard dimensions (section 14-145.11(c)), street frontage (section 14-145.11(b)), and lot width (section 14-145.11(e)) shall be reduced up to fifty (50) percent of what would otherwise be required. Minimum lot area (section 14-145.11(a)) shall be reduced up to fifty (50) percent, provided there is an equivalent corresponding increase in common or public open space that is usable for passive or active recreational opportunities or that serves as buffer between the buildings or between the development and the surrounding neighborhood.

All area in such a development which is to be owned or used in common shall be governed and maintained as set forth in section 14-498(i)(3), article IV (subdivisions) of this chapter.

The density for a planned residential unit development shall not exceed one (1) dwelling unit per twenty thousand (20,000) square feet of net area. Net area shall be determined by subtracting from the gross area of the site the area of street rights-of-way, slopes of fifteen

(15) percent or greater, wetlands.

Such development shall be subject to review and approval by the Planning Board with respect to requirements of article V (site plan) and article IV (subdivisions) of this chapter, whether or not such development is a subdivision within the meaning of article IV of this chapter as now enacted or as hereafter amended.

(c) Boathouses and storehouses for fishing equipment.

(d) Parking and storage of equipment related to commercial fishing.

(e) Accessory uses customarily incidental and subordinate to the location, function and operation of principal uses, subject to the provisions of section 14-404 (accessory use) of this article including but not limited to (a) home occupations, (b) private temporary tenting with one (1) tent accessory to a principal residential use, provided that adequate water supplies and sanitation facilities are available in connection with the principal residential use, and (c) roadside stands less than two hundred (200) square feet in floor area for the sale of agricultural products produced on the premises, and the sale of fish and shellfish caught by the occupant of the dwelling or principal structure.

(f) Handicapped family unit, as defined in section 14-47, for handicapped persons plus staffs.

(g) Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 28-85, § 1, 7-15-85; Ord. No. 161-89, § 1, 12-11-89; Ord. No. 33-91, § 11, 1-23-91; Ord. No. 33-11/12, 1-18-12)

Sec. 14-145.9. Conditional uses.

The following uses are permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses) of this article and any special provisions, standards or requirements specified below:

(a) *Residential:*

1. Accessory dwelling unit within and clearly subordinate to a principal single-family detached dwelling provided that:

   a. The accessory unit shall be no more than thirty-five (35) percent of the gross floor area of the principal building and shall have a minimum floor area of four hundred (400) square feet;

   b. Lot area shall be thirty thousand (30,000) square feet;

   c. There shall be no open outside stairways or fire escapes above the ground floor;

   d. Any additions or exterior alterations such as facade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the single-family appearance of the building. The exterior design of new construction including facade materials, building form, roof pitch and exterior doors shall have a single-family appearance;

   e. A lower level dwelling unit shall have a minimum two-thirds of its floor-to-ceiling height above the average adjoining ground level;

   f. Either the accessory unit or the principal dwelling shall be occupied by the owner of the lot on which the principal building is located, except for bona fide temporary absences; and

   g. All sanitary waste shall be disposed of by a public sewer, subsurface sewerage system or other method in compliance with state and local regulations.

(b) ***Institutional:*** Any of the following uses provided that, notwithstanding section 14-474(a) (conditional uses) of this

article or any other provision of this Code, the Planning Board shall be substituted for the board of appeals as the reviewing authority:

1. Schools and other educational facilities;

2. Places of assembly, excluding yacht clubs and marinas;

3. Municipal uses, provided that outside storage and parking areas are suitably screened and landscaped to ensure compatibility with the surrounding neighborhood;

   Such uses shall be subject to the following standards if the total land area of the use is two (2) acres or more:

   a. In the case of expansion of existing such uses onto land other than the lot on which the principal use is located, it shall be demonstrated that the proposed use cannot reasonably be accommodated on the existing site through more efficient utilization of land or buildings, and will not cause significant physical encroachment into established residential area;

   b. The proposed use will not cause significant displacement or conversion of residential uses existing as of July 15, 1985, or thereafter; and

   c. In the case of a use or use expansion which constitutes a combination of the above-listed uses with capacity for concurrent operations, the applicable minimum lot sizes shall be cumulative; and

   d. Article V (site plan) sections 14-522 and 14-523 notwithstanding, in the case of places of assembly the proposed use shall be subject to the requirements of article V (site plan) of this chapter; and

e. In the case of community halls:

i. The structure was in existence as of January 4, 2010.

ii. The structure was built for institutional or other non-residential uses;

iii. The structure is operated by, or operated subject to the control of, a not-for-profit entity in accordance with its not-for-profit purposes; and

iv. A parking management plan is submitted for review and approval by the planning board; and

f. In the case of private club or fraternal organizations: any such establishment serving alcoholic beverages or in possession of a license for serving alcoholic beverages shall be located on a large lot, as specified in the minimum lot size provisions of this section.

(c) *Other:*

1. Utility substations including sewage and water pumping stations and standpipes, electric power substations, transformer stations, telephone electronic equipment enclosures, and other similar structures, provided that such uses are suitably screened and landscaped so as to ensure compatibility with the surrounding neighborhood;

2. Nursery schools and kindergartens;

3. Cemeteries;

4. Wharves, piers, docks, or landing ramps;

5. Lodging houses, with more than two (2) but not more than nine (9) lodging rooms.

6. Day care facilities or home babysitting services not permitted as a home occupation under section 14-410, subject to the following conditions:

a. The facility shall be located in a structure in which there is one (1) or more occupied residential units or in an existing accessory structure, unless the facility is located in a principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care or home babysitting use or in a nonresidential structure accessory to the principal nonresidential use.

b. The maximum capacity shall be twelve (12) children for facilities located in residential or existing structures accessory thereto, unless the additional standards in subsection v. are met. There shall be no maximum limit on the number of children in a facility located in a principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care or home babysitting use, or in a nonresidential structure accessory thereto, provided that any such structure that serves more than twelve (12) children shall be subject to review under article V of this chapter.

c. Outdoor play areas shall be screened and buffered from surrounding residences with landscaping and/or fencing to minimize visual and noise impacts.

d. Solid waste shall be stored in covered containers. Such containers shall be screened on all four (4) sides.

e. Day care facilities, nursery schools and kindergartens located either in structures that have been in residential use within the past five (5) years or in existing accessory structures and that serve between thirteen

(13) and twenty-four (24) children shall meet the following additional standards:

i. The facility shall provide a minimum of seventy-five (75) square feet of outdoor play area per child;

ii. The play area shall be located in the side and rear yards only and shall not be located in front yards;

iii. Outside play areas shall be separated from abutting properties by a fence at least forty-eight (48) inches in height;

iv. A ten-foot wide landscaped buffer shall be required outside of the fenced play area, and shall be established in accordance with the landscaping standards of the City's Technical Standards and Guidelines;

v. The minimum lot size for a day care facility located in a residential or existing accessory structure and serving more than twelve (12) children shall be twenty thousand (20,000) square feet;

vi. ***Off-street parking:*** Off-street parking is required as provided in division 20 (off-street parking) of this article.

vii. The maximum number of children in a day care facility located in a residential or existing accessory structure shall be twenty-four (24); and

viii. Any additions or exterior alterations such as facade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building and preserve the residential appearance of the building.

7. Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

a. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

d. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

f. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including

pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

8. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 28-85, § 1, 7-15-85; Ord. No. 161-89, § 2, 12-11-89; Ord. No. 235-91, § 15, 2-4-91; Ord. No. 133-96, § 9, 11-18-96; Ord. No. 29-09/10, 8-3-09 emergency passage; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 240-09/10, 6-21-10; Ord. No. 9 10/11, 8-2-10; Ord. No. 149-10/11 3-7-11; Ord. No. 33-11/12, 1-18-12)

Sec. 14-145.10. Prohibited uses.

Uses that are not expressly enumerated herein as either permitted uses or conditional uses are prohibited.

(Ord. No. 28-85, § 1, 7-15-85)

Sec. 14-145.11. Dimensional requirements.

In addition to the provisions of division 25 (space and bulk regulations and exceptions) of this article, lots in an IR-2 zone shall meet the following minimum requirements:

(a) *Minimum lot size:*

1. Residential: Twenty thousand (20,000) square feet, except as provided in section 14-433 (lots of record and accessory structure setbacks for existing buildings) and section 14-145.9(a)1 of

this article.

2. Schools and other educational facilities: Twenty thousand (20,000) square feet.

3. Places of assembly:

Large	30,000 sq. ft.
Medium	15,000 sq. ft.
Small	7,500 sq. ft.

4. Lodging houses: Thirty thousand (30,000) square feet for three (3) lodging rooms, plus ten thousand (10,000) square feet for each additional lodging room in excess of three (3).

5. In issuing any permit for new development, the building or planning authority shall require that any lot located in an IR-2 zone shall be at least twenty thousand (20,000) square feet in area when the lot is to be serviced by a subsurface wastewater disposal system, except those lots which are located in a subdivision approved by the Planning Board after June 8, 1968, [and excluding Peaks Island].

6. [Excluding Peaks Island from this subsection 7.,] any property owner whose lot does not meet the minimum lot size requirements outlined in subsection f. of this section may, for purposes of this section only, merge two (2) or more separate lots on the same island in order to meet these requirements. Where the lots so merged are not contiguous, the property owner shall grant to the city as holder a conservation easement upon the lot or lots which will not contain the principal structure. The conservation easement shall contain both an existing legal description and a city assessor's chart, block and lot description. The building authority shall be authorized to accept such conservation easements on behalf of the city. Said easement shall be recorded by the applicant in the registry of deeds. A copy of the recorded easement and copies of the deeds for both lots shall be submitted to the building authority prior

to issuance of a building permit. The property over which the conservation easement has been granted shall be used for passive recreational and conservation purposes only, and shall be subject to the following restrictions:

a. No structure shall be permitted on this property.

b. No parking or storage of vehicles or machinery shall be permitted on this property at any time.

c. No area of this property shall be paved.

d. No exterior storage for commercial use shall be permitted on this property.

e. The easement deed shall reference the lot which is benefited by this conservation easement. No conservation easement shall be used to benefit more than one (1) lot.

Conservation easements shall only be granted over lots which conform either to the provisions of section 14-433 or to the minimum lot sizes set forth in (a)1 of this section. Conservation easements shall not be granted over any lot which is encumbered by any other easement which prohibits all construction on that lot.

A conservation easement may also name as a holder or grant a third-party right of enforcement to a nonprofit corporation or charitable trust, the purposes or powers of which include retaining or protecting the natural, scenic or open space values of real property; assuring the availability of real property for agricultural, forest, recreational or open space use; protecting natural resources; or maintaining or enhancing air or water quality of real property.

Nothing in this section shall be construed to allow an owner of a currently existing and developed lot to convey or permit a portion of that lot to be

used to fulfill the requirements of this section if such conveyance would render the existing lot nonconforming under the terms of this chapter. The lot upon which a building is to be constructed shall meet the minimum lot size requirements of section 14-433.

7. Where an existing subsurface wastewater disposal system serving an existing structure requires replacement, the replacement system shall meet the requirements of CMR 241 Section 2-E. The land area requirements in subsection f. of this section shall not apply to such a replacement system.

   For purposes of this subsection, the mean high tide mark shall be considered to be the shoreline lot line.

(b) *Minimum street frontage:*

Seventy (70) feet, except that a lot of record as described in section 14-433 (lots of record and accessory structure setbacks for existing buildings) and lots created after July 15, 1985, which are not part of a subdivision need not provide street frontage if access is available by means of a permanent easement or right-of-way which existed as of July 15, 1985. Such easement or right-of-way shall have a minimum width of sixteen (16) feet and a minimum travel width of eight (8) feet except that an easement or right-of-way providing access for three (3) or more lots or providing the only means of access to a parcel or parcels of three (3) acres or more, shall be a minimum thirty-two (32) feet wide and meet the construction requirements of article III of chapter 25 (street acceptances) of this Code. Such easement or right-of-way shall permit municipal service delivery.

(c) *Minimum yard dimensions:*

(Yard dimensions shall include setbacks of structures from property lines and setbacks of structures from one another. No structure shall occupy the minimum yard of another structure.)

1. ***Front yard:*** Principal or accessory structures: Twenty-five (25) feet except that a front yard need not exceed the average depth of front yards on either side of the lot.

2. ***Rear yard:*** Principal or accessory structures with ground coverage greater than one hundred (100) square feet: Twenty-five (25) feet.

   Accessory detached structures with ground coverage of one hundred and forty-four(144) square feet or less: Ten (10) feet.

3. ***Side yard:*** Principal or accessory structures with ground coverage greater than one hundred (100) square feet: Twenty (20) feet.

   Accessory detached structures with ground coverage of one hundred and forty-four (144) square feet or less: fifteen (15) feet, except that the minimum distance from a principal structure may be five (5) feet.

4. ***Side yard on side streets:*** Principal or accessory structures: Twenty (20) feet.

5. Not withstanding the foregoing, the width of one side-yard may be reduced to not less than ten feet in the case of a lot of record, existing as of June 5, 1957, and which contained a structure in use at that time and at all times subsequent thereto as a year-round, single-family residence, and which is served by public sewer and water, at the time of any expansion permitted by this section, where the reduction is necessary either to bring the use into compliance with health and safety codes or to improve a condition which the Board of Appeals determines constitutes a health or safety problem. Any alteration or expansion authorized by this section may only be situated in the rear yard and shall not encroach into the required setback more than the existing building does prior to the construction of such alteration or expansion. Any such alteration or expansion will be subject to the maximum lot coverage requirements applicable to

this zone; and, cumulatively, during the lifetime of the structure, may not exceed forty percent (40%) of the combined floor area of the habitable rooms existing at the time of the first expansion permitted by this section. For the purposes of this section "floor area" and "habitable room" shall have the same meaning ascribed to them in Portland Municipal Code, §6-106, et seq., Housing Code, as it may be amended from time to time.

(d) ***Maximum lot coverage:*** Twenty (20) percent of lot area.

(e) ***Minimum lot width:*** Eighty (80) feet.

(f) ***Maximum structure height:***

1. Principal or accessory attached structure: Thirty-five (35) feet. For Little Diamond Island only: Twenty (27) feet.

2. Accessory detached structure: Eighteen (18) feet.

(g) ***Maximum floor area for places of assembly on a collector or arterial road:***

Large	Not limited
Medium	4,500 sq. ft.
Small	2,250 sq. ft.

(h) ***Maximum floor area for places of assembly not on a collector or arterial road:***

Large	4,500 sq. ft.
Medium	2,250 sq. ft.
Small	1,125 sq. ft.

(Ord. No. 28-85, § 1, 7-15-85; Ord. No. 161-89, § 3, 12-11-89; Ord. No. 215-02, 4-17-02; Ord. No. 76-03/04, 10-20-03; Ord. No. 131-08/09, 12-15-08; Ord. No. 127-09/10, 1-4-10 emergency passage)

Sec. 14-145.12. Other requirements.

Other requirements include the following:

(a) ***Off-street parking:*** Off-street parking shall be required as provided in division 20 (off-street parking) of this article.

(b) ***Shoreland and flood plain management regulations:*** Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5.

(c) ***Storage of vehicles:*** Only one (1) unregistered motor vehicle may be stored outside on the premises and not for a period exceeding thirty (30) days.
(Ord. No. 28-85, § 1, 7-15-85; Ord. No. 15-92, § 13, 6-15-92)

DIVISION 7.3. IR-3 ISLAND RESIDENTIAL ZONE

Sec. 14-145.13. Purpose.

The purpose of the IR-3 island residential zone is to allow for a planned unit development in a manner compatible with both the natural and built environment, which provides for adequate circulation and waterfront access, adequate water supply for private use and fire protection, and safe and clean disposal of solid and septic wastes. The following guidelines shall be considered, among others, in establishing an IR-3 zone:

(a) An IR-3 zone should have a minimum land area of twenty (20) acres;

(b) A site for an IR-3 zone should be able to accommodate a higher density of development by providing buffers from surrounding areas on a substantially sized parcel for which natural amenities are capable of being conserved in a development plan for the site;

(c) IR-3 zones should not be established unless issues of municipal services, including infrastructure, education, and police and fire services and other municipal services can be appropriately and adequately addressed;

(d) The differences in scale and intensity of uses between existing development and the IR-3 zone, and the cumulative impact on the overall density of the island, should be mitigated by appropriate open space and buffer areas; and

(e) The development plan should have the capability of meeting the development review standards of section

14-145.16.
(Ord. No. 29-85, § 1, 7-15-85)

Sec. 14-145.14. Permitted uses.

The following uses are permitted in the IR-3 island residential zone:

(a) Planned unit development, including:

1. Single-family detached dwellings;

2. Single-family attached dwellings provided that new construction shall be limited to no more than six (6) attached dwellings per building;

3. Lodging houses, with more than two (2) but not more than nine (9) lodging rooms;

4. Inns, provided that the total number of rooms does not exceed fifty (50);

5. Restaurants;

6. Retail businesses or services;

7. Campgrounds, excluding recreation vehicles, licensed by the State of Maine Department of Human Services provided that:

   a. No tent shall be located within seventy-five (75) feet of the perimeter of the site;

   b. The land area of the site shall not be less than the equivalent of five thousand (5,000) square feet of land area per tent site, exclusive of the roadway network;

8. Recreation facilities excluding amusement park;

9. Wharves, docks, piers, landing ramps, boat houses, store houses for fishing equipment, marinas, and yacht clubs;

10. Municipal uses, provided that outside storage and

parking areas are suitably screened and landscaped so as to ensure compatibility with surrounding neighborhood;

11. Private clubs, fraternal organizations;

12. Utility substations including sewage and water pumping stations and standpipes, electric power substations, transformer stations, telephone electronic equipment enclosures, and other similar structures, provided that such uses are suitably screened and landscaped so as to ensure compatibility with the surrounding neighborhood;

13. Nursery schools, kindergartens, and day care facilities for seven (7) or more children;

14. Schools;

15. Churches or other places of worship;

16. Accessory uses customarily incidental and subordinate to the location, function, and operation of principal uses, subject to the provisions of section 14-404 (accessory use) of this article including but not limited to home occupations; and

17. Handicapped family unit, as defined in section 14-47, for handicapped persons plus staff.

Such development shall have a minimum gross area, as defined in section 14-47 (definitions) of this article, of at least twenty (20) acres of contiguous land. No dimensional requirements shall apply with respect to such development except for the following:

a. Density requirements;

b. Height requirements;

c. Minimum front, rear and side yards adjoining any external property boundary;

d. Minimum street frontage except where the Planning Board finds that the development has an adequate street network sufficient to permit access for pedestrians and emergency and service vehicles.

All area in such a development which is to be owned, used in common, or is proposed for open space shall be governed and maintained as set forth in section 14-498(i)(3), article IV (subdivisions) of this chapter.

The maximum density for a planned unit development shall be based on the applicable minimum lot size for each use as measured in terms of net area. Net area shall be determined by subtracting from gross area the area of street rights-of-way, slopes of fifteen (15) percent or greater, wetland, and otherwise undevelopable area, unless such areas, excluding street rights-of-way, are dedicated to public recreational use or public pedestrian access and are usable as such. For purposes of calculating density, if separately described lots exceed the applicable minimum lot size, the excess area shall not be credited toward the minimum lot size for any other use.

Such development shall be subject to review and approval by the Planning Board with respect to the requirements of article V (site plan) and article IV (subdivisions) of this chapter, whether or not such development is a subdivision within the meaning of article IV of this chapter as now enacted or as hereafter amended. A planned unit development shall be approved by the Planning Board if, in addition to the above standards, it also finds that the development meets the following standards:

(i) ***Design relationship to site.*** The development demonstrates a reasonably unified response to the design possibilities of the site, by virtue of

such elements as the design and layout of buildings and lots, circulation plan, open space, drainage, and orientation to achieve energy conservation or solar access, to form a functionally integrated whole.

(ii) ***Design relationship to surrounding neighborhood.*** The design and layout of the development and buildings are reasonably compatible with the surrounding neighborhood by virtue of such features as architectural style, exterior finish, scale, circulation, open space, landscaping and preservation of natural site amenities.

(iii) ***Open space.*** All open spaces on the site are functionally integrated into the development plan by virtue of such features as accessibility to residents, recreation, conserving existing public rights of access to shoreland areas and scenic natural areas, orientation to achieve energy conservation or solar access, preservation of natural site amenities, and use as a buffer between the development and the surrounding neighborhood.

18. Wind energy ystems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 29-85, § 1, 7-15-85; Ord. No. 33-91, § 12, 1-23-91; Ord. No. 33-11/12)

Sec. 14-145.14.1. Conditional uses.

The following uses shall be permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses) and any special provisions, standards or requirements specified below:

(a) Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

1. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

2. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

3. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

4. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

5. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

6. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

7. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not

be used for any other purpose; and

8. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

(b) Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 29-09/10, 8-3-09, emergency passage; Ord. No. 33-11/12, 1-18-12)

Sec. 14-145.15. Prohibited uses.

Uses that are not expressly enumerated herein as either permitted uses or conditional uses are prohibited.

(Ord. No. 29-85, § 1, 7-15-85)

Sec. 14-145.16. Development review.

In addition to other applicable requirements, no development shall occur nor shall any new use be established unless the Planning Board finds that the final development plan for the site is in compliance with the following development standards:

(a) *Transportation:* The development shall be designed primarily with a pedestrian orientation to minimize the use of and dependency on private motor vehicles. Appropriate areas on the site shall be designated, as necessary, for parking of common service vehicles, golf carts or bicycles to serve the transportation needs of residents and visitors. The internal circulation plan shall also be coordinated with the existing island street network to ensure adequate access for emergency and service vehicles.

A project construction plan shall be developed indicating the anticipated number and types of vehicles such as construction equipment, supply-delivery and service vehicles needed for undertaking the construction of the project. Documentation shall be provided as to the

proposed transportation route such as roads, piers, beaches, sand bars and the impact of construction related activities on the routes.

The development shall not have a substantial adverse impact on the capacity of existing island docking facilities. The developer shall demonstrate that an adequate water transportation system, including docking facilities, exists or will be provided.

(b) ***Solid waste:*** Adequate provision for off-island solid waste disposal shall be demonstrated such that the impact on municipal solid waste disposal is minimized. A development shall incorporate methods such as the following to reduce the amount of solid waste generated by the project: compaction and reduction in waste volume, recycling, incineration or baler system, and private collection and transfer to an off-island location. It shall be demonstrated that there will be no significant environmental impacts from the solid waste disposal system.

(c) ***Sanitary waste:*** All sanitary waste from the development shall be disposed of by a public sewer, private community sewer system providing at least secondary treatment, or subsurface sewerage system, in compliance with federal, state and local regulations. The developer shall demonstrate that the project will comply with all applicable federal, state and local water quality and groundwater standards.

(d) ***Water:*** The proposed development shall have sufficient water for the reasonably foreseeable needs of the development and shall not cause an unreasonable burden on existing water supply nor adversely affect groundwater resources. Unless the development is to be served entirely by public water and secondary treatment sewer systems, the determination of compliance with this provision shall be based upon one (1) or more comprehensive groundwater analyses and reports prepared by qualified professionals and including assessment of current groundwater aquifer conditions, the impact of the proposed development on the groundwater aquifer, and recommendations for mitigation of potential impacts caused by the development.

(e) ***Shoreland areas:*** The development shall preserve the natural features of the shoreland area by minimizing the disturbance of existing vegetation and slopes, avoiding development in areas subject to erosion and sedimentation, and conserving scenic views and vistas to and from the site.

(f) ***Environmentally sensitive areas:*** The development plan shall preserve significant resources of the site by integrating open space into the development plan and by conserving such features as scenic vistas, historic man-made or natural features, existing vegetation, wetland areas, shoreland areas, ground water, natural wildlife habitat, and recommended or registered State of Maine Critical Land Areas, as well as other environmentally sensitive areas.

(g) ***Recreation and open space:*** All open spaces on the site shall be functionally integrated into the development plan by virtue of such features as passive and active recreational opportunities, accessibility to residents, preservation of natural site amenities and resources, orientation to achieve energy conservation or solar access, use as a buffer between housing clusters and to screen the development from surrounding areas.

(h) ***Financial and technical capability:*** The applicant shall demonstrate sufficient financial and technical capability for undertaking the proposed project. Financial capability shall include a cost estimate of the proposed improvements, proposed construction and permanent financing, and terms of sale or lease of dwellings and commercial space. Technical capacity shall include the experience and expertise of the developer in implementing projects of similar scope.

(i) ***Environmental impact analysis:*** The applicant shall develop an environmental impact analysis including an inventory of existing environmental conditions at the project site and in the surrounding area with an assessment of the development's probable impact upon the environment. The inventory shall include such resources as air, water quality, water supply, surface water and shoreline, geology, soils, topography, wildlife,

botanical and aquatic, including rare and endangered species, historic, archeological and aesthetic. The analysis shall include the direct and cumulative adverse impacts of the project on these resources. The analysis shall also include what steps the applicant proposes to take to identify and minimize adverse environmental impacts during construction, management and use of the property and whether there are alternatives for the project which would decrease the impact of the development.

(j) *Development phasing:* If the project is to be completed in phases, the applicant shall indicate the schedule for completing and implementing infrastructure improvements as well as other improvements, agreements or services required for compliance with the development standards of this section, planned unit development standards, and site plan and subdivision review requirements.

(k) *Emergency services:* The development shall not place an unreasonable burden on the ability of the city to provide police, fire and other emergency services.

(Ord. No. 29-85, § 1, 7-15-85)

Sec. 14-145.17. Dimensional requirements.

In addition to the provisions of division 25 (space and bulk regulations and exceptions) of this article, lots in the IR-3 zone shall meet the following minimum requirements:

(a) *Minimum lot size:*

1. Residential: Forty-two thousand five hundred (42,500) square feet per dwelling unit, except that the minimum lot size per dwelling unit shall be reduced by the amounts specified below, to a minimum lot size of thirty-five thousand (35,000) square feet per dwelling unit, provided that the Planning Board finds that the development meets the following criteria:

   a. The minimum lot size per dwelling unit shall be reduced by five thousand (5,000) square feet if a public off-island water source provides seventy-five (75) percent of the

water needs of the development.

b. The minimum lot size per dwelling unit shall be reduced by two thousand five hundred (2,500) square feet if the development provides appropriate permanent restrictions or other agreements precluding the use, maintenance and parking of all private motor vehicles exclusive of construction and common service vehicles.

2. Inn: Ten thousand (10,000) square feet for each lodging room.

3. Restaurant: Thirty-five thousand (35,000) square feet.

4. Campground: Five thousand (5,000) square feet per campsite, but not less than ten (10) acres.

5. Private clubs, fraternal organizations, or seasonal camp: Thirty-five thousand (35,000) square feet.

6. Lodging houses: Thirty thousand (30,000) square feet for three (3) lodging rooms, plus ten thousand (10,000) square feet for each additional lodging room in excess of three (3).

7. Other uses: Thirty-five thousand (35,000) square feet.

8. In issuing any permit for new development, the building or planning authority shall require that any lot located in an IR-3 zone shall be at least twenty thousand (20,000) square feet in area when the lot is to be serviced by a subsurface wastewater disposal system, except those lots which are located in a subdivision approved by the Planning Board after June 8, 1968, [and excluding Peaks Island].

9. [Excluding Peaks Island from this subsection i.,] any property owner whose lot does not meet the minimum lot size requirements outlined in subsection h. of this section may, for purposes of

this section only, merge two (2) or more separate lots on the same island in order to meet these requirements. Where the lots so merged are not contiguous, the property owner shall grant to the city as holder a conservation easement upon the lot or lots which will not contain the principal structure. The conservation easement shall contain both an existing legal description and a city assessor's chart, block and lot description. The building authority shall be authorized to accept such conservation easements on behalf of the city. Said easement shall be recorded by the applicant in the registry of deeds. A copy of the recorded easement and copies of the deeds for both lots shall be submitted to the building authority prior to issuance of a building permit. The property over which the conservation easement has been granted shall be used for passive recreational and conservation purposes only, and shall be subject to the following restrictions:

a. No structure shall be permitted on this property.

b. No parking or storage of vehicles or machinery shall be permitted on this property at any time.

c. No area of this property shall be paved.

d. No exterior storage for commercial use shall be permitted on this property.

e. The easement deed shall reference the lot which is benefited by this conservation easement. No conservation easement shall be used to benefit more than one (1) lot.

Conservation easements shall only be granted over lots which conform either to the provisions of section 14-433 or to the minimum lot sizes set forth in (a)1 of this section. Conservation easements shall not be granted over any lot which is encumbered by any other easement which prohibits all construction on that lot.

A conservation easement may also name as a holder or grant a third-party right of enforcement to a nonprofit corporation or charitable trust, the purposes or powers of which include retaining or protecting the natural, scenic or open space values of real property; assuring the availability of real property for agricultural, forest, recreational or open space use; protecting natural resources; or maintaining or enhancing air or water quality of real property.

Nothing in this section shall be construed to allow an owner of a currently existing and developed lot to convey or permit a portion of that lot to be used to fulfill the requirements of this section if such conveyance would render the existing lot nonconforming under the terms of this chapter. The lot upon which a building is to be constructed shall meet the minimum lot size requirements of section 14-433.

10. Where an existing system subsurface wastewater disposal serving an existing structure requires replacement, the replacement system shall meet the requirements of CMR 241 Section 2-E. The land area requirements in subsection h. of this section shall not apply to such a replacement system.

    For purposes of this subsection, the mean high tide mark shall be considered to be the shoreline lot line.

    The minimum lot size for buildings containing both residential and nonresidential uses shall be cumulative. Where there are two (2) or more residential uses contained in a building, the minimum lot size shall be the larger of the applicable minimum lot sizes.

(b) ***Minimum street frontage:*** Seventy (70) feet.

(c) ***Minimum yard dimensions:***

(Yard dimensions shall include setbacks of structures

from property lines and setbacks of structures from one another. No structure shall occupy the minimum yard of another structure.)

1. ***Front yard:*** Principal or accessory structures: Twenty-five (25) feet.

2. ***Rear yard:*** Principal or accessory structures with ground coverage greater than one hundred (100) square feet: Twenty-five (25) feet.

   Accessory detached structures with ground coverage of one hundred and forty-four (144) square feet or less: Ten (10) feet.

3. ***Sideyard:*** Principal or accessory structures with ground coverage greater than one hundred (100) square feet: Twenty (20) feet.

   Accessory detached structures with ground coverage of one hundred and forty-four (144) square feet or less: Fifteen (15) feet.

4. ***Side yard on side street:*** Principal or accessory structures: Twenty (20) feet.

(d) ***Maximum lot coverage:*** Twenty (20) percent of lot area.

(e) ***Minimum lot width:*** Eighty (80) feet.

(f) ***Maximum structure height:*** Principal or accessory attached structure: Thirty-five (35) feet.

Accessory detached structure: Eighteen (18) feet.

(Ord. No. 29-85, § 1, 7-15-85; Ord. No. 162-89, 12-11-89; Ord. No. 131-08/09, 12-15-08)

Sec. 14-145.18. Other requirements.

[Other requirements include the following:]

(a) ***Shoreland and flood plain management regulations:*** Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5.

(b) ***Off-street parking:*** Off-street parking is required as provided in division 20 (off-street parking) of this article.
(Ord. No. 29-85, § 1, 7-15-85; Ord. No. 15-92, § 14, 6-15-92; Ord. No. 240-09/10, 6-21-10)

Sec. 14-145.19. Reserved.

DIVISION 7.5. ISLAND TRANSFER STATION OVERLAY ZONE

Sec. 14-145.20. Purpose.

The purpose of the Island Transfer Station Overlay Zone is to establish an appropriate location for a transfer station for municipal solid waste and municipal public works activities. This zone shall be established through a conditional rezoning process in order to ensure the imposition of appropriate conditions for the protection of neighboring properties.
(Ord. No. 50-98, 7-20-98)

Sec. 14-145.21.1 Permitted uses.

The following uses shall be permitted in the Island Transfer Overlay Zone:

(a) Municipal solid waste facilities, including compactors and storage bins, provided that the compactor shall be located within a fully enclosed structure.

(b) Recycling facilities, provided that all recycling areas shall be buffered and screened from neighboring properties.

(c) Municipal garages, material storage, and parking for vehicles.

(d) Maintenance of municipal vehicles and equipment.

(e) Wind energy systems, as defined and allowed in Article X, Alternative Energy.
(Ord. No. 50-98, 7-20-98; Ord. No. 33-11/12, 1-18-12)

Sec. 14-145.21.2. Conditional uses.

The following use is permitted only upon the issuance of a

conditional use permit, subject to the provisions of section n14-474 (conditional uses) of this article and any special provisions, standards or requiremetns specified below:

(a) Temporary wind anemometer towers, as defined in sec. 14-47, are permitted provided the following standards are met in addition to sec. 14-430.

1. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a certificate of occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

2. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the board of appeals with the application; and

3. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

4. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the board of appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in temrs of strength, stability, security, grounding, icing impacts and maintenance; and

5. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to corporation counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

6. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

7. Towers shall be used for installing anemometers and

similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meterorological data, but shall not be used for any other purpose; and

8. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, of the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

(b) Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 33-11/12, 1-18-12)

Sec. 14-145.22. Conditional rezoning.

Requirements for setbacks and any operational limitations shall be established as part of the conditional rezoning process.

(Ord. No. 50-98, 7-20-98)

DIVISION 8. R-P RESIDENCE-PROFESSIONAL ZONE*

***Editor's note--**Ord. No. 291-88, adopted Apr. 4, 1988, with an effective date of July 1, 1988, repealed §§ 14-146--14-151 of Div. 8, R-P Residence-Professional Zone, of this article and enacted similar new provisions in lieu thereof as set out in §§ 14-146--14-151. Formerly, such sections derived from §§ 602.7A, 602.7A.A and 602.7A.B of the city's 1968 Code and from Ord. No. 49-73, adopted Jan. 3, 1973; Ord. No. 499-74, § 3, adopted Aug. 19, 1974; and Ord. No. 312-85, §§ 1--3, adopted Dec. 2, 1985.

Sec. 14-146. Purposes.

The purposes of the R-P residence-professional zone are:

(a) To provide appropriate location for the development and operation of low-intensity business uses, including professional offices on or near major arterials, that are compatible in scale, density and use with surrounding and adjacent residential neighborhoods; or

(b) To serve as a transition or buffer zone between residential and more intensive nonresidential zones.
(Ord. No. 291-88, 4-4-88)

Sec. 14-147. Permitted uses.

The following uses are permitted in the R-P district:

(a) *Residential:* Any residential use is permitted in the residential zone abutting the lot. If there is no abutting residential zone, the nearest residential zone to the lot. In the case of two (2) or more abutting residential zones, the most restrictive such zone.

(b) *Business:*

1. Professional offices, including the offices and facilities of health care and related laboratory and pharmacy services and health care administration, but excluding personal services, retail establishments and veterinarians.

2. Business services, as defined in section 14-47, except copy services.

3. Adult day care services.

4. Mortuaries or funeral homes.

(c) *Other:*

1. Utility substations, as defined in section 14-47, subject to the requirements of article V (site plan), sections 14-522 and 14-523 notwithstanding.

2. Accessory uses as provided in section 14-404.

3. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 291-88, 4-4-88: Ord. No. 149-05/06, 2-18-06; Ord. No. 166-08/09, 3-3-09; Ord. No. 10 10/11, 8-2-10; Ord. No. 33-11/12, 1-18-12)

Sec. 14-147.5. Conditional uses.

The following uses are permitted as provided in section 14-474 (conditional uses) if they meet the following requirements:

(a) Such other offices which have characteristics similar to but no more objectionable than those generally associated with professional offices. In determining appropriateness, the zoning board shall consider the quality of building design and materials, signage, and landscaping, and their general compatibility with the surrounding residential development. Such uses shall also be shown to have vehicular patterns, including parking and storage of motor vehicles, similar to those associated with professional offices. Noise levels and hours of operation shall also be considered. An approval granted under this section shall be issued to a specific user and shall not run with the land to subsequent users. A new conditional use approval shall be required when the user changes. A new conditional use approval may be issued by the zoning authority if it determines that the new user will maintain the same use as the original user and that such use will not have substantially different external effects, including, but not limited to, parking, vehicular traffic on and off the site, noise levels, hours of operation, and visual characteristics such as signage or changes to building design.

(b) With the exception of daycare facilities below, any conditional use that is allowed as a conditional use in any residential zone abutting the lot. If there is no abutting residential zone, any conditional use that is allowed as a conditional use in the nearest residential zone to the lot. Any such conditional use shall be subject to all conditions required in the residential zone.

(c) Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

1. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site

within sixty (60) days; and

2. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

3. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

4. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

5. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

6. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

7. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

8. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow

account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

(d) Daycare facilities or home babysitting services not otherwise permitted as a home occupation under section 14-410, and nursery schools and kindergartens for up to twelve (12) children shall be allowed as a conditional use:

1. Proof of licensing with the Maine Department of Human Services is submitted to the city prior to issuance of a certificate of occupancy.

2. Outdoor play areas shall be screened and buffered from surrounding residences with landscaping and/or fencing to minimize visual and noise impacts.

3. Solid waste shall be stored in covered containers. Such containers shall be screened on all four (4) sides.

(e) Daycare facilities, home babysitting services, nursery schools and kindergartens that serve more than 12 children shall meet the following additional standards:

1. Proof of licensing with the Maine Department of Human Services is submitted to the city prior to issuance of a certificate of occupancy.

2. The facility shall provide a minimum of seventy-five (75) square feet of outdoor play area per child.

3. The play area shall be located in the side and rear yards only and shall not be located in front yards.

4. Outside play areas shall be separated from

abutting properties by a fence at least forty-eight (48) inches in height.

5. A ten-foot (10') wide landscaped buffer shall be required outside of the fenced play area, and shall be established in accordance with the landscaping standards of the city's Technical Standards and Guidelines.

6. The minimum lot size for a daycare facility, home babysitting service, nursery school or kindergarten serving more than twelve (12) children shall be six thousand (6,000) square feet.

7. ***Off-street parking***: Off-street parking is required as provided in division 20 (off-street parking) of this article.

8. Any additions or exterior alternations such as façade materials, building form, roof pitch, and exterior doors shall be designed to be compatible with the architectural style of the building or preserve the residential appearance of the building.

(f) Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 201-92, § 1, 1-6-92; Ord. No. 133-96, § 10, 11-18-96; Ord. No. 29-09/10, 8-3-09 emergency passage; Ord. No. 312-08/09, 7-20-09; Ord. No. 33-11/12, 1-18-12)

Sec. 14-148. Prohibited uses.

Uses not enumerated in section 14-147 as permitted uses or in section 14-147.5 as conditional uses are prohibited.

(Ord. No. 291-88, 4-4-88; Ord. No. 201-92, § 2, 1-6-92)

Sec. 14-149. Dimensional requirements.

In addition to the provisions of division 25 (space and bulk regulations and exceptions) of this article, the following requirements shall apply. Residential uses permitted under section 14-147(a) shall meet the requirements of such abutting or nearest residential zone. Nonresidential uses in the R-P zone shall meet

the following minimum requirements:

(a) ***Minimum lot size:*** Six thousand (6,000) square feet.

(b) ***Minimum street frontage:*** Sixty (60) feet.

(c) ***Minimum yard dimensions:***

1. ***Front yard:***

a. Principal or accessory structures: Twenty (20) feet, except that:

i. The front yard need not exceed the average depth of immediately abutting front yards; and

ii. The front yard of a lot existing as of April 4, 1988, which lot is less than one hundred (100) feet deep, need not be deeper than ten (10) percent of the depth of the lot.

2. ***Rear yard:***

a. Principal structures: Twenty (20) feet.

b. Accessory structures (detached): Seven (7) feet.

3. ***Side yard:***

a. Principal structures:

Number of Stories	*Required Side Yard*
1 story	10 feet
2 stories	12 feet
3 or more stories	14 feet

The width of one (1) side yard may be reduced one (1) foot for each foot that the other side yard is correspondingly increased, provided,

however, no side yard shall be reduced to less than seven (7) feet in width.

b. Accessory structures (detached): Seven (7) feet.

c. Side yards on side streets (corner lot): For both principal or accessory structures:

i. One (1) or two (2) stories: Fifteen (15) feet; and

ii. Three (3) or more stories: Eighteen (18) feet.

(d) ***Minimum lot width:*** Sixty (60) feet.

(e) ***Maximum structure height:*** Forty-five (45) feet. Where the lot abuts an R-6 residential zone, the maximum permitted height shall be the maximum permitted height of the R-6 zone. If there is a difference in height between abutting R-6 zones, the least restrictive height limitation shall apply.

(f) ***Maximum impervious surface ratio:*** The maximum impervious surface ratio is established according to the abutting residential zone. If there is no abutting residential zone to the lot in question, the nearest residential zone to the lot. In the case of two (2) or more abutting residential zones, the least restrictive such zone. The ratios are as follows:

Maximum Impervious

Residential Zone	Surface Ratio
R-1/R-2	0.60
R-3	0.70
R-4/R-5/R-5A/R-6	0.80

(g) ***Floor area ratio (F.A.R.):*** The maximum floor area ratio is established according to the abutting residential zone. If there is no abutting residential zone to the lot

in question, the nearest residential zone to the lot. In the case of two (2) or more abutting residential zones, the least restrictive such zone. The ratios are as follows:

Residential	*Floor Area Ratio*
R-1/R-2	0.45
R-3	0.55
R-4/R-5/R-5A/R-6 . .	0.65

(Ord. No., 291-88, 4-4-88; Ord. No. 149-05/06, 1-18-06)

Sec. 14-150. Other requirements.

All nonresidential uses in the R-P zone shall meet the requirements of division 25 (space and bulk regulations and exceptions) of this article in addition to the following requirements:

(a) ***Landscaping and screening:*** The site shall be suitably landscaped for parking, surrounding uses and accessory site elements, including storage and solid waste receptacles where required by article IV (subdivisions) and article V (site plan).

(b) ***Curbs and sidewalks:*** Curbs and sidewalks as specified in article VI of chapter 25.

(c) ***Off-street parking and loading:*** Off-street parking and loading are as required by division 20 and division 21 of this article.

(d) ***Front yard parking:*** There shall be no parking in the front yard between the street line and the required minimum setback line. A maximum of ten (10) percent of the total parking provided on the site may be located between the principal structure and the front yard, provided that for a lot of three (3) acres or more this limitation does not apply.

(e) ***Signs:*** Signs shall be subject to the provisions of division 22 of this article.

(f) ***Exterior storage:*** There shall be no exterior storage with the exception of receptacles for solid waste disposal. Such receptacles shall be shown on the approved site plan.

(g) ***Storage of vehicles:*** Storage of vehicles is subject to the provisions of section 14-335.

(h) ***Shoreland and flood plain management regulations:*** If the lot is located in a shoreland zone or in a flood hazard zone, the requirements of division 26 and/or division 26.5 apply.

(Ord. No. 291-88, 4-4-88; Ord. No. 149-05/06, 1-18-06)

Sec. 14-151. External effects.

Every use in a R-P zone shall be subject to the following requirements:

(a) ***Enclosed structure:*** The use shall be operated within a completely enclosed structure, except for those customarily operated in the open air.

(b) ***Noise:*** The volume of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American Standards Association), generated shall not exceed fifty-five (55) decibels on the A scale, on impulse (less than one (1) second), at lot boundaries, excepting air raid sirens and similar warning devices.

(c) ***Vibration and heat:*** Vibration inherently and recurrently generated and heat shall be imperceptible without instruments at lot boundaries.

(d) ***Glare, radiation or fumes:*** Glare, radiation or fumes shall not be emitted to an obnoxious or dangerous degree beyond lot boundaries.

(e) ***Smoke:*** Smoke shall not be emitted at a density in excess of twenty (20) percent opacity level, as classified in Method 9 (Visible Emissions) of the Opacity Evaluation System of the U.S. Environmental Protection Agency.

(f) ***Materials or wastes:*** No materials or wastes shall be

deposited on any lot in such form or manner that they may be transferred beyond the lot boundaries by natural causes or forces. All material which might cause fumes or dust, or constitute a fire hazard if stored out-of-doors, shall be only in closed containers. Areas attracting large numbers of birds, rodents or insects are prohibited.

(g) The hours of operation of funeral homes (including processions) may be restricted and/or traffic management measures may be required, in order to avoid impacts to the public street system, if so recommended by the city traffic engineer or comparable professional.

(Ord. No. 291-88, 4-4-88; Ord. No. 166-08/09, 3-3-09)

DIVISION 8.1 USM, UNIVERSITY OF SOUTHERN MAINE OVERLAY ZONE

Sec. 14-152. Purpose.

The intention of this division is to establish an overlay zone in which an existing university campus can be continued and reasonably expanded within defined boundaries, in addition to those uses permitted in the underlying zone or zones. The purpose of this division is to recognize the unique qualities of a university campus while at the same time protecting the value and integrity of established neighborhoods.

(Ord. No. 171-05/06, 3-20-06)

Sec. 14-152.1. Location and applicability of University of Southern Maine overlay zone.

The University of Southern Maine overlay district, as shown on the zoning map is intended to encompass and define the University of Southern Maine campus westerly of Forest Avenue. Properties in the University of Southern Maine overlay zone shall continue to be governed by the regulations applicable to the underlying zoning districts except as specifically modified by this division.

(Ord. No. 171-05/06, 3-20-06)

Sec. 14-152.2. Permitted uses.

In addition to the permitted uses allowed in the underlying zoning districts and notwithstanding anything to the contrary in the use regulations for the underlying zoning districts, the following uses are permitted uses in the University of Southern

University uses including, but not limited to, the following:

1. Classrooms;

2. Laboratory facilities;

3. Research facilities;

4. Student unions;

5. Dining halls;

6. Bookstores;

7. Auditoriums;

8. Concert halls;

9. Lecture halls;

10. Gymnasiums;

11. Libraries;

12. Outdoor use areas, such as "quads", greens, parks, gardens, art installations, and other active and passive noncommercial recreation spaces;

13. Faculty housing;

14. Student housing;

15. Parking lots;

16. Parking garages;

17. Community meeting spaces;

18. Administrative offices;

19. Faculty offices;

20. Transportation facilities;

21. Maintenance facilities;

22. Utility buildings;

23. Student health services;

24. Daycare facilities, nursery schools and kindergartens operated in conjunction with university programs or serving students, faculty or employees of the university and their families, with associated outside play areas;

25. Other buildings, structures and uses customarily incidental to a university.

Except that, on lots fronting on Chamberlain Avenue and Exeter Street, university uses shall be limited to faculty housing, graduate student housing, faculty offices and administrative offices, and buildings containing such uses shall be designed and maintained so as to complement the residential character of the street as required in §14-152.7.

No change of use permit under section 14-463 shall be required for any of the above uses in actual existence as of the date of enactment of the University of Southern Maine overlay zone.
(Ord. NO. 171-05/06, 3-20-06)

Sec. 14-152.2.1. Conditional uses.

The following uses are permitted as provided in section 14-474 (conditional uses) if they meet the following requirements:

(a) Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 33-11/12, 1-18-12)

Sec. 14-152.3 Dimensional requirements.

University buildings and structures shall be subject to the applicable dimensional requirements of the underlying zoning districts, except as follows:

(a) ***Minimum yard dimensions*** shall be the same as in the underlying zone, except as shown on the university campus overlay setback map, incorporated herein by reference. Side and rear yards shall not be required between

buildings on contiguous lots owned by the university on the condition that such contiguous lots shall be considered merged and shall not be separately conveyed unless required yard dimensions in the underlying zones are provided.

(b) ***Maximum building height*** shall be the same as in the underlying zone, except as shown on the university campus overlay height map, incorporated herein by reference, depicting the following height zones:

1. Height zone A, maximum building height 45 feet.

2. Height zone B, maximum building height 75 feet.

3. Height zone C, maximum building height 85 feet.

(c) ***Minimum building height.*** All new freestanding buildings in height zone B and height zone C must be built to a height of at least 35 feet or designed and constructed so that they can be expanded to 35 feet or higher. As used in this paragraph, the term "new freestanding building" means any building which is not an addition to or expansion of a building which existed on the date of enactment of the University of Southern Maine overlay zone.

(d) ***Maximum impervious surface ratio*** shall be 66% of the total land area within the University o Southern Maine overlay zone exclusive of public streets.

(e) ***Maximum coverage by buildings*** shall be 40% of the total land area within the University of Southern Maine overlay zone exclusive of public streets.

(Ord. No. 171-05/06, 3-20-06)

Sec. 14-152.4. Parking.

Off-street parking: Off-street parking is required as provided in division 20 (off-street parking) of this article.
(Ord. No. 171-05/06, 3-20-06; Ord. No. 240-09/10, 6-21-10)

Sec. 14-152.5. Loading.

The requirements of section 14-351 shall not apply to

university buildings. Instead, the amount of loading area required for any university building shall be determined by the planning board during site plan review, based on a campus-wide analysis, treating all contiguous lots owned by the university as one lot. In determining the amount of loading space required for any university building, the planning board may take into account such factors as:

(a) The use of centrally located on-campus loading facilities so situated that vehicles making deliveries can load and unload in the central facilities, provided no single location is overburdened with loading facilities.

(b) Shared use of a single loading facility by two or more buildings.

(c) Impacts of the loading area on adjacent uses outside the University of Southern Maine overlay zone.

(Ord. No. 171-05/06, 3-20-06)

Sec. 14-152.6. Signage.

Signs comply with the requirements of Division 22, except as those regulations are modified or augmented below:

(a) Signs shall be designed in accordance with signage standards promulgated by the university, providing for a unified, apparent and ADA-compliant campus-wide system for identification, orientation and regulatory signage.

(b) Banners are allowed as follows:

1. Generic banners containing the logo and colors of the university, used for decorative purposes.

2. Banners used for advertising university events, which can be displayed for a maximum of four weeks prior to and one week following the event.

(Ord. No. 171-05/06, 3-20-06)

Sec. 14-152.7. University overlay zone design principles and standards.

All minor and major development in the University of Southern Maine overlay zone conform to the requirements of chapter 14,

article V (site plan review) and the requirements contained within the planning and development design manual, which is incorporated therein by reference.
(Ord. No. 171-05/06, 3-20-06)

Sec. 14-152.8. Campus housing.

For any development requiring level III site plan review, the university shall submit to the planning board a campus housing analysis. The analysis shall include a description of housing demand and supply at the time of the application, a projection of housing demand expected to arise from the proposed development and/or as a result of program changes anticipated to occur concurrently with the proposed development, and a description of how the university intends to meet any increased housing demand through on-campus housing, off-campus housing developed by the university, and/or off-campus housing developed by others.
(Ord. No. 171-05/06, 3-20-06; Ord. No. 278-09/10, 7-19-10)

Sec. 14-152.9. Required review for change of use, additions and renovations.

In the case of properties fronting Chamberlain Avenue, Exeter Street and the northerly side of Bedford Street from Surrender Street to Deering Avenue, level II site plan review shall be required of: (1) all changes of use; and (2) all building additions and renovations affecting an area equivalent to 25% or more of the existing floor area of a structure, unless level III site plan review is otherwise required under chapter 14, article V.
(Ord. NO. 171-05/06, 3-20-06)

DIVISION 8.5. R-OS RECREATION AND OPEN SPACE ZONE

Sec. 14-153. Purpose.

(a) The purpose of this division is:

1. To preserve and protect open space as a limited and valuable resource;

2. To permit the reasonable use of open space, while simultaneously preserving and protecting its inherent open space characteristics to assure its continued availability for public use as scenic, recreation, and conservation or natural resource area, and for the

containment and structuring of urban development;

3. To coordinate with and carry out federal, state, regional, and city recreation and open space plans; and

4. To provide a suitable location for large-scale regional sports and athletic facilities.

(b) The recreation open space zone may include major parcels (over two (2) acres) of public property, and private property legally restricted from intensive use or development through deed, covenant, or otherwise.

(Ord. No. 232-81, § 602.7B.1, 11-16-81; Ord. No. 187-01/02, § 2, 4-17-02)

Sec. 14-154. Permitted uses.

The following uses are permitted uses within the recreation and open space zone, subject to the development standards contained herein:

(a) Municipal parks, public open spaces, picnic areas, playgrounds and play lots;

(b) Cemeteries;

(c) Arboretums;

(d) Golf courses, excluding miniature golf;

(e) Boat landings, beaches, and marinas for public uses;

(f) Outdoor ballfields and public athletic fields;

(g) Swimming pools and tennis courts;

(h) Picnic groves and areas;

(i) Natural parks and scenic overlooks;

(j) Hiking, walking, bicycling or cross-country ski trails;

(k) Community gardens for cultivation by and for city residents;

(l) Sewage pumping stations and sewage treatment facilities;

(m) Sports complexes;

(n) Accessory uses, including structures or buildings of less than two thousand five hundred (2,500) square feet of floor area.

(o) Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(p) Street vendors licensed pursuant to Chapter 19 as a result of a competitive bid process conducted pursuant to Chapter 2 of the City Code.

(Ord. No. 232-81, § 602.7B.2, 11-16-81; Ord. No. 60-91, § 1, 8-5-91; Ord. No. 187-01/02, § 3, 4-17-02; Ord. No. 33-11/12, 1-18-12; Ord.No. 10-12/13, 7-16-12)

Sec. 14-155. Conditional uses.

The following uses are conditional uses in the recreation and open space zone, subject to approval by the board of appeals.

(a) Accessory uses with structures or buildings of two thousand five hundred (2,500) square feet or more of floor area;

(b) Other recreational facilities and uses that are open to the public;

(c) Water pumping stations.

(d) Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

1. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

2. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided

to the Board of Appeals with the application; and

3. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

4. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

5. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

6. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

7. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

8. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

(e) Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 232-81, § 602.7B.3, 11-16-81; Ord. No. 67-89, § 1, 8-7-89; Ord. No. 60-91, § 2, 8-5-91; Ord. No. 29-09/10, 8-3-09, emergency passage; Ord. No. 33-11/12, 1-18-12)

Sec. 14-156. Standards for conditional uses.

In addition to the criteria listed in section 14-474(c), the board of appeals shall consider the following criteria when reviewing conditional uses specified in section 14-155(a), (b) and (c):

(a) The use shall be in conformity with or satisfy a deficiency identified in a federal, state, regional, or city recreation and open space plan, including but not limited to the state comprehensive outdoor recreation plan, as such plans may from time to time be created or revised.

(b) Buildings and structures shall not obstruct significant scenic views presently enjoyed by nearby residents, passersby, or users of the site.

(c) Indoor recreation or nonrecreational uses shall serve a significant public purpose that cannot reasonably be accommodated outside of the recreation and open space zone.

(Ord. No. 232-81, § 602.7B.4, 11-16-81; Ord. No. 29-09/10, 8-3-09, emergency passage)

Sec. 14-157. Space and bulk requirements.

No building or structure of a permanent nature shall be erected, altered, enlarged, rebuilt, or used unless it meets the following requirements:

(a) *Minimum front yard:*

1. Principal buildings or structures: Twenty-five (25) feet.

2. Accessory buildings or structures: Twenty-five (25) feet.

(b) *Minimum rear yard:*

1. Principal buildings or structures: Twenty-five (25) feet.

2. Accessory buildings or structures: Twenty-five (25) feet.

(c) *Minimum side yard:*

1. Principal buildings or structures: Twelve (12) feet.

2. Accessory buildings or structures: Twelve (12) feet.

(d) *Minimum lot size:* Two (2) acres, except that sewage treatment facilities are not required to meet this standard.

(e) *Maximum building height:* Thirty-five (35) feet, unless more than one thousand (1,000) feet from a shoreland zone. The maximum building height for buildings located more than one thousand (1,000) feet from a shoreland zone shall be forty-five (45) feet.

(f) *Maximum coverage of lot* by buildings, structures and other impervious site improvements such as paved sidewalks, drives and parking lots:

1. Sewage treatment facilities: No limit on maximum coverage.

2. Sports complexes: Seventy-five (75) percent of lot area.

3. All other uses: Twenty-five (25) percent of lot area.

(g) *Maximum floor area ratio:* Five-tenths (0.5).

(Ord. No. 232-81, § 602.7B.5, 11-16-81; Ord. No. 67-89, § 2, 8-7-89; Ord. No. 205-93, 2-2-93; Ord. No. 187-01/02, § 4, 4-17-02)

Sec. 14-158. Development standards for recreation and open space zone.

All development in the recreation and open space zone shall

comply with the following development standards, which shall be reviewed by the Planning Board in conjunction with the site plan review:

(a) All ground areas not used for parking, loading, vehicular or pedestrian areas and not left in their natural state shall be suitably landscaped.

(b) Natural features, such as mature trees and natural surface drainageways, shall be preserved to the greatest possible extent consistent with the uses of the property.

(c) Loading areas shall be screened and parking areas shall be screened and landscaped so as to avoid a large continuous expanse of paved area.

(d) Buildings and structures shall be sited to avoid obstructing significant scenic views presently enjoyed by nearby residents, passersby, and users of the site.

(e) Storage of commodities and equipment shall be completely enclosed within buildings or provided with screening by a fence, wall, or landscaping.

(f) The outer perimeter of playfields, play lots, and other active recreational areas shall be screened, or shall be located a reasonable distance from any residential use.

(g) *Off-street parking*: Off-street parking is required as provided indivisio n20 (off-street parking) of this article.

(Ord. No. 232-81, § 602.7B.6, 11-16-81; Ord. No. 240-09/10, 6-21-10)

Sec. 14-159. Shoreland and flood plain management regulations.

Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5.

(Ord. No. 232-81, § 602.7B.7, 11-16-81; Ord. No. 15-92, § 15, 6-15-92)

Sec. 14-160. Reserved.

DIVISION 9. B-1 AND B-1b NEIGHBORHOOD BUSINESS ZONES*

***Editor's note--**Ord. No. 292-88, adopted Apr. 4, 1988, with an effective date of July 1, 1988, repealed §§ 14-161--14-167 of Div. 9, B-1 Business Zone, of this article and enacted in lieu thereof similar new provisions as set out in §§ 14-161--14-167. Formerly, such sections derived from §§ 602.8.A--602.8.G of the city's 1968 Code and from Ord. No. 74-72, adopted Mar. 6, 1972, and Ord. No. 499-74, § 4, adopted Aug. 19, 1974.

Sec. 14-161. Purpose.

(a) *B-1 Neighborhood Business Zone*

The purpose of the B-1 neighborhood business zone is to provide limited areas for the location of small-scale commercial establishments intended to serve a local market. As a result, uses shall be complimentary, quiet and generally do not disturb the comfort and enjoyment of the adjoining neighborhood environment. Uses shall be designed for the pedestrian scale and will provide convenient access for nearby residents and workers to walk in to purchase goods and services. Buildings and uses shall be designed with attractive storefronts or similar features, with windows and doors convenient to a public sidewalk. Building additions are encouraged but not required to meet the maximum setbacks of 14-165(c)(3). This zone shall encourage mixed use buildings such as commercial first floor with residential uses above or combined retail/office uses in a multistory structure. The zone also provides the opportunity for mixed useand high residential density in on-peninsula locations.

Suitable locations for this zone may include street intersections and arterial streets with existing or proposed traditional neighborhood retail and service uses.

(b) *B-1b Neighborhood Business Zone*

The purpose of the B-1b neighborhood business zone is to provide appropriate opportunities for the establishment of small-scale ground floor commercial uses in existing buildings, serving a local market, while preserving residential uses and character above the ground floor of structures. The zone also provides the opportunity for mixed use and high residential density in on-peninsula locations. Building additions are encouraged but not required to meet the maximum setbacks of 14-165(c)(3).

Suitable locations for this zone may include street

intersections, arterial streets, and sites with existing or traditional neighborhood retail and service uses.

(Ord. No. 292-88, 4-4-88; Ord. No. 133-93, § 1, 11-15-93; Ord. No. 94-99, 11-15-99; Ord. No. 281-10/11, 7-18-11)

Sec. 14-162. Permitted uses.

(a) The following uses are permitted in the B-1 zone and on the ground floor level of buildings in the B-1b zone. For permitted uses in the upper stories of buildings in the B-1b zone, refer to subsection (5) below: in existence on November 15, 1993:

1. *Residential*

   a. Any residential use permitted in the residential zone abutting the lot is permitted. If there is no abutting residential zone, any residential use permitted in the nearest residential zone to the lot is permitted. In the case of two (2) or more abutting residential zones, any residential use permitted in the most restrictive such zone is permitted.

   b. In any structure with commercial use on the first floor, multifamily dwellings are permitted above the first floor.

2. *Business:* Business uses listed below are permitted, provided that such use which generates in excess of a ratio of 100 peak hour vehicle trips per 2000 sq.ft. of space, and generates in excess of 100 peak hour vehicle trips is prohibited. As set forth in the City of Portland Technical Manual, section I, the city traffic engineer shall require a traffic study when it calculates the proposed use will generate in excess of a total of 50 peak hour vehicle trips.

   a. Professional offices, as defined in section 14-47, but excluding veterinarians.

   b. Business services, as defined in section 14-47, but excluding beverage container redemption centers.

   c. Personal services, as defined in section 14-47.

d. Offices of building tradesmen, provided there is no exterior storage of building materials.

e. Retail establishments, provided such do not include drive-through sales or services and do not operate between the hours of eleven (11) p.m. and six (6) a.m. and do not accept deliveries or services between the hours of ten (10) p.m. to seven (7) a.m.

f. Beverage dealers (as defined in 32 M.R.S.A. 1862) provided they meet the following requirements:

i. Maximum total floor area for beverage container redemptions, including the storage of spent beverage containers, shall be no greater than five hundred (500) sq. ft. or ten (10) percent of the total floor area of the facility, whichever is less;

ii. Beverage container redemption is an accessory use to a principal retail use that includes beverage sales. Local beverage container redemption centers as defined in 32 M.R.S.A. 1867, as may be amended, are not allowed as a principal use.

iii. Storage of all beverage containers shall be contained entirely within the building providing retail sales.

g. Studios for artists, photographers and craftspeople including but not limited to, painters, sculptors, dancers, graphic artists and musicians.

3. *Institutional*:

a. Places of religious assembly;

b. Municipal offices;

c. Elementary, middle and secondary schools;

d. Nursery schools and kindergarten;

e. Clinics of less than three thousand (3,000) square feet of total floor space.

4. *Other*:

a. Lodging houses;

b. Utility substations, as defined in section 14-47, subject to the standards of article V (site plan), sections 14-522 and 14-523 notwithstanding;

c. Day care facilities or babysitting services;

d. Accessory uses as provided in section 14-404;

e. Bed and breakfast, subject to the standards of article V (site plan), sections 14-522 and 14-523 notwithstanding.

f. Hostels, provided the applicant submits a site plan and operations plan demonstrating compliance with the following conditions:

i. No more than twenty (20) overnight transient guests shall be permitted in the facility at any one time.

ii. All applicable provisions of Article V of this chapter shall be met.

iii. Parking shall be provided in compliance with Division 20 of this Article.

iv. No unaccompanied minors under the age of eighteen (18) shall be permitted in the facility.

v. The length of stay for transient guests shall not exceed fifteen (15) days out of any sixty-day period.

vi. The building shall meet the applicable occupant load requirements as defined by the International Building Code and the NFPA Life Safety Code, as such codes are amended or

adopted by the city.

g. Neighborhood center.

5. Uses permitted above the ground floor level of buildings in the B-1b zone:

a. Any residential use set forth in section 14-162(a);

b. Bed and breakfast, subject to the standards of article V (site plan), sections 14-522 and 14-523 notwithstanding.

c. Hostels, provided the applicant submits a site plan and operations plan demonstrating compliance with the following conditions:

i. No more than twenty (20) overnight transient guests shall be permitted in the facility at any one time.

ii. All applicable provisions of Article V of this chapter shall be met.

iii. Parking shall be provided in compliance with Division 20 of this Article.

iv. No unaccompanied minors under the age of eighteen (18) shall be permitted in the facility.

v. The length of stay for transient guests shall not exceed fifteen (15) days out of any sixty-day period.

vi. The building shall meet the applicable occupant load requirements as defined by the International Building Code and the NFPA Life Safety Code, as such codes are amended or adopted by the city.

6. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 292-88, 4-4-88; Ord. No. 133-93, § 2, 11-15-93; Ord. No. 125-97, § 5, 3-3-97; Ord. No. 94-99, 11-15-99; Ord. No.74-06/07, 12-4-06; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 278-09/10, 7-19-10, Ord. 10 10/11, 8-2-10;

Ord. No. 279-09/10, 6-6-11; Ord. No. 33-11/12, 1-18-12; Ord. No. 162-12/13, 4-1-13)

***Editor's Note-** Pursuant to Ord. No. 74-06/07, enacted on 12-4-06 changes made in (2) *Business* are effective October 16, 2006.

Sec. 14-163. Conditional uses.

(a) The following uses are permitted in the B-1 zone and on the ground floor level of buildings in the B-1b zone, as provided in section 14-474 (conditional uses), if they meet the following requirements provided that such use which generates in excess of a ratio of 100 peak hour vehicle trips per 2000 sq. ft. of space, and generates in excess of 100 peak hour vehicle trips is prohibited. As set forth in the City of Portland Technical Manual, section I, the city traffic engineer shall require a traffic study when it calculates the proposed use will generate in excess of a total of 50 peak hour vehicle trips:

1. Restaurants, provided they meet the following requirements:

    a. Maximum total floor area for use of the public shall be one thousand (1,000) square feet;

    b. The hours of operation shall be limited to between 6:00 a.m. and 11:00 p.m. each day;

    c. Food service and consumption are the primary function of the restaurant; and

    d. There shall be no drive-through service.

(b) The following use shall be permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses) and any special provisions, standards or requirements specified below:

1. Temporary wind anemometer towers, as defined in sec. 14-47, are permitted provided the following standards are met in addition to sec. 14-430:

    a. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a certificate of occupancy

for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the board of appeals with the application; and

c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

d. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

f. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required for the cost of removal of the tower, guy wires

and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

2. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 292-88, 4-4-88; Ord. No. 133-93, § 3, 11-15-93; Ord. No. 94-99, 11-15-99; Ord. No. 74-06/07, 12-4-06; Ord. No. 29-09/10, 8-3-09, emergency passage; Ord. No. 278-09/10, 7-19-10; Ord. No. 33-11/12, 1-18-12)

***Editor's Note-** Pursuant to Ord. No. 74-06/07, enacted on 12-4-06 changes made in (2) *Business* are effective October 16, 2006.

Sec. 14-164. Prohibited uses.

Uses not enumerated in sections 14-162 and 14-163 as either permitted or conditional uses are prohibited.

(Ord. No. 292-88, 4-4-88)

Sec. 14-165. Dimensional requirements.

In addition to the provisions of division 25 (space and bulk regulations and exceptions) of this article, residential uses permitted under section 14-162(a) shall meet the requirements of such abutting or nearest residential zone except as noted in Sec. 14-165(h) (minimum lot area per dwelling unit). Residential uses in on-peninsula locations, as defined in Section 14-47, and nonresidential uses in the B-1 and B1-b zone shall meet the following minimum requirements:

(a) *Minimum lot size*:

1. School: Twenty thousand (20,000) square feet.
2. Places of religious assembly: Ten thousand (10,000) square feet.
3. All other nonresidential uses: None.
4. Residential uses: None.

(b) *Minimum street frontage*: Fifty (50) feet, except that if the average street frontages of all lots within two hundred (200) feet of the boundaries of the lot in

question on the same side of the street and within the B-1 or B-1b zone is less than fifty (50) feet, then the minimum street frontage for the lot in question may be reduced to the average frontage of such lots.

(c) ***Yard dimensions***: (Yard dimensions are required setbacks for structures from property lines and setbacks of structures from one another. No structure shall occupy the minimum yard of another structure.)

1. Maximum ***front yard***:

Principal or accessory structure: The maximum front yard setback shall either be: (i) ten feet; or (ii) in cases where the average depth of the front yards of the nearest developed lots on either side of the lot in question is less than ten feet, the front yard setback of the lot in question shall not exceed such average depth. A "developed lot" means a lot on which a principal structure has been erected.

Building additions are not required to meet this maximum setback.

2. ***Rear yard***:

a. Principal structures: None, except where a rear yard abuts a residential zone or first floor residential use, a minimum of twenty (20) feet is required.

b. Accessory structures (detached): None, except where the rear yard abuts a residential zone or first floor residential use, a minimum of five (5) feet is required.

3. ***Side yard***:

a. Principal and accessory structures: None, except that where a side yard abuts a residential zone or a first floor residential use, a minimum of ten (10) feet is required.

b. Accessory structures (detached): None, except

that where the side yard abuts a residential zone or a first floor residential use, a minimum of five (5) feet is required.

c. Side yards on side streets (corner lot): Principal or accessory structures: Ten (10) feet maximum setback, except that for any new construction on a lot abutting more than two streets, the maximum setback shall not apply beyond the two most major streets. (For purposes of this section, "major street" shall mean that street with the highest traffic volume and the greatest street width in comparison with the remaining streets). This maximum setback shall not apply to building additions.

(d) *Minimum lot width*: None.

(e) *Maximum structure height*:

1. Off-peninsula locations, as defined in Section 14-47: Thirty-five (35) feet. Where the lot abuts an R-6 residential zone, the maximum height shall be the maximum permitted height in the R-6 residential zone.

2. On-peninsula locations, as defined in Section 14-47: Forty-five (45) feet.

(f) *Maximum impervious surface ratio*: Ninety (90) percent.

(g) *Floor area*:

1. The maximum first floor area of a single tenant building shall be no greater than five thousand (5,000) square feet.

2. The maximum first floor area of a multi-tenant building shall be no greater than ten thousand (10,000) square feet.

(h) *Minimum lot area per dwelling unit:*

1. On-peninsula locations, as defined in Section 14-

47: Four hundred and thirty-five (435) square feet of land area per dwelling unit.

2. Off-peninsula locations, as defined in Section 14-47: Minimum lot area per dwelling unit requirements of the abutting or nearest residential zone shall apply. In the case of multi-family dwellings above the first floor: 1,000 square feet of land area per dwelling unit.

(Ord. No. 292-88, 4-4-88; Ord. No. 52-96, § 1, 7-15-96; Ord. No. 94-99, 11-15-99; Ord. No. 281-10/11, 7-18-11)

Sec. 14-166. Other requirements.

All nonresidential uses in B-1 and B-1b zones shall meet the requirements of division 25(space and bulk regulations and exceptions) of this article in addition to the following requirements:

(a) ***Landscaping and screening:*** The site shall be suitably landscaped for parking, surrounding uses and accessory site elements, including storage and solid waste receptacles where required by article IV (subdivisions) and article V (site plan).

(b) ***Curbs and sidewalks***: Curbs and sidewalks as specified in article VI of chapter 25.

(c) ***Off-street parking and loading***: Off-street parking and loading are required as provided in division 20 and division 21 of this article.

(d) ***Front yard parking***: There shall be no off street parking in the front yard between the street line and the required maximum setback line. Where an existing building setback exceeds the maximum front yard setback, a maximum of ten (10) percent of the total parking provided on the site may be located between the principal structure and the street.

(e) ***Signs***: Signs shall be subject to the provisions of division 22 of this article.

(f) ***Exterior storage***: There shall be no exterior storage with the exception of fully enclosed containers or receptacles

for solid waste disposal. Such containers or receptacles shall be shown on the approved site plan. In no event shall vehicles, or truck trailers with or without wheels, be used for on-site storage. Truck load sales shall not be considered outside storage provided that such activity does not extend beyond three (3) consecutive days nor occur more frequently than three (3) times a calendar year.

(g) ***Storage of vehicles***: Storage of vehicles is subject to the provisions of section 14-335.

(h) ***Shoreland and flood plain management regulations***: If the lot is located in a shoreland zone or in a flood hazard zone, then the requirements of division 26 and/or division 26.5 apply.

(Ord. No. 292.88, 4-4-88; Ord. No. 94-99, 11-15-99)

Sec. 14-167. External effects.

Every use in a B-1 or B-1b zone shall be subject to the following requirements:

(a) ***Enclosed structure***: The use shall be operated within a completely enclosed structure, except for those specific open air activities licensed by the City, including but not limited to outdoor seating, sidewalk sales, etc.

(b) ***Noise:*** The volume of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American Standards Association), generated shall not exceed fifty-five (55) decibels on the A scale, on impulse (less than one (1) second), at lot boundaries, excepting air raid sirens and similar warning devices.

(c) ***Vibration and heat***: Vibration inherently and recurrently generated and heat shall be imperceptible without instruments at lot boundaries.

(d) ***Glare, radiation or fumes***: Glare, radiation or fumes shall not be emitted to an obnoxious or dangerous degree beyond lot boundaries.

(e) ***Smoke***: Smoke shall not be emitted at a density in excess

of twenty (20) percent opacity level as classified in Method 9 (Visible Emissions) of the Opacity Evaluation System of the U.S. Environmental Protection Agency.

(f) *Materials or wastes*: No materials or wastes shall be deposited on any lot in such form or manner that they are clearly visible from neighbors' properties or may be transferred beyond the lot boundaries by natural causes or forces. All solid waste disposal, including materials which might cause fumes or dust, or constitute a fire hazard if stored out-of-doors, shall be only in fully enclosed containers or receptacles. Areas attracting large numbers of birds, rodents or insects are prohibited.

(Ord. No. 292-88, 4-4-88; Ord. No. 94-99, 11-15-99)

Sec. 14-168 – Sec. 14-180 Reserved.

DIVISION 10. B-2 AND B-2b COMMUNITY BUSINESS ZONES*

***Editor's note—**Ord. No. 293-88, adopted Apr. 4, 1988, with an effective date of July 1, 1988, repealed §§ 14-181—14-187 of Div. 10, B-2 Business Zone, of this article and enacted in lieu thereof similar new provisions as set out in §§ 14-181—14-187. Formerly, such sections derived from §§ 602.9.A—602.9.G of the city's 1968 Code and from Ord. No. 74-72, adopted Mar. 6, 1972; Ord. No. 499-74, § 4, adopted Aug. 19, 1974; Ord. No. 334-76, § 6, adopted July 7, 1976; and Ord. No. 274-77, adopted May 16, 1977.

Sec. 14-181. Purpose.

(a) B-2 Community Business Zone

The purpose of the B-2 community business zone is:

1. To provide appropriate locations for the development and operation of community centers offering a mixture of commercial uses, housing and services serving the adjoining neighborhoods and the larger community.

2. The variety, sites and intensity of the permitted commercial uses in the B-2 zone are intended to be greater than those permitted in the B-1 neighborhood business zone.

3. The B-2 zone will provide a broad range of goods

and services and general businesses with a mixture of large and small buildings such as grocery stores, shops and services located in major shopping centers and along arterial streets. Such establishments should be readily accessible by automobile, by pedestrians and by bicycle. Development in the B-2 zone should relate to the surrounding neighborhoods by design, orientation, and circulation patterns.

4. The B-2 and B-2b will provide locations for moderate to high density housing in urban neighborhoods along arterials.

(b) B-2b Community Business Zone

The B-2b zone is intended to provide neighborhood and community retail, business and service establishments that are oriented to and built close to the street. The B-2b zone is appropriate in areas where a more compact urban development pattern exists such as on-peninsula or in areas off-peninsula where a neighborhood compatible commercial district is established which exhibits a pedestrian scale and character. Such locations may include the peninsula and other arterials and intersections with an existing urban or neighborhood oriented building pattern.

(c) B-2c Community Business Zone

To protect and enhance the quiet enjoyment of adjoining residential neighborhoods from the impacts of businesses that serve liquor and from other uses that are incompatible with adjoining neighborhoods due to noise.

(Ord. No. 293-88, 4-4-88; Ord. No. 25, 7-07-99: emergency enactment of 120-day moratorium, effective 7/07/99 thru 11/04/99; Ord. No. 94A, 11-01-99: emergency enactment of 44-day extension of moratorium enacted on 7-07-99, effective date 11/01/99 thru 12/15/99; Ord. No. 94-99, 11-15-99; Substitute Ord. No. 189-00, §2, 4-24-00; Ord. No. 151-03/04, 02/23/04; Ord. No. 244-09/10, 6-21-10)

***Editor's Note**: Order No. 25, adopted 7-07-99, enacted an emergency 120-day moratorium on drive-through facilities on lots in B-2 Zone adjacent to lots with residential uses effective 7-07-99 through 11-1-99; Ord. No. 94A, adopted 11-01-99 extended the moratorium on said drive-through facilities through December 15, 1999.

Sec. 14-182. Permitted uses.

The following uses are permitted in the B-2, B-2b and B-2c zones except that any use involving a drive-through is prohibited in these zones unless otherwise provided in section 14-183:

(a) *Residential*:

1. Attached single-family and two-family dwellings;

2. Multi-family dwellings are permitted when the nearest residential zone is R-4, R-5, R-6 or R-7. Multi-family dwellings are permitted in any structure with commercial uses in the first floor regardless of the nearest residential zone;

3. Handicapped family units;

4. Combined living/working spaces including, but not limited to, artist residences with studio space; and

(b) *Business*:

1. General, business and professional offices, as defined in section 14-47;

2. Personal services, as defined in section 14-47;

3. Offices of building tradesmen;

4. Retail establishments;

5. Restaurants, except that restaurants shall close for all purposes including the service of alcohol no later than 11:00 p.m.;

6. Drinking establishments, except that drinking establishment as defined in section 14-47, and bars as defined in section 14-217.5 (a)(1), shall not be permitted in the B-2c zone;

7. Billiard parlors;

8. Mortuaries or funeral homes;

9. Miscellaneous repair services, excluding motor

vehicle repair services;

10. Communication studios or broadcast and receiving facilities;

11. Health clubs and gymnasiums;

12. Veterinary hospitals, but excluding outdoor kennels;

13. Theaters and performance halls;

14. Hotels or motels of less than one hundred fifty (150) rooms;

15. Dairies in existence as of November 15, 1999;

16. Bakeries in existence as of November 15, 1999;

17. Bakeries established after November 15, 1999, provided the bakeries include retail sales within the principal structures. Bakeries in the B-2b zone shall be no greater than seven thousand (7,000) square feet in size;

18. Drive-throughs associated with a permitted use in the B-2 zone provided that such do not include drive-throughs on any lot adjacent to any residential use or zone. For purposes of this section, only, "adjacent to" shall include uses across a street if within 100 feet of the subject lot boundary;

19. Drive-throughs associated with a permitted use in the B-2b zone, when accessory to a principal use located on the same lot, provided that such do not include drive-throughs on any lot adjacent to any residential use or zone. For purposes of this section, only, "adjacent to" shall include uses across a street if within 100 feet of the subject lot boundary.

20. Registered medical marijuana dispensaries.

(c) *Institutional*:

1. Long term, extended and intermediate care facility;

2. Clinics, as defined in section 14-47;

3. Places of assembly;

4. Kindergarten, elementary, middle and secondary schools;

5. College, university, trade schools; and

6. Municipal buildings and uses.

(d) *Other*:

1. Lodging houses;

2. Day care facilities or babysitting services;

3. Utility substations, as defined in section 14-47, subject to the requirements of article V (site plan), sections 14-522 and 14-523 notwithstanding;

4. Accessory uses, as provided in section 14-404;

5. Bed and breakfast, subject to the standards of article V (site plan), sections 14-522 and 14-523 notwithstanding. A bed and breakfast may include a meeting facility if the facility meets the following standards:

   a. The meeting facility shall be limited to the following types of uses:

      i. Private parties.
      ii. Business meetings.
      iii. Weddings.
      iv. Receptions.
      v. Seminars.
      vi. Business and educational conferences.

   b. The building in which the bed and breakfast and the meeting facility will be located was

in existence on March 3, 1997, and was greater than four thousand (4,000) square feet in floor area on that date.

6. Studios for artists and craftspeople, provided that the area of such studios does not exceed four thousand (4000) square feet for each studio space.

7. Hostels, provided the applicant submits a site plan and operations plan demonstrating compliance with the following conditions:

   a. All applicable provisions of Article V of this chapter shall be met.

   b. Parking shall be provided in compliance with Division 20 of this Article.

   c. No unaccompanied minors under the age of eighteen (18) shall be permitted in the facility.

   d. The length of stay for transient guests shall not exceed fifteen (15) days out of any sixty-day period.

   e. The building shall meet the applicable occupant load requirements as defined by the International Building Code and the NFPA Life Safety Code, as such codes are amended or adopted by the city.

8. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 293-88, 4-4-88; Ord. No. 39-96, § 2, 10-7-96; Ord. No. 125-97, § 6, 3-3-97; Ord. No. 164-97, § 2, 12-1-97; Ord. No. 25, 7-07-99: emergency enactment of 120-day moratorium, effective 7/07/99 thru 11/04/99; Ord. No. 94A, 11-01-99: emergency enactment of 44-day extension of moratorium enacted on 7-07-99, effective date 11/01/99 thru 12/15/99; Ord. No. 94-99, 11-15-99; Ord. No. 118-00, 11-20-00; Ord. No. 151-03/04, 02/23/04; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 244-09/10, 6-21-10; Ord. No. 283-09/10, 7-19-10 emergency passage; Ord. 10 10/11, 8-2-10; Ord. No. 279-09/10, 6-6-11; Ord. No. 33-11/12, 1-18-12; Ord. No. 113-11/12, 2-22-12; Ord. No. 41-12/13, 9-5-12)

Sec. 14-183. Conditional uses.

The following uses are permitted in the B-2,B-2b and B-2c

zone, as provided in section 14-474 (conditional uses), if they meet the following requirements:

(a) ***Business.*** Any of the following conditional uses, provided that, notwithstanding section 14-474(a)of this article or any other provision of this code, the Planning Board shall be substituted for the board of appeals as the reviewing authority over conditional business uses:

1. Major and minor auto service stations in the B-2 zone, only;

2. Major or minor auto service stations in the B-2b zone in existence as of November 15, 1999;

3. Car washes;

4. Drive-throughs in the B-2 or B-2b zones which are adjacent to any residential use or zone, provided that, in the B-2b drive-throughs must be accessory to a principal use located on the same site;

5. Automobile dealerships.

In addition to approval by the Planning Board with respect to the requirements of article V (site plan), sections 14-522 and 14-523 notwithstanding, these uses shall comply with the following conditions and standards in addition to the provisions of section 14-474:

a. Signs: Signs shall not adversely affect visibility at intersections or access drives. Such signs shall be constructed, installed and maintained so as to ensure the safety of the public. Such signs shall advertise only services or goods available on the premises.

b. Circulation: No ingress and egress driveways shall be located within thirty (30) feet from an intersection. No entrance or exit for vehicles shall be in such proximity to a playground, school, church, other places of public assembly, or any residential zone that the nearness poses a threat or potential danger to the safety of the public.

6. Drive-throughs, where permitted, shall also specifically comply with the following conditions:

   a. Location of Drive-throughs: Features, such as windows, vacuum cleaners and menu/order boards, stacking lanes, must be placed, where practicable, to the side and rear of the principal building except where such placement will be detrimental to an adjacent residential zone or use, and shall be located no nearer than forty (40) feet from any adjoining property located in a residential zone. This distance shall be measured from the outermost edge of the outside drive-through feature to such property line. In addition, drive-through features shall not extend nearer than twenty-five (25) feet to the street line. The site must have adequate stacking capacity for vehicles waiting to use these service features without impeding vehicular circulation or creating hazards to vehicular circulation on adjoining streets.

   b. Noise: Any speakers, intercom systems, or other audible means of communication shall not play prerecorded messages. Any speakers, intercom systems, audible signals, computer prompts, or other noises generated by the drive-through services or fixtures shall not exceed 55 dB or shall be undetectable above the ambient noise level as measured by a noise meter at the property line, whichever is greater.

   c. Lighting: Drive-through facilities shall be designed so that site and vehicular light sources shall not unreasonably spill over or be directed onto adjacent residential properties and shall otherwise conform to the lighting standards set forth in 14-526.

   d. Screening and Enclosure: Where automobiles may queue, waiting for drive-through services, their impacts must be substantially mitigated

to protect adjacent residential properties from headlight glare, exhaust fumes, noise, etc. As deemed necessary by the reviewing authority, mitigation measures shall consist of installation of solid fencing with landscaping along any residential property line which is exposed to the drive-through or the enclosure of the drive-through fixtures and lanes so as to buffer abutting residential properties and to further contain all associated impacts; and

e. Pedestrian access: Drive-through lanes shall be designed and placed to minimize crossing principal pedestrian access-ways or otherwise impeding pedestrian access.

f. Hours of Operation: The Board, as part of its review, may take into consideration the impact hours of operation may have on adjoining uses.

g. Conditions specific to major or minor auto service stations, car washes and automobile dealerships:

i. A landscaped buffer, no less than five (5) feet wide, shall be located along street frontages (excluding driveways). The buffer shall consist of a variety of plantings in accordance with the City of Portland Technical Manual;

ii. Car washes shall be designed to avoid the tracking of residual waters into the street.

(b) *Other*:

1. Printing and publishing establishments except as provided in subsection b. below;

2. Printing and publishing establishments in continuous operation at their current location since April 4, 1988, or earlier and which exceeded ten thousand (10,000) square feet of aggregate

gross floor area at that time;

3. Wholesale distribution establishments; and

4. Research and development and related production establishments.

Uses listed in this paragraph (b) (other) 1, 3 and 4 shall be limited to ten thousand (10,000) square feet of aggregate gross floor area, and uses listed in this paragraph (b) (other) 1, 2, 3 and 4 shall be subject to the following conditions and standards in addition to the provision of section 14-474:

a. Traffic circulation: The site shall have an adequate traffic circulation pattern designed to avoid hazards to vehicular circulation on adjoining streets. All stacking of motor vehicles shall be on site, and loading facilities shall be located to the rear of the building and shall not be visible from the street.

b. Building and site design: The exterior design of the structures, including architectural style, facade materials, roof pitch, building form, established setbacks and height, shall be of a commercial rather than industrial character. The site shall contain screening and landscaping which shall meet the requirements of section 14-526 for screening between land uses and the City of Portland Technical Manual.

5. Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

a. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned

two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

d. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

f. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

6. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 293-88, 4-4-88; Ord. No. 16-92, 6-15-92; Ord. No. 39-96, § 3, 10-7-96; Ord. No. 25, 7-07-99: emergency enactment of 120-day moratorium, effective 7/07/99 thru 11/04/99; Ord. No. 94A, 11-01-99: emergency enactment of 44-day extension of moratorium enacted on 7-07-99, effective date 11/01/99 thru 12/15/99; Ord. No. 94-99, 11-15-99; Ord. No. 151-03/04, 02-23-04; Ord. No. 29-09/10, 8-3-09, emergency passage; Ord. No. 276 -09/10, 7-19-10; Ord. No. 278-09/10, 7-19-10; Ord. No. 10 10/11, 8-2-10; Ord. No. 33-11/12, 1-18-12)

Sec. 14-184. Prohibited uses.

Uses not enumerated in sections 14-182 and 14-183 as either permitted uses or conditional uses are prohibited.
(Ord. No. 293-88, 4-4-88)

Sec. 14-185. Dimensional requirements.

In addition to the provisions of division 25 (space and bulk regulations and exceptions) of this article, residential uses as permitted under sections 14-182(a) and (b) and newly constructed buildings with residential and non-residential uses shall meet the following requirements:

(a) *Residential uses:*

1. *Minimum lot size:* None.

2. *Minimum street frontage:* None.

3. *Minimum yard dimensions:*

a. *Front yard:* None.

b. *Rear yard:* Ten (10) feet, except where the lot abuts a residential zone, where twenty (20)

feet is required.

i. Accessory structures: Five (5) feet.

ii. In cases where the height of a new building exceeds forty-five (45) feet adjacent to a residential zone, the portion of the building exceeding forty-five (45) feet shall have a minimum stepback of fifteen (15) feet or an additional minimum setback of fifteen (15) feet.

c. ***Side yard:*** Five (5) feet, except where the lot abuts a residential zone, where ten (10) feet is required.

i. Accessory structures: Five (5) feet.

ii. In cases where the height of a new building exceeds forty-five (45) feet adjacent to a residential zone, the portion of the building exceeding forty-five (45) feet shall have a minimum stepback of fifteen (15) feet or an additional setback of fifteen (15) feet; provided however that this provision does not apply to buildings located within sixty-five (65) feet of Franklin Street.

d. ***Side yard or rear yard on a street:*** None.

e. ***Maximum front yard:*** In the B-2, B-2b and B-2c zones; as provided for in section 14-185(b)(3)(a), except that the maximum front yard setback need not apply in the case of a development meeting one (1) or more of the following standards:

i. The lot has less than forty (40) feet of continuous frontage and the lot has a depth of more than one hundred (100) feet from the nearest street; or

ii. The structures on the lot meet the maximum front yard or are within twenty (20) feet of the street and the remainder of the lot has less than forty (40) feet of continuous street frontage.

f. ***Pavement setback:*** For lots adjacent to a residential zone, pavement shall be set back a minimum of ten (10) feet from the side and rear property lines adjacent to the residential zone.

4. ***Maximum impervious surface ratio:*** 90%.

5. ***Maximum residential density:***

a. ***On-peninsula locations, as defined in section 14-47:*** Four hundred and thirty-five (435) square feet of land area per dwelling unit.

b. ***Off-peninsula locations, as defined in section 14-47:***

i. Residential density requirements of the nearest adjacent residential zone shall apply except for multi-family dwellings above the first floor of commercial uses as provided in (ii) below.

ii. ***Multi-family dwellings above first floor commercial uses:*** One thousand (1,000) square feet of land area per dwelling unit is required.

6. ***Maximum structure height:***

a. ***B-2 and B-2c zones:*** Forty-five (45) feet.

b. ***B-2b zone:*** Forty-five (45) feet, except in the case of a building with a commercial first floor and residential upper floors, where fifty (50) feet is allowed, and except for the portion of a building located within sixty-five (65) feet of Franklin Street, where

sixty-five (65) feet is allowed.

(b) *Business and other non-residential uses:*

1. *Minimum lot size:*

a. *Intermediate, long-term and extended care facilities:* Ten thousand (10,000) square feet.

b. *Other non-residential uses where permitted:*

i. *B-2 zone:* Ten thousand (10,000) square feet.

ii. *B-2b zone:* None.

iii. *B-2c zone:* Ten thousand (10,000) square feet.

c. Where multiple uses are on one (1) lot, the highest applicable minimum lot size must be met.

2. *Minimum street frontage:* Fifty (50) feet.

3. *Yard dimensions:* (Yard dimensions include setbacks of structures from property lines and setbacks of structures from one another. No structure shall occupy the minimum or maximum yard of another structure.)

Except as provided in subsection (5) below, the following setbacks are required:

a. *Front yard:*

i. *Minimum front yard in B-2, B-2b and B-2c zones:* None.

ii. *Maximum front yard in the B-2 and B-2c zones:* The maximum front yard setback shall not exceed the average depth of the front yard of the closet developed lots on either side of the lot in question unless the planning board or planning

authority approves a modified setback pursuant to section 14-526(a)(27)(j). For purposes of this section a developed lot means a lot on which a principal structure has been erected.

iii. ***Maximum front yard in B-2b zone (on-peninsula):*** The maximum front yard setback shall either be: (1) ten feet; or (2) in cases where the average depth of the front yard of the nearest developed lots on either side of the lot in question is less than ten (10) feet, the front yard setback of the lot in question shall not exceed such average depth. A "developed lot" means a lot on which a principal structure has been erected.

In the B-2b zone the front yard shall be the yard adjoining the major street as determined by the highest traffic volume.

iv. ***Maximum front yard in B-2b zone (off-peninsula):*** None, except that the front yard setback shall not exceed the average depth of the front yards of the closes t developed lots on either side of the lot. A developed lot means a lot on which a principal structure has been erected. In the B-2b zone the front yard shall be the yard adjoining the major street as determined by the highest traffic volume.

Where the front yard setback exceeds ten (10) feet, however, a continuous, attractive, and pedestrian scaled edge treatment shall be constructed along the street(s) consisting of street trees spaced at not more than fifteen (15) feet on center, (which otherwise meet the requirements of city arborist) and a combination of the following:

i. Landscaping of no less than four (4) feet in depth; and

ii. Ornamental brick or stone walls; and/or

iii. Ornamental fencing.

The site shall otherwise meet the requirements of article V (Site Plan).

b. *Rear yard*:

i. *Principal structures*: Ten (10) feet. Where a rear yard abuts a residence zone or first floor residential use, twenty (20) feet is required.

ii. *Accessory structures*: Five (5) feet.

c. *Side yard*:

i. Principal and accessory structures: None, except that where a side yard abuts a residential zone or a first floor residential use, ten (10) feet is equired.

ii. *Accessory structures*: Five (5) feet.

iii. *Side yards on side streets (corner lot)*: In the B-2 and B-2c zone, a minimum of ten (10) feet. In the B-2b zone, a maximum of ten (10) feet except that for any newly constructed building on a lot abutting two (2) or more streets, the maximum side yard shall apply to one street or to the side street that forms a corner with a major street as provided for in the maximum front yard provisions of this section.

(4) *Minimum lot width*: None.

(5) *Maximum structure height*:

a. *B-2 and B-2c zones:* Forty-five (45) feet, except that on lots in excess of five (5)

acres, sixty-five (65) feet is permitted; provided each of the minimum setbacks required under subsection (3) above are increased by one (1) foot in distance for each foot of height above forty-five (45) feet.

b. ***B-2b zone:*** Fifty (50) feet.

(6) ***Maximum impervious surface ratio***: Eighty (80) percent in the B-2 and B-2c; Ninety (90%) percent in the B-2b.

(c) ***Building additions:*** Building additions for residential and non-residential uses are not required to meet the maximum front yard setback for the maximum side yard on side street setback contained in this section.

(Ord. No. 293-88, 4-4-88; Ord. No. 52-96, § 2, 7-15-96; Ord. No. 94-99, 11-15-99; Ord. No. (Substitute)189-00, §3, 4-24-00; Ord. No. 151-03/04, 02/23/04; Ord. No. 244-09/10, 6-21-10; Ord. No. 41-12/13, 9-5-12)

Sec. 14-186. Other requirements.

All nonresidential uses in the B-2 and B-2b zone shall meet the requirements of division 25 (space and bulk regulations and exceptions) of this article in addition to the following requirements:

(a) ***Landscaping and screening:*** The site shall be suitably landscaped for parking, surrounding uses and accessory site elements, including storage and solid waste receptacles where required by article IV (subdivisions) and article V (site plan).

(b) ***Curbs and sidewalks***: Curbs and sidewalks as specified in article VI of chapter 25.

(c) O***ff-street parking and loading:*** Off-street parking and loading are required by division 20 and division 21 of this article;

(d) ***Front yard parking***:

1. B-2 and B-2c zone: There shall be no off-street parking in the front yard between the street line and the required minimum setback line in the B-2

and B-2c. Where existing buildings exceed the minimum front yard setback, a maximum of ten (10) percent of the total parking provided on the site may be located between the principal structure and the street.

2. B-2b zone (On-peninsula): There shall be no parking in the front yard between the street line and the required maximum setback line in the B-2b. Where existing buildings exceed the maximum front yard setback, a maximum of ten (10) percent of the total parking provided on the site may be located between the principal structure and the street.

3. B-2b zone (Off-peninsula): Parking in the front yard between the street line and the required maximum setback line in the B-2b is discouraged. However, where parking in the front yard is permitted pursuant to §14-185I(1)I, a maximum of fifty percent (50%) of the total parking on the site may be located between the principal structure and the street.

(e) ***Signs***: Signs shall be subject to the provisions of division 22 of this article.

(f) ***Exterior storage***: There shall be no exterior storage with the exception of fully enclosed containers or receptacles for solid waste disposal. Such containers or receptacles shall be shown on the approved site plan. Vehicles or truck trailers with or without wheels shall not be used for on-site storage (1) except where such storage is located in a designated loading zone identified on an approved site plan; or (2) such storage is not visible from the street or adjacent residences during winter months and such storage area is identified on an approved site plan. Truck load sales shall not be considered outside storage provided that such activity does not extend beyond three (3) consecutive days nor occurs more frequently than three (3) times a calendar year.

(g) ***Storage of vehicles***: Storage of vehicles is subject to the provisions of section 14-335.

(h) ***Shoreland and flood plain management regulations***: If the

lot is located in a shoreland zone or in a flood hazard zone, then the requirements of division 26 and/or division 26.5 apply.

(Ord. No. 293-88, 4-4-88; Ord. No. 51-96, 7-15-96; Ord. No. 94-99, 11-15-99; Substitute Ord. No. 189-00, §4, 4-24-00; Ord. No. 151-03/04, 02/23/04)

Sec. 14-187. External effects.

Every use in a B-2, B-2b and B-2c zone shall be subject to the following requirements:

(a) *Enclosed structure*: The use shall be operated within a completely enclosed structure except for those specific open air activities licensed by the City, including but not limited to outdoor seating, sidewalk sales, etc.

(b) Noise: Except as provided in 14-183(1)(iii)(2) (relating to Drive-throughs), the volume of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American Standards Association), generated shall not exceed sixty (60) decibels on the A scale between 7:00 a.m. and 9:00 p.m. and fifty-five (55) decibels on the A scale between 9:00 p.m. and 7:00 a.m., on impulse (less than one (1) second), at lot boundaries, excepting air raid sirens and similar warning devices.

(c) Vibration and heat: Vibration inherently and recurrently generated and heat shall be imperceptible without instruments at lot boundaries.

(d) Glare, radiation or fumes: Glare, radiation or fumes shall not be emitted to an obnoxious or dangerous degree beyond lot boundaries.

(e) Smoke: Smoke shall not be emitted at a density in excess of twenty (20) percent opacity level as classified in Method 9 (Visible Emissions) of the Opacity Evaluation System of the U.S. Environmental Protection Agency.

(f) Materials or wastes: No materials or wastes shall be deposited on any lot in such form or manner that they may be transferred beyond the lot boundaries by natural causes or forces. All material which might cause fumes or dust, or constitute a fire hazard if stored out-of-doors,

shall be only in closed containers. Areas attracting large numbers of birds, rodents or insects are prohibited.

(Ord. No. 293-88, 4-4-88; Ord. No. 94-99, 11-15-99; Ord. No. 03/04, 02/23/04)

Sec. 14-188 - Sec. 14-195. Reserved.

DIVISION 11. A-B AIRPORT BUSINESS ZONE*

***Editor's note**—Ord. No. 295-88, adopted Apr. 4, 1988, repealed §§ 14-196—14-202 of Div. 11, A-B Business Zone, of this article and enacted in lieu thereof similar new provisions as set out in §§ 14-196—14-202. Formerly, such sections derived from §§ 62.9A.A—602.9A.G of the city's 1968 Code and from Ord. No. 348-71, § 2, adopted Aug. 2, 1971; Ord. No. 499-74, § 4, adopted Aug. 19, 1974; Ord. No. 334-76, § 6, adopted July 7, 1976; and Ord. No. 275-77, adopted May 16, 1977.

Sec. 14-196. Purpose.

The purpose of the A-B airport business zone is:

To provide an area for the development of airport-related enterprises. Appropriate uses permitted in this district are those customarily associated with the operation of the airport terminal and individual airlines and accessory uses to provide for the comfort and convenience of the airport's patrons and employees.

(Ord. No. 295-88, 5-23-88)

Sec. 14-197.1. Permitted uses.

The following uses are permitted in the A-B zone:

(a) Administration;

(b) Airline terminal including, but not limited to:

1. Administration;

2. Concessions including, but not limited to, newsstands, florists, pharmacies and sundries, parcel storage, insurance sales, vending machines and video games;

3. Reservations and ticket sales;

4. Air freight operations;

5. Travel agency;

6. Physical plant service, repair and storage;

7. Cocktail lounges; and

8. Public waiting area.

(c) Charter flight service;

(d) Airport carrier operations, including ground support and fueling;

(e) Aircraft and aircraft accessory sales and services;

(f) Flying school;

(g) Ground transportation;

(h) Car rental operations, including vehicle storage;

(i) Hotel or motel;

(j) Restaurant, coffee shop;

(k) Bank;

(l) Parking lots and garages; and

(m) Accessory buildings and uses, including use of temporary structures within the boundaries of the Portland International Jetport for not longer than five (5) years, provided the owner demonstrates to the planning authority the intention and ability to discontinue or replace the temporary use with a permanent structure within five (5) years.

(n) Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 295-88, 5-23-88; Ord. No. 33-11/12, 1-18-12)

Sec. 14-197.2. Conditional uses.

The following use is permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses) of this article and any special provisions, standards or requiremetns specified below:

(a) Temporary wind anemometer towers, as defined in section 14-47, are permitted provided the following standards are met in addition to section 14-430:

1. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a certificate of occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

2. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the board of appeals with the application; and

3. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

4. The applicant shall provide a safety report prepared and stamped bya licensed professional engineer to the board of appeals with their application for conditional use, which demonstrates how the proposed temporasry wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

5. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to corporation counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

6. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on

public ways (including pedestrian ways); and

7. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

8. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the city, of the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

(b) Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 33-11/12, 1-18-12)

Sec. 14-198. Prohibited uses.

Uses not expressly enumerated in section 14-197 as permitted uses are prohibited.

(Ord. No. 295-88, 5-23-88)

Sec. 14-199. Dimensional requirements.

In addition to the provisions of division 25 (space and bulk regulations and exceptions) of this article, uses in the A-B zone shall meet the following:

(a) *Minimum lot size:* Twenty thousand (20,000) square feet.

(b) *Minimum street frontage:* Fifty (50) feet, except as described in section 14-201(b).

(c) *Minimum yard dimensions:*

(Yard dimensions include setbacks of structures from property lines and setbacks of structures from one another. No structure shall occupy the minimum yard of another structure.)

1. *Front yard:*

Principal or accessory structures: None, except that every property having frontage on Westbrook Street shall have a minimum front yard of twenty (20) feet.

2. *Rear yard:*

a. Principal or accessory structures: None, except where a rear yard abuts a residence zone or use, in which case it must be fifty (50) feet. No structure may extend beyond the building line established for any runway or taxiway. If provided, rear yards must not be less than five (5) feet in width.

3. *Side yard:*

Principal or accessory structures: None, except where a side yard abuts a residential zone or use, in which case it must be twenty-five (25) feet in width. If provided, side yards must not be less than five (5) feet in width.

(d) *Minimum lot width:* Fifty (50) feet.

(e) *Maximum structure height:* Seventy-five (75) feet, except within one hundred (100) feet of the private property line on Westbrook Street or within one hundred (100) feet of the boundary of the A-B airport business zone in which the height limit shall be forty-five (45) feet. No structure or tree, however, shall be erected, altered, allowed to grow or maintained to a height in excess of that allowed by applicable Federal Aviation Administration (FAA) regulation.

(f) *Maximum impervious surface ratio:* Seventy (70) percent.
(Ord. No. 295-88, 5-23-88)

Sec. 14-200. Other requirements.

In addition to the above, the following requirements are applicable to all uses in the A-B zone:

(a) ***Landscaping and screening:*** The site shall be suitably landscaped for parking, surrounding uses and accessory site elements, including storage and solid waste receptacles where required by article IV (subdivisions) and article V (site plan).

(b) ***Curbs and sidewalks:*** Curbs and sidewalks as specified in article VI of chapter 25.

(c) ***Off-street parking and loading:*** Off-street parking and loading are required as provided in division 20 and division 21 of this article.

(d) ***Signs:*** Signs shall be subject to the provisions of division 22 of this article. Temporary freestanding advertising signs are not permitted.

(e) ***Exterior storage:*** There shall be no exterior storage within the district, with the exception of receptacles for solid waste disposal. Such receptacles shall be shown on the approved site plan.

(f) ***Storage of vehicles:*** Storage of vehicles is permitted as provided in section 14-335.

(g) ***Shoreland and flood plain management regulations:*** If the lot is located in a shoreland zone or a flood plain zone, the requirements of division 26 and/or division 26.5 apply.

(Ord. No. 295-88, 5-23-88)

Sec. 14-201. Special provisions as to restricted access areas.

(a) Runways, taxiways and other areas of the jetport accessible to aircraft, whether access is restricted by the Federal Aviation Administration or not, shall be known as "restricted access areas" and must be subject to the special provisions of this section.

(b) Lots in restricted access areas shall not be subject to the provisions of section 14-199(b) and (f) as to frontage and maximum impervious surface ratio; and shall not be subject to the provision of section 14-200(a) landscaping or the requirements of section 14-202.

(c) Use of lots in restricted access areas shall be limited to uses which do not require or encourage access or visits by the public and which provide technical administrative or other support to airport operations.
(Ord. No. 295-88, 5-23-88)

Sec. 14-202. External effects.

(a) *Reserved.*

(b) *Enclosed structure:* The use shall be operated within a completely enclosed structure, except for those customarily operated in the open air.

(c) *Noise:* The volume of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American Standards Association), generated shall not exceed sixty (60) decibels on the A scale, on impulse (less than one (1) second at lot boundaries), excepting air raid sirens and similar warning devices.

(d) *Vibration and heat:* Vibration inherently and recurrently generated and heat shall be imperceptible without instruments at lot boundaries.

(e) *Glare, radiation or fumes:* Glare, radiation or fumes shall not be emitted to an obnoxious or dangerous degree beyond lot boundaries.

(f) *Smoke:* Smoke shall not be emitted at a density in excess of forty (40) percent opacity level as classified in Method 9 (Visible Emissions) of the Opacity Evaluation System of the U.S. Environmental Protection Agency.

(g) *Materials or wastes:* No materials or wastes shall be deposited on any lot in such form or manner that they may be transferred beyond the lot boundaries by natural causes or forces. All materials which might cause fumes or dust, or constitute a fire hazard if stored out-of-doors, shall be only in closed containers. Areas attracting large numbers of birds, rodents or insects are prohibited.
(Ord. No. 295-88, 5-23-88)

Sec. 14-203 – Sec. 14-215. Reserved.

DIVISION 12. B-3, B-3b AND B-3c DOWNTOWN BUSINESS ZONES*

***Editor's note—**Ord. No. 241-91, adopted Mar. 11, 1991, repealed former Div. 12 of this article, §§ 14-216—14-221, relative to B-3 and B-3b Business Zones, and enacted new provisions in lieu thereof as Div. 12, §§ 14-216—14-221.1. Formerly, Div. 12 derived from §§ 602.10.A—602.10.F of the city's 1968 Code as amended by the following legislation:

Ord. No.	Section	Date	Ord. No.	Section	Date
452-72	2	7-17-72	364-88		5- 4-88
499-74	5	8-19-74	294-88		5-23-88
344-76	6	7- 7-76	34-89		6-28-89
429-83	1	4-25-83	153-89	2—7	11-20-89
173-87	1	3- 4-87	235-91	16	2- 4-91

Cross reference(s)—Public arts program, § 14-851 et seq.; relocation of displaced tenants, § 14-861 et seq.

Sec. 14-216. Purpose.

(a) The purposes of the B-3 and B-3b downtown business zones are to:

(1) Maintain and enhance the role of the downtown as the business and commercial center of the region;

(2) Enhance and promote the orderly expansion of retail and service businesses downtown, satisfying the related needs of the city's resident, working and visitor populations;

(3) Encourage increased housing opportunity downtown for a diverse residential population;

(4) Enhance the pedestrian environment through the

encouragement of intensive mixed-use activities, through the enhancement and maintenance of public and private open space, and through the enlivenment and increased attractiveness of the street environment;

(5) Encourage excellence in urban design;

(6) Preserve and capitalize on the unique character and historic fabric of the downtown through the encouragement of reuse of significant existing structures;

(7) Provide opportunity for an enhanced presence and integration of the arts and cultural activities downtown;

(8) Reinforce the role of the downtown as a meeting place for community residents and visitors alike from all walks of life and all socio-economic groups;

(9) Provide adequate parking and transportation facilities which promote accessibility, enhance and encourage development opportunity, and enhance and protect the pedestrian environment;

(10) In the pedestrian activities district (PAD) overlay zone, create continuity of pedestrian-oriented uses along streets where such uses predominate and along streets which, over time, will establish and maintain a strong retail and pedestrian-oriented use pattern; and

(11) Provide for the relocation of residents who are displaced by development.

(b) The B-3c downtown business zone recognizes that the business uses appropriate in this zone are constrained by the proximity of multi-unit elderly housing. In addition to the purposes of the B-3 and B-3b zones, the purpose of the B-3c zone is to promote the safety, quiet enjoyment, and general welfare of citizens residing in a dense urban neighborhood by decreasing the conflicts between residential uses and loud, uncontrolled late night activities.

(Ord. No. 241-91, 3-11-91; Ord. No. 46-97, § 2, 8-4-97)

Sec. 14-217. Permitted uses.

(a) The following uses are permitted in the B-3 and B-3b

zones:

1. *Residential:*

   a. Attached single-family, two-family and multifamily dwellings;

   b. Handicapped family units;

   c. Lodging houses;

   d. Combined living/working spaces including, but not limited to, artist residences with studio space.

2. *Business:*

   a. General and business offices;

   b. Professional offices;

   c. Personal services;

   d. Offices of building tradesmen;

   e. Retail establishments, excluding gasoline sales, wholesale and bulk purchase lumber and construction supply sales;

   f. Restaurants, excluding drive-through or drive-in restaurants;

   g. Drinking establishments, except that drinking establishments and chemical-free night clubs, as defined in section 14-47, shall not be permitted in any location in the B-3c zone, including but not limited to the PAD overlay area;

   h. Billiard parlors;

   i. Miscellaneous repair services, excluding motor vehicle repair services;

   j. Communication studios or broadcast and receiving facilities;

k. Health clubs and gymnasiums;

l. Theaters and performance and exhibition halls;

m. Convention and meeting facilities;

n. Hotels;

o. Business services;

p. Parking garages;

q. Galleries;

r. Registered medical marijuana dispensaries.

3. *Institutions*

a. Museums;

b. Public or private schools of any type;

c. Clinics;

d. Places of assembly;

e. College, university, trade school;

f. Nursery schools, kindergartens, and day care facilities or home babysitting services.

g. Governmental offices. As used in this section, governmental office means a place of business of a federal, state, count or municipal governmental entity when professional or clerical duties are performed, including but not limited to back office uses as defined in Section 14-47 and judicial functions.

4. *Other:*

a. County and municipal uses;

b. Studios for artists and craftspeople including, but not limited to, carpenters, cabinetmakers and silk

screeners;

c. Printing, publishing and related manufacture of cardboard or paper boxes, provided that these activities are conducted wholly within a building.

d. Bed and breakfast, subject to the standards of article V (site plan), sections 14-522a nd 14-523 not withstanding. A bed and breakfast may include a meeting facility if the facility meets the following standards:

i. The meeting facility shall be limited to the following types of uses:

(a) Private parties.

(b) Business meetings.

(c) Weddings.

(d) Receptions.

(e) Seminars.

(f) Business and educational conferences.

ii. The building in which the bed and breakfast and the meeting facility will be located was in existence on March 3, 1997, and was greater than four thousand (4,000) square feet in floor area on that date.

e. Hostels, provided the applicant submits a site plan and operations plan demonstrating compliance with the following conditions:

i. All applicable provisions of Article V of this chapter shall be met.

ii. Parking shall be provided in compliance with Division 20 of this Article.

iii. No unaccompanied minors under the age of eighteen (18) shall be permitted in the

facility.

iv. The length of stay for transient guests shall not exceed fifteen (15) days out of any sixty-day period.

v. The building shall meet the applicable occupant load requirements as defined by the International Building Code and the NFPA Life Safety Code, as such codes are amended or adopted by the city.

f. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(b) The following additional restrictions shall apply in the PAD overlay zone, which shall be located on the streets listed below and as further delineated on the PAD overlay zone map, a copy of which is on file in the office of planning and urban development:

Center Street, from Fore Street to Commercial Street.

Commercial Street, north side, from Foundry Lane to Pearl Street.

Commercial Street, south side, from Carroll Block to Thomas Block, inclusive.

Congress Street, from Longfellow Square to Monument Square.

Dana Street.

Exchange Street, from Federal Street to Fore Street.

Fore Street, north side, from one hundred ten (110) feet west of Center Street to two hundred seventy-five (275) feet west of Pearl Street.

Fore Street, south side, from Center Street to Pearl Street.

Free Street, north side, from Congress Square to Temple Street.

Free Street, south side, from Congress Square to four hundred twenty-three (423) feet east of Oak Street and from Center Street to Temple Street.

Middle Street, north side, from Monument Square to sixty (60) feet east of Garden Lane.

Middle Street, south side, from Monument Square to two hundred fifty (250) feet east of Pearl Street.

Milk Street, from Exchange Street to Pearl Street.

Moulton Street.

Pearl Street, from Middle Street to Fore Street.

Wharf Street.

York Street, south side, from Center Street to Dunphy's Lane.

Frontages of the following areas: Longfellow, Congress, and Monument Squares; Tommy's and Post Office Parks.

1. ***Ground floor uses***:

   a. Subject to the following limited uses, at least seventy-five (75) percent of the street level frontage of a building on a street located within the PAD overlay zone must be utilized, and, at minimum, the floor area to be occupied shall be seventy-five percent (75%) of the street level frontage multiplied by a twenty (20) foot depth:

      i. Retail establishments as permitted in 14-217(a)(2)e;

      ii. Personal services;

      iii. Hotels;

      iv. Copying centers;

      v. Restaurants as permitted in 14-217(a)(2)f;

      vi. Drinking establishments;

vii. Theaters, provided that only ticket and refreshment sales, lobbies, lounges and entrances shall be located within this area;

viii. Travel agencies;

ix. Real estate sales;

x. Visitor information services;

xi. Museums;

xii. Libraries;

xiii. Banks, financial and other business services, provided that only tellers and spaces primarily used for customer services shall be located in this area;

xiv. Municipal or county uses;

xv. Galleries and studios for artists and craftspeople including, but not limited to, carpenters, cabinetmakers and silk screeners;

xvi. Performing arts studios which attract and allow for public, pedestrian observation from the adjacent sidewalks (including dance studios, music conservatories, and the like);

xvii. Other uses where the applicant can demonstrate to the zoning administrator that the proposed use will not differ substantially from a required ground floor retail use in its effect on the continuity of pedestrian-oriented use and that the proposal establishes a ground floor use that generates pedestrian interest and activity.

For those buildings which have frontage on more than one (1) street located within the PAD overlay zone, the street level area of each such frontage shall meet

the above requirements.

b. For those buildings which have forty (40) feet or less of frontage on a street within the PAD overlay zone, the above restrictions shall be reduced to fifty (50) percent of the frontage where required to accommodate a service entrance. For buildings which have frontage on more than one (1) street located within a PAD overlay zone, only one (1) such frontage shall be permitted to reduce the required retail area to fifty (50) percent of the frontage.

c. In no event shall any required retail frontage area be used for any of the following:

i. Storage;

ii. Service entrances, including loading docks, dumpsters and compactors, except as provided in subsection b; or

iii. Food preparation areas, unless such preparation areas are visually oriented toward pedestrians on streets located within a PAD overlay zone.

(Ord. No. 241-91, 3-11-91; Ord. No. 200-95, § 1, 3-20-95; Ord. No. 126-97, § 7, 3-3-97; Ord. No. 46-97, § 3, 8-4-97; Ord. No. 226-98, §§ 1, 2, 3-2-98; Ord. No. 51-00, §2, 8-7-00; Ord. No. 205-06/07, 6-4-07; Ord. No. 226-07/08, 5-19-08; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 283-09/10 emergency passage; Ord. No. 10-10/11, 8-2-10; Ord. No. 279-09/10, 6-6-11; Ord. No. 33-11/12, 1-18-12; Ord. No. 113-11/12, 2-22-12)

***Editor's Note:** Pursuant to Order 164-06/07 passed on April 4, 2007 Section 14-217.5 (*Old Port Overlay Zone)* was repealed in its entirety and Division 19.8 (*Downtown Entertainment Overlay Zone)* was enacted.

***Editor's Note:** Pursuant to Order No. 48-06/07 passed on September 18, 2006 Section 14-217.6 (*Moratorium on Formula Restaurants in Old Port Historic District and Arts District)* expired on November 19, 2006.

Sec. 14-218. Conditional uses.

(a) The following use is permitted as provided in section 14-474 (conditional uses), provided that, notwithstanding section 14-474(a) or any other provision of this Code, the planning authority shall be substituted for the board of appeals as the reviewing authority:

1. Ground floor uses in the mandated pedestrian-oriented use area of the PAD overlay zone: Any use permitted in the B-3 and B-3b zone, provided that such uses shall meet the following conditions and standards:

   a. The applicant can prove by competent evidence (including but not limited to reliable documentation of advertising, real estate brokerage efforts, and other sales mechanisms)that the space has been actively marketed for permitted uses in the PAD overlay zone for a period of six (6) months and that it has been unable to market the space for a permitted use in accordance with section 14-217(b)(1); and

      i. For existing structures, evidence that the space has been actively marketed for permitted uses for a period of six (6) months and, in the case of new construction, evidence that the space has been actively marketed and available for use for a period of six (6) months; and

      ii. Evidence of market, advertising, or real estate brokerage efforts to attract permitted uses.

   b. The approval of any conditional use under this section shall be for the specific tenant proposed for the conditional use approval and shall not run with the space to subsequent tenants. A conditional use approval shall expire at the end of each tenant's use, and a new approval shall be required for new tenants. However, where a conditional use has been approved under this subsection and the term of the effected tenancy is five (5) years or less, the tenant may sublet the area for the approved conditional use which approval may run with said lease but may not be extended without

review by the planning authority; and

c. The planning authority may impose reasonable conditions concerning the design, appearance, use and extent of use of the space along the street frontage to ensure maximum pedestrian compatibility and interest; and

d. Notwithstanding the above, the Planning Board zoning board of appeals may authorize a reduction in the percentage of required ground floor pedestrian-oriented uses where the physical limitations of an existing building so require. Any such reduction shall be the least necessary to provide relief and shall include mitigating design factors.

The Planning Board shall adopt rules and regulations governing the planning authority's review of an applicant's marketing efforts under this subsection.

An appeal to the Planning Board shall be had from the planning authority's written decision under this subsection. Such appeal shall be filed no later than thirty (30) days from the planning authority's decision.

(b) The following uses are permitted as provided in section 14-474 (conditional uses), provided that, notwithstanding section 14-474(a) or any other provision of this Code, the Planning Board shall be substituted for the board of appeals as the reviewing authority:

1. Utility substations, such as water and sewage pumping stations and standpipes, electric power substation transformer stations, and telephone electronic equipment enclosures and other similar structures, provided that such uses are suitably located, screened and landscaped so as to ensure compatibility with the surrounding neighborhood.

2. Drive-up banking services, provided that drive-up features, such as automated teller machines and service windows, shall not extend nearer than twenty-five (25)

feet to the street line. The site must have adequate stacking capacity for vehicles waiting to use these service features without impeding vehicular or pedestrian circulation or creating hazards to vehicular or pedestrian circulation on adjoining streets. Such uses shall also be in compliance with the applicable standards contained in the Downtown Urban Design Guidelines, a copy of which is on file in the department of planning and urban development. No other type of drive-up use shall be permitted.

3. Light industrial uses, subject to the following requirements:

   a. The use shall not include any use prohibited in the I-L zone;

   b. Glare, radiation, fumes or smoke shall not be emitted to an obnoxious or dangerous degree beyond lot boundaries;

   c. The floor area devoted to industrial use shall not exceed ten thousand (10,000) square feet; for a building in existence on March 11, 1991, the floor area shall not exceed ten thousand (10,000) square feet or fifty (50) percent of the total floor area, whichever is greater;

   d. The use shall be operated within a completely enclosed structure;

   e. No materials or wastes shall be deposited on any lot in such form or manner that they may be transferred beyond the lot boundaries by natural causes or forces. All materials which might cause fumes or dust or constitute a fire hazard if stored out-of-doors shall be stored only in closed containers. Areas attracting large numbers of birds, rodents or insects are prohibited;

   f. All truck parking and loading shall be accommodated off-street;

   g. The associated vehicular loading, unloading, parking, circulation and traffic volumes on the

site and on adjacent public streets will not have a more intensive impact than any use on the site within the last five (5) years;

h. Any buildings located in a PAD overlay zone shall be subject to the requirements of that zone in addition to the requirements of this section.

The following additional requirements shall apply to buildings that either were not in existence on March 11, 1991, or were in existence on that date but were either in use for any use set forth in section 14-217(a) subsections (1), (2) or (3) or were designed or constructed for any such use:

i. No tractor-trailer trucks or longer vehicles shall be associated with the proposal;

ii. The proposal shall exclude warehousing and storage as a principal use;

iii. The use shall not generate more than six (6) delivery or service trips per day between 7:00 a.m. and 7:00 p.m.

4. Emergency shelters, subject to the following conditions, in addition to the provisions of section 14-474:

a. The facility shall be in compliance with the city's current Comprehensive Housing Assistance Plan, a copy of which is on file in the department of planning and urban development, or, if there is no current edition of the Comprehensive Housing Assistance Plan, with a determination of need by the director of the department of health and human services.

b. The facility shall be registered with the City of Portland Department of Health and Human Services.

5. Surface parking provided that:

a. In the case of lot undergoing level I or level II site plan review, no new surface parking spaces, parking aisles, or vehicle lanes shall be allowed

within thirty-five (35) feet of any street, except for driveway(s) located perpendicular to the street and providing access to the site;

b. In the case of a lot undergoing level III site plan review, no new or existing surface parking spaces, parking aisles, or vehicle lanes shall be allowed within thirty-five (35) feet of any street, except for driveway(s) located perpendicular to the street and providing access to the site; and

c. No surface parking spaces shall be encumbered by lease or other use commitment exceeding twenty-four (24) month term.

(c) The following use shall be permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses), and any special provisions, standards or requirements specified below:

1. Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

a. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

d. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals

with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

f. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

(Ord. No. 241-91, 3-11-91; Ord. No. 36-93, 7-7-93; Ord. No. 46-97, § 4, 8-4-97; Ord. No. 51-00, §3, 8-7-00; Ord. No.205-06/07, 6-4-07; Ord. No. 29-09/10, 8-3-09, emergency passage; Ord. No. 278-09/10, 7-19-10)

***Editors Note:** Section 14-218(b)(5), subparagraphs a-c shall apply to all applications filed on or after February 13, 2007

Sec. 14-219. Prohibited uses.

Uses not enumerated in sections 14-217 and 14-218 as either permitted uses or conditional uses are prohibited.
(Ord. No. 241-91, 3-11-91)

Sec. 14-220. Dimensional requirements.

In addition to the provisions of division 25 (space and bulk regulations and exceptions) of this article, lots in the B-3, B-3b and B-3c zones shall meet the following requirements:

(a) ***Minimum lot size:*** None.

(b) ***Minimum street frontage:*** Fifteen (15) feet.

(c) ***Street wall build-to line:*** All buildings or structures shall be located within five (5) feet of the property line along street frontages, unless the Planning Board requires or approves an additional distance to comply with the requirements of section 14-526 (d)9 and the City of Porltand Design Manual.

(d) ***Minimum yard dimensions:*** None required.

(e) ***Minimum lot width:*** None required.

(f) ***Maximum length of undifferentiated blank wall along a public street or publicly accessible pedestrian way:***

1. PAD overlay zone: Fifteen (15) feet.

2. All other areas: Thirty (30) feet.

(g) ***Maximum lot coverage:*** One hundred (100) percent.

(h) ***Minimum building height:*** No new construction of any building shall be less than thirty-five (35) feet in height within fifty (50) feet of any street frontage, except that this provision shall not apply to:

1. Accessory building components and structures such as truck loading docks covered parking, mechanical equipment enclosures and refrigeration units.

2. Information kiosks and ticketing booths.

3. Public transportation facilities of less than 10,000 square feet, or additions of less than 5000 square feet to existing public transportation facilities provided that the cumulative additions as of June 4, 2007 do not exceed 10,000 square feet.

4. Additions to buildings existing as of June 4, 2007 provided that the cumulative additions since June 4, 2007 do not exceed ten percent (10%) of the building footprint on June 4, 2007, except building additions on those portions of the lot located closer to the street line than the building footprint existing as of June 4, 2007 shall not be included in this 10% limitation.

5. Utility substations, including sewage collection and pumping stations, water pumping stations, transformer stations, telephone electronic equipment enclosures and other similar structures.

6. Additions to and/or relocation of designated historic structures or structures determined by the historic preservation committee to be eligible for such designation.

7. Parking attendant booths or bank remote teller facilities.

8. Structures accessory to parks and plazas.

9. Buildings or building additions of less than 2,500 square feet footprint, on lots or available building sites of less than 3,000 square feet.

(i) *Maximum height of structures:*

1. The overall maximum permitted height of structures shall be as depicted on the downtown height overlay map, a copy of which is on file in the department of planning and urban development.

2. Maximum height along street frontages and minimum step-back dimensions shall be as depicted on the

downtown maximum street wall height and minimum step-back map, a copy of which is on file in the department of planning and urban development.

3. Where the downtown height overlay map depicts a height plus forty (40) feet, the building form may extend up to forty (40) feet above the designated height limit for the purpose of providing a distinctive graduated design for an architectural building top and to enclose rooftop appurtenances as required by section 14-526(d) 9 of article V (site plan) and the City of Portland Design Manual. No habitable floor area shall be developed within the building envelope permitted by the additional forty (40) feet, unless at least fifty (50) percent of such habitable floor area is devoted exclusively to one (1) or more publicly accessible uses, such as eating or drinking establishments, an observatory, community meeting rooms or halls available to the public or such other uses that make reasonable accommodation for public use at reasonable times, on a nonmembership basis at no cost or at a cost that will not exclude use by the general public, and provided that such floor area is incidental to the primary design intent of the space to achieve the standards of this section. Notice of such public use and how it may be accessed by the general public must be given on the first floor of the building in a manner reasonably located to inform the general public of the availability of the public use.

(j) *Maximum building area and floor area for buildings which exceed one hundred twenty-five (125) feet in height:*

1. For portions of structures which exceed one hundred twenty-five (125) feet in height, the maximum horizontal building coverage at one hundred twenty-five (125) feet or higher shall not exceed twenty-five (25) percent of the site area, except that no floor area shall be required to be less than ten thousand (10,000) square feet.

2. The maximum gross floor area for each floor located above one hundred twenty-five (125) feet in height

shall not exceed fifteen thousand (15,000) square feet.

(k) [*Uses in PAD overlay zone*:] All uses established in the PAD overlay zone shall meet the requirements of section 14-526(a)(16).

(Ord. No. 241-91, 3-11-91; Ord. No. 46-97, § 5, 8-4-97; Ord. No. 205-06/07, 6-4-07; Ord. No. 278-09/10, 7-19-10)

Sec. 14-221. Other requirements and standards.

(a) *Downtown urban design guidelines:* All development as defined in article V, all building and site alterations, and all provision of landscaping or other pedestrian amenities shall be consistent with the Downtown Urban Design Guidelines. Amendments to the Downtown Urban Design Guidelines may be made by the Planning Board and shall be filed with the city clerk. Such amendments shall become effective forty-five (45) days after the date of filing with the city clerk, unless vetoed in whole or in part by the city council within that time.

(b) *Off-street parking and loading:* Off-street parking and loading are required as provided in division 20 and division 21 of this article.

(c) *Signs:* Signs shall be subject to the provisions of division 22 of this article. In addition, signs within the pedestrian activities district (PAD) overlay zone or in areas designated as PAD encouragement areas, as shown on the pedestrian activities district map, a copy of which is on file in the department of planning and urban development, shall be consistent with the Downtown Urban Design Guidelines.

(d) *Exterior storage:* There shall be no exterior storage, with the exception of receptacles for solid waste disposal which are not visible from a public street. Such receptacles shall be shown on the approved site plan.

(e) *Storage of vehicles:* No more than one (1) unregistered vehicle shall be stored outside for a period in excess of thirty (30) days.

(f) *Shoreland and flood plain management regulations:* If the lot is located in a shoreland zone or in a flood hazard zone, then the requirements of division 26 and/or division 26.5 shall apply.

(g) ***Downtown arts program:*** All new development subject to section 14-851 shall make provision for participation in the public arts program.

(h) ***Relocation of displaced residents:*** Any development which results in the displacement of residents of dwelling units currently located on the development site shall meet the requirements of sections 14-861 through 14-864.

(i) ***Historic resources:*** The exterior design of proposed or renovated structures located within historic districts shall be subject to the provisions of article IX (historic preservation) of this chapter. The exterior design of proposed or renovated structures located adjacent to historic districts or historic resources shall be subject to section 14-526(d) 5, b.
(Ord. No. 241-91, 3-11-91; Ord. No. 240-09/10, 6-21-10; Ord. No. 278-09/10, 7-19-10)

Sec. 14-221.1. External effects.

Every use in the B-3, B-3b and B-3c zones shall be subject to the following requirements:

(a) ***Enclosed structure:*** The use shall be operated within a completely enclosed structure, except for those uses customarily operated in the open air.

(b) ***Noise:*** The level of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American National Standards Institute, Inc.), inherently and recurrently within the B-3 and B-3b zones shall not exceed fifty-five (55) decibels on the A scale between the hours of 9:00 p.m. and 7:00 a.m., and sixty (60) decibels on the A scale between 7:00 a.m. and 9:00 p.m. at the boundaries of any lot nor within publicly accessible pedestrian open space, except for sound from construction activities, sound from traffic on public streets, sound from temporary activities such as festivals, and sound created as a result of, or relating to, an emergency, including sound from emergency warning signal devices. In measuring sound levels under this section, sounds with a continuous duration of less than sixty (60) seconds shall be measured by the maximum

reading on a sound level meter set to the A weighted scale and the fast meter response (L maxfast). Sounds with a continuous duration of sixty (60) seconds or more shall be measured on the basis of the energy average sound level over a period of sixty (60) seconds (LEQ_1).

(c) ***Vibration:*** Vibration inherently and recurrently generated shall be imperceptible without instruments at lot boundaries.

(d) ***Heat:*** Heat shall be imperceptible without instruments at lot boundaries. Heating elements which are intended to melt snow and ice shall be placed within sidewalk paving only when approved by the department of parks and public works.

(e) ***Glare, radiation or fumes:*** Glare, radiation or fumes shall be imperceptible without instruments at lot boundaries.

(f) ***Smoke:*** Smoke shall not be emitted at a density in excess of twenty (20) percent opacity level as classified in Method 9 (Visible Emissions) of the Opacity Evaluation System of the U.S. Environmental Protection Agency.

(g) ***Materials or wastes:*** No materials or wastes shall be deposited on any lot in such form or manner that they may be transferred beyond the lot boundaries by natural causes or forces. All material which might cause fumes or dust, or constitute a fire hazard if stored out-of-doors, shall be only in closed containers and in accordance with section 14-221(d). Areas attracting large numbers of birds, rodents or insects are prohibited.

(Ord. No. 241-91, 3-11-91; Ord. No. 46-97, § 6, 8-4-97)

DIVISION 12.1. I-B ISLAND BUSINESS ZONE

Sec. 14-222. Purpose.

The purpose of the I-B island business zone is to provide limited areas on the islands for retail and service establishments that serve primarily the needs of the local island market area.

(Ord. No. 30-85, § 1, 7-15-85)

Sec. 14-223. Permitted uses.

The following uses are permitted in the I-B island business zone:

(a) Single-family detached dwellings;

(b) Retail or service establishments, excluding those listed below:

1. Automobile service stations;

2. Inns;

(c) Marinas and yacht clubs;

(d) Lodging houses, with more than two (2) but not more than nine (9) lodging rooms;

(e) Wharves, piers, docks, or landing ramps;

(f) Off-street parking;

(g) Accessory uses customarily incidental and subordinate to the location, function, and operation of principal uses, subject to the provisions of section 14-404 (accessory use) of this article including but not limited to home occupations;

(h) Handicapped family unit, as defined in section 14-47, for handicapped persons plus staff.

(i) Peaks Island only: Bed and breakfast, subject to the standards of article V (site plan), sections 14-522 and 14-523 notwithstanding.

(j) Studios for artists and craftspeople, provided that the area of such studios does not exceed one thousand (1,000) square feet for each studio space.

(k) Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 30-85, § 1, 7-15-85; Ord. No. 33-91, § 13, 1-23-91; Ord. No. 125-97, § 8, 3-3-97; Ord. No. 164-97, § 3, 12-1-97; Ord. No. 10-10/11, 8-2-10; Ord. No. 33-11/12, 1-18-12)

Sec. 14-224. Conditional uses.

The following uses are permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses) of this article and any special provisions, standards or requirements specified below:

(a) Two-, three- or four-family dwelling, provided that:

1. No open outside stairways or fire escapes above ground floor shall be constructed or have been constructed in the immediately preceding five (5) years;

2. A below-grade dwelling unit shall be permitted only if access is provided directly to the outside of the building;

3. Density shall be determined by the most restrictive abutting residential zone, except for those lots which are served by public water and sewer, where density shall be determined by the least restrictive abutting residential zone. If no residential zone is abutting, density shall be determined by the nearest residential zone. Residential uses shall meet the requirements of such abutting or nearest residential zone;

4. Any additions or exterior alterations shall be compatible with the original architecture of the building. The exterior design of new construction, including the architectural style, facade materials, roof pitch, building form, and height shall be compatible with neighboring properties;

5. No existing dwelling unit shall be decreased to less than one thousand (1,000) square feet of floor area;

6. No additional dwelling unit shall have less than six hundred (600) square feet of floor area, exclusive of common hallways and storage in basement and attic;

7. All sanitary waste shall be disposed of by a public sewer, subsurface sewerage system or other method in compliance with all applicable federal, state and local regulations;

8. The proposed conversion has sufficient water for the needs of the dwellings and will not cause an unreasonable burden on an existing water supply nor adversely affect groundwater resources;

(b) Automobile service stations;

(c) Inns;

(d) Schools;

(e) Nursery schools, kindergartens and day care centers for seven (7) or more children;

(f) Municipal uses, provided outside storage and parking area uses are suitably screened and landscaped so as to ensure compatibility with the surrounding neighborhood.

(g) Places of religious assembly;

(h) Private clubs, fraternal organizations.

(i) Temporary wind anemometer towers, as defined in section 1-47, are permitted provided the following standards are met in addition to section 14-430:

1. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a certificate of occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

2. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the board of appeals with the application; and

3. Towers shall be set back from habitable buildings

by a distance equal to 1.1 times the tower height; and

4. The applicant shall provide a safety report prepared and stamped bya licensed professional engineer to the board of appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

5. The applicant shall provide evicence of commercial general liability insurance, such insurance to be satisfactory to corporation counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

6. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

7. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any otherp upose; and

8. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the city, of the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

(j) Wind energy systems, as defined and allowed in Article X, Alternative energy.

(Ord. No. 30-85, § 1, 7-15-85; Ord. No. 435-89, 5-15-89; Ord. No. 163-89, § 1, 12-11-89; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 33-11/12, 1-18-12)

Sec. 14-225. Prohibited uses.

Uses that are not expressly enumerated herein as either permitted uses or conditional uses are prohibited.
(Ord. No. 30-85, § 1, 7-15-85)

Sec. 14-226. Dimensional requirements.

In addition to the provisions of division 25 (space and bulk regulation and exceptions) of this article, lots in the I-B zone shall meet the following minimum requirements:

(a) *Minimum lot size:*

1. Residential: Lot size shall be determined by the most restrictive abutting residential zone, except for those lots which are served by public water and sewer, where lot size shall be determined by the least restrictive abutting residential zone. If no residential zone is abutting, density shall be determined by the nearest residential zone. Residential uses shall meet the requirements of such abutting or nearest residential zone.

2. Retail or service establishments: Twenty thousand (20,000) square feet, except that no minimum lot size shall be required if served by public water and sewer.

3. Restaurants and drinking establishments: Twenty thousand (20,000) square feet, except that ten thousand (10,000) square feet shall be required if served by public water and sewer.

4. Schools and other educational facilities: Twenty thousand (20,000) square feet.

5. Churches and other places of worship: Twenty thousand (20,000) square feet.

6. Private clubs, fraternal organizations: Twenty thousand (20,000) square feet.

7. Lodging houses: Thirty thousand (30,000) square feet for three (3) lodging rooms, plus ten thousand (10,000) square feet for each additional lodging

room in excess of three (3), unless served by public water and public sewer. Five thousand (5,000) square feet for three (3) lodging rooms, plus five thousand (5,000) square feet for each additional lodging room in excess of three (3) if served by public water and public sewer.

8. Inns or bed and breakfasts: Ten thousand (10,000) square feet for each guest room, unless served by public water and public sewer. Five thousand (5,000) square feet for three (3) guest rooms, plus five thousand (5,000) square feet for each additional guest room in excess of three (3) if served by public water and public sewer.

9. Municipal uses: Twenty thousand (20,000) square feet.

10. Automobile service station: Twenty thousand (20,000) square feet.

11. In issuing any permit for new development, the building or planning authority shall require that any lot located in an I-B zone shall be at least twenty thousand (20,000) square feet in area when the lot is to be serviced by a subsurface wastewater disposal system, [excluding Peaks Island].

12. [Excluding Peaks Island from this subsection 12,] any property owner whose lot does not meet the minimum lot size requirements outlined in subsection 11 of this section may, for purposes of this section only, merge two (2) or more separate lots on the same island in order to meet these requirements. Where the lots so merged are not contiguous, the property owner shall grant to the city as holder a conservation easement upon the lot or lots which will not contain the principal structure. The conservation easement shall contain both an existing legal description and a city assessor’s chart, block and lot description. The building authority shall be authorized to accept such conservation easements on behalf of the city. Said easement shall be recorded by the applicant in

the registry of deeds. A copy of the recorded easement and copies of the deeds for both lots shall be submitted to the building authority prior to issuance of a building permit. The property over which the conservation easement has been granted shall be used for passive recreational and conservation purposes only, and shall be subject to the following restrictions:

a. No structure shall be permitted on this property.

b. No parking or storage of vehicles or machinery shall be permitted on this property at any time.

c. No area of this property shall be paved.

d. No exterior storage for commercial use shall be permitted on this property.

e. The easement deed shall reference the lot which is benefited by this conservation easement. No conservation easement shall be used to benefit more than one (1) lot.

Conservation easements shall only be granted over lots which conform either to the provisions of section 14-433 or to the minimum lot size provisions set forth in (a)1 of this section. Conservation easements shall not be granted over any lot which is encumbered by any other easement which prohibits all construction on that lot.

A conservation easement may also name as a holder or grant a third-party right of enforcement to a nonprofit corporation or charitable trust, the purposes or powers of which include retaining or protecting the natural, scenic or open space values of real property; assuring the availability of real property for agricultural, forest, recreational or open space use; protecting natural resources; or maintaining or enhancing air or water quality of real property.

Nothing in this section shall be construed to allow an owner of a currently existing and developed lot to convey or permit a portion of that lot to be used to fulfill the requirements of this section if such conveyance would render the existing lot nonconforming under the terms of this chapter. The lot upon which a building is to be constructed shall meet the minimum lot size requirements of section 14-433.

13. Where an existing subsurface disposal system serving an existing structure requires replacement, the replacement system shall meet the requirements of CMR 241 Section 2-E. The land area requirements in subsection 11 of this section shall not apply to such a replacement system.

    For purposes of this subsection the mean high tide mark shall be considered to be the shoreline lot line.

(b) *Minimum street frontage:* Forty (40) feet.

(c) *Minimum yard dimensions:*

(Yard dimensions include setbacks of structures from property lines and setbacks of structures from one another. No structure shall occupy the minimum yard of another structure.)

1. *Front yard:*

   Principal or accessory structures: Twenty (20) feet, except that a front yard need not exceed the average depth of front yards on either side of the lot.

2. *Rear yard:*

   Principal or accessory structures: Ten (10) feet.

3. *Side yard:*

   Principal structures: Ten (10) feet.
   Accessory structures: Ten (10) feet except that the

minimum distance from a principal structure may be five (5) feet.

4. *Side yard on side streets:*

Principal or accessory structures: Ten (10) feet.

(d) *Maximum lot coverage:* Fifty (50) percent of lot area.

(e) *Minimum lot width:* Forty (40) feet.

(f) *Maximum structure height:*

Principal or accessory attached structure: Thirty-five (35) feet.

Accessory detached structure: Eighteen (18) feet.

(Ord. No. 30-85, § 1, 7-15-85; Ord. No. 163-89, § 2, 12-11-89; Ord. No. 125-97, § 9, 3-3-97)

Sec. 14-227. Other requirements.

Every use in a I-B zone shall be subject to the following requirements:

(a) *Off-street parking:* Off-street parking is required as provided in division 20 (off-street parking) of this article.

(b) *Shoreland and flood plain management regulations:* Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5.

(c) *Storage of vehicles:* Only one (1) unregistered motor vehicle may be stored outside on the premises and not for a period exceeding thirty (30) days.

(d) *Noise:* The volume of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American Standards Association), generated shall not exceed sixty (60) decibels on the A scale between 7:00 a.m. and 9:00 p.m. and fifty-five (55) decibels on the A scale between

9:00 p.m. and 7:00 a.m., on impulse (less than one (1) second), at lot boundaries, excepting air raid sirens and similar warning devices.

(Ord. No. 30-85, § 1, 7-15-85; Ord. No. 15-92, § 16, 6-15-92; Ord. No. 15-04/05, 8-2-04; Ord. No. 240-09/10, 6-21-10)

Sec. 14-228 – Sec. 14-229.9. Reserved.

DIVISION 12.5. B-4 COMMERCIAL CORRIDOR ZONE

Sec. 14-229.10. Purpose.

The purpose of the B-4 commercial corridor zone is:

(a) To provide appropriate locations in the city for the development and operation of businesses catering primarily to highway-oriented trade along major arterials. (Uses which have market areas which are primarily dependent on the regional highway network or serve a regional or larger market); or

(b) To provide appropriate locations for large-scale commercial uses and commercial uses that require larger land areas to accommodate their operations.

(Ord. No. 296-88, 5-23-88)

Sec. 14-229.11. Permitted uses.

The following uses are permitted in the B-4 zone:

(a) *Business:*

1. General, business and professional offices, as defined in section 14-47;

2. Personal services, as defined in section 14-47;

3. Offices of building tradesmen;

4. Retail establishments;

5. Restaurants;

6. Drinking establishments;

7. Billiard parlors;

8. Major and minor gasoline service stations, as defined in section 14-47;

9. Mortuaries or funeral homes;

10. Miscellaneous repair services;

11. Health clubs and gymnasiums;

12. Hotels and motels;

13. New and used car dealerships;

14. Facilities for the maintenance and repair of automobiles, provided all repairs are performed in a fully enclosed structure;

15. Car washes;

16. Lumber and building materials dealers;

17. Communications studios and broadcast receiving facilities;

18. Veterinary hospitals but excluding outdoor kennels;

19. Auto body repair and paint shops provided all repairs are performed in fully enclosed structures;

20. Boat, trailer or recreational vehicle sales and service;

21. Theaters, entertainment and recreation services;

22. Self-storage facility;

23. Registered medical marijuana cultivation facilities.

(b) *Institutional:*

1. Governmental buildings and uses.

2. Colleges, universities and trade schools.

3. Places of assembly.

4. Correctional prerelease facilities for up to twelve (12) persons, plus staff, serving a primary clientele of parolees or persons in correctional prerelease programs, provided that:

   a. No correctional prerelease facility shall be located within one thousand (1,000) feet of another, as measured in a radius from the center of the lot;

   b. If a facility requires state or federal licensing, staffing of the facility shall be as required by such license. If a facility does not require state or federal licenses, there shall be a minimum of one (1) staff person for every ten (10) residents or fraction thereof; and

   c. The facility shall provide twenty-four-hour supervision of program participants.

(c) *Other:*

1. Lodging houses;

2. Wholesale warehousing and distribution establishments;

3. Commercial bakeries and dairies;

4. Light manufacturing uses with not more than twenty-five thousand (25,000) square feet or less of gross floor area. Exterior assembly of materials or products is prohibited. Activity defined as a high hazard by chapter 6 of this Code (building code) is also prohibited;

5. Printing and publishing establishments;

6. Research and development and related production

establishments;

7. Utility substations, as defined in section 14-47, subject to the requirements of article V (site plan), sections 14-522 and 14-523 notwithstanding; and

8. Day care facilities;

9. Studios for artists and craftspeople;

10. Accessory uses, as provided in section 14-404; and

11. Storage lots for towed or impounded vehicles, provided that such lots are located at least 300 feet from any residential zone or existing conforming residential use. For the purposes of this section, "existing conforming residential use" does not include a legally nonconforming residential use as described in division 23 of this chapter.

12. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 296-88, 5-23-88; Ord. No. 285-95, 6-7-95; Ord. No. 154-96, § 13, 12-16-96; Ord. No. 164-97, § 3, 1-6-97; Ord. No. 164-97, § 4, 12-1-97; Ord. No. 81-99, § 1, 10-18-99; Ord. No. 97-06/07, 11-20-06; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 283-09/10 7-19-10, emergency passage; Ord. No. 10-10/11, 8-2-10; Ord. No. 90-11/12, 1-4-12; Ord. No. 33-11/12, 1-18-12)

Sec. 14-229.11.1. Conditional uses.

The following use shall be permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses), and any special provisions, standards or requirements specified below:

(a) Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

1. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower

must be dismantled and removed from the site within sixty (60) days; and

2. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

3. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

4. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

5. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

6. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

7. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

8. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied

by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

(b) Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 29-09/10, 8-3-09, emergency passage; Ord. No. 33-11/12, 1-18-12)

Sec. 14-229.12. Prohibited uses.

Uses not expressly enumerated in section 14-229.11 as permitted uses are prohibited.

(Ord. No. 296-88, 5-23-88)

Sec. 14-229.13. Dimensional requirements.

In addition to the provisions of division 25 (space and bulk regulations and exceptions) of this article, uses other than utility substations in the B-4 zone shall meet the following minimum requirements:

(a) *Minimum lot size:* Ten thousand (10,000) square feet.

(b) *Minimum street frontage:* Sixty (60) feet.

(c) *Minimum yard dimensions:*

(Yard dimensions include setbacks of structures from property lines and setbacks of structures from one another. No structure shall occupy the minimum yard of another structure.)

Except as provided in subsection (5) below, the following setbacks shall be required:

1. *Front yard:*

a. Principal or accessory structures: Twenty (20) feet, except that a front yard need not exceed the average depth of front yards on either side of the lot.

b. The front yard of a lot existing as of May 23, 1988, and less than one hundred (100) feet deep need not be deeper than twenty (20) percent of the depth of the lot.

2. *Rear yard:*

a. Principal structures: Twenty (20) feet.

b. Accessory structures (detached) with a total floor area of one hundred (100) square feet or less: Seven (7) feet.

3. *Side yard:*

a. Principal structures:

Number of Stories	*Required Side Yard*
1 or 2 stories	10 feet
3 or more stories	12 feet

b. Accessory structures (detached) with a total floor area of one hundred (100) square feet or less: Five (5) feet.

c. Side yards on side streets (corner lot):

Principal or accessory structures:

i. One (1) or two (2) stories: Ten (10) feet.

ii. Three (3) or more stories: Twelve (12) feet.

(d) ***Minimum lot width:*** Sixty (60) feet.

(e) ***Maximum height:*** Sixty-five (65) feet; except that on lots in excess of five (5) acres, ninety (90) feet is permitted if each of the setbacks required under subsection (3) above is increased by one (1) foot in distance for each foot of height above sixty-five (65)

feet.

(f) ***Maximum impervious surface ratio:*** Eighty (80) percent.

(g) ***Maximum Floor Area Ratio (F.A.R.):*** The maximum floor area ratio is established according to the abutting residential zone. If there is no abutting residential zone to the lot in question, the F.A.R may be a maximum of 0.65. In the case of two (2) or more abutting residential zones, the F.A.R. shall be the F.A.R. of the least restrictive such zone. The ratios are as follows:

Residential	*Floor Area Ratio*
R-1/R-2	0.45
R-3	0.55
R-4/R-5/R-5A/R-6	0.65

(Ord. No. 296-88, 5-23-88)

Sec. 14-229.14. Other requirements.

In addition to the above, the following requirements are applicable to all uses in the B-4 zone:

(a) ***Landscaping and screening:*** The site shall be suitably landscaped for parking, surrounding uses and accessory site elements including storage and solid waste receptacles where required by article IV (subdivisions) and article V (site plan).

(b) ***Curbs and sidewalks:*** Curbs and sidewalks as specified in article VI of chapter 25.

(c) ***Off-street parking and loading:*** Off-street parking and loading are as required by division 20 and division 21 of this article.

(d) ***Signs:*** Signs shall be subject to the provisions of division 22 of this article.

(e) ***Exterior storage:***

1. Any storage of new materials, finished products, or

related equipment must be suitably screened from the public way and from abutting properties by a solid fence at least five (5) feet in height, or by a solid evergreen planting strip.

2. All waste shall be stored in covered containers that do not leak or otherwise permit liquids or solids to escape from the container.

3. Outdoor storage of refuse, debris, or material awaiting reuse shall be in an appropriate container or located within a designated, screened area.

4. Any permitted outdoor storage of materials shall be done in such a manner as to prevent the breeding and harboring of insects or vermin, to prevent the transfer of such materials from the site by natural causes or forces and to contain fumes, dust, or other materials which constitute a fire hazard. This storage shall be accomplished within enclosed containers or by one (1) or more of the following methods: raising materials above ground, separating materials, preventing stagnant water, or by some other means. No outdoor storage shall be permitted in the required yard between the front of any building on the site and the street, except for storage for plant and tree nurseries.

(f) ***Storage of vehicles:*** Storage of vehicles is subject to the provisions of section 14-335.

(g) ***Shoreland and flood plain management regulations:*** If the lot is located in a shoreland zone or in a flood plain zone, the requirements of division 26 and/or division 26.5 apply.

(Ord. No. 296-88, 5-23-88; Ord. No. 164-97, § 4, 1-6-97)

Sec. 14-229.15. External effects.

Every use in a B-4 zone shall be subject to the following requirements:

(a) ***Enclosed structure:*** The use shall be operated within a completely enclosed structure, except for those customarily operated in the open air.

(b) ***Noise:*** The volume of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American Standards Association), generated shall not exceed sixty-five (65) decibels on the A scale between 7:00 a.m. and 9:00 p.m. and sixty (60) decibels on the A scale between 9:00 p.m. and 7:00 a.m., on impulse (less than one (1) second), off premises at source of complaint, excepting air raid sirens and similar warning devices.

(c) ***Vibration and heat:*** Vibration inherently and recurrently generated and heat shall be imperceptible without instruments at lot boundaries.

(d) ***Glare, radiation or fumes:*** Glare, radiation or fumes shall not be emitted to an obnoxious or dangerous degree beyond lot boundaries.

(e) ***Smoke:*** Smoke shall not be emitted at a density in excess of thirty (30) percent opacity level as classified in Method 9 (Visible Emissions) of the Opacity Evaluation System of the U.S. Environmental Protection Agency.

(Ord. No. 296-88, 5-23-88; Ord. No. 164-97, § 5, 1-6-97)

Sec. 14-229.16. - Sec. 14-229.30. Reserved.

DIVISION 12.6. B-5 URBAN COMMERCIAL MIXED USE ZONE

Sec. 14-230. Purpose.

The purpose of the B-5 and B-5b zones is to provide zones in areas of the peninsula near the central business district where a mixture of uses, including marine, industrial, commercial, and residential, is encouraged. The B-5 and B-5b zones are characterized by larger underdeveloped lots with great potential for denser, clustered, urban mixed use development and more efficient reuse of existing land and buildings.

It is anticipated that such denser, mixed uses would rely on a shared infrastructure system, including service alleys, parking lots, public transportation facilities, stormwater management, and driveways.

(Ord. No. 168-93, § 3, 1-4-93; Substitute Ord. No. 164-97, § 1, 5-19-97)

***Editor's Note:** The text changes adopted in Ord. No. 215-04/05 Section 14-230.1 (a)8 and 13 and (g) 3 shall remain in effect for six (6) months from the effective date (6-2-05) of the changes. By Council Order No. 94-05/06 passed on 11/7/05 the effective date of the amendments were extended through and including March 2, 2006. By Council Order No. 170-05/06 passed as an emergency on 2/22/06 the effective date of the amendments were extended through and including September 30, 2006 and thereafter shall cease to exist unless the Portland City Council takes action to extend the applicability of such changes.

Sec. 14-230.1. Permitted uses.

The following uses are permitted in the B-5 and B-5b urban commercial mixed use zones:

(a) *Commercial:*

1. Professional, business and general offices;

2. Restaurants and other eating and drinking establishments;

3. Meeting and convention halls;

4. Hotels and motels;

5. Craft and specialty shops, including the on-premises production of handcrafted goods;

6. Retail and service establishments except convenience stores with gas pumps;

7. Theaters and places of public assembly;

8. Banking services, except that any drive-up banking service shall be a conditional use;

9. Laundry and dry cleaning services;

10. Cabinet and carpentry shops;

11. Indoor recreation and family amusement establishments;

12. Intermodal transportation facilities;

13. Off-street parking lots and garages except in the B-5 zoning district between Forest Avenue and Franklin Street surface parking lots shall be considered a conditional use;

14. Cold storage facilities;

15. Lumber and building materials dealers (in existence on date of passage);

16. Major and minor gasoline service stations, as defined in section 14-47. Major and minor gasoline service stations shall be located at least two thousand (2,000) feet from each other;

17. Personal services;

18. Business services;

19. Billiard parlors;

20. Offices of business tradespeople;

21. Miscellaneous repair services;

22. Communication studios, broadcast and receiving facilities;

23. Theaters;

24. Exhibition halls;

25. Indoor amusement and recreation centers.

26. Hostels, provided the applicant submits a site plan and operations plan demonstrating compliance with the following conditions:

    a. All applicable provisions of Article V of this chapter shall be met.

    b. Parking shall be provided in compliance with Division 20 of this Article.

c. No unaccompanied minors under the age of eighteen (18) shall be permitted in the facility.

d. The length of stay for transient guests shall not exceed fifteen (15) days out of any sixty-day period.

e. The building shall meet the applicable occupant load requirements as defined by the International Building Code and the NFPA Life Safety Code, as such codes are amended or adopted by the city.

(b) *Industrial:*

1. Warehousing and wholesaling;

2. Low impact industrial uses with total floor area of less than ten thousand (10,000) square feet and which meet the performance standards of the I-L zone;

3. Breweries, including associated bottling activities.

(c) *Marine:*

1. Marine products wholesaling and retailing;

2. Marine repair services and machine shops;

3. Harbor and marine supplies and services and ship supply;

4. Reserved;

5. Shipbuilding and facilities for construction, maintenance and repair of vessels;

6. Marine museums and aquariums;

7. Reserved;

8. Boat repair yards;

9. Boat storage facilities;

10. Seafood processing for human consumption;

11. Seafood packing and packaging;

12. Seafood distribution;

(d) *Residential:*

1. Attached single-family, two-family and multifamily dwellings;

2. Handicapped family units;

3. Lodging houses;

4. Combined living/working spaces, including but not limited to artist residences with studio space.

(e) *Public:*

1. Utility substations, including sewage collection and pumping stations, water pumping stations, transformer stations, telephone electronic equipment enclosures and other similar structures;

2. Museums and art galleries;

3. Landscaped pedestrian parks, plazas and other similar outdoor pedestrian spaces.

(f) *Institutional:*

1. Public or private schools of any type;

2. Clinics;

3. Places of assembly;

4. Colleges, universities or trade schools;

5. Governmental buildings and uses;

6. Nursery schools, kindergartens, and day care facilities or home babysitting services.

(g) *Other:*

1. Studios for artists and craftspeople including but not limited to, carpenters, cabinetmakers, and silk screeners;

2. Printing and publishing establishments;

3. Accessory uses customarily incidental and subordinate to the location, function and operation of permitted uses, excluding in the B-5b all drive-up services for retail, banking, or automotive repair uses. In the B-5 zoning district between Forest Avenue and Franklin Street, all drive-up services for all retail or drive-up automotive repair uses are prohibited. In the B-5 zone between Forest Avenue and Franklin Street, surface parking lots shall be considered a conditional use subject to the conditional use section of the B-5 zone.

4. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 168-93, § 3, 1-4-93; Ord. No. 39-96, § 4, 10-7-96; Substitute Ord. No. 164-97, § 2, 5-19-97; Ord. No. 164-97, § 5, 12-1-97; Ord. No. 80, 12-8-04; Ord. No. 215-04/05, 5-2-05; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 279-09/10, 6-6-11; Ord. No. 33-11/12, 1-18-12; Ord. No. 113-11/12, 2-22-12)

***Editor's Note:** The text changes adopted in Ord. No. 215-04/05 Section 14-230.1 (a)8 and 13 and (g) 3 shall remain in effect for six (6) months from the effective date (6-2-05) of the changes. By Council Order No. 94-05/06 passed on 11/7/05 the effective date of the amendments were extended through and including March 2, 2006. By Council Order No. 170-05/06 passed as an emergency on 2/22/06 the effective date of the amendments were extended through and including September 30, 2006 and thereafter shall cease to exist unless the Portland City Council takes action to extend the applicability of such changes.

Sec. 14-230.2. Conditional uses.

(a) The following uses shall be permitted as conditional uses in the B-5 and B-5b urban commercial mixed use zones, provided

that, notwithstanding section 14-471(c), section 14-474(a), or any other provision of this Code, the Planning Board shall be substituted for the board of appeals as the reviewing authority, and further provided that, in addition to the provisions of section 14-474(c)(2), they shall also meet the requirements set forth below:

1. *Commercial:*

   a. Reserved.

2. *Industrial:*

   a. Low impact industrial uses over ten thousand (10,000) square feet provided that they meet the following requirements:

      i. Truck loading and access and vehicle parking shall be located in the rear or side yard of the site where possible.

      ii. Street frontage shall be designed for pedestrian scale or interest.

      iii. Shared infrastructure to the extent practicable, including, but not limited to, service alleys, parking areas, stormwater treatment, public transportation facilities and driveways, shall be utilized.

3. *Surface Parking:*

   a. In the B-5 zoning district located between Forest Avenue and Franklin Street, surface parking lot provided the following requirements are met.

      i. No new surface parking lot shall be developed within thirty-five (35) feet of any street except in the case of a property in which eighty percent (80%) of the property frontage has a building within ten (10) feet of the street.

      ii. No surface parking lot shall be encumbered by lease or other use commitment to an off-site

use exceeding a twenty-four month term.

iii. For surface parking lots of 20,000 sq. ft or greater in area, lease or other use agreements for surface parking shall not preclude the relocation of such parking for more than a twenty-four (24) month term.

iv. Any such parking shall in its lease stipulate that developer/owner reserves the right to relocate said parking or convert surface parking to structured parking as long as the relocated parking is located within a reasonable distance from the use.

v. Surface parking shall be laid out in a manner conducive to development of future buildings and/or structured parking.

4. *Drive Up Banking Services:*

a. In the B-5 zoning district located between Forest Avenue and Franklin Street, drive up banking services provided the following requirements are met:

i. The drive up banking services are attached to a building which houses banking services other than, or in addition to, automated banking machines; and

ii. The drive up banking services are attached to a building with a minimum floor area of 20,000 square feet; and

iii. Any service window or automated teller machine shall not extend nearer than twenty-five (25) feet to the street; and the site must have adequate stacking capacity for vehicles waiting to use these service features without impeding vehicular or pedestrian circulation or creating hazards to vehicles or pedestrians on adjoining streets; and

iv. There shall be no more than a total of two (2)

vehicle lanes for both the service window and automated teller machine.

(b) The following use shall be permitted only upon the issuance of a conditional use permit by the Board of Appeals, subject to the provisions of section 14-474 (conditional uses), and any special provisions, standards or requirements specified below:

1. Temporary wind anemometer towers, as defined n sec. 14-47, are permitted provided the following standards are met in addition to sec. 14-430:

   a. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

   b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

   c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

   d. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

   e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer

tower; and

f. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

2. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 168-93, § 3, 1-4-93; Ord. No. 39-96, § 5, 10-7-96; Substitute Ord. No. 164-97, § 3, 5-19-97; Ord. No. 215-04/05, 5-2-05; Ord. No. 29-09/10, 8-3-09, emergency passage; Ord. 33-11/12, 1-18-12)

***Editor's Note:** The text changes adopted in Ord. 215-04/05 Section 14-230.2 (c) and (d) shall remain in effect for six (6) months from the effective date (6-2-05) of the changes. By Council Order No. 94-05/06 passed on 11/7/05 the effective date of the amendments were extended through and including March 2, 2006. By Council Order No. 170-05/06 passed as an emergency on 2/22/06 the effective date of the amendments were extended through and including September 30, 2006 and thereafter shall cease to exist unless the Portland City Council takes action to extend the applicability of such changes.

Sec. 14-230.3. Prohibited uses.

Uses which are not enumerated in either section 14-230.1 as permitted uses or in section 14-230.2 as conditional uses are prohibited.

(Ord. No. 168-93, § 3, 1-4-93)

***Editor's Note:** The text changes adopted in Ord. 215-04/05 Section 14-230.2 (c) and (d) shall remain in effect for six (6) months from the effective date (6-2-05) of the changes. By Council Order No. 94-05/06 passed on 11/7/05 the effective date of the amendments were extended through and including March 2, 2006. By Council Order No. 170-05/06 passed as an emergency on 2/22/06 the effective date of the amendments were extended through and including September 30, 2006 and thereafter shall cease to exist unless the Portland City Council takes action to extend the applicability of such changes.

Sec. 14-230.4. Dimensional requirements.

In addition to the provisions of article III, division 25 of this Code, lots in the B-5 and B-5b urban commercial mixed use zones shall meet the following requirements:

(a) *Minimum lot size:* None.

(b) *Minimum frontage:* None.

(c) *Yard dimensions:*

1. Minimum yards in the B-5 and B-5b zones:

   Front setback: None required.

   Side setback: None required.

   Rear setback: None required.

2. Maximum front yard setback in the B-5b zone: Ten (10) feet.

3. Maximum street setback: In the B-5 zoning district located between Forest Avenue and Franklin Street the following street setbacks shall apply:

   a. Ten (10) feet except for parking structures, public transportation facilities and secondary building components such as truck loading docks, mechanical equipment enclosures and refrigeration units. The setback can be increased more than ten (10) feet if all of the conditions are met below:

i. Seventy-five (75) percent of the total building wall length facing the abutting streets shall be setback no greater than ten (10) feet.

ii. The increased setback area includes a functional public pedestrian entrance into the building that faces the street.

iii. The increased setback is not used for surface parking.

b. For any new construction on a lot abutting three (3)or more streets, the maximum setback shall apply only to two (2) streets.

c. Lots having frontage on streets in which the curve of the street frontage precludes a rectangular shaped building along the street line, for purposes of calculating the setback, the average setback of the building from the street line may be used, but in no event shall the average setback along the length of the building edge exceed an average setback of fifteen (15) feet nor shall the maximum setback exceed twenty (20) feet. The increased setback shall not be used for surface parking, vehicular loading or vehicular circulation.

d. Additions to and relocations of designated historic structures or structures determined to be eligible by the Historic Preservation Committee shall be exempt from this provision.

(d) ***Maximum lot coverage:*** One hundred (100) percent.

(e) ***Maximum residential density:*** Sixty (60) dwelling units per acre.

(f) ***Maximum building height:*** Sixty-five (65) feet; except for parcels of land I nteh B-5b located along West Commercial Street south of Danforth Street, maximum building heights shall be as follows:

West of the projection of the centerline of the Fletcher Street right-of-way, the maximum building height shall be forty-five (45) feet; and, east of the projection of the centerline of the Fletcher Street right-of-way and west of the projection of the centerline of the Emery Stret right-of-way, the maximum building height shall be fifty-five (55) feet.

For purposes of this section, a projection of the centerline of a street is defined by extending the centerline of the referenced street right of way along its most southerly block to the centerline of West Commercial Street.

Furthermore, notwithstanding the exception of roof top structures from building height regulations in Section 14-430(a), no rooftop structure located between the projections of the centerlines of Emery Street and Fletcher Street, as described above, shall exceed a height of sixty-two (62) feet as measured from the average grade of the building at its foundation.

(g) *Minimum building height:*

1. In the B-5 zoning district between Forest Avenue and Franklin Street, within thirty-five (35) feet of any public street, no new construction of any building shall have less than three (3) floors of occupiable or habitable space above the average adjacent grade. This provision shall not apply to:

   a. Accessory building components such as truck loading docks, mechanical equipment enclosures, refrigeration units;

   b. Information kiosks and ticketing booths;

   c. Parking garages;

   d. Public transportation facilities;

   e. Additions to buildings existing as of March 9, 2005 provided that the cumulative

additions since March 9, 2005 does not exceed 25% of the building footprint on March 9, 2005 except that such restriction shall not apply to those portions of the building addition that are constructed closer to the street line than the building footprint existing as of March 9, 2005;

f. Utility substations, including sewage collection and pumping stations, water pumping stations, transformer stations, telephone electronic enclosures and other similar structures; and

g. Additions to and relocations of designated historic structures or structures determined by the Historic Preservation Committee to be eligible for such designation.

(Ord. No. 168-93, § 3, 1-4-93; Substitute Ord. No. 164-97, § 4, 5-19-97; Ord. No. 215-04/05, 5-2-05; Ord. No.112-11/12, 2-22-12)

***Editor's Note:** The text changes adopted in Order 215-04/05 Section 14-230.4 I3 and (g) shall remain in effect for six (6) months from the effective date (6-2-05) of the changes. By Council Order No. 94-05/06 passed on 11/7/05 the effective date of the amendments were extended through and including March 2, 2006. By Council Order No. 170-05/06 passed as an emergency on 2/22/06 the effective date of the amendments were extended through and including September 30, 2006 and thereafter shall cease to exist unless the Portland City Council takes action to extend the applicability of such changes.

Sec. 14-230.5. Performance standards.

All uses shall comply with the following standards:

(a) *Storage:* Any storage of new materials, finished products, or related equipment must be suitably screened from the public way and from abutting properties by a solid fence at least five (5) feet in height, or by a solid evergreen planting strip. All waste shall be stored in covered containers that do not leak or otherwise permit liquids or solids to escape from the container. All food processing waste shall be stored within a completely enclosed structure and if not refrigerated shall be removed from the site in an enclosed container within forty-eight (48) hours of its generation. All enclosed

and exterior areas shall be cleaned and sanitized on a regular basis. Outdoor storage of refuse or debris shall be in an appropriate container or located within a designated, screened area.

(b) ***Noise:***

1. ***Definitions:***

a. Tonal sounds are defined as sound waves usually perceived as a hum or whine because their instantaneous sound pressure varies essentially as a simple sinusoidal function of time.

b. Impulse sounds are defined as sound events characterized by brief excursions of sound pressure, each with a duration of less than one (1) second.

2. ***Measurement:*** Sound levels shall be measured with a sound level meter with a frequency weighting network manufactured according to standards prescribed by the American National Standards Institute (ANSI) or its successor body. Measurements shall be made at all major lot lines of the site, at a height of at least four (4) feet above the ground surface. In measuring sound levels under this section, sounds with a continuous duration of less than sixty (60) seconds shall be measured by the maximum reading on a sound level meter set to the A weighted scale and the fast meter response (L maxfast). Sounds with a continuous duration of sixty (60) seconds or more shall be measured on the basis of the energy average sound level over a period of sixty (60) seconds (LEQ_1).

3. ***Maximum permissible sound levels:*** The maximum permissible sound level of any continuous, regular or frequent source of sound produced by an activity shall be as follows:

a. Sixty (60) dBA between the hours of 7:00 a.m. and 10:00 p.m.

b. Fifty (50) dBA between the hours of 10:00 p.m. and 7:00 a.m., as measured at or within the boundaries of any residential zone.

In addition to the sound level standards established above, all uses located within this zone shall employ best practicable sound abatement techniques to prevent tonal sounds and impulse sounds or, if such tonal and impulse sounds cannot be prevented, to minimize the impact of such sounds in residential zones.

4. *Exemptions:*

a. Noises created by construction and maintenance activities between 7:00 a.m. and 10:00 p.m. are exempt from the maximum permissible sound levels set forth in subsection (a)3 of this section. Construction activities on a site abutting any residential use between the hours of 10:00 p.m. of one (1) day and 7:00 a.m. of the following day shall not exceed fifty (50) dBA.

b. The following uses and activities shall also be exempt from the requirements of subsection (a)3 of this section:

i. The noises of safety signals, warning devices, emergency pressure relief valves, and any other emergency devices.

ii. Traffic noise on public roads or noise created by airplanes and railroads.

iii. Noise created by refuse and solid waste collection, provided that the activity is conducted between 6:00 a.m. and 7:00 p.m.

iv. Emergency construction or repair work by public utilities, at any hour.

v. Noise created by any recreational activities which are permitted by law and

for which a license or permit has been granted by the city, including but not limited to parades, sporting events, and fireworks displays.

(c) ***Vibration:*** Vibration inherently and recurrently generated shall be imperceptible without instruments at lot boundaries.

(d) ***Federal and state environmental regulations:*** All uses shall comply with federal and state environmental statutes and regulations regarding emissions into the air, except where provisions of this Code are more stringent.

(e) ***Storage of vehicles:*** Storage of any unregistered automotive vehicle on the premises for more than sixty (60) days, and outdoor storage of any used automotive tires on the premises shall not be permitted.

(f) ***Off-street parking and loading: O***ff-street parking and loading are required as provided in division 20 and division 21 of this article.

(g) ***Shoreland and flood plain management regulations:*** Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5.

(h) ***Glare, radiation or fumes:*** Glare, radiation or fumes shall not be emitted to an obnoxious or dangerous degree beyond lot boundaries.

(i) ***Enclosure of uses:*** All uses shall be operated within a fully enclosed structure, except for those customarily operated in open air.

(j) ***Materials or wastes:*** Any permitted outdoor storage of materials shall be done in such a manner as to prevent the breeding and harboring of insects or vermin, to prevent the transfer of such materials from the site by natural causes or forces and to contain fumes, dust, or other materials which constitute a fire hazard. This storage shall be accomplished within enclosed containers

or by one (1) or more of the following methods: raising materials above ground, separating materials, preventing stagnant water, or by some other means. Any areas used for permitted outdoor storage of materials shall be screened from view of any adjoining properties and public rights-of-way. No outdoor storage shall be permitted in the required yard between the front of any building on the site and the street.

(k) ***Odor:*** It shall be a violation of this chapter to create an odor nuisance.

1. ***Determination of odor nuisance:*** An odor nuisance shall be considered to exist when ten (10) confirmed complaints occur in an area within two (2) separate twenty-four-hour periods. The ten (10) confirmed complaints must originate from ten (10) different households in an area zoned residential or from ten (10) different individuals in a commercial or industrial facility. The building authority shall only respond to a complainant who confirms that the odor is detectable at the time of the actual complaint. In order to confirm a complaint, the building authority or its designee shall first determine that an odor is detectable in the area of the complaint. The building authority or its designee shall interview the complainant to verify that the detectable odor is in fact the odor that resulted in the complaint. If the complainant verifies the odor as the source of the complaint, then the building authority shall notify the owner or operator of the alleged odor source either in person or by telephone within one (1) working day, with a written confirmation within seven (7) working days of the complaint. In the event that the building authority is unable to contact the owner or operator of the alleged odor source in person or by telephone within one (1) working day, then the building authority shall send written notice to the operator within seven (7) working days of the complaint.

   In the event that ten (10) complaints are confirmed as set forth in subsection 1. in two (2) separate twenty-four-hour periods within a ninety-day

period, the building authority shall cause a certified odor inspector to investigate any odor complaints received in the next thirty (30) days following the receipt of the tenth confirmed complaint from the second twenty-four-hour period. If the odors remain under the ambient intensity standard as established in this subsection for the next thirty (30) days, then a new odor nuisance must be established after that time in accordance with the requirements of this section. The certified odor inspector shall do the following in response to a complaint under this section:

a. Verify that an odor is detectable in the area of the complaint and confirm that it is the odor that resulted in the complaint;

b. Quantify the intensity of the odor on the eight-point n-butanol intensity scale as defined in regulations promulgated by the director of the planning authority to establish training and technical standards to support this section; and

c. Track the odor to its source.

When the certified odor inspector determines that a violation has occurred because an odor has exceeded the maximum ambient odor levels set forth in this section, the building authority shall notify the owner or operator either by telephone or in person of the violation within one (1) working day of the violation. The building authority shall confirm this notification in writing within seven (7) working days of this initial notice. In the event that the building authority is unable to contact the owner or operator by telephone or in person within the required time period, then it will send written notification within seven (7) working days of the violation.

Upon receipt of the written notice of violation, the owner or operator of the odor source shall do the following:

a. Implement odor reduction procedures immediately upon notification by the building authority that the facility has violated this section wherever odor reduction can be achieved by operational or procedural changes at the facility;

b. Submit to the building authority, within thirty (30) days of the written notice of violation, an odor reduction plan which is designed to reduce ambient odors attributable to emissions from that source to the maximum allowable intensity for that zone. The plan shall include a detailed summary of the measures that the owner or operator will take to mitigate the community annoyance and estimated dates for completion of those measures. In the event that it will take longer than thirty (30) days to develop the odor reduction plan, the owner or operator of the facility shall submit within the thirty-day time period a schedule for the development of the odor reduction plan. The building authority shall review this plan to determine whether it will be adequate to resolve the odor nuisance in a reasonable time period; and

c. Implement the plan in accordance with the schedule approved by the building authority.

2. ***Ambient odor limits:*** The maximum ambient intensity standard for odors generated by uses located in the I-L zone shall not exceed the following levels when the odor is measured in the zone indicated:

4.0 in any industrial or business zone for odors resulting from any use in the B-5 zone.

3.0 in any residential zone for odors resulting from any use in the B-5 zone.

(l) ***Smoke:*** Discharges of smoke shall not exceed opacity percentage of forty (40) percent or number 2 on the Ringelman chart.

(m) ***Discharge into sewers:*** No discharge shall be permitted at any point into any private sewage disposal system, or stream, or into the ground, of any materials in such a way or of such nature or temperature as to contaminate any water supply, or otherwise cause the emission of dangerous or objectionable elements, except in accordance with standards approved by the health authority or by the public works authority.

(n) ***Lighting:*** All lighting shall be designed and installed with cut-off fixtures to direct illumination onto the site and to prevent illumination from such fixtures on neighboring properties.

(Ord. No. 168-93, § 3, 1-4-93; Substitute Ord. No. 164-97, § 5, 5-19-97; Ord. No. 240-09/10, 6-21-10)

***Editor's Note:** The text changes adopted in Order 215-04/05 Section 14-230.4 I3 and (g) shall remain in effect for six (6) months from the effective date (6-2-05) of the changes. By Council Order No. 94-05/06 passed on 11/7/05 the effective date of the amendments were extended through and including March 2, 2006. By Council Order No. 170-05/06 passed as an emergency on 2/22/06 the effective date of the amendments were extended through and including September 30, 2006 and thereafter shall cease to exist unless the Portland City Council takes action to extend the applicability of such changes.

Sec. 14-230.6. thru 14-230.9 Reserved.

DIVISION 12.7. O-P OFFICE PARK ZONE

Sec. 14-230.10. Purpose.

The purpose of the O-P zone is to provide substantial areas for integrated development of professional offices in a park- or campus-like setting which are of the highest quality, are well designed and maintained and are compatible with their natural surroundings.

(Ord. No. 297-88, 5-23-88)

Sec. 14-230.11. Permitted uses.

The following uses are permitted in the O-P zone:

Office park (O-P) with a minimum gross area, as defined in

section 14-47 (definitions) of this article, of at least three (3) acres of contiguous land, consisting of either an Office Park Planned Unit Development (OPPUD) on one (1) lot with one (1) or more buildings and with driveways and open areas to be owned and maintained in common, or a subdivision (OPS) on one (1) parcel with two (2) or more lots intended for separate ownership, and including any of the following uses:

(a) Professional offices and office complexes;

(b) Research and development establishments;

(c) Printing and publishing establishments;

(d) Reserved;

(e) Day care facilities;

(f) Uses incidental and subordinate to the office park as a whole, which may include sales and services for employees and visitors; including, but not limited to; parking structures, health clubs, gymnasiums and recreational facilities, day care centers and cafeterias.

An Office Park Planned Unit Development (OPPUD) shall be subject to review and approval by the Planning Board with respect to the requirements of article V (site plan) and article IV (subdivisions) and the development standards of this chapter, article V sections 14-522 and 14-523 notwithstanding, and whether or not such development is a subdivision within the meaning of article IV of this chapter as now enacted or as hereafter amended. An Office Park Subdivision (OPS) shall be subject to review and approval by the Planning Board with respect to the requirements of article IV (subdivision) and article V (site plan), sections 14-522 and 14-523 notwithstanding, as each subdivided lot is developed. All areas in such a development that are to be owned or used in common shall be governed and maintained as set forth in section 14-498(i)(3) of article VI (subdivisions) of this chapter.

(g) Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 297-88, 5-23-88; Ord. No. 10-10/11, 8-2-10; Ord. No. 33-11/12, 1-18-12)

Sec. 14-230.11.1. Conditional uses.

The following uses are permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses) of this article and any special provisions, standards or requirements specified below:

(a) High technology manufacturing of biotechnology, pharmaceutical, and nanotechnology products provided that:

1. Manufacturing, including the warehousing therewith, shall occupy a gross floor area no greater than 20,000 square feet.

2. A minimum of one-third of the total square footage devoted to manufacturing is conducted in a laboratory environment, i.e. in a controlled environment with specialized air handling systems that exceed levels for pressurization and filtration found in office environments and traditional manufacturing facilities.

3. Truck traffic serving a single manufacturing business or institution shall not exceed, on a regular basis, more than two (2) tractor-trailer truck deliveries per week and provided that no deliveries are accepted between 7:00 p.m. and 7:00 a.m.

4. Rooftop equipment shall be integrated into the overall building design and shall be screened as necessary.

(b) Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

1. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site

within sixty (60) days; and

2. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

3. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

4. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

5. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

6. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

7. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

8. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow

account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

(c) Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 300-05/06, 7-17-06; Ord. No. 29-09/10, 8-3-09, emergency passage; Ord. No. 33-11/12, 1-18-12)

Sec. 14-230.12. Prohibited uses.

Uses not enumerated in section 14-230.11 as permitted uses are prohibited.

(Ord. No. 297-88, 5-23-88)

Sec. 14-230.13. Development standards.

An office park (O-P) shall be approved by the Planning Board only if, in addition to the dimensional and other requirements of this article and the applicable provisions of article IV (subdivisions) and article V (site plan), the development meets the following development standards:

(a) *Master plan:* Development proposals shall include a master plan of the office park. The master plan shall include the following:

1. For an OPPUD proposal: The location of the building(s) on the site; infrastructure of the site; identification of common areas; traffic circulation, architectural character and treatment of the building(s); proposed building envelopes; phasing and timing of the development; private development restrictions; and such other information necessary and sufficient to ensure compliance with the standards in this section; and

2. For an OPS proposal: Delineation of the subdivision of land; infrastructure of the site; identification of common areas, if any; traffic circulation; desired architectural character, including private development restrictions to ensure compatibility of architectural character of future buildings with

each other; phasing and timing of the development; private development restrictions; and such other information as necessary and sufficient to ensure compliance with the standards in this section.

(b) ***Design relationship to site:*** Development proposals shall demonstrate a reasonably unified design of the site, including the architecture, the layout of the buildings, pedestrian and vehicular circulation plan, open space, drainage, and the topography, soil conditions, vegetation and other natural features of the site. Integration of open spaces and natural features shall be achieved by incorporation of outdoor amenities for the benefit of users of the site, such as jogging and walking trails, gardens and benches.

(c) ***Landscaping:*** Development proposals shall include a landscape program. All land areas not covered by structures, parking areas or circulation facilities shall be landscaped and maintained. In order to soften the visual impact of large expanses of pavement in parking lots, vegetation shall be planted or retained in islands or planting strips where required by article IV (subdivisions) and article V (site plan).

(d) ***Impervious surface ratio:*** Development proposals may have an impervious surface ratio of up to sixty (60) percent and shall meet the following criteria:

1. No pavement may be located closer than fifteen (15) feet from the property line and from a public street right-of-way, excepting approved entrance drives;

2. Parking may not be located in the required front yard setback. If parking is provided in the area between the building and minimum setback line, the parking area must be adequately screened with landscaping materials and permanently maintained.

(e) ***Sidewalks:*** Development proposals shall include internal sidewalks, illustrating the manner in which the developer will provide this amenity to take advantage of the topography and natural features of the site.

(f) ***Buffers and screens:*** Development proposals shall include buffering yard areas abutting a residential zone or residential use and to screen parking lots and driveways from public view, identifying the location, composition and maintenance of the buffer. The buffer and screening shall be of a dense and continuous nature and shall incorporate trees, shrubs, fencing, berms and related elements deemed necessary.

(g) ***Preservation of natural features:*** Development proposals shall identify the extent to which the developer shall preserve natural features including, but not limited to, existing vegetation, flood plains, rock outcroppings, surface water bodies, drainage swales and courses, and wetlands; provided any such program shall consider and be sensitive to the need to preserve such natural features.

(h) ***Traffic:*** Development proposals shall identify all proposed traffic controls, parking areas, interior traffic circulation, and demonstrate that additional traffic generated by the project itself can be reasonably accommodated on existing public streets.

(i) ***Architectural design:*** All buildings shall be designed or approved by a registered architect in the State of Maine and shall be in conformance with the proposed master plan. The scale, texture, color and massing of the buildings shall be coordinated. The full range of high-quality, permanent, and traditional or contemporary building materials and technology may be incorporated in a manner so that the development as a whole embodies distinguishing attributes that achieve the developer's desired degree of excellence and are in conformance with the architectural guidelines provided in the private development restrictions. Particular emphasis shall be placed on the appearance of building facades from public streets, from driveway and parking areas, and from other nearby buildings. Building elevation drawings shall be submitted which indicate architectural style, exterior finishes and color, building height and scale, and location and scale of window and door openings. Samples of exterior building materials shall also be submitted.

(j) ***Lighting:*** Development proposals shall identify the location and style of lighting to be used in the

development. All light fixtures shall be hooded or shielded so that the light shines downward.

(k) ***Signs:*** Development proposals shall identify all proposed signage. Signs shall be designed in proportion and character with the building facades. All signs shall be constructed of permanent materials and shall be coordinated with the building and landscaping design through the use of appropriate materials and finishes.

(Ord. No. 297-88, 5-23-88)

Sec. 14-230.14. Dimensional requirements.

In addition to the provisions of division 25 (space and bulk regulations and exceptions) of this article, lots in the O-P zone shall meet the following minimum requirements:

(a) ***Minimum lot size:*** One and one-half (1.5) acres.

(b) ***Minimum street frontage:*** One hundred (100) feet.

(c) ***Minimum lot width:*** One hundred fifty (150) feet.

(d) *Minimum yard dimensions:*

1. Front yard: Fifty (50) feet.

2. Rear yard: Fifty (50) feet.

3. Side yards: Twenty-five (25) feet, except where a side yard abuts a residential zone or use, in which case it shall be forty (40) feet.

The Planning Board can reduce by up to fifty (50) percent the minimum yard setback if another yard within the lot is correspondingly increased so that the combined minimum setbacks on all four (4) sides equal one hundred fifty (150) feet. If two (2) or more buildings are located on one (1) lot, only the requirements of the front, rear or side yards that adjoin any external property boundary must be met, provided a sufficient fire line is provided.

(e) ***Maximum structure height:*** Fifty-five (55) feet, except that on lots or within office-park subdivisions which are composed of over fifty (50) acres in total land area,

seventy-five (75) feet is permitted, including roof appurtenances, if each of the required minimum yard dimensions is increased by one (1) foot in distance for each one (1) foot of height above fifty-five (55) feet.

(Ord. No. 297-88, 5-23-88; Ord. No. 223-92, 1-22-92)

Sec. 14-230.15. Other requirements.

[In addition to the above, the following requirements are applicable to all uses in the O-P zone:]

(a) ***Off-street parking and loading:*** Off-street parking and loading are required as provided in division 20 (off-street parking) and division 21 (off-street loading).

(b) ***Signs:*** Signs shall be subject to the provisions of division 22 of this article. Temporary freestanding advertising signs are not permitted.

(c) ***Curbs and sidewalks:*** Curbs and sidewalks as specified in article VI of chapter 25.

(d) ***Shoreland and flood plain management regulations:*** If the lot is located in a shoreland zone or in a flood hazard zone, the requirements of division 26 and/or division 26.5 apply.

(Ord. No. 297-88, 5-23-88)

Sec. 14-230.16. External effects.

Every use in a O-P zone, unless expressly exempted, shall be subject to the following limitations:

(a) ***Enclosed structure:*** The use shall be operated within a completely enclosed structure, except for those customarily operated in the open air.

(b) ***Noise:*** The volume of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American Standards Association), generated shall not exceed sixty (60) decibels on the A scale, on impulse (less than one (1) second), at lot boundaries, excepting air raid sirens and similar warning devices.

(c) ***Vibration:*** Vibration inherently and recurrently generated shall be imperceptible without instruments at lot boundaries.

(d) ***Heat, glare, radiation or fumes:*** Heat, glare, radiation or fumes shall not be emitted to an obnoxious or dangerous degree beyond lot boundaries.

(e) ***Smoke:*** Smoke shall not be emitted at a density in excess of twenty (20) percent opacity level as classified in Method 9 (Visible Emissions) of the Opacity Evaluation System of the U.S. Environmental Protection Agency.

(f) ***Materials or wastes:*** No materials or wastes shall be deposited on any lot in such form or manner that they may be transferred beyond the lot boundaries by natural causes or forces. All material which might cause fumes or dust, or constitute a fire hazard if stored out-of-doors, shall be only in enclosed containers. Areas attracting large numbers of birds, rodents or insects are prohibited.

(Ord. No. 297-88, 5-23-88)

DIVISION 13. I-L AND I-Lb INDUSTRIAL ZONES*

***Editor's note—**Ord. No. 164-97, § 6, passed Jan. 6, 1997, repealed div. 13, §§ 14-231—14-236 of this article and enacted new provisions as herein set out. Formerly, such division pertained to the I-1 industrial zone and derived from §§ 602.11.A—602.11.F of the 1968 Code as amended by the following legislation:

Ord. No.	Sec.	Date	Ord. No.	Sec.	Date
570-71	--	11-16-71	330-90	1	5-7-90
327-71	--	7- 7-71	17-90	--	6-18-90
499-74	5	8-19-74	112-90	--	10- 1-90
334-76	6	7- 7-76	15-92	17	6-15-92
430-85	--	3- 4-85	193A-93	1	2-17-93

633-86	1	6- 2-86	89A-94	--	9-19-94
578-87	1	6-15-87	154-96	14	12-16-96

Sec. 14-231. Purpose.

The low impact industrial zone is intended to provide areas in which low impact industrial uses and limited other uses serving employees and residents of the surrounding neighborhood will be compatible with adjacent residential uses, will provide a buffer between residential neighborhoods and the I-M or I-H industrial zones, or will stand alone as a smaller scale industrial district.

The I-L zone is located adjacent to residential neighborhoods, business uses and other industrial uses where the low intensity nature of the uses, as well as their strict performance standards, will ensure the compatibility of the uses with other adjacent industrial and nonindustrial uses.

Performance standards for uses in the I-L zone are designed to maintain compatibility between low impact industrial uses and neighboring nonindustrial and industrial uses. Performance standards include full enclosure of uses and requirements for buffers and screening from adjacent properties.
(Ord. No. 164-97, § 6, 1-6-97; Ord. No. 149-10/11, 3-7-11)

Sec. 14-232. Permitted uses.

The following uses are permitted whether provided by private or public entities in the low impact industrial zone and the I-Lb zone:

(a) Low impact industrial uses, including, but not limited to, bakeries, breweries, bottling, printing and publishing, pharmaceuticals, machine shops, musical instruments, precision instruments, watchmakers, toys and sporting goods, wood products, jewelry, assembly of electrical components, tool and die shops and the packaging of food.

(b) Research and development.

(c) Indoor amusement and recreation centers.

(d) Plant and tree nurseries, including associated recycling activities.

(e) Lumber yards.

(f) Commercial kitchens or other food preparation, provided that the food is not prepared for service on the premises.

(g) Building contractors and outside storage of related construction equipment, provided that there shall be no outside storage of materials and supplies.

(h) Repair services, including all types of automotive repair.

(i) Day care facilities, provided that:

1. Proof of licensing with the Maine Department of Human Services is submitted to the city prior to issuance of a certificate of occupancy;

2. ***Off-street parking:*** off-street parking is required as provided in division 20 of this article;

3. Off-street loading shall be located in a safe location;

4. There shall be an on-site outdoor play area with seventy-five (75) feet of land area per child; and

5. The outdoor play area shall be fenced and screened with a landscaped buffer.

(j) Dairies.

(k) Dog training services, including but not limited to obedience, guide, and service training, but not including boarding or kennel services.

(l) Intermodal transportation facilities.

(m) Utility substations.

(n) Marinas.

(o) Distribution centers, warehouses and wholesale businesses under ten thousand (10,000) square feet in total building area, with no outside storage permitted.

(p) Back office uses.

(q) Accessory uses.

1. Incidental accessory uses.

2. In the Ilb zone, the following additional accessory uses shall also be permitted:

a. Makers' markets, including periodic, seasonal, or temporary sales of handcrafted and limited production products for final consumption, which may include prepared or raw foods, provided that:

i. Such slaes are located within a lawfully conforming principal permitted use;

ii. Such sales occupy an area no larger than 45% of the floor area devoted to the principal use;

iii. Such sales by any single vendor or group of vendors shall occur for no more than a total of 28 hours a week collectively;

iv. Such products are produced or permitted to be produced in the IL zone; and

v. Such products are sold by the producer of the product or their designee.

Such sales shall be subject to any other applicable city ordinances. Food trucks are exempt from the limitations contained in this provision, but are subject to Chapter 19 of the City Code and any regulations promulgated

pursuant thereto.

b. Temporary events associated with a principal use, such as concerts, lectures, exhibitions of the local production of handcrafted and limited production products, fundraisers, and other similar gatherings, provided that they occur no more than a total of 16 hours a week, subject to the performance standards of this zone and any other applicable city ordinances.

(r) Registered medical marijuana cultivation facilities.

(s) Neighborhood centers.

(t) Places of religious assembly, limited to facilities of 10,000 square feet or less.

(u) Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(v) Street vendors licensed pursuant to Chapter 19.

(w) Studios for artists, photographers, and craftspeople, including but not limited to painters, sculptors, dancers, graphic artists, and musicians.

(Ord. No. 164-97, § 6, 1-6-97; Ord. No. 22-97, § 1, 7-7-97; Ord. No. 137-97, § 1, 11-3-97; Ord. No. 106-04/05,12-8-04 enacted as an emergency; Ord. No. 240-09/10, 6-21-10; Ord. No. 283-09/10, 7-19-10 emergency passage; Ord. No. 149-10/11, 3-7-11; Ord. No. 33-11/12, 1-18-12; Ord. No. 10-12/13, 7-16-12; Ord. No. 265-12/13, 7-15-13)

Sec. 14-232.1. Conditional uses.

The following use shall be permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses), and any special provisions, standards or requirements specified below:

(a) Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

1. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of

Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

2. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

3. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

4. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

5. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

6. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

7. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

8. A performance guarantee shall be required for

the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

(Ord. No. 29-09/10, 8-3-09, emergency passage)

Sec. 14-233. Prohibited uses.

Uses that are not expressly enumerated herein as permitted uses are prohibited. Those uses that are prohibited shall include, but are not limited to, the following:

(a) Residential uses.

(b) Retail trade and restaurants that are not accessory to a permitted use.

(c) Junk yards and scrap metal reprocessing and recycling.

(d) Amusement parks.

(e) Crematoriums.

(f) Mining and drilling operations.

(g) Refining of petroleum or its products, including tar distillation.

(h) Commercial petroleum storage yards.

(i) Commercial excavation of building or construction materials other than in the normal course of building or construction or site preparation.

(j) Distillation of bones; fat rendering; glue, soap, or fertilizer manufacture.

(k) Dumping, disposal, incineration, or reduction of garbage, sewage, offal, dead animals, or refuse.

(l) Stockyard or slaughtering of animals.

(m) Smelting of iron, copper, tin, zinc, or any other ore.

(n) Manufacture of primary chemicals.

(o) Manufacture of cement, lime, gypsum, or plaster of paris.

(p) Manufacture of bleaching powder, matches, paper, or rubber.

(q) Manufacture and storage of explosives or fireworks.

(r) Tanning, curing or storage of raw hides or skins.

(s) Coal distillation or coke ovens.

(t) Foundries.

(u) Creosote treatment.

(v) Drop forging.

(w) Steel mills or furnaces.

(x) Coal- or coke-fired kilns.

(y) Used tire storage.

(z) Outdoor sales or outdoor display.

(aa) Extraction of raw materials.

(bb) Concert halls or dance halls.

(cc) Banquet facilities.

(dd) Office uses other than back offices or offices that are accessory to a permitted use.

(Ord. No. 164-97, § 6, 1-6-97; Ord. No. 137-97, § 2, 11-3-97)

Sec. 14-234. Dimensional requirements.

(a) *Minimum lot size:* None.

(b) *Maximum impervious surface ratio:* I-L zone: Sixty-five

(65) percent. I-Lb zone: One hundred (100) percent.

(c) *Maximum building height:* Forty-five (45) feet.

(d) *Minimum side yards:* Principal and accessory structures in the I-L zone: Twenty-five (25) feet, except that the minimum side yard shall be forty (40) feet when the side property line abuts a residential zone. Principal and accessory structures in the I-Lb zone: None, except that the minimum side yard shall be twenty-five (25) feet when the side property line abuts a residential zone.

(e) *Minimum rear yards:* Principal and accessory structures in the I-L zone: Twenty-five (25) feet, except that the minimum rear yard shall be forty (40) feet when the rear property line abuts a residential zone. Principal and accessory structures in the I-Lb zone: None, except that the minimum rear yard shall be twenty-five (25) feet when the rear property line abuts a residential zone.

(f) *Minimum front yard:* Principal and accessory structures in the I-L zone: Twenty-five (25) feet. Principal and accessory structures in the I-Lb zone: None.

(g) *Minimum street frontage:* Sixty (60) feet.

(h) *Pavement setback from lot boundary:* Driveways, parking lots and other paved circulation areas: Fifteen (15) feet.
(Ord. No. 164-97, § 6, 1-6-97)

Sec. 14-235. Other requirements.

(a) Off-street parking shall meet the requirements of division 20 of this article.

(b) Off-street loading shall meet the requirements of division 21 of this article.

(c) Signs shall be subject to the provisions of division 22 of this article.

(d) *Shoreland and floodplain management regulations:* Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5 of this article.

(e) All uses shall be operated within a fully enclosed structure, except for those customarily operated in open air.

(f) Any storage of new materials, finished products, or related equipment must be suitably screened from the public way and from abutting properties by a solid fence at least five (5) feet in height, or by a solid evergreen planting strip.

(g) All waste shall be stored in covered containers that do not leak or otherwise permit liquids or solids to escape from the container.

(h) All food processing waste shall be stored within a completely enclosed structure and if not refrigerated shall be removed from the site in an enclosed container within forty-eight (48) hours of its generation. All enclosed and exterior food processing waste storage areas shall be cleaned and sanitized on a regular basis.

(i) Outdoor storage of refuse, debris, or material awaiting reuse shall be in an appropriate container or located within a designated, screened area.

(j) Any permitted outdoor storage of materials shall be done in such a manner as to prevent the breeding and harboring of insects or vermin, to prevent the transfer of such materials from the site by natural causes or forces and to contain fumes, dust, or other materials which constitute a fire hazard. This storage shall be accomplished within enclosed containers or by one (1) or more of the following methods: raising materials above ground, separating materials, preventing stagnant water, or by some other means. No outdoor storage shall be permitted in the required yard between the front of any building on the site and the street, except for storage for plant and tree nurseries.

(Ord. No. 164-97, § 6, 1-6-97)

Sec. 14-236. Performance standards.

Uses in the I-L and I-Lb zones shall comply with the following standards:

(a) *Noise:*

1. *Definitions:*

a. Tonal sounds are defined as sound waves usually perceived as a hum or whine because their instantaneous sound pressure varies essentially as a simple sinusoidal function of time.

b. Impulse sounds are defined as sound events characterized by brief excursions of sound pressure, each with a duration of less than one (1) second.

2. ***Measurement:*** Sound levels shall be measured with a sound level meter with a frequency weighting network manufactured according to standards prescribed by the American National Standards Institute (ANSI) or its successor body. Measurements shall be made at all major lot lines of the site, at a height of at least four (4) feet above the ground surface. In measuring sound levels under this section, sounds with a continuous duration of less than sixty (60) seconds shall be measured by the maximum reading on a sound level meter set to the A weighted scale and the fast meter response (L maxfast). Sounds with a continuous duration of sixty (60) seconds or more shall be measured on the basis of the energy average sound level over a period of sixty (60) seconds (LEQ_1).

3. ***Maximum permissible sound levels:*** The maximum permissible sound level of any continuous, regular or frequent source of sound produced by an activity shall be as follows:

a. Sixty (60) dBA between the hours of 7:00 a.m. and 10:00 p.m.

b. Fifty (50) dBA between the hours of 10:00 p.m. and 7:00 a.m., as measured at or within the boundaries of any residential zone.

In addition to the sound level standards established above, all uses located within this zone shall employ best practicable sound abatement techniques to prevent tonal sounds and impulse

sounds or, if such tonal and impulse sounds cannot be prevented, to minimize the impact of such sounds in residential zones.

4. *Exemptions:*

a. Noises created by construction and maintenance activities between 7:00 a.m. and 10:00 p.m. are exempt from the maximum permissible sound levels set forth in subsection (a)3 of this section. Construction activities on a site abutting any residential use between the hours of 10:00 p.m. of one (1) day and 7:00 a.m. of the following day shall not exceed fifty (50) dBA.

b. The following uses and activities shall also be exempt from the requirements of subsection (a)3 of this section:

i. The noises of safety signals, warning devices, emergency pressure relief valves, and any other emergency devices.

ii. Traffic noise on public roads or noise created by airplanes and railroads.

iii. Noise created by refuse and solid waste collection, provided that the activity is conducted between 6:00 a.m. and 7:00 p.m.

iv. Emergency construction or repair work by public utilities, at any hour.

v. Noise created by any recreational activities which are permitted by law and for which a license or permit has been granted by the city, including but not limited to parades, sporting events, and fireworks displays.

(b) *Electromagnetic interference:* There shall be no electromagnetic interference that adversely affects the operation of any equipment other than that belonging to the creator of such interference, or that does not

conform to the regulations of the Federal Communications Commission.

(c) ***Vibrations:*** Vibrations inherently and recurrently generated shall be imperceptible without instruments at lot boundaries.

(d) ***Glare, heat:*** Any use shall be in an enclosed structure in such a manner that glare and heat shall be imperceptible from neighboring properties.

(e) ***Discharge of toxic or noxious matter:*** All discharges of toxic or noxious matter shall be made in accordance with all applicable state and federal regulations.

(f) ***Odor:*** It shall be a violation of this chapter to create an odor nuisance.

1. ***Determination of odor nuisance:*** An odor nuisance shall be considered to exist when ten (10) confirmed complaints occur in an area within two (2) separate twenty-four-hour periods. The ten (10) confirmed complaints must originate from ten (10) different households in an area zoned residential or from ten (10) different individuals in a commercial or industrial facility. The building authority shall only respond to a complainant who confirms that the odor is detectable at the time of the actual complaint. In order to confirm a complaint, the building authority or its designee shall first determine that an odor is detectable in the area of the complaint. The building authority or its designee shall interview the complainant to verify that the detectable odor is in fact the odor that resulted in the complaint. If the complainant verifies the odor as the source of the complaint, then the building authority shall notify the owner or operator of the alleged odor source either in person or by telephone within one (1) working day, with a written confirmation within seven (7) working days of the complaint. In the event that the building authority is unable to contact the owner or operator of the alleged odor source in person or by telephone within one (1) working day, then the building authority shall send written

notice to the operator within seven (7) working days of the complaint.

In the event that ten (10) complaints are confirmed as set forth in subsection (1) in two (2) separate twenty-four-hour periods within a ninety-day period, the building authority shall cause a certified odor inspector to investigate any odor complaints received in the next thirty (30) days following the receipt of the tenth confirmed complaint from the second twenty-four-hour period. If the odors remain under the ambient intensity standard as established in this subsection for the next thirty (30) days, then a new odor nuisance must be established after that time in accordance with the requirements of this section. The certified odor inspector shall do the following in response to a complaint under this section:

a. Verify that an odor is detectable in the area of the complaint and confirm that it is the odor that resulted in the complaint;

b. Quantify the intensity of the odor on the eight-point n-butanol intensity scale as defined in regulations promulgated by the director of the planning authority to establish training and technical standards to support this section; and

c. Track the odor to its source.

When the certified odor inspector determines that a violation has occurred because an odor has exceeded the maximum ambient odor levels set forth in this section, the building authority shall notify the owner or operator either by telephone or in person of the violation within one (1) working day of the violation. The building authority shall confirm this notification in writing within seven (7) working days of this initial notice. In the event that the building authority is unable to contact the owner or operator by telephone or in person within the required time period, then it will send written notification within seven (7) working days

of the violation.

Upon receipt of the written notice of violation, the owner or operator of the odor source shall do the following:

a. Implement odor reduction procedures immediately upon notification by the building authority that the facility has violated this section wherever odor reduction can be achieved by operational or procedural changes at the facility;

b. Submit to the building authority, within thirty (30) days of the written notice of violation, an odor reduction plan which is designed to reduce ambient odors attributable to emissions from that source to the maximum allowable intensity for that zone. The plan shall include a detailed summary of the measures that the owner or operator will take to mitigate the community annoyance and estimated dates for completion of those measures. In the event that it will take longer than thirty (30) days to develop the odor reduction plan, the owner or operator of the facility shall submit within the thirty-day time period a schedule for the development of the odor reduction plan. The building authority shall review this plan to determine whether it will be adequate to resolve the odor nuisance in a reasonable time period; and

c. Implement the plan in accordance with the schedule approved by the building authority.

2. ***Ambient odor limits:*** The maximum ambient intensity standard for odors generated by uses located in the I-L zone shall not exceed the following levels when the odor is measured in the zone indicated:

4.0 in any industrial or business zone for odors resulting from any industrial use.

3.0 in any residential zone for odors resulting from any industrial use.

(g) ***Smoke:*** Discharges of smoke shall not exceed opacity percentage of forty (40) percent or number 2 on the Ringelmann chart.

(h) ***Emissions:*** All emissions shall be made in accordance with all applicable state and federal regulations.

(i) ***Radiation:*** Radiation at a site shall comply with all applicable state and federal regulations.

(j) ***Discharge into sewers:*** No discharge shall be permitted at any point into any private sewage disposal system, or stream, or into the ground of any materials in such a way or of such nature or temperature as to contaminate any water supply, or otherwise cause the emission of dangerous or objectionable elements, except in accordance with standards approved by the health authority or by the public works authority.

(k) ***Lighting:*** All lighting shall be designed and installed with cut-off fixtures to direct illumination onto the site and to prevent illumination from such fixtures on neighboring properties.

(Ord. No. 164-97, § 6, 1-6-97)

Sec. 14-237. thru 14-245. Reserved.

DIVISION 14. I-M, I-Ma AND I-Mb INDUSTRIAL ZONES*

***Editor's note—**Ord. No. 164-97, § 7, passed Jan. 6, 1997, repealed div. 14, §§ 14-246—14-251 of this article and enacted new provisions as herein set out. Formerly, such provisions pertained to the I-2 and I-2b industrial zones and derived from §§ 602.12.A—602.12.F of the 1968 Code as amended by Ord. No. 499-74, § 5, adopted Aug. 19, 1974; Ord. No. 334-76, §§ 2, 3, adopted Jul. 7, 1976; Ord. No. 234-88, adopted Feb. 1, 1988; Ord. No. 330-90, § 2, adopted May 7, 1990; Ord. No. 15-92, § 18, adopted Jun. 15, 1992; Ord. No. 193A-93, § 2, adopted Feb. 17, 1993; and Ord. No. 154-96, § 15, 12-16-96.

Sec. 14-246. Purpose.

The moderate impact industrial zones are intended to provide zones in areas of the city in which light and moderate impact industries and transportation-related uses will coexist.

The moderate impact industrial (I-M and I-Ma) zones are located on arterials or collectors. The I-Mb zones are similarly located on the peninsula. These locations provide for direct access onto arterials, thereby protecting residential neighborhoods from drive-through traffic.

The I-M, I-Ma and I-Mb industrial zones are intended to provide for larger industrial buildings and for the limited or controlled use of areas outside of structures for storage of materials and machinery. These facilities often require large volumes of imported materials and products which result in large volumes of shipping and receiving. Often uses may be highway-oriented and transportation-related, thus relying on citywide and regional transportation infrastructure.

Industrial uses in the moderate impact industrial zones may require separation from higher impact uses, which should be directed to the high impact industrial zone.
(Ord. No. 164-97, § 7, 1-6-97)

Sec. 14-247. Permitted uses.

The following uses are permitted whether provided by private or public entities in the I-M moderate impact industrial zone, the I-Ma and the I-Mb zone:

(a) Low impact industrial uses, including but not limited to bakeries, breweries, bottling, printing and publishing, pharmaceuticals, machine shops, musical instruments, precision instruments, watchmakers, toys and sporting goods, wood products, jewelry, assembly of electrical components, tool and die shops and the packaging of food.

(b) Research and development and back office uses.

(c) Building contractors and construction and engineering services.

(d) Wholesale trade.

(e) Warehousing and distribution facilities, including

outdoor storage.

(f) Intermodal transportation facilities and transportation terminals.

(g) Repair services, including all types of automotive repair services.

(h) Indoor amusement or recreational centers.

(i) Plant and tree nurseries, including associated recycling activities.

(j) Lumber yards.

(k) Commercial kitchens or other food preparation, provided that the food is not prepared for service on the premises.

(l) Recycling facilities, provided that all storage and recycling operations occur within a fully enclosed structure.

(m) Food and seafood processing for human consumption.

(n) Municipal or regional solid waste disposal facilities, provided that all disposal activities are carried out within an enclosed structure.

(o) Day care facilities, provided that:

1. Proof of licensing with the Maine Department of Human Services is submitted to the city prior to issuance of a certificate of occupancy;

2. ***Off-street parking***: Off-street parking is requird as provided in division 20 (off-street parking) of this article;

3. Off-street loading shall be located in a safe location;

4. There shall be an on-site outdoor play area with seventy-five (75) feet of land area per child; and

5. The outdoor play area shall be fenced and screened with a landscaped buffer.

(p) Dairies.

(q) Utility substations.

(r) Correctional prerelease facilities for up to twelve (12) persons, plus staff, serving a primary clientele of parolees or persons in correctional prerelease programs, provided that:

1. No correctional prerelease facility shall be located within one thousand (1,000) feet of another, as measured in a radius from the center of the lot;

2. Such facilities shall not be permitted in the I-Ma or I-Mb zones;

3. If a facility requires state or federal licensing, staffing of the facility shall be as required by such license. If a facility does not require state or federal licenses, there shall be a minimum of one (1) staff person for every ten (10) residents or fraction thereof; and

4. The facility shall provide twenty-four-hour supervision of program participants.

(s) Incidental accessory uses.

(t) General, business and professional offices.

(u) Storage lots for towed or impounded vehicles, provided that such lots are located at least 300 feet from any residential zone or existing conforming residential use. For the purposes of this section, "existing conforming residential use" does not include a legally nonconforming residential use as described in division 23 of this chapter.

(v) Registered medical marijuana cultivation facilities.

(w) Wind energy systems, as defined and allowed in Article X,

Alternative Energy.

(x) Street vendors licensed pursuant to Chapter 19.

(Ord. No. 164-97, § 7, 1-6-97; Ord. No. 137-97, § 3, 11-3-97; Substitute Ord. No. 72-01/02, § 1, 10-1-01; Ord. No. 97-06/07, 11-20-06; Ord. No. 240-09/10, 6-21-10; Ord. No. 283-09/10, 7-19-10 emergency passage; Ord. No. 33-11/12, 1-18-12; Ord. No. 10-12/13, 7-16-12)

Sec. 14-248. Performance based uses.

Uses not expressly permitted as provided in section 14-247 or expressly prohibited in section 14-249 may be permitted if they meet the following conditions and standards:

(a) The proposed development is consistent with the purposes of this zone.

(b) The proposed development is designed and operated so that it will prevent undue adverse environmental impacts, substantial diminution of the value or utility of neighboring structures, or significant hazards to the health or safety of neighboring residents by controlling noise levels, emissions, traffic, lighting, odor, and any other potential negative impacts of the proposal.

(Ord. No. 164-97, § 7, 1-6-97)

Sec. 14-248.1. Conditional uses.

The following use shall be permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses), and any special provisions, standards or requirements specified below:

(a) Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

1. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

2. Towers shall be constructed according to plans

and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

3. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

4. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

5. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

6. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

7. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

8. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents

to remove the facility at the end of the use period.

(b) Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 29-09/10, 8-3-09, emergency passage; Ord. No. 33-11/12, 1-18-12)

Sec. 14-249. Prohibited uses.

Uses that are not expressly enumerated herein as permitted uses are prohibited. Those uses that are prohibited shall include, but are not limited to, the following:

(a) Residential uses.

(b) Retail trade that is not ancillary to a permitted use.

(c) Restaurant uses.

(d) Junk yards.

(e) Amusement parks.

(f) Crematoriums.

(g) Mining and drilling operations.

(h) Refining of petroleum or its products, including tar distillation.

(i) Petroleum tank farms.

(j) Commercial excavation of building or construction materials other than in the normal course of building or construction or site preparation.

(k) Distillation of bones; fat rendering; glue, soap, or fertilizer manufacture.

(l) Dumping, disposal, incineration, or reduction of garbage, sewage, offal, dead animals, or refuse.

(m) Stockyard or slaughtering of animals.

(n) Smelting of iron, copper, tin, zinc, or any other ore.

(o) Manufacture of primary chemicals.

(p) Manufacture of cement, lime, gypsum, or plaster of paris.

(q) Manufacture of bleaching powder, matches, paper, or rubber.

(r) Manufacture of explosives or fireworks. Bulk storage of explosives or fireworks is also prohibited unless such storage is done as an accessory use to a permitted use located on the same site and all required state and local permits have been acquired.

(s) Tanning, curing or storage of raw hides or skins.

(t) Coal distillation or coke ovens.

(u) Creosote treatment.

(v) Drop forging.

(w) Steel mills or furnaces.

(x) Coal- or coke-fired kilns.

(y) Used tire storage.

(z) Extraction of raw materials.

(aa) Concert halls or dance halls.

(bb) Banquet facilities.

(Ord. No. 164-97, § 7, 1-6-97; Ord. No. 137-97, § 4, 11-3-97; Substitute Ord. No. 72-01/02, § 2, 10-1-01)

Sec. 14-250. Dimensional requirements.

(a) *Minimum lot size:*

1. Correctional prerelease facilities: Ten thousand (10,000) square feet.

2. Other uses: None.

(b) ***Maximum impervious surface ratio:*** I-M and I-Ma zone: Seventy-five (75) percent. I-Mb zone: One hundred (100) percent.

(c) ***Maximum building height:*** I-M and I-Mb zones: Seventy-five (75) feet. I-Ma zone: Forty-five (45) feet.

(d) ***Minimum side yards:*** Principal and accessory structures in the I-M and the I-Ma zone: Each structure shall be set back one (1) foot from each side property line for each one (1) foot of building height, up to twenty-five (25) feet, except that the minimum side yard shall be thirty-five (35) feet when the side property line abuts a residential zone.

Principal and accessory structures in the I-Mb zone: None, except that the minimum side yard shall be twenty-five (25) feet when the side property line abuts a residential zone.

(e) ***Minimum rear yards:*** Principal and accessory structures in the I-M and I-Ma zone: Each structure shall be set back one (1) foot from the rear property line for each one (1) foot of building height, up to twenty-five (25) feet, except that the minimum rear yard shall be thirty-five (35) feet when the rear property line abuts a residential zone.

Principal and accessory structures in the I-Mb zone: None, except that the minimum rear yard shall be twenty-five (25) feet when the rear property line abuts a residential zone.

(f) ***Minimum front yard:*** Principal and accessory structures in the I-M and I-Ma zone: Each structure shall be set back one (1) foot from the front property line for each one (1) foot of building height.

Principal and accessory structures in the I-Mb zone: None.

(g) ***Minimum street frontage:*** Sixty (60) feet.

(h) ***Pavement setback from lot boundaries:*** Ten (10) feet.
(Ord. No. 164-97, § 7, 1-6-97)

Sec. 14-251. Other requirements.

(a) Off-street parking shall meet the requirements of division 20 of this article.

(b) Off-street loading shall meet the requirements of division 21 of this article.

(c) Signs shall be subject to the provisions of division 22 of this article.

(d) ***Shoreland and floodplain management regulations:*** Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5 of this article.

(e) All uses shall be operated within a fully enclosed structure, except for those customarily operated in open air.

(f) Any storage of new materials, finished products, or related equipment must be suitably screened from the public way and from abutting properties by a solid fence at least five (5) feet in height, or by a solid evergreen planting strip.

(g) All waste shall be stored in covered containers that do not leak or otherwise permit liquids or solids to escape from the container.

(h) All food processing waste shall be stored within a completely enclosed structure and if not refrigerated shall be removed from the site in an enclosed container within forty-eight (48) hours of its generation. All enclosed and exterior food processing waste storage areas shall be cleaned and sanitized on a regular basis.

(i) Outdoor storage of refuse, debris or previously used materials awaiting reuse shall be either in an appropriate container or located within a designated, screened area.

(j) Any permitted outdoor storage of materials shall be done in such a manner as to prevent the breeding and harboring of insects or vermin, to prevent the transfer of such materials from the site by natural causes or forces and to contain fumes, dust, or other materials which constitute a fire hazard. This storage shall be accomplished within enclosed containers or by one (1) or more of the following methods: raising materials above ground, separating materials, preventing stagnant water, or by some other means. No outdoor storage shall be permitted between the front of any building on the site and the street, except for storage for plant

and tree nurseries or lumber yards.
(Ord. No. 164-97, § 7, 1-6-97)

Sec. 14-252. Performance standards.

Uses in the I-M, I-Ma, and I-Mb zones shall meet the following standards:

(a) *Noise:*

1. *Definitions:*

a. Tonal sounds are defined as sound waves usually perceived as a hum or whine because their instantaneous sound pressure varies essentially as a simple sinusoidal function of time.

b. Impulse sounds are defined as sound events characterized by brief excursions of sound pressure, each with a duration of less than one (1) second.

2. *Measurement:* Sound levels shall be measured with a sound level meter with a frequency weighting network manufactured according to standards prescribed by the American National Standards Institute (ANSI) or its successor body. Measurements shall be made at all major lot lines of the site, at a height of at least four (4) feet above the ground surface. In measuring sound levels under this section, sounds with a continuous duration of less than sixty (60) seconds shall be measured by the maximum reading on a sound level meter set to the A weighted scale and the fast meter response (L maxfast). Sounds with a continuous duration of sixty (60) seconds or more shall be measured on the basis of the energy average sound level over a period of sixty (60) seconds (LEQ_1).

3. *Maximum permissible sound levels:* The maximum permissible sound level of any continuous, regular or frequent source of sound produced by an activity shall be as follows:

a. Seventy (70) dBA between the hours of 7:00 a.m. and 10:00 p.m.

b. Fifty-five (55) dBA between the hours of 10:00 p.m. and 7:00 a.m., as measured at or within the boundaries of any residential zone.

In addition to the sound level standards established above, all uses located within this zone shall employ best practicable sound abatement techniques to prevent tonal sounds and impulse sounds or, if such tonal and impulse sounds cannot be prevented, to minimize the impact of such sounds in residential zones.

4. *Exemptions:*

a. Noises created by construction and maintenance activities between 7:00 a.m. and 10:00 p.m. are exempt from the maximum permissible sound levels set forth in subsection (d)3 of this section. Construction activities on a site abutting any residential use between the hours of 10:00 p.m. of one (1) day and 7:00 a.m. of the following day shall not exceed fifty (50) dBA.

b. The following uses and activities shall also be exempt from the requirements of subsection (d)3 of this section:

i. The noises of safety signals, warning devices, emergency pressure relief valves, and any other emergency devices.

ii. Traffic noise on public roads or noise created by airplanes and railroads.

iii. Noise created by refuse and solid waste collection, provided that the activity is conducted between 6:00 a.m. and 7:00 p.m.

iv. Emergency construction or repair work by public utilities, at any hour.

v. Noise created by any recreational activities which are permitted by law and for which a license or permit has been granted by the city, including but not limited to parades, sporting events, and fireworks displays.

(b) ***Electromagnetic interference:*** There shall be no electromagnetic interference that adversely affects the operation of any equipment other than that belonging to the creator of such interference, or that does not conform to the regulations of the Federal Communications Commission.

(c) ***Vibrations:*** Any use creating earthshaking vibrations shall be controlled in such a manner as to prevent transmission beyond lot lines of vibrations causing a displacement of .003 or greater on one (1) inch, as measured by a vibrograph or similar instrument at the property boundaries.

(d) ***Glare, heat:*** Any use shall be in an enclosed structure in such a manner that glare and heat shall be imperceptible from neighboring properties.

(e) ***Discharge of toxic or noxious matter:*** All discharges of toxic or noxious matter shall be made in accordance with all applicable state and federal regulations.

(f) ***Odor:*** It shall be a violation of this chapter to create an odor nuisance.

1. ***Determination of odor nuisance:*** An odor nuisance shall be considered to exist when ten (10) confirmed complaints occur in an area within two (2) separate twenty-four-hour periods. The ten (10) confirmed complaints must originate from ten (10) different households in an area zoned residential or from ten (10) different individuals in a commercial or industrial facility. The building authority shall only respond to a complainant who confirms that the odor is detectable at the time of the actual complaint. In order to confirm a complaint, the building authority or its designee

shall first determine that an odor is detectable in the area of the complaint. The building authority or its designee shall interview the complainant to verify that the detectable odor is in fact the odor that resulted in the complaint. If the complainant verifies the odor as the source of the complaint, then the building authority shall notify the owner or operator of the alleged odor source either in person or by telephone within one (1) working day, with a written confirmation within seven (7) working days of the complaint. In the event that the building authority is unable to contact the owner or operator of the alleged odor source in person or by telephone within one (1) working day, then the building authority shall send written notice to the operator within seven (7) working days of the complaint.

In the event that ten (10) complaints are confirmed as set forth in subsection (1) in two (2) separate twenty-four-hour periods within a ninety-day period, the building authority shall cause a certified odor inspector to investigate any odor complaints received in the next thirty (30) days following the receipt of the tenth confirmed complaint from the second twenty-four-hour period. If the odors remain under the ambient intensity standard as established in this subsection for the next thirty (30) days, then a new odor nuisance must be established after that time in accordance with the requirements of this section. The certified odor inspector shall do the following in response to a complaint under this section:

a. Verify that an odor is detectable in the area of the complaint and confirm that it is the odor that resulted in the complaint;

b. Quantify the intensity of the odor on the eight-point n-butanol intensity scale as defined in regulations promulgated by the director of the planning authority to establish training and technical standards to support this section; and

c. Track the odor to its source.

When the certified odor inspector determines that a violation has occurred because an odor has exceeded the maximum ambient odor levels set forth in this section, the building authority shall notify the owner or operator either by telephone or in person of the violation within one (1) working day of the violation. The building authority shall confirm this notification in writing within seven (7) working days of this initial notice. In the event that the building authority is unable to contact the owner or operator by telephone or in person within the required time period, then it will send written notification within seven (7) working days of the violation.

Upon receipt of the written notice of violation, the owner or operator of the odor source shall do the following:

a. Implement odor reduction procedures immediately upon notification by the building authority that the facility has violated this section wherever odor reduction can be achieved by operational or procedural changes at the facility;

b. Submit to the building authority, within thirty (30) days of the written notice of violation, an odor reduction plan which is designed to reduce ambient odors attributable to emissions from that source to the maximum allowable intensity for that zone. The plan shall include a detailed summary of the measures that the owner or operator will take to mitigate the community annoyance and estimated dates for completion of those measures. In the event that it will take longer than thirty (30) days to develop the odor reduction plan, the owner or operator of the facility shall submit within the thirty-day time period a schedule for the development of the odor reduction plan. The building authority shall review this plan to

determine whether it will be adequate to resolve the odor nuisance in a reasonable time period; and

c. Implement the plan in accordance with the schedule approved by the building authority.

2. ***Ambient odor limits:*** The maximum ambient intensity standard for odors generated by uses located in the I-M zones shall not exceed the following levels when the odor is measured in the zone indicated:

4.0 in any industrial or business zone for odors resulting from any industrial use.

3.0 in any residential zone for odors resulting from any industrial use.

(g) ***Smoke:*** Discharges of smoke shall not exceed opacity percentage of forty (40) percent or number 2 on the Ringelmann chart.

(h) ***Emissions:*** All emissions shall be made in accordance with all applicable state and federal regulations.

(i) ***Radiation:*** Radiation at a site shall comply with all applicable state and federal regulations.

(j) ***Discharge into sewers:*** No discharge shall be permitted at any point into any private sewage disposal system, or stream, or into the ground of any materials in such a way or of such nature or temperature as to contaminate any water supply, or otherwise cause the emission of dangerous or objectionable elements, except in accordance with standards approved by the health authority or by the public works authority.

(k) ***Lighting:*** All lighting shall be designed and installed with cut-off fixtures to direct illumination onto the site and to prevent illumination from such fixtures on neighboring properties.

(l) ***Traffic:*** Development in the I-M, I-Ma and I-Mb zones shall utilize to the greatest extent possible arterial streets as delineated on the Maine Department of

Transportation Map, a copy of which is on file in the Department of Planning and Urban Development.

(Ord. No. 164-97, § 7, 1-6-97)

Sec. 14-253 - Sec. 14-260. Reserved.

DIVISION 15. I-H AND I-Hb INDUSTRIAL ZONES*

***Editor's note—**Ord. No. 164-97, § 8, passed Jan. 6, 1997, repealed div. 15, §§ 14-261—14-266 of this article and enacted new provisions as herein set out. Formerly, such provisions pertained to the I-3 and I-3b industrial zones and derived from §§ 602.13.A—602.13.F of the 1968 Code as amended by Ord. No. 499-74, § 5, adopted Aug. 19, 1974; Ord. No. 334-76, §§ 4—6, adopted Jul. 7, 1976; Ord. No. 198-88, adopted Nov. 21, 1988; Ord. No. 201-88, adopted Nov. 21, 1988; Ord. No. 330-90, § 3, adopted May 7, 1990; Ord. No. 15-92, § 19, adopted Jun. 15, 1992; and Ord. No. 193A-93, §§ 3, 4, adopted Feb. 17, 1993.

Sec. 14-261. Purpose.

The high impact industrial zones are intended to provide areas suitable for higher impact industrial uses than are permitted in other industrial zones and other uses including hospital campuses that are capable of demonstrating, through design, layout and topography, their compatibility with, or non-intrusion on, existing or future higher impact industrial uses on adjacent or neighboring I-H zoned properties.

Due to the intensity of use, the I-H zones are intended for uses which may require extensive outdoor storage and usage and may utilize heavy equipment. Processes may require separation from residential or sensitive environmental areas. The I-H zones are separated from other nonindustrial uses as well as natural or constructed features.

High impact industrial uses will be of a higher intensity, with a greater lot coverage, than the other zones. Due to the intensity of uses, the performance standards will allow for the higher intensity of use.

(Ord. No. 164-97, § 8, 1-6-97; Ord. No. 106-01/02, § 1, 12-3-01)

Sec. 14-262. Permitted uses.

The following uses are permitted whether provided by private or public entities in the high impact industrial zone and the I-Hb

zone:

(a) Low impact industrial uses, including but not limited to bakeries, breweries, bottling, printing and publishing, pharmaceuticals, machine shops, musical instruments, precision instruments, watchmakers, toys and sporting goods, wood products, jewelry, assembly of electrical components, tool and die shops and the packaging of food.

(b) Research and development.

(c) Wholesale trade.

(d) Warehousing and distribution facilities.

(e) Intermodal transportation facilities and transportation terminals.

(f) Repair services, including all types of automotive repair services.

(g) High impact industrial uses.

(h) Building contractors and construction services.

(i) Plant and tree nurseries, including associated recycling activities.

(j) Lumber yards.

(k) Fish waste processing facility, provided that it has received all required licenses and is in compliance with all applicable licensing requirements.

(l) Commercial kitchens or other food preparation, provided that the food is not prepared for service on the premises.

(m) Recycling facilities.

(n) Food and seafood processing.

(o) Dairies.

(p) Municipal or regional solid waste disposal facilities,

provided that all disposal activities are carried out within an enclosed structure.

(q) Utility substations.

(r) Correctional prerelease facilities for up to twelve (12) persons, plus staff, serving a primary clientele of parolees or persons in correctional prerelease programs, provided that:

1. No correctional prerelease facility shall be located within one thousand (1,000) feet of another, as measured in a radius from the center of the lot;

2. Such facilities shall not be permitted in the I-Hb zone;

3. If a facility requires a state or federal license, staffing of the facility shall be as required by such license. If a facility does not require state or federal licenses, there shall be a minimum of one (1) staff person for every ten (10) residents or fraction thereof; and

4. The facility shall provide twenty-four-hour supervision of program participants.

(s) Storage lots for towed or impounded vehicles.

(t) Registered medical marijuana cultivation facilities.

(u) wind energy systems, as defined and allowed in Article X, Alternative Energy.

(v) Street vendors licensed pursuant to Chapter 19.

(Ord. No. 164-97, § 8, 1-6-97; Ord. No. 137-97, § 5, 11-3-97; Ord. No. 97-06/07, 11-20-06; Ord. No. 283-09/10, 7-19-10 emergency passage; Ord. No. 33-11/12, 1-18-12; Ord.No. 10-12/13, 7-16-12)

Sec. 14-262.1. Conditional uses.

The following use shall be permitted only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses), and any special provisions, standards or

requirements specified below:

(a) Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

1. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

2. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

3. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

4. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

5. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

6. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

7. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

8. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

(b) Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 29-09/10, 8-3-09, emergency passage)

Sec. 14-263. Prohibited uses.

Uses that are not expressly enumerated herein as permitted uses are prohibited. Those uses that are prohibited shall include, but are not limited to, the following:

(a) Junk yards.

(b) Amusement parks.

(c) Refining of petroleum or its products, including tar distillation.

(d) Distillation of bones; fat rendering; glue, soap, or fertilizer manufacture, except that fish waste processing may be permitted as set forth in section 14-262.

(e) Dumping, disposal, incineration, or reduction of garbage, sewage, offal, dead animals, or refuse.

(f) Stockyard or slaughtering of animals.

(g) Smelting of iron, copper, tin, zinc, or any other ore.

(h) Manufacture of explosives or fireworks.

(i) Coal distillation or coke ovens.

(j) Creosote treatment.

(k) Drop forging.

(l) Steel mills or furnaces.

(m) Coal- or coke-fired kilns.

(n) Used tire storage.

(o) Extraction of raw materials.

(p) Concert halls or dance halls.

(q) Banquet facilities.

(Ord. No. 164-97, § 8, 1-6-97; Ord. No. 137-97, § 6, 11-3-97; Ord. No. 106-01/02, § 2, 12-3-01)

Sec. 14-264. Contract or conditional zoning.

A conditional or contract rezoning shall only be approved if, after public hearing and opportunity for public comment, the reviewing body finds that the applicant has carried the burden of proof to show that the proposed development meets the following standards:

(a) The proposed development is consistent with the comprehensive plan.

(b) The proposed development is consistent with the purposes of this zone.

(c) The proposed development is designed and operated so that it will prevent undue adverse environmental impacts, substantial diminution of the value or utility of neighboring structures, or significant hazards to the health or safety of neighboring residents by controlling noise levels, emissions, traffic, lighting, odors, and any other potential negative impacts of the proposal.

(d) All plans must include complete information of processes, materials or methods of storage to be used by the development and shall specify how hazardous impacts to neighboring properties will be prevented.

(Ord. No. 164-97, § 8, 1-6-97)

Sec. 14-265. Dimensional requirements.

(a) *Minimum lot size:*

1. Correctional prerelease facilities: Ten thousand (10,000) square feet.

2. Other uses: None.

(b) *Maximum impervious surface ratio:* I-H zone: Eighty-five (85) percent. I-Hb zone: One hundred (100) percent.

(c) *Maximum building height:* Seventy-five (75) feet.

(d) *Minimum side yards:* Principal and accessory structures in the I-H zone: Thirty-five (35) feet. Principal and accessory structures in the I-Hb zone: None.

(e) *Minimum rear yards:* Principal and accessory structures in the I-H zone: Thirty-five (35) feet. Principal and accessory structures in the I-Hb zone: None.

(f) *Minimum front yard:* Principal and accessory structures in the I-H zone: Twenty-five (25) feet. Principal and accessory structures in the I-Hb zone: None.

(g) *Minimum street frontage:* Sixty (60) feet.

(h) *Pavement setback from lot boundaries:* Ten (10) feet.

(Ord. No. 164-97, § 8, 1-6-97)

Sec. 14-266. Other requirements.

(a) Off-street parking shall meet the requirements of division 20 of this article.

(b) Off-street loading shall meet the requirements of division 21 of this article.

(c) Signs shall be subject to the provisions of division 22 of this article.

(d) ***Shoreland and floodplain management regulations:*** Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5 of this article.

(e) All uses shall be operated within a fully enclosed structure, except for those customarily operated in open air.

(f) Any storage of new materials, finished products, or related equipment must be suitably screened from the public way and from abutting nonindustrial use properties by a solid fence at least five (5) feet in height, or by a solid evergreen planting strip.

(g) All waste shall be stored in covered containers that do not leak or otherwise permit liquids or solids to escape from the container.

(h) All food processing waste shall be stored within a completely enclosed structure and if not refrigerated shall be removed from the site in an enclosed container within forty-eight (48) hours of its generation. All enclosed and exterior food processing waste storage areas shall be cleaned and sanitized on a regular basis.

(i) Outdoor storage of refuse, debris or material awaiting reuse shall be in an appropriate container or located within a designated, screened area.

(j) Any permitted outdoor storage of materials shall be done in such a manner as to prevent the breeding and harboring of insects or vermin, to prevent the transfer of such materials from the site by natural causes or forces and to contain fumes, dust, or other materials which constitute a fire hazard. This storage shall be accomplished within enclosed containers or by one (1) or more of the following methods: raising materials above ground, separating materials, preventing stagnant water, or by some other means. No outdoor storage shall be permitted between the front of any building on the site and the street, except for storage for plant and tree nurseries or lumber yards.

(Ord. No. 164-97, § 8, 1-6-97)

Sec. 14-267. Performance standards.

Uses in the I-H and I-Hb zones shall meet the following standards:

(a) *Required landscaping:* Where a front yard abuts an arterial or a major collector street, it shall be landscaped. Rear yards, side yards and the perimeter of any parking area for greater than fifteen (15) vehicles shall be landscaped if visible from a street, public open space or residential zone.

(b) *Noise:*

1. *Definitions:*

a. Tonal sounds are defined as sound waves usually perceived as a hum or whine because their instantaneous sound pressure varies essentially as a simple sinusoidal function of time.

b. Impulse sounds are defined as sound events characterized by brief excursions of sound pressure, each with a duration of less than one (1) second.

2. *Measurement:* Sound levels shall be measured with a sound level meter with a frequency weighting network manufactured according to standards prescribed by the American National Standards Institute (ANSI) or its successor body. Measurements shall be made at all major lot lines of the site, at a height of at least four (4) feet above the ground surface. In measuring sound levels under this section, sounds with a continuous duration of less than sixty (60) seconds shall be measured by the maximum reading on a sound level meter set to the A weighted scale and the fast meter response (L maxfast). Sounds with a continuous duration of sixty (60) seconds or more shall be measured on the basis of the energy average sound level over a period of sixty (60) seconds (LEQ_1).

3. *Maximum permissible sound levels:* The maximum permissible sound level of any continuous, regular or frequent source of sound produced by an activity shall be as follows:

   a. Seventy-five (75) dBA between the hours of 7:00 a.m. and 10:00 p.m.

   b. Fifty-five (55) dBA between the hours of 10:00 p.m. and 7:00 a.m., as measured at or within the boundaries of any residential zone.

   In addition to the sound level standards established above, all uses located within this zone shall employ best practicable sound abatement techniques to prevent tonal sounds and impulse sounds or, if such tonal and impulse sounds cannot be prevented, to minimize the impact of such sounds in residential zones.

4. *Exemptions:*

   a. Noises created by construction and maintenance activities between 7:00 a.m. and 10:00 p.m. are exempt from the maximum permissible sound levels set forth in subsection (a)3 of this section. Construction activities on a site abutting any residential use between the hours of 10:00 p.m. of one (1) day and 7:00 a.m. of the following day shall not exceed fifty (50) dBA.

   b. The following uses and activities shall also be exempt from the requirements of subsection (a)3 of this section:

      i. The noises of safety signals, warning devices, emergency pressure relief valves, and any other emergency devices.

      ii. Traffic noise on public roads or noise created by airplanes and railroads.

      iii. Noise created by refuse and solid waste

collection, provided that the activity is conducted between 6:00 a.m. and 7:00 p.m.

iv. Emergency construction or repair work by public utilities, at any hour.

v. Noise created by any recreational activities which are permitted by law and for which a license or permit has been granted by the city, including but not limited to parades, sporting events, and fireworks displays.

(b) ***Electromagnetic interference:*** There shall be no electromagnetic interference that adversely affects the operation of any equipment other than that belonging to the creator of such interference, or that does not conform to the regulations of the Federal Communications Commission.

(c) ***Vibrations:*** Any use creating earthshaking vibrations shall be controlled in such a manner as to prevent transmission beyond lot lines of vibrations causing a displacement of .003 or greater on one (1) inch, as measured by a vibrograph or similar instrument at the property boundaries.

(d) ***Glare, heat:*** Any use shall be in an enclosed structure in such a manner that glare and heat shall be imperceptible from neighboring properties.

(e) ***Discharge of toxic or noxious matter:*** All discharges of toxic or noxious matter shall be made in accordance with all applicable state and federal regulations.

(f) ***Odor:*** It shall be a violation of this chapter to create an odor nuisance.

1. ***Determination of odor nuisance:*** An odor nuisance shall be considered to exist when ten (10) confirmed complaints occur in an area within two (2) separate twenty-four-hour periods. The ten (10) confirmed complaints must originate from ten (10) different households in an area zoned residential or from ten (10) different individuals in a

commercial or industrial facility. The building authority shall only respond to a complainant who confirms that the odor is detectable at the time of the actual complaint. In order to confirm a complaint, the building authority or its designee shall first determine that an odor is detectable in the area of the complaint. The building authority or its designee shall interview the complainant to verify that the detectable odor is in fact the odor that resulted in the complaint. If the complainant verifies the odor as the source of the complaint, then the building authority shall notify the owner or operator of the alleged odor source either in person or by telephone within one (1) working day, with a written confirmation within seven (7) working days of the complaint. In the event that the building authority is unable to contact the owner or operator of the alleged odor source in person or by telephone within one (1) working day, then the building authority shall send written notice to the operator within seven (7) working days of the complaint.

In the event that ten (10) complaints are confirmed as set forth in subsection (a) in two (2) separate twenty-four-hour periods within a ninety-day period, the building authority shall cause a certified odor inspector to investigate any odor complaints received in the next thirty (30) days following the receipt of the tenth confirmed complaint from the second twenty-four-hour period. If the odors remain under the ambient intensity standard as established in this subsection for the next thirty (30) days, then a new odor nuisance must be established after that time in accordance with the requirements of this section. The certified odor inspector shall do the following in response to a complaint under this section:

a. Verify that an odor is detectable in the area of the complaint and confirm that it is the odor that resulted in the complaint;

b. Quantify the intensity of the odor on the eight-point n-butanol intensity scale as

defined in regulations promulgated by the director of the planning authority to establish training and technical standards to support this section; and

c. Track the odor to its source.

When the certified odor inspector determines that a violation has occurred because an odor has exceeded the maximum ambient odor levels set forth in this section, the building authority shall notify the owner or operator either by telephone or in person of the violation within one (1) working day of the violation. The building authority shall confirm this notification in writing within seven (7) working days of this initial notice. In the event that the building authority is unable to contact the owner or operator by telephone or in person within the required time period, then it will send written notification within seven (7) working days of the violation.

Upon receipt of the written notice of violation, the owner or operator of the odor source shall do the following:

a. Implement odor reduction procedures immediately upon notification by the building authority that the facility has violated this section wherever odor reduction can be achieved by operational or procedural changes at the facility;

b. Submit to the building authority, within thirty (30) days of the written notice of violation, an odor reduction plan which is designed to reduce ambient odors attributable to emissions from that source to the maximum allowable intensity for that zone. The plan shall include a detailed summary of the measures that the owner or operator will take to mitigate the community annoyance and estimated dates for completion of those measures. In the event that it will take longer than thirty (30) days to develop the

odor reduction plan, the owner or operator of the facility shall submit within the thirty-day time period a schedule for the development of the odor reduction plan. The building authority shall review this plan to determine whether it will be adequate to resolve the odor nuisance in a reasonable time period; and

c. Implement the plan in accordance with the schedule approved by the building authority.

2. ***Ambient odor limits:*** The maximum ambient intensity standard for odors generated by uses located in the I-H zones shall not exceed the following levels when the odor is measured in the zone indicated:

4.0 in any industrial or business zone for odors resulting from any industrial use.

3.0 in any residential zone for odors resulting from any industrial use.

(g) ***Smoke:*** Discharges of smoke shall not exceed opacity percentage of forty (40) percent or number 2 on the Ringelmann chart.

(h) ***Emissions:*** All emissions shall be made in accordance with all applicable state and federal regulations.

(i) ***Radiation:*** Radiation at a site shall comply with all applicable state and federal regulations.

(j) ***Discharge into sewers:*** No discharge shall be permitted at any point into any private sewage disposal system, or stream, or into the ground of any materials in such a way or of such nature or temperature as to contaminate any water supply, or otherwise cause the emission of dangerous or objectionable elements, except in accordance with standards approved by the health authority or by the public works authority.

(k) ***Lighting:*** All lighting shall be designed and installed with cut-off fixtures to direct illumination onto the site and to prevent illumination from such fixtures on

neighboring properties.
(Ord. No. 164-97, § 8, 1-6-97)

DIVISION 15.1. B-6 EASTERN WATERFRONT MIXED ZONE

Sec. 14-268. Purpose.

The purpose of the B-6, eastern waterfront mixed zone is to establish a zoning district for the upland portion of the eastern waterfront area. The B-6 zone encourages this district to acquire a distinctly urban from through development that emphasizes a quality pedestrian experience, promotes public transit, and demonstrates exemplary urban design. The zone promotes a range of uses to achieve twenty-four urban vitality and shared use of parking infrastructure as recommended in the eastern waterfront master plan for redevelopment.

The zone language established herein provides regulatory framework to promote the mixed-use development pattern envisioned for urban land on Portland's peninsula. Specific development criteria, including building height overlays and design standards, may be established for this district to supplement the provisions of this section. District-specific design standards and overlay maps can be found at the city planning and development office.
(Ord No. 80-04/05, 12-8-04)

Sec. 14-269. Permitted uses.

The following uses are permitted in the B-6 zone:

(a) *Commercial:*

1. Professional, business and general offices;

2. Restaurants and other eating and drinking establishments;

3. Hotels and inns limited to no more than 150 rooms;

4. Craft and specialty shops, including the on-premises production of handcrafted goods;

5. Retail and retail service establishments, excluding those with gas pumps;

6. Theatres;

7. Banking services, excluding vehicular drive-up services;

Editor's Note: Drive-up banking facilities located in the interior of parking structures are allowed as a conditional use subject to the criteria outlined below in the conditional use provisions of this section.

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8. Cabinet and carpentry shops;

9. Personal services;

10. Business services;

11. Offices of business trades people;

12. Miscellaneous repair services, excluding all types of automotive repair except for automobile repair and service establishments;

13. Telecommunication and broadcast and receiving facilities, except as prohibited in section 14-271 (prohibited uses);

    In addition, building mounted telecommunications antennas, discs, transmitting and receiving equipment and the like shall adhere to the following criteria. Such roof-mounted equipment shall be:

    a. No taller than 15 feet above the highest structural steel of the building roof; and

    b. Set back no less than 15 feet from the building perimeter; and

    c. Integrated into the architecture of the building in placement, form, color, and material so as to screen or camouflage such equipment from public view.

14. Brew pubs and microbreweries without associated bottling facilities; and brewpubs and microbreweries with associated bottling facilities limited to 5,000 bottles per year output.

15. Electronic data storage;

16. Marine products wholesaling and retailing;

17. Harbor and marine supplies and services, chandlery and ship supply;

18. Bakeries, coffee roasters, and commercial kitchens with building footprints limited to fifteen thousand (15,000) square feet of contiguous building space.

19. Printing establishments.

(b) *Residential:*

1. Attached dwellings including row houses, two-family and multifamily dwellings;

2. Handicapped family units;

3. Combined living/working spaces, including but not limited to artist residences with studio space;

4. Mixed use residential and commercial structures.

(c) *Public:*

1. Utility substations, including sewage collection and pumping stations, water pumping stations, transformer stations, telephone electronic equipment enclosures and other similar structures;

2. Landscaped pedestrian parks, plazas and other similar outdoor pedestrian spaces;

3. Pedestrian and multi-use trails;

(d) *Other:*

1. Studios for artists, photographers and craftspeople including but not limited to, painters, sculptors, dancers, graphic artists and musicians;

2. Accessory uses customarily incidental and subordinate to the location, function and operation of permitted uses, except that parking lots shall not be considered a permitted accessory use and such parking is subject to the conditional use section of the B-6 zone.

3. Health clubs, martial arts and mediation facilities.

4. Intermodal transportation facilities.

5. Nursery schools, kindergartens, and daycare facilities or home babysitting services.

(e) Wind energy systems, as defined and allowed in Article X, Altenrative Energy.

(Ord. No. 33-11/12, 1-18-12)

Sec. 14-270. Conditional uses.

(a) The following uses shall be permitted as conditional uses in the B-6 zone as provided in 14-474 (conditional uses), provided that, notwithstanding section 14-474(a) or any other provision of this code, the planning board shall be substituted for the board of appeals as the reviewing authority:

(1) *Commercial:*

a. Meeting and exhibition facilities limited to a total of 20,000 gross square feet of interior floor area.

b. Wholesaling, providing the wholesale operation is associated with an onsite retail establishment and that the wholesaling component of the facility occupies a building footprint of less

than 15,000 square feet.

c. Drive-up banking facilities located in the interior of parking structures, subject to the following criteria:

i. All drive-up features, such as automated teller machines and service windows, shall not extend nearer than twenty-five (25) feet to the street line;

ii. The site must have adequate stacking capacity for vehicles waiting to use these service features without impeding vehicular or pedestrian circulation or creating hazards to vehicular or pedestrian circulation on adjoining streets;

iii. Drive-up vehicle circulation shall not create an impediment for retail or mixed-use development for the first floor of the subject garages along any adjacent public streets.

d. Research and development and related production facilities, including but not limited to biotechnology, subject to the following conditions:

i. Associated manufacturing and warehousing uses combined are not to exceed 15,000 square feet.

ii. Biotechnology facilities must demonstrate approvals by all applicable regulatory authorities prior to commencement of operations.

(2) *Parking:*

a. All surface parking lots shall meet the applicable conditions outlined below.

Editor's note: These conditions promote parking development in a manner that creates an urban street form with streetscapes dominated by

buildings, not surface parking. This code recognizes that many parcels will develop incrementally over time and a phased approach may be needed to fully achieve the goals of this provision.
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i. No surface parking lot shall be encumbered by lease or other use commitment exceeding a twenty-four month term.

ii. Any such parking shall in its lease stipulate that developer/owner reserves the right to relocate said parking (to a parking structure) or convert surface parking to structured parking as long as the replacement parking is located a reasonable distance from the associated use.

iii. Surface lots shall be laid out in a manner conducive to development of future buildings, and/or structured parking.

b. All structured parking, including multi-level parking garages shall meet the applicable conditions outlined below.

i. Parking garages shall incorporate first floor retail space or other mixed use (an active use other than parking) along all street frontages unless the applicant requests from the planning board a waiver of this provision subject to the following criteria:

ii. Waivers: the planning board may waive the requirement for first floor mixed use upon demonstration that the project meets one or more of the criteria listed under provisions a, b, and c below.

Where the board allows a waiver of first floor mixed use, garages shall display architecture that enhances the pedestrian experience and disguises the parking use to the extent possible.

Editor's note: Use of traditional storefront design concepts and

traditional building materials is encouraged. Developers should look to the eastern waterfront design guidelines for additional direction in meeting these standards.

Standards for waiving first floor mixed use:

a. That the applicant demonstrates that steepness of grade or the character of the adjacent street will not support retail or first-floor mixed use in the foreseeable future.

b. That the first floor of the garage is set back a minimum of ***35 feet*** from the street right of way and its design does not provide an impediment for development of such space for mixed use in the future. Such space (between the garage and the street) shall, in the interim, not be used for surface parking.

c. Where the applicant can demonstrate to the satisfaction of the Planning Board that a market for first floor mixed uses currently does not exist, the Planning Board may grant a waiver of this condition, provided that the structure of the garage is designed to accommodate retail and or mixed uses in the future.

The Planning Board will need to find that on the street level deck of a proposed parking garage a minimum of twenty (20) feet horizontal distance of depth from the street and nine (9) feet finished floor to finished ceiling clearance could in future house retail and or mixed use. The applicant will further need to demonstrate that the garage design anticipates the future development of utilities and circulation necessary for non-parking uses.

Where a parking garage fronts on more than one public street and where there is a existing change in grade elevation of over 5% across the footprint of the garage, the nine foot floor to ceiling requirement of this section only applies to the primary (higher traffic volume) street.

(b) The following use shall be permitted only upon the issuance of a conditional use permit subject to the provisions of section 14-474 (conditional uses), and any special provisions, standards or requirements specified below:

(1) Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

a. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

d. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

f. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

(Ord. No. 80-04/05, 12-8-04; Ord No.200-04/05, 4-4-05; Ord. No. 29-09/10, 8-3-09, emergency passage)

Sec. 14-271. Prohibited uses.

Uses, which are not enumerated as permitted or conditional uses in the B-6 zone are prohibited. Those uses that are prohibited shall include, without limitation:

(a) Ground-mounted telecommunication towers, antennas, discs, transmitting and receiving equipment and the like;

(b) Waste, scrap, and/or byproduct storage and processing facilities;

(c) Major or minor auto service stations including all types of automotive repair;

(d) Drive-up facilities, except banking drive-up services in the interior parking structures, as allowed in the conditional use section 14-270.

Sec. 14-272. Dimensional requirements.

In addition to the provisions of article III, division 25 of this Code, lots in the B-6 Eastern Waterfront Business Zone shall meet the following requirements:

(a) *Minimum lot size:* None.

(b) *Minimum frontage:* None.

(c) *Yard dimensions:*

1. Minimum yards in the B-6 zone:

Front setback: None required except as provided in 3. below:

Side setback: None required.

Rear setback: None required.

2. Maximum building setback from street line except for parking garages, public transportation facilities and provided in 3. below: 10 feet.

a. For lots fronting on more than one street, the setback can be increased more than ten (10) feet if all of the following conditions are met:

i. The increased setback occurs at the intersection of the streets;

ii. The increased setback area is the primary pedestrian entrance to the building;

iii. Seventy-five (75) percent of the total building wall length facing the abutting

streets shall be setback no greater than ten (10) feet; and

iv. All building wall segments, which make up the increased setback shall be included in the calculation of the total building wall length noted in subsection iii above.

In addition, for any new construction on a lot abutting three or more streets, the maximum setback shall apply only to the two most major streets. (For purposes of this section, major street shall mean that street with the highest traffic volume or the greatest street width in comparison with the remaining streets).

3. View Corridors and Key Street Wall Development

Not withstanding sections 1. and 2. above, new structures located in the blocks located south of Fore Street and north of Commercial Street and its extension, shall build to the key building envelops shown on the ***Eastern Waterfront Building Height Overlay Map***. Parking structures and the buildings for public transportation facilities may, however, set back beyond the key building envelopes (toward the interior of blocks), but may not occupy the land between the key building envelope and the street right of way.

(d) ***Minimum length of building wall required to be located along street frontage of lot.***

i. 70% of lot street frontage; or

ii. 25% of building perimeter,

iii. For buildings fronting on two or more streets, the minimum building wall on one street may be decreased so long as the frontage is proportionally increased on other streets in so far that the building wall on the secondary street is not reduced to less than 25 feet.

(e) ***Maximum lot coverage:*** One hundred (100) percent.

(f) ***Maximum building height***: 65 feet, or as otherwise governed by a Building Height Overlay map (for example, in the Eastern Waterfront). Building Height Overlay maps are found in the Planning and Development Department Office.

(g) Minimum building height: No new construction of any building shall have less than three (3) floors of habitable space above the average adjacent grade within twenty five (25) feet of any public street.

This provision shall not apply to:

i. Parking attendant booths,

ii. Information kiosks and ticketing booths,

iii. Parking garages,

iv. Public transportation facilities,

v. Additions to buildings existing as of December 8, 2004 provided that the cumulative additions since December 8, 2004 does not exceed 25% of the building footprint on December 8, 2004 except that such restriction shall not apply to those portions of the building addition that are constructed closer to the street line than the building footprint existing as of December 8, 2004,

vi. Buildings or building additions of less than 2,000 square feet footprint, on lots or available building sites of less than 2,000 square feet,

vii. Utility substations, including sewage collection and pumping stations, water pumping stations, transformer stations, telephone electronic equipment enclosures and other similar structures, and

viii. Additions to and/or relocations of designated

historic structures.

Sec. 14-273. Performance standards.

All new development in the B-6 Eastern Waterfront Business Zone shall comply with the following standards:

(a) *Storage:* Any storage of new materials, finished products, or related equipment must be suitably screened from the public way and from abutting properties by a solid fence at least five (6) feet in height. All waste shall be stored in covered containers that do not leak or otherwise permit liquids or solids to escape from the container. All food processing waste shall be stored within a completely enclosed structure and if not refrigerated shall be removed from the site in an enclosed container within forty-eight (48) hours of its generation. All enclosed and exterior areas shall be cleaned and sanitized on a regular basis. Outdoor storage of refuse or debris shall be in an appropriate container or located within a designated, screened area.

(b) *Noise:*

1. *Definitions:*

a. Tonal sounds are defined as sound waves usually perceived as a hum or whine because their instantaneous sound pressure varies essentially as a simple sinusoidal function of time.

b. Impulse sounds are defined as sound events characterized by brief excursions of sound pressure, each with duration of less than one (1) second.

2. *Measurement:* Sound levels shall be measured with a sound level meter with a frequency weighting network manufactured according to standards prescribed by the American National Standards Institute (ANSI) or its successor body. Measurements shall be made at all major lot lines of the site, at a height of at least four (4) feet above the ground surface. In measuring sound levels

under this section, sounds with a continuous duration of less than sixty (60) seconds shall be measured by the maximum reading on a sound level meter set to the A weighted scale and the fast meter response (L maxfast). Sounds with a continuous duration of sixty (60) seconds or more shall be measured on the basis of the energy average sound level over a period of sixty (60) seconds (LEQ_1).

3. *Maximum permissible sound levels:* The maximum permissible sound level of any continuous, regular or frequent source of sound produced by an activity shall be as follows:

   a. Sixty (60) dBA between the hours of 7:00 a.m. and 10:00 p.m.

   b. Fifty (50) dBA between the hours of 10:00 p.m. and 7:00 a.m., as measured at or within the boundaries of any residential zone.

   In addition to the sound level standards established above, all uses located within this zone shall employ best practicable sound abatement techniques to prevent tonal sounds and impulse sounds or, if such tonal and impulse sounds cannot be prevented, to minimize the impact of such sounds in residential zones.

4. *Exemptions:*

   a. Noises created by construction and maintenance activities between 7:00 a.m. and 10:00 p.m. are exempt from the maximum permissible sound levels set forth in subsection (a)3 of this section. Construction activities on a site abutting any residential use between the hours of 10:00 p.m. of one (1) day and 7:00 a.m. of the following day shall not exceed fifty (50) dBA.

   b. The following uses and activities shall also be exempt from the requirements of subsection (a)3 of this section:

i. The noises of safety signals, warning devices, emergency pressure relief valves, and any other emergency devices.

ii. Traffic noise on public roads or noise created by airplanes and railroads.

iii. Noise created by refuse and solid waste collection, provided that the activity is conducted between 6:00 a.m. and 7:00 p.m.

iv. Emergency construction or repair work by public utilities, at any hour.

v. Noise created by any recreational activities which are permitted by law and for which a license or permit has been granted by the city, including but not limited to parades, sporting events, and fireworks displays.

(c) ***Vibration:*** Vibration inherently and recurrently generated shall be imperceptible without instruments at lot boundaries.

(d) ***Federal and state environmental regulations:*** All uses shall comply with federal and state environmental statutes and regulations regarding emissions into the air, except where provisions of this Code are more stringent.

(e) ***Storage of vehicles:*** Outdoor storage of any unregistered automotive vehicle on the premises for more than ten (10) days, and outdoor storage of any used automotive tires on the premises shall not be permitted.

(f) ***Off-street parking and loading:*** Off street parking is required as provided in division 20 (off-street parking) of this article. Division 21 (off-street loading) of this article shall not apply.

(g) ***Shoreland and flood plain management regulations:*** Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of

division 26 and/or division 26.5.

(h) ***Glare, radiation or fumes:*** Glare, radiation or fumes shall not be emitted to an obnoxious or dangerous degree beyond lot boundaries.

(i) ***Enclosure of uses:*** All uses shall be operated within a fully enclosed structure, except for those customarily operated in open air.

(j) ***Materials or wastes:*** Any permitted outdoor storage of materials shall be done in such a manner as to prevent the breeding and harboring of insects or vermin, to prevent the transfer of such materials from the site by natural causes or forces and to contain fumes, dust, or other materials which constitute a fire hazard. This storage shall be accomplished within enclosed containers or by one (1) or more of the following methods: raising materials above ground, separating materials, preventing stagnant water, or by some other means. Any areas used for permitted outdoor storage of materials shall be screened from view of any adjoining properties and public rights-of-way. No outdoor storage shall be permitted between the front of any building on the site and the street.

(k) ***Odor:*** Uses in the B-6 zone shall adhere to the odor regulations of the IL zone.

(l) ***Smoke:*** Discharges of smoke shall not exceed opacity percentage of forty (40) percent or number 2 on the ringelman chart.

(m) ***Discharge into sewers:*** No discharge shall be permitted at any point into any private sewage disposal system, or surface drain, or into the ground, of any materials in such a way or of such nature or temperature as to contaminate any water supply, or the harbor, or otherwise cause the emission of dangerous or objectionable elements, except in accordance with standards approved by the health authority or by the public works authority.

(n) ***Lighting:*** All lighting shall be designed and installed with cut-off fixtures to direct illumination onto the site and to prevent illumination from such fixtures on

neighboring properties and as otherwise governed by the site lighting standards of the City of Portland Techncial Manual.

(Ord. No. 80-04/05, 12-8-04; Ord. NO. 240-09/10, 6-21-10; ORd. No. 278-09/10, 7-19-10)

Sec. 14-274. Reserved.

Sec. 14-275. Reserved.

DIVISIONS 16. WAYNFLETE SCHOOL OVERLAY ZONE*

Editor's note—Ord. No. 164-97, § 9, passed Jan. 6, 1997, repealed divs. 16 and 17 of this article, which pertained to the I-4 industrial zone and the I-P industrial park zone, respectively. Formerly, such divisions consisted of substantive §§ 14-276—14-282, 14-291—14-297 and derived from 602.13B.A—602.13B.F, 602.13B.H, 602.10A.A—602.10A.E and 602.10A.H of the 1968 Code as amended by Ord. No. 536-74, § 2, adopted Aug. 19, 1974; Ord. No. 334-76, §§ 6, 7, adopted Jul. 7, 1976; Ord. No. 159-87, adopted Nov. 2, 1987; Ord. No. 235-88, adopted Feb. 1, 1988; Ord. No. 330-90, §§ 4, 5, adopted May 7, 1990; Ord. No. 15-92, §§ 20, 21, adopted Jun. 15, 1992; and Ord. No. 193A-93, § 5, adopted Feb. 17, 1993; pursuant to Order 138-09/10 passed on 1/20/10 Division 16 (Waynflete School Overlay Zone) was adopted in its entirety.

Sec. 14-276. Purpose.

The intention of this division is to establish an overlay zone which protects the value and integrity of established residential neighborhoods, establishes clearly defined boundaries beyond which residential conversions cannot occur and results in no net loss of dwelling units, while allowing Waynflete School, an existing private day school, to continue and reasonably augment its existing uses and programs, thereby maintaining compatible development at medium densities appropriate to the existing neighborhood patterns. As used in this division, the term "Waynflete School" includes any successor institution that operates as a private day school.

(Ord. No. 138 – 09/10, 1-20-10)

Sec. 14-276.1. Location and applicability of Waynfete School Overlay Zone.

The Waynflete School Overlay Zone, as shown on the zoning map, is intended to encompass and define Waynflete School's principal campus on the Portland peninsula. Properties in the Waynflete School Overlay Zone shall continue to be governed by the regulations applicable to the underlying zoning districts except as specifically modified by this division.

(Ord. No. 138-09/10, 1-20-10)

Sec. 14-276.2. Overlay Zone sub-districts.

The Waynflete School Overlay Zone consists of two sub-districts, as shown on the Waynflete School Overlay Zone sub-district map, incorporated herein by reference, as follows:

(a) The Campus Core sub-district defines the interior core of the campus and is intended to allow compact development of school uses, with specific space and bulk regualtions designed to accommodate school uses.

(b) The Campus Edge sub-district is intended to preserve residential character along the streets bordering the campus, by limiting the amount of residential space which can be converted to school uses, by maintaining a nmber of dwelling units within the sub-district which equals the number of dwelling units existing in the sub-district at the time of enactment of this Overlay Zone and by encouraging mixed use building s along the street frontages. The space and bulk regulations of the R-4 district continue to apply within the Campus Edge sub-district.

Except where otherwise specified in this division, all provisions of this Waynflete School Overlay Zone apply in both sub-districts.
(Ord. No. 138-09/10, 1-20-10)

Sec. 14-276.3. Permitted uses.

In addition to the permitted uses allowed in the underlying zoning districts and notwithstanding anything to the contrary I nthe use regulations for the underlying zoning districts, the following uses are permitted uses in the Waynflete School Overlay Zone.

(a) *School uses.* Elementary, middle and secondary school uses including, but not limited to, the following:

1. Classrooms;

2. Laboratory facilities;

3. Dining halls;

4. Auditoriums;

5. Concert halls;

6. Lecture halls;

7. Gymnasiums;

8. Libraries;

9. Outdoor use areas, such as "quads", greens, parks, gardens, art installations, and other active and passive recreation spaces;

10. Parking lots;

11. Parking structures;

12. Community meeting spaces;

13. Administrative offices;

14. Faculty offices;

15. Transporation facilities;

16. Maintenance facilities;

17. Utility buildings;

18. Student health services;

19. Bookstores;

20. Accessory uses which are customarily incidental and subordinate to the location, function and operation of a private day school.

(b) *Residential uses.*

1. Faculty or staff housing, which shall be considered a residential use, and not a school use, for all purposes under this overlay zone.

(Ord. No. 138-09/10, 1-20-10)

Sec. 14-276.4. Prohibited uses.

(a) Boarding schools;

(b) Dormitories.

(Ord. No. 138-09/10, 1-20-10)

Sec. 14-276.5. Residential conversions prohibited.

(a) Conversions of existing residential buildings within the Waynflete School Overlay zone shall be prohibited.

(b) The existing houses at 11 Fletcher Street, 3 Storer Street, 305 Danforth Street and 299 Danforth Street shall not be relocated from their locations existing as of January 20, 2010. This provision shall not apply to garages.

(c) At no time shall the number of dwelling units within the Waynflete School Overlay Zone be reduced below the four (the number existing at the time of enactment of this Overlay Zone).

(Ord. No. 138-09/10, 1-20-10)

Sec. 14-276.6. Dimenional requirements.

Buildings and structures in the Waynflete School Overlay zone shall be subject to the applicable dimensional requirements of the underlying zoning districts, except as follows:

(a) *Minimum yard dimensions* shall be the same as in the underlying zone, except that side and rear yards shall not be required between buildings on contiguous lots owned or occupied by Waynflete School on the condition that such contiguous lots shall be considered merged and shall not be separately conveyed unless required yard dimensions in the underlying zones are provided.

(b) *Minimum street frontage* shall be the same as in the underlying zone, except that all the land within the Waynflete School Overlay Zone owned or occupied by Waynflete School shall be considered a single lot for the purpose of complying with minimum street frontage.

(c) *Maximum coverage by buildings* shall be the same as I nteh underlying zone, except that in the Campus Core sub-district the maximum coverage by buildings shall be 40% and al lthe land within the Campus Core sub-district

owned or occupied by Waynflete School shall be considered a single lot for the purpose of calculating maximum coverage by buildings.

(Ord. No. 138-09/10, 1-20-10)

Sec. 14-276.7. Parking.

The amount of parking required for an ychange of use, new building or building addition within the zone shall be determined during site plan reviewe, based on an analysis of school-wide demand and supply, pursuant to a comprehensive school-wide Transportation Demand Management Plan (TDM), and treating all land owned by Waynflete School within the Waynflete School Overlay Zone as one lot. An yexisting parking management or TDM plan approved as part of a previous approval shall remain in effect until revised or updated pursuant to this section. In determining the amount of parking required for any building within the Waynflete School Overlay Zone, the Planning Authority or the Planning Board may take into account such factors as:

(a) The use of centrally located on-campus parking facilities so situated that students, faculty, staff and visitors arriving on campus can reasonably be expected to park in the central facilities and walk to their various on-campus destinations during th course of a school day.

(b) Shared use of a single parking facility by two or more buildings when the peak parking demand periods for such buildings do not overlap.

(c) Development and implementation of a parking management plan which discourages on-stsreet parking.

(d) Development and implementation of a TDM plan subject to the review and approval of the planning authority or the planning board. The TDM plan shall employe elements such as public transit initiatives, parking cash-out, car sharing, car and van pooling incentives, provision of bicycle and pedestrian commuting accommodations, guaranteed ride home programs, employee surveys, newsletters and alternative transportation information sharing and other such strategies that reduce signle occupancy vehicle trips to and from Waynflete school. Waynflete School shall follow the standards and guidelines for developing a TDM plan found in the TDM

section of the City of Portlnad Technical and Design Standards and Guidelines.

(Ord. No. 138-09/10, 1-20-10)

14-276.8. Loading.

The requiremetns of section 14-351 shall not apply to buildings within the Waynflete School Overlay one. Instead, the amount of locading area required for any building within the zone shall be determined by the planning board during site plan review, based on a campus-wide analysis, treating all land owned by Waynflete School within the Waynflete School Overlay Zone as one lot. In determining the amount of loading space required for any building within the Waynflete School Overlay zone, the planning board may take into account such factors as:

(a) The use of centrally located on-campus loading facilities so situated that vehicles making deliveries can load and unload in central facilities, provided no single location is overburdened with loading facilities.

(b) Shared use of a single loading facility by two or more buildings.

(c) Impacts of the loading area on adjacent uses outside the Waynflete School Overlay Zone.

(Ord. No. 138-09/10, 1-20-10)

Sec. 14-276.9. Signage.

Signs shall comply with the requirements of Division 22.

(Ord. No. 138-09/10, 1-20-10)

Sec. 14-276.10. Restrictions outside the Waynflete School Overlay Zone.

Notwithstanding the provisions of section 14-103(b)(1) or section 14-137(b)(1), Waynflete School cannot locate a school use listed in section 14-276.3(a) on any lot in the R-4 or R-6 Districgts outside the boundaries of the Waynflete School Overlay Zone that was occupied by a residential use or structure on or after January 20, 2010. This restriction does not prevent Waynflete School from seeking a conditional use permit for a school use, where otherwise allowed by the zoning district regulations, on lots outside the Waynflete School Overlay Zone that were not occupied by a residential use or structure on or after January 20,

2010.
(Ord. No. 138-09/10, 1-20-10)

Sec. 14-277. Reserved.
Sec. 14-278. Reserved.
Sec. 14-279. Reserved.
Sec. 14-280. Reserved.
Sec. 14-281. Reserved.
Sec. 14-282. Reserved.
Sec. 14-283. Reserved.
Sec. 14-284. Reserved.
Sec. 14-285. Reserved.
Sec. 14-286. Reserved.
Sec. 14-287. Reserved.
Sec. 14-288. Reserved.
Sec. 14-289. Reserved.
Sec. 14-290. Reserved.
Sec. 14-291. Reserved.
Sec. 14-292. Reserved.
Sec. 14-293. Reserved.

DIVISION 17. B-7 MIXED DEVELOPMENT DISTRICT ZONE

Sec. 14-294. Purpose.

The purpose of the B-7, mixed development district zone is to establish a zoning district for urban areas in which the city has adopted master plans for redevelopment. Certain districts, including but not limited to bayside, lie at the perimeter of the established downtown and contain significant redevelopment opportunities. The B-7 zone encourages these districts to acquire a distinctly urban form through dense development featuring a mix of uses such as housing, retail, offices, research and development, and artisan studios and that emphasizes a quality pedestrian experience, promotes public transit, and demonstrates exemplary urban design. Utilization of transportation, other than the automobile is strongly encouraged and is advanced by the installation of bicycle amenities, such as bicycle racks and storage areas. The zone promotes a wide range of uses in high quality structures and public open spaces to achieve twenty-four (24) hour urban vitality and shared parking infrastructure.

The following regulatory framework is intended to promote the mixed-use development pattern envisioned on Portland's peninsula. District-specific design standards and overlay maps

can be found at the city planning and development office.
(Ord. No. 201-05/06, 4-19-06)

Sec. 14-295. Permitted uses.

The following uses are permitted in the B-7 zone:

(a) *Commercial:*

1. Professional, business, and general offices:

2. Restaurants and other eating and drinking establishments;

3. Hotels, inns, and bed and breakfasts;

4. Craft and specialty shops, including the on-premises production of handcrafted goods;

5. Retail and retail service establishments, excluding those with fuel pumps;

6. Theaters, concert halls, dance halls,meeting facilities, and exhibition halls;

7. Banking services, excluding vehicular drive-up services (see also conditional use section, [c][3];

8. Cabinetry and carpentry and mill working shops;

9. Indoor amusement and recreation centers;

10. Personal services;

11. Business services;

12. Billiard parlors;

13. Offices of business trades-people;

14. Miscellaneous repair services, excluding all types of automotive repair.

15. Telecommunication and broadcast and receiving facilities, except as prohibited in section 14-297

(prohibited uses);

In addition, building mounted telecommunications antennae, discs, transmitting and receiving equipment and the like shall adhere to the following criteria. Such roof-mounted equipment shall be:

a. No taller than fifteen (15) feet above the highest structural steel of the building roof; and

b. Set back no less than fifteen (15) feet from the building perimeter; and

c. Integrated into the architecture of the building as described in the City of Portland Design Manual.

16. Brew pubs and microbreweries without associated bottling facilities, and brewpubs and microbreweries with associated bottling facilities limited to five-thousand (5,000) bottles per year output;

17. Studios for performance or training in dance, music, or similar pursuits;

18. Electronic data storage;

19. Research and development including laboratories;

20. Studios for artists, photographers and craftspeople including but not limited to, painters, sculptors, cabinet makers, dancers, graphic artists, and silk screeners and musicians;

21. Health clubs, martial arts personal health and wellness facilities;

22. Registered medical marijuana dispensaries.

23. Hostels, provided the applicant submits a site plan and operations plan demonstrating compliance with the following conditions:

a. All applicable provisions of Article V of this chapter shall be met.

b. Parking shall be provided in compliance with Division 20 of this Article.

c. No unaccompanied minors under the age of eighteen (18) shall be permitted in the facility.

d. The length of stay for transient guests shall not exceed fifteen (15) days out of any sixty-day period.

e. The building shall meet the applicable occupant load requirements as defined by the International Building Code and the NFPA Life Safety Code, as such codes are amended or adopted by the city.

24. Surface parking existing as of March 9, 2005 and in continuous existence thereafter, including the reorganization of parking spaces and maneuvering aisles. This section shall apply to surface parking accessory to a principle use and a parking lot as a principal use. Existing surface parking that does not comply with the standards of sec. 14-299 (f) may continue, provided that any modifications to the site layout, development constituting a site plan, or building renovations exceeding a value of thirty (30) percent of the assessed value of the building on file at the City of Portland Assessor's Office, shall require the parking to be upgraded to meet the standards of sec. 14-299 (f) to the extent practicable.

25. Surface parking created after March 9, 2005, provided that the spaces (and newly created maneuvering aisles) are thirty-five (35) feet or greater from a street and further that the standards below (a to c) are also met. This section shall apply to surface parking accessory to a principal use or a parking lot as principle use. The thirty-five (35) foot setback need not apply

in the case of a property in which eighty (80%) of the property frontage has a building within ten (10) feet of the property frontage and or a driveway located perpendicular to the site. The parking area shall meet the standards of sec. 14-299 (f).

a. No surface parking shall be encumbered by lease or other use commitment to an off-site use exceeding twenty-four month term; and

b. For surface parking areas of twenty- thousand (20,000) square feet or greater in area, lease or other use agreements for surface parking shall not preclude the relocation of such parking for more than twenty-four (24) month terms; and

c. Any such parking shall in its lease stipulate that developer/owner reserves the right to relocate said parking or convert surface parking to structured parking as long as the replacement parking is located a reasonable distance from the associated use.

(b) ***Residential:***

1. Attached housing including row houses, condominiums, two-family and multifamily dwellings but not planned residential unit developments;

2. Handicapped family units;

3. Lodging houses;

4. Combined living/working spaces, including but not limited to artist residences with studio space;

(c) ***Public:***

1. Utility substations, including wastewater collection and pumping stations, transformer stations, telephone electronic equipment enclosures, electric transmission and distribution substations and other similar structures, provided

such facilities occupies up to one-hundred (100) square feet (see also conditional use section);

2. Museums, art galleries, and educational exhibition space;

3. Landscaped pedestrian parks, plazas and other similar outdoor pedestrian spaces;

4. Pedestrian and multi-use trails;

5. Emergency or safety facilities;

6. Municipal offices;

7. Active recreation parks and facilities, including but not limited to ball fields, skateboard parks, and basketball courts.

(d) *Institutional:*

1. Public or private schools;

2. Medical and mental health clinics but not methadone or other controlled substance addiction treatment centers;

3. Places of assembly;

4. Colleges, universities, or trade schools;

5. Governmental buildings and uses;

6. Nursery and pre-schools, kindergartens, and child day care facilities or home babysitting services;

7. Educational, research, and laboratory facilities;

8. Adult day care center.

(e) *Other:*

1. Accessory uses customarily incidental and subordinate to the location, function and operation of permitted uses. All drive-up services for all

retail or drive-up repair facilities are prohibited except that bank drive-up services, where permitted, area conditional use.

2. Intermodal transportation facilities.

3. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 201-05/06, 4-19-06; Ord. No. 283-09/10, 7-19-10 emergency passage; Ord. No. 278-09/10, 7-19-10; Ord. No. 149-10/11, 3-7-11; Ord. No. 240-10/11, 6-6-11; Ord. No. 279-09/10, 6-6-11; Ord. No. 33-11/12, 1-18-12; Ord. No. 113-11/12, 2-22-12)

Sec. 14-296. Conditional uses.

(a) The following uses shall be permitted as conditional uses in the B-7 zone as provided in section 14-474 (conditional uses), provided that, notwithstanding section 14-474 (a) or any other provision of this code, the planning board shall be substituted for the board of appeals as the reviewing authority:

1. *Commercial use:*

a. Meeting, convention and exhibition halls limited to a total of twenty-five thousand (25,000) gross square feet of interior floor area.

b. Wholesaling, providing that the wholesale operation is associated with an onsite retail establishment and that the wholesaling component of the facility occupies a building gross floor area of less than fifteen thousand (15,000) square feet.

c. Drive-up banking provided that:

i. The drive-up is accessory to a banking service occupying a minimum floor area of four thousand (4,000) square feet; and

ii. The drive-up is attached to or included within a building with a minimum floor area of twenty thousand (20,000) square feet; and

iii. All drive-up features, such as automated teller machines and service windows, shall not extend nearer than twenty-five (25) feet to

the street right-of-way line; and

iv. The site must have adequate stacking capacity for vehicles waiting to use these service features without impeding vehicular or pedestrian circulation or creating hazards to vehicular or pedestrian circulation on adjoining streets; and

v. Drive-up vehicle circulation shall not be located between the building and any adjacent public streets; and

vi. The drive-up shall be limited to two vehicle drive-up lanes; and

vii. The location of any drive-up shall be limited to the geographic area between Somerset Street/I-295/Franklin Arterial/Forest Avenue.

d. The expansion of automotive repair facilities existing as of March 9, 2005, but in no case shall such expansion over the life of the building exceed fifty percent (50%) of the gross floor area existing on March 9, 2005.

2. *Industrial uses:*

a. High technology manufacturing of biotechnology, pharmaceutical, and nanotechnology products, including accessory warehousing, provided that:

i. A minimum of one-third of the total square footage devoted to manufacturing is conducted in a laboratory environment, in a controlled environment with specialized air handling systems that exceed levels for pressurization and filtration found in office environments and traditional manufacturing facilities; and

ii. Rooftop equipment shall be integrated into the overall building design and shall be screened as necessary; and

iii. Where warehousing cannot be located on the

same lot because the land area is too small to accommodate the warehousing on the same lot, one remote warehouse may be located within six-hundred (600) feet of the principle use referenced above.

b. Breweries including associated bottling activities;

c. Bakeries, coffee roasters, and commercial kitchens having no retail sales within the principal structure;

d. Printing and publishing establishments having no retail sales within the principal structure;

e. Machine and tool and die shops;

All industrial uses listed above must also conform to the following additional requirements. Where redundant or contradictory performance standards exist, the more restrictive standard applies:

a. Glare, radiation, fumes, noise or smoke shall not be emitted to an obnoxious or dangerous degree beyond lot boundaries; and

b. The building footprint devoted to industrial use shall not exceed fifteen thousand (15,000) square feet of contiguous building space except for uses contained in 14-296(2)(a); and

c. The use shall be operated within a completely enclosed structure; and

d. No materials or wastes shall be stored outside; and

e. Truck loading and access shall be located in the rear or side yard where possible; and

f. Industrial uses shall conform to the performance standards of the I-L zone; and

g. Industrial uses shall conform to the B-7 mixed development district design standards.

3. *Structured parking provided that:*

a. Parking structures located in the B-7 zone shall adhere to the following conditions:

i. The first floor of any parking structure shall contain one or more permitted uses (not conditional uses) found in §14-295 along all primary street frontages (excluding frontage dedicated to entrances, lobbies, and stair towers). Such first floor space shall be provided with a minimum of nine (9) foot floor to ceiling clearance height and a minimum twenty-five (25) foot depth (measured from the exterior building wall); or

ii. The parking structures shall be set back at least thirty-five (35) feet from the primary street right-of-way. The land located between the parking structure and the street right-of-way may not be occupied by surface parking, and shall be designated for future use development. Such land between the garage and the street shall not by lease or other prohibition be encumbered against future development. The land shall be provided with all stubbed utilities and other provisions needed to accommodate further development; or

iii. The parking structures shall be designed with a façade (to a height of the first two floors) that enhances the pedestrian experience as described in the City of Portland B-7 bayside design standards.

4. *Utility substations including wastewater collection and pumping stations, water pumping stations, transfer stations, telephone electronic equipment enclosures, electrical transmission and distribution substations and similar structures larger than one-hundred (100) square feet of floor area are permitted provided the following standards are met:*

a. Notwithstanding sec. 14-298 (maximum setback) utility substations shall be setback no less than

thirty-five (35) feet from the street right-of-way except in the case of a lot having frontage on Marginal Way and I-295 provided the minimum thirty-five (35) foot setback is met along Marginal Way; and

b. The applicant demonstrates that the structure is as small in size as practicable; and

c. The remainder of the lot not consumed by the utility substation and its related access; and shall be designed and designated for future development; and

d. The substation equipment is fully enclosed within a structure.

5. *Buildings in the bayside gateway urban height district A greater than one-hundred twenty-five (125) feet but no more than one-hundred sixty-five (165) feet in height provided that:*

a. Such buildings shall be sited to minimize encroachment into designated view corridors and visual landmarks to and from the downtown or that do not substantially further obstruct such corridors blocked by existing development as referenced in the Bayside Height Study Map and the B-7 design standards; and

b. Portions of such buildings higher than one hundred twenty-five (125) feet shall be stepped back at upper levels to provide light and air to adjacent streets, trails, and open spaces, with a ratio of no less than at least to the extent that the ratio of building height to width of adjacent streets, trails and open spaces is equivalent to 1.5 to 1 except that the Planning Board may modify this requirement as provided for in Section 14-526(d)(9)(viii); and

c. Such buildings provide publicly accessible and usable open space, meeting the B-7 urban design standards, of at least ten (10) percent of the building lot area; and

d. If located on lots including or adjacent to planned or proposed street or pedestrian way connections, land dedication to such street or connection shall be credited toward the ten (10) percent open space requirement. Buildings over one hundred and twenty-five (125) feet in height that are being reviewed as separate phases of a Master Development plan shall be entitled to meet the ten (10%) percent open space requirement of Section 14-296(a)(5)(c) in aggregate for all such buildings over one hundred and twnty-five (125) feet in height, provided that the open space shall not fall below ten (10%) percent at any built phase or combination of built phases; and

e. Such development shall comply with all other zoning requirement and B-7 urban design standards as required by this article.

(b) The following use shall be permitted only upon the issuance of a conditional use permit subject to the provisions of section 14-474 (conditional uses), and any special provisions, standards or requirements specified below:

1. Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

a. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times

the tower height; and

d. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

f. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

2. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 201-05/06, 4-19-06; Ord. 29-09/10, 8-3-09, emergency passage; Ord. No. 240-10/11, 6-6-11; Ord. No. 33-11/12, 1-18-12; Ord. No. 175-12/13, 4-22-

Sec. 14-297. Prohibited uses.

Uses which are not enumerated as permitted or conditional uses in the B-7 zone are prohibited. Prohibited uses include, without limitation:

(a) Ground-mounted telecommunication towers, antennas, discs, transmitting and receiving equipment and the like;

(b) Waste, scrap, and/or byproduct storage and processing facilities;

(c) Major or minor auto service stations including all types of automotive repair except that automotive repair facilities existing as of March 9, 2005 are permitted;

(d) Drive-up facilities, except banking drive-up services, as allowed in the conditional use section 14-296.

(e) Major telecommunication substations over five-thousand (5000) square feet.

(Ord. No. 201-05/06, 4-19-06)

Sec. 14-298. Dimensional requirements.

In addition to the provisions of article III, division 25 of this code, lots in the B-7 mixed use urban district zone shall meet the following requirements:

(a) *Minimum lot size:* None.

(b) *Minimum frontage:* None.

(c) *Yard dimensions:*

1. Minimum yards in the B-7 zone:

Front setback: None required except as provided in 2 below.

Side setback: Non required.

Rear setback: None required.

2. *Maximum street setback:* Parking structures, public transportation facilities, utility substations, secondary building components such as truck loading docks, mechanical equipment enclosures and refrigeration units are not subject to the maximum setbacks contained herein. The following maximum street setbacks shall otherwise apply in the B-7 zone:

   a. Ten (10) feet. The setback can be increased more than ten (10) feet if all of the conditions below are met:

      i. Seventy-five (75) percent of the total building wall length of an individual building facing the abutting streets is setback no greater than ten (10) feet; and

      ii. The increased setback area shall include a functional and accessible public pedestrian entrance into the building that faces the street unless a public pedestrian entrance already exists along the same street; and

      iii. The increased setback is not used for surface parking.

   b. For a corner lot having frontage on two (2) streets, the maximum setback shall apply to both streets. In the case of a lot having frontage on two or more street corners, newly constructed buildings shall be sited at street corners and meet the maximum setback requirement prior to other free-standing buildings being constructed on the lot which shall also meet the maximum street setback. In the case of a corner lot having frontage on a third street (but not a corner) the maximum setback need not apply to the third street.

c. In the case of a lot having frontage on two (2) streets but not on a corner, the maximum setback shall apply to all streets but in the case of a lot having frontage on three (3) streets but not on a corner, the maximum setback shall apply to only two streets. For purposes of this subsection, only, the first building on a lot shall meet the maximum setback on at least one street with future buildings required to meet the maximum setback on the remaining street(s).

d. In the case of a lot in which a minimum seventy-five (75) percent of the total lot frontage has a building within ten (10) feet of the street, other buildings may be located on the lot more than ten feet from the street. In the case of a lot having frontage on Marginal Way and I-295, the property edge along I-295 shall not be considered street frontage.

e. The maximum building setback shall not apply to vertical building expansions in the following cases:

i. The upper floors of a building in which the lower floors meet the maximum setback and the minimum height requirement.

ii. The building existed as of March 9, 2005 and meets the minimum height requirement.

iii. A building not meeting the maximum street setback and the minimum height requirement may vertically expand a total of one floor from March 9, 2005.

iv. In the case of a building in which at least fifty (50%) of the building wall(s) abutting street(s) is within 20 feet of the street.

v. Additions to parking garages existing as of March 9, 2005.

f. Additions to buildings existing as of March 9, 2005 that re nonconforming as to the maximum setback need not conform to the maximum street setback provided the cumulative building footprint since March 9, 2005 does not exceed fifty percent (50%) of the existing building footprint. Such restriction shall not apply to those portions of the building addition that are constructed closer to the street line than the building footprint existing as of March 9, 2005 and to vertical expansions as provided for in Sec. 14-298(c)(2)(e).

g. Lots having frontage on streets in which the curve of the street frontage precludes a rectangular shaped building along the street line, for purposes of calculating the setback, the average setback of the building from the street line may be used, but in no event shall the average setback along the length of the building edge exceed an average setback of fifteen (15) feet nor shall the maximum setback exceed twenty (20) feet. The increased setback shall not be used for surface parking, vehicular loading or vehicular circulation.

h. Additions to and relocations of designated historic structures or structures determined to be eligible by the historic preservation committee shall be exempt from the maximum setback requirement.

(d) Minimum length of building wall required to be located long street frontage of lot except that additions to and relocations of designated historic structures or structures determined to be eligible by the historic preservation committee shall be exempt from this subsection.

1. Minimum seventy-five percent (75%) of lot street frontage within ten (10) feet of the street; or

2. Minimum twenty-five percent (25%) of building perimeter within ten (10) feet of the street.

(e) ***Maximum building lot coverage:*** One-hundred percent(100%).

(f) ***Maximum residential density:*** None

(g) ***Maximum building height:*** As detailed on the bayside height overlay map on file in the planning and development department office.

(h) ***Minimum building height:*** Newly constructed buildings shall have the required minimum of floors as provided by the bayside height overlay map within fifty (50) feet of any street frontage. Such floors shall be occupiable or habitable and above the average grade of the abutting street.

This minimum floor provision shall not apply to:

1. Accessory building components such as truck loading docks, mechanical equipment enclosures and refrigeration units.

2. Information kiosks and ticketing booths.

3. Parking garages.

4. Public transportation facilities.

5. Additions to buildings existing as of (March 9, 2005) provided that the cumulative additions since (March 9, 2005) does not exceed fifty percent (50%) of the ground floor building footprint on (March 9, 2005) except that such restriction shall not apply to those portions of the building addition(s) that are constructed closer to the street line than the building footprint existing as of (March 9, 2005).

6. Utility substations, including sewage collection

and pumping stations, water pumping stations, transformer stations, telephone electronic equipment enclosures and other similar structures.

7. Additions to and/or relocation of designated historic structures or structures determined by the historic preservation committee to be eligible for such designation.

8. Portions of buildings more thanfifty (50) feet from the street line.

(Ord No. 201-05/06, 4-19-06; Ord. No. 240-10/11, 6-6-11)

Sec. 14-299. Performance standards.

All uses in the B-7 mixed development district zone shall comply with the following standards. Standards 14-299(a),(f),(j),(m),(n) and (o) below shall be reviewed by the Planning Authority.

(a) *Storage:* Any storage of new materials, finished products, or related equipment must be suitably screened from the public way and from abutting properties by a solid fence at least six feet in height. All waste shall be stored in covered containers that do not leak or otherwise permit liquids or solids to escape from the container. All food processing waste shall be stored within a completely enclosed structure and if not refrigerated shall be removed from the site in an enclosed container within forty-eight (48) hours of its generation. All enclosed and exterior areas shall be cleaned and sanitized on a regular basis. Outdoor storage of refuse or debris shall be in an appropriate container or located within a designated, screened area. All dumpsters shall be screened on all four (4) sides by a minimum six (6) foot high solid fence or shall otherwise be fully enclosed as approved by the planning board or the planning department.

(b) *Noise*:

1. *Definitions:*

a. Tonal sounds are defined as sound waves usually perceived as a hum or whine because their instantaneous sound pressure varies essentially as a simple sinusoidal function of time.

b. Impulse sounds are defined as sound events characterized by brief excursions of sound pressure, each with duration of less than one (1) second.

2. *Measurement:* Sound levels shall be measured with a sound level meter with a frequency weighting network manufactured according to standards prescribed by the American National Standards Institute (ANSI) or its successor body. Measurements shall be made at all major lot lines of the site, at a height of at least four (4) feet above the ground surface. In measuring sound levels under this section, sounds with a continuous duration of less than sixty (60) seconds shall be measured by the maximum reading on a sound level meter set to the A weighted scale and the fast meter response (L maxfast). Sounds with a continuous duration of sixty (60) seconds or more shall be measured on the basis of the energy average sound level over a period of sixty (60) seconds (LEQ_1).

3. *Maximum permissible sound levels:* The maximum permissible sound level of any continuous, regular or frequent source of sound produced by an activity shall be as follows:

a. Sixty (60) dBA between the hours of 7:00 a.m. and 10:00 p.m.

b. Fifty (50) dBA between the hours of 10:00 p.m. and 7:00 a.m., as measured at or within the boundaries of any residential zone.

In addition to the sound level standards established above, all uses located within this zone shall employ best practicable sound abatement techniques to prevent tonal sounds and

impulse sounds or, if such tonal and impulse sound cannot be prevented, to minimize the impact of such sounds in residential zones.

4. *Exemptions:*

a. Noises created by construction and maintenance activities between 7:00 a.m. and 10:00 p.m. are exempt from the maximum permissible sound levels set forth in subsection (a)3 of this section. Construction activities on a site abutting any residential use between the hours of 10:00 p.m. of one (1) day and 7:00 a.m. of the following day shall not exceed fifty (50) dBA.

b. The following uses and activities shall also be exempt from the requirements of subsection (a)3 of this section:

i. The noises of safety signals, warning devices, emergency pressure relief valves, and any other emergency devices.

ii. Traffic noise on public roads or noise created by airplanes and railroads.

iii. Noise created by refuse and solid waste collection, provided that the activity is conducted between 6:00 a.m. and 7:00 p.m.

iv. Emergency construction or repair work by public utilities , at any hour.

v. Noise created by any recreational activities which are permitted by law and for which a license or permit has been granted by the city, including but not limited to parades, sporting events, and fireworks displays.

(c) ***Vibration:*** Vibration inherently and recurrently generated shall be imperceptible without instruments

at lot boundaries.

(d) ***Federal and state environmental regulations:*** All uses shall comply with federal and state environmental statutes and regulations regarding emissions into the air, except where provisions of this code are more stringent.

(e) ***Storage of vehicles:*** Outdoor storage of any unregistered automotive vehicles on the premises for more than ten (10) days, and outdoor storage of any used automotive tires on the premises shall not be permitted.

(f) ***Off-street parking and loading:*** Off-street parking is required as provided in division 20 (off-street parking) of this article. Division 21 (off-street loading) of this article shall not apply. Surface parking shall meet the following standards:

1. None of the spaces shall occupy all or a portion of a sidewalk within a street right-of-way.

2. Driveway entrances shall meet the City of Portland Technical Manual standards.

3. The parking area shall meet the landscape and buffer standards of the City of Portland Technical and Design Manuals.

(g) ***Shoreland and flood plain management regulations***: Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5

(h) ***Glare, radiation or fumes:*** Glare, radiation or fumes shall not be emitted to an obnoxious or dangerous degree beyond lot boundaries.

(i) ***Enclosure of uses:*** All uses shall be operated within a fully enclosed structure, except for those customarily operated in open air.

(j) ***Materials or wastes:*** Any permitted outdoor storage of

materials shall be done in such a manner as to prevent the breeding and harboring of insects or vermin, to prevent the transfer of such materials from the site by natural causes or forces and to contain fumes, dust, or other materials which constitute a fire hazard. This storage shall be accomplished within enclosed containers or by one (1) or more of the following methods: raising materials above ground, separating materials, preventing stagnant water, or by some other means. Any areas used for permitted outdoor storage of materials shall be screened from view of any adjoining properties and public rights-of-way. NO outdoor storage shall be permitted between the front of any building on the site and the street.

(k) ***Odor***: Uses in the B-7 zone shall adhere to the odor regulations of the IL zone.

(l) ***Smoke:*** Discharges of smoke shall not exceed opacity percentage of forty percent (40%) or number two (2) on the ringelman chart.

(m) ***Discharge into sewers:*** No discharge shall be permitted at any point into any private sewage disposal system, or surface drain, or into the ground, of any materials in such a way or of such nature or temperature as to contaminate any water supply, or the harbor, or otherwise cause the emission of dangerous or objectionable elements, except in accordance with standards approved by the health authority or by the public works authority.

(n) ***Lighting:*** All lighting shall be designed and installed with cut-off fixtures to direct illumination onto the site and to prevent illumination from such fixtures on neighboring properties and as otherwise governed by the site lighting standards of the City of Portland Technical Manual.

(o) ***Building entrances:*** All buildings shall have a minimum of one (1) public pedestrian entrance facing the street frontage of the lot. Such building entrances shall also be reviewed under the B-7 bayside design standards.

(Ord. No. 201-05/06, 4-19-06; Ord. No. 240-09/10, 6-21-10; Ord. No. 278-

DIVISION 17.5. EASTERN WATERFRONT PORT ZONE*

***Editor's Note-** Order No. 297-05/06 adopted on September 18, 2006, implemented a new Eastern Waterfront Port Zone for the Maine State Pier and Portland Ocean Terminal. The proposed changes for the Portland Ocean Terminal and the Maine State Pier would allow for a wider range of uses for the piers and properties of the Portland Ocean Terminal.

Sec. 14-300. Purpose.

The Eastern Waterfront Port Zone is created to nurture deepwater dependent activity within the context of the established waterfront. The transport of goods and passengers by water is an important component of both the local and regional economies and this transport and other forms of marine industry are dependent upon land and piers with direct access to Portland Harbor. Given the existing pier infrastructure, proximity to deep water, and urban context, Portland's Eastern Waterfront is uniquely situated to support a wide range of water-dependent industry and commerce through a variety of marine activities.

The support and expansion of Portland's marine industry requires piers, uplands, and circulation consistent with the transportation purpose and use of marine facilities. The growth of Portland's marine passenger industry also requires supporting services and activities to provide a safe, convenient, and enjoyable travel experience for users of marine passenger facilities. Non-marine uses that complement the marine passenger industry, are compatible with existing and future water-dependent uses, and provide opportunities for residents and visitors alike to enjoy the Eastern Waterfront throughout the year, are encouraged.

The primary use of the deep-water resources must be for the berthing and support of large vessels. Non-marine uses that complement and support the deepwater infrastructure and do not conflict or compete for limited space with existing or anticipated deepwater-dependent uses are encouraged. Existing and future pier infrastructure and upland support areas should be designed and maintained to support a variety of marine uses and be responsive to future technologies and trends in the marine industry.

Given the need to nurture and support deepwater-dependent uses and the need for non-deepwater dependent uses to complement the marine passenger industry and to support the maintenance and repair of pier infrastructure, the Eastern Waterfront Port Zone recognizes the following hierarchy of uses:

(a) The first priority of this zone is to protect and nurture existing and potential deepwater dependent uses (those uses requiring a minimum of 15 feet of water depth);

(b) The second priority is to allow shallow water-dependent and other permitted marine uses, so long as they do not interfere with deepwater dependent uses, either directly by displacement or indirectly by placing incompatible demands on the zone's infrastructure; and

(c) Other uses specified herein are allowed only if they do not interfere with and are not incompatible with higher priority uses.

(Ord. No. 297-05/06, 9-18-06)

Sec. 14-300.1. No adverse impact on marine uses.

No use shall be permitted, approved or established in this zone if it will have an impermissible adverse impact on future marine development opportunities. A proposed non-water dependent component of a development will have an impermissible adverse impact if it will result in any one (1) or more of the following:

(a) The proposed use will displace an existing water-dependent use;

(b) The proposed use will reduce existing commercial vessel berthing space;

(c) The proposed use, structure or activities, including but not limited to access, circulation, parking, dumpsters, exterior storage or loading facilities, and other structures, will unreasonably interfere with the activities and operation of existing water-dependent uses or significantly impede access to vessel berthing

or other access to the water by water-dependent uses; or

(d) The siting of a proposed use will substantially reduce or inhibit existing public access to marine or tidal waters.

(Ord. No. 297-05/06, 9-18-06)

Sec.14-301. Permitted uses.

Subject to a determination that the proposed use meets the standards of section 14-300.1. (no adverse impact on marine uses), the following uses are permitted in the Eastern Waterfront Port Zone:

(a) *Marine passenger:*

1. Intermodal marine passenger facilities;

2. Cruise ship home port and port of call berthing and support;

3. International and domestic ferries.

(b) *Marine commercial:*

1. Transient and long-term commercial berthing;

2. Marine-related warehousing;

3. Marine related construction, manufacturing, fabrication, salvage and repair;

4. Storage and repair of fishing equipment;

5. Ship and other marine vessel construction, building, servicing, and repair;

6. Boat and marine equipment storage;

7. Marine fuel storage and dispensing provided that on-site fuel storage structures shall be used solely for the purpose of fueling vessels and shall be limited, cumulatively, to 20,000 gallons

of storage capacity within the zone;

8. Public, non-profit, or commercial marine transportation and excursion services, including captained charter services, sport fishing and water taxis;

9. Ship and off-shore support services, including but not limited to tug boats, pilot boats, and chandleries;

10. Facilities for marine pollution control, oil spill cleanup, and servicing of marine sanitation devices.

(c) *Commercial:*

1. Professional, business, government, and general office located in upper floors of structures existing as of September 18, 2006.

***Editor's Note—**On-site parking for non-marine commercial uses are permitted as conditional uses subject to the provisions of section 14-301.1. (conditional uses, parking) below.

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2. Temporary events, except festivals as otherwise governed under section 14-301I3 below.

Buildings, piers and lands within the EWPZ may be used for temporary public and private events including but not limited to exhibitions, conferences, meetings, and trade shows under the following conditions:

a. Temporary events occupying more than 10,000 square feet of building or outdoor space shall not exceed a combined total of sixty (60) days between May 1st to October 31st;

b. No temporary event may continue for more than 14 days of continuous operation;

c. Any temporary event that anticipates more than 5,000 people in attendance on any

single day must provide and be subject to a parking management plan. The parking management plan must be submitted for the review and approval of the public works authority at least 60 days prior to the first day of the event.

3. Festivals subject to City license.

(d) *Public:*

1. Fire, police and emergency services;

2. Governmental agency emergency operations/crisis centers; 3. Research, military and visiting attraction vessel berthing;

4. Landscaped pedestrian parks, plazas and other similar outdoor pedestrian spaces, including without limitation pedestrian and/or bicycle trails.

(e) *Other:*

1. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 297-05/06, 9-18-06; Ord. No. 33-11/12, 1-18-12)

Sec. 14-301.1. Conditional uses.

(a) The following uses shall be permitted as conditional uses in the Eastern Waterfront Port Zone, provided that, notwithstanding section 14-471(c), section 14-474(a), or any other provision of this code, the planning board shall be substituted for the board of appeals as the reviewing authority, and provided further that in addition to the provision of section 14-474(c)(2) such uses will not impede or preclude existing or potential water-dependent development within the zone, will allow for adequate right-of-way access to the water, are compatible with marine uses, and meet all additional standards set forth below:

1. Conditional use standard:

a. *Marine compatibility:* The proposed use shall be

compatible with existing and potential marine uses in the vicinity, as required by section 14-304(n) and (o) (compatibility of non-marine uses with marine uses and functional utility of piers and access to the water's edge); and

b. *Parking and traffic circulation:*

i. Parking and traffic circulation plan: All applications for conditional use in the EWPZ shall submit a parking and circulation plan for review and approval by the planning board. The parking and circulation plan shall show the location of all existing and proposed structures, travel ways and parking under the common ownership and/or control of the subject pier or property. The plan shall demonstrate that the parking and circulation of the conditional use does not interfere with the functional marine utility of the property and otherwise meets the standards and conditions of the EWPZ.

2. Conditional uses:

a. *Marine:*

i. Marine products, wholesaling and retailing;

ii. Ice-making services;

iii. Marine freight facilities providing service for, and/or intermodal transfer of, container and breakbulk freight;

iv. Marine educational facilities;

v. Seafood retailing, wholesaling, packaging and shipping;

vi. Seafood processing for human consumption, subject to the performance standards of the IL zone set forth in section 14-236 in addition to the performance standards of section 14-304;

vii. Commercial marinas serving commercial and recreation boats, provided that such facilities are located in areas that do not conflict with the navigation and handling of deepwater dependent vessels accessing existing or potential deepwater berthing;

viii. Fish byproducts processing, provided that:

a. Any fish byproducts processing facility has a valid rendering facility license under chapter 12 of the Portland city code; and

b. Any fish byproducts facility shall employ current and appropriate odor control technology to eliminate or minimize detectable odors from such a process, and in no case shall odors exceed the odor limitation performance standards of the IM zone (section 14-252); and

c. The processing other material wastes or byproducts shall not be deemed a lawful accessory use Permitted herein.

b. *Commercial:*

a. Structured parking available to the general public;

b. Professional, business, government and general offices uses in upper floors of structures constructed after September 18, 2006;

c. Passenger support services supporting a marine passenger use listed under 14-301(a)(marine passenger). The total ground floor area occupied by any combination of the following uses (regardless of ownership) shall not exceed 35% of the gross floor are of the principle associated marine passenger

use and no more than 35,000 square feet cumulative within the EWPZ:

i. Retail;

ii. Restaurants/food service;

iii. Retail service;

iv. Passenger information services.

c. ***Industrial:*** The following industrial uses are permitted provided that such uses shall conform to the IM zone performance standards set forth in section 14-252 in addition to the performance standards of 14-304. Where redundant or contradictory performance standards exist, the more restrictive standard applies.

i. Non-marine related warehousing in structures existing as of September 18, 2006;

ii. Facilities for combined marine and general construction;

iii. Low impact industrial uses as permitted in the IL zone in structures existing as of September 18, 2006, excluding all auto repair service facilities.

d. ***Public:***

i. ***Utility substations:*** Public utility substations, including but not limited to electrical transformers, sewage and stormwater pumps and telecommunication switching stations, are permitted under the following conditions:

a. The facility is located more than 100 feet from the water's edge;

b. The facility occupies no more than 50 square feet of structure above ground;

c. The facility provides no dedicated on-site parking and all subsurface elements of the facility are installed and operated such that land occupied by the facility is otherwise useable and made available for marine related uses, including but not limited to parking, travel ways, and/or storage; and

d. The facility shall be sized, sited and screened to minimize visual impact and prominence from public ways.

ii. Maritime museums, limited to 5,000 square feet of ground floor footprint.

***Editor's Note—**On-site parking for non-marine commercial and industrial uses are permitted as conditional uses subject to the provisions of section 14-301.1. (conditional uses, parking) below.

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e. *Parking for non-marine uses:* Notwithstanding sections 14-304(h), 14-331, 14-334 (regarding off-street parking requirements) and article V (site plan) of this chapter, no parking shall be allowed in this zone for non-marine uses unless the applicant can demonstrate that the number of parking spaces on-site exceeds the number of parking spaces needed to accommodate the demand for marine and water-dependent uses that are permitted by section 14-301 (permitted marine uses) and 14-301.1. (conditional marine uses) which are or may be located on the subject property (see editor's note below). The remainder of parking Required, if any, for such non-marine uses shall be provided off-site.

***Editor's Note—**Vacant ground floor space should be considered to have a parking demand similar to other space housing an existing water-dependent use elsewhere on the subject property or on a comparable property.

(b) The following use shall be permitted only upon the issuance of a conditional use permit subject to the provisions of section 14-474 (conditional uses), and any special provisions, standards or requirements specified below:

1. Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

   a. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

   b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

   c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

   d. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

   e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

   f. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

2. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 297-05/06, 9-18-06; Ord. No. 29-09/10, 8-3-09, emergency passage; Ord. No. 33-11/12, 1-18-12)

Sec.14-301.2. Prohibited uses.

Uses, whether floating or fixed to land, which are not enumerated in either section 14-301 or 14-301.1. as permitted or conditional uses are prohibited. Those uses that are specifically prohibited shall include, without limitation:

(a) Residential uses;

(b) Amusement/theme parks;

(c) Bulk freight facilities;

(d) On-site gambling casinos not accessory to and located aboard either a ferry or inter-port cruise ship.

(Ord. No. 297-05/06, 9-18-06)

Sec. 14-302. Contract or conditional rezoning.

In addition to those marine and non-marine uses authorized in section 14-301 (permitted uses) and 14-301.1(conditional uses) an applicant may apply to locate a non-marine use not otherwise permitted, if the reviewing body finds the applicant has met the standards of section 14-300.1 (no adverse impact),

the performance standards of 14-304(a-o), and the applicable standards of contract/conditional rezoning contained in sections 14-60 to 14-63 and conforms to the following requirements:

(a) *Standards for contract or conditional rezoning:*

1. All non-marine uses are either permitted or conditionally permitted in the B-5 zone, and are not specifically prohibited in section 14-301.2 (prohibited uses) above. Any hotel, inn, or other similar transient lodging establishment proposed must be located landward of the spring tide line and westerly of the extension of the India Street right-of-way; and

2. The aggregate ground floor area of any development permitted hereunder located within 100 feet of the pier edge or working edge of the hardened shoreline shall be occupied by at least 50% of one or more marine uses set forth in section 14-301 (permitted, marine uses) and 14-301.1 (conditional marine uses). **Note: the circulation areas and areas occupied for accessory parking serving marine uses shall not be used as the basis for calculating the 50% provision above; and**

3. The development is consistent with the comprehensive plan and without the non-marine use component authorized herein, the site could not otherwise support an economically viable water-dependent use; and

4. The project's public benefits outweigh its potential negative impacts, provided that such public benefits include one or more of the following: protection of existing water-dependent uses, preservation of future water-dependent use development opportunities, contribution to the development of and/or on-going maintenance of the marine infrastructure for commercial vessels, and visual and physical access to the waterfront for the general public; and

5. The non-marine portion of the development will

not significantly restrict air or light for marine uses located in the immediate vicinity; will not create significant adverse local climatic effects on marine uses such as an undue increase of winds or shadowing; and will not adversely affect the efficient operation of marine uses, such as by producing less efficient traffic, parking or circulation patterns; and

6. The rezoning contains adequate provisions and/or conditions to ensure that on-site water-dependent infrastructure remains occupied by commercial marine use(s) listed in section 14-301 (permitted uses) and 14-301.1 (conditional uses) and that said use is not abandoned after the project is developed; and

7. Notwithstanding section 14-304(h) (performance standard *"Parking")* and section 14-526 (a) 4.a.(i), all on-site parking constructed or used for non-marine uses allowed only by contract or conditional rezoning shall be subject to the conditional use provisions section 14-301.1 (e) (*parking for non-marine uses)*.

   Additionally, the total amount of parking shall be established by the city council in the conditional or contract rezoning agreement after consideration of the planning board's recommendation on the same.

(Ord. No. 297-05/06, 9-18-06; Ord. No. 278-09/10, 7-19-10)

Sec. 14-303. Dimensional requirements.

In addition to the provisions of article III, division 25 of this code, lots in the EWPZ shall be subject to the following requirements:

(a) *Minimum lot size:* None.

(b) *Minimum frontage:* None.

(c) *Minimum yard dimensions:*

1. Front setback: None.

2. Side setback: None.

3. Rear setback: None.

4. Setback from pier line: Notwithstanding the above requirements, a minimum setback of twenty-five(25) feet from the edge of any pier, wharf or working edge of the hardened shoreline shall be required for any structure. The setback area may be utilized for water-dependent uses and public uses and activities, subject to the provisions of sections 14-300.1 (no adverse impact) and 14-301.1 (conditional use provisions), and shall not be utilized for restaurant, drinking, or other non water-dependent uses or for off-street parking. The edge of any pier, wharf or bulkhead shall include any attached apron(s).

(d) ***Maximum impervious surface:*** One hundred (100%) percent.

(e) ***Maximum building height:*** Forty-five (45) feet, except as follows:

1. For purposes of this section only, moveable elements such as cranes and gantries, connection devices such as conveyors or bridges, and floating vessels shall not be subject to the space and bulk requirements, but shall be subject to a determination by the Federal Aviation Administration that the location of such equipment will not create a hazard to air traffic.

2. Rooftop appurtenances may exceed the maximum height limits of forty-five (45) feet providing that their design and placement is either fully screened or integrated into the architecture of the structure on which they sit.

3. The applicant must provide a determination from the Federal Aviation Administration that structures and equipment in excess of forty-five (45) feet will not exceed the applicable height

guidelines for the runway approach and will not create a conclusive evidence that the proposed development will not create a hazard.

(Ord. No. 297-05/06, 9-18-06; Ord. No. 27-11/12, 8-15-11)

Sec. 14-304. Performance standards.

Development in the Eastern Waterfront Port Zone shall comply with the following standards:

(a) *Outdoor storage of materials:* Outdoor storage of commodities and materials accessory to normal conduct of business shall be entirely contained, including runoff contaminants and residual material, within a designated area.

(b) *Noise:*

1. The level of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American National Standards Institute, Inc.), inherently and recurrently generated within the EWPZ between the hours of 7:00 p.m. and 7:00 a.m. from facilities or operations commenced on or after July 1, 1988, shall not exceed fifty-five (55) decibels on the A scale at or within the boundaries of any residential zone, except for sound from construction activities, sound from traffic on public streets, sound from temporary activities such as festivals, sound created as a result of, or relating to, an emergency, including sound from emergency warning signal devices, and maritime navigation signals.

2. In measuring sound levels under this section, sounds with a continuous duration of less than sixty (60) seconds shall be measured by the maximum reading on a sound level meter set to the A weighted scale and the fast meter response (L maxfast). Sounds with a continuous duration of sixty (60) seconds or more shall be measured on the basis of the energy average sound level over a period of sixty (60) seconds (LEQ1).

3. In addition to the sound level standards otherwise established, facilities or operations established or built in the EWPZ on or after July 1, 1988, shall employ best practicable sound abatement techniques to prevent tonal sounds and impulse sounds or, if such tonal and impulse sounds cannot be prevented, to minimize the impact of such sounds in residential zones. Tonal sound is defined as a sound wave usually perceived as a hum or which because its instantaneous sound pressure varies essentially as a simple sinusoidal function of time. Impulse sounds are defined as sound events characterized by brief excursions of sound pressure, each with a duration of less than one (1) second.

(c) ***Vibration:*** Vibration inherently and recurrently generated shall be imperceptible without instruments at lot boundaries. This shall not apply to vibration resulting from activities aboard a vessel or from railroad vehicle activities, or from activities on a pile-supported pier.

(d) ***Federal and state environmental regulations:*** All uses shall comply with federal and state environmental statutes and regulations regarding emissions into the air, except where provisions of this code are more stringent.

(e) ***Discharges into harbor areas:*** No discharge into harbor water areas shall be permitted, unless permitted by the Maine Department of Environmental Protection under a waste discharge license and as approved by the department of public works in accordance with chapter 24, article III of this code. All private sewage disposal or private wastewater treatment facilities shall comply with the provisions of chapter 24, article II of this code and federal and state environmental statutes and regulations regarding wastewater discharges.

(f) ***Storage of vehicles:*** Storage of any unregistered automotive vehicle on the premises for more than ten (10) days shall not be permitted.

(g) ***Landfill of docking and berthing areas:*** Landfill of docking and berthing areas shall be governed by 38 M.R.S.A. § 471-478, and permitted only if the landfill does not reduce the amount of linear berthing areas or space, or berthing capacity. If approved, construction shall be undertaken using methods approved by the department of public works and shall be accomplished in accordance with the provisions of division 25 of this article and in a manner so as to ensure that a stable and impermeable wall of acceptable materials will completely contain the fill material and will not permit any fill material to leach into docking areas or navigable waters.

(h) ***Off-street parking:*** Off-street parking is required as provided in division 20 (off-street parking) of this article.

(i) ***Off-street loading:*** Off-street loading is required as provided in division 21 of this article.

(j) ***Shoreland and flood plain management regulations:*** Any lot or a portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5.

(k) ***Lighting:*** All lighting on the site shall be shielded such that direct light sources shall not interfere with vessels transiting the harbor, nor have an unreasonable adverse impact on adjacent residential zones, and shall be complaint with the Site Lighting Standards of the City of Protland Technical Manual.

(l) ***Signs:*** Signs shall be permitted as set forth in division 22 of this article.

(m) ***Storage of pollutants and oily wastes:*** On-premises storage of pollutants and oily wastes shall not be permitted for more than forty-five (45) days.

(n) ***Compatibility of non-marine uses with marine uses:*** Non-marine uses, structures and activities, including but not limited to access, circulation, parking, dumpsters, exterior storage and loading facilities or

other structures shall neither unreasonably interfere with the existence or operation of marine uses nor significantly impede access to vessel berthing or other access to the water by existing or potential marine uses.

(o) ***Functional utility of piers and access to the water's edge:*** All development, whether for marine or non-marine uses, must anticipate current and future needs of water-dependent uses to functionally access the water's edge for the transfer of goods, materials, and passengers between berthed vessels and land bound vehicles. Provisions for the storage and movement of goods, materials, and passengers must be designed into all waterside development and internal circulation routes must be maintained or otherwise provided as an element of any development.

(Ord. No. 297-05/06, 9-18-06; Ord. No. 240-09/10, 6-21-10; Ord. No. 278-09/10, 7-19-10)

DIVISION 18. WATERFRONT CENTRAL ZONE*

***Editor's note—**Ord. No. 168-93, § 2, adopted Jan. 4, 1993, repealed former Divs. 18, 18.5 and 18.7, §§ 14-306—14-320.2, which pertained to waterfront zones, and enacted new provisions as Divs. 18, 18.5 and 18.7 to read as herein set out. Formerly, such provisions derived from Ord. No. 426-83, § 1, adopted Apr. 25, 1983; Ord. No. 427-83, § 1, adopted Apr. 25, 1983; Ord. No. 355-85, § 1, adopted Jan. 7, 1985; Ord. No. 438-86, § 1, adopted Apr. 7, 1986; Ord. No. 189-87, § 3, adopted Feb. 7, 1987; Ord. No. 174-87, 's; 1, 2, adopted Mar. 4, 1987; Ref. of May 5, 1987; Ord. No. 385-87, adopted Apr. 6, 1987; Ord. No. 36-89, §§ 1, 2, adopted June 28, 1989; and Ord. No. 15-92, §§ 22, 23, adopted June 15, 1992.

Sec. 14-305. Purpose.

The waterfront central zone was created to protect and nurture water-dependent and marine-related support uses so that they may grow and prosper in an environment and area dedicated to this purpose. The following priority of uses is recognized:

(a) The first priority of this zone is to protect and nurture existing and potential water-dependent uses in a setting that enforcestheir continued economic viability;

(b) The second priority is to encourage other marine and marine-related support uses so long as they do not

interfere with water-dependent uses, either directly by displacement or indirectly by placing incompatible demands on the zone's infrastructure;

(c) Non-marine uses are encouraged provided that they do not interfere with and are not incompatible with first and second priority uses. Non-marine uses are beneficial to the waterfront economy because they provide the financial return to property owners necessary for the maintenance and improvement of the marine infrastructure.

Water-dependent and marine-related support uses by their nature have activities and operational needs that are unique to this area and are not shared by other commercial and industrial uses in the city. These first and second priority uses and related activities may result in noise, odor, dust, hourso f operation, parking and traffic patterns and traffic control needs that are necessary for the convenient and successful conduct of such uses. Other uses may not be compatible with these types of effects. Other specified uses are permitted in the waterfront central zone, provided that they do not significantly interfere with the activities and operation of water-dependent and marine-related support uses. Such uses must be, and are assumed to be, aware of the impacts associated with marine uses and therefore must accept and be tolerant of them. Other specified uses in thezone shall accommodate to those patterns and needs of the higher priority uses so long as those higher priority uses are not detrimental to public health and safety and the higher priority activities are conducted in accordance with sound practices or practices customary in the trade.

Commercial Street is recognized as an important economic center for the city and region. Marine compatible uses are encouraged to locate and grow along Commercial Street while higher priority marine uses are protected on the waterfront.

(Ord. No. 168-93, § 2, 1-4-93; Ord. No. 193-05/06, 4-19-06; Ord.No. 103-10/11, 12-20-10)

Editor's Note—**Pursuant to Council Order 103-10/11 passed on 12/20/10 Section 14-306 ***No adverse impact on marine uses was repealed in it's entirety and remaining sections were re-numbered accordingly.

Sec. 14-306. Definitions.

For the purposes of the waterfront central zone only the following terms shall have the following definitions:

Common circulation drives: private driveways, roadways and circulation areas accessible to all on-site tenants and/or occupants of a lot within the waterfront central zone providing access from/to the public street network.

Lot: any abutting property under common ownership.

Non-marine use overlay zone (NMUOZ): The non-marine use overlay zone (NMUOZ) is a portion of the waterfront central zone, as described below, where new and existing development may be occupied with 100% non-marine use tenants listed under 14-307(b), subject to the standards and use limitations provided in section 14-311(b).

The geographic limits of the NUMUOZ are defined by parcels of land and piers within the waterfront central zone located on the landward side of a line established one hundred fifty (150) feet southerly from the southerly sideline of Commercial Street and modified as follows: the seaward limit of the NMUOZ extends to a line 500 feet southerly from the southerly sideline of Commercial Street in the area between the easterly sideline of Long Wharf to the westerly sideline of Union Wharf. Additionally, all areas subject to this provision are set back landward at least twenty-five (25) feet from the average high tide line of Portland Harbor and associated coastal wetlands. All offset distances are measured horizontally.

All applicants for development within the NUMUOZ are responsible for demonstrating their location within NMUOZ according to the findings of a site specific land survey conducted by a professional land surveyor licensed by the State of Maine. The limits of the NMUOZ shallbe shown on all site plans and subdivision plats for proposed development within the NMUOZ. A map showing the presumed boundaries of the NMUOZ is on file with the Departmetn of Planning and Urban Development. Said map is for illustrative purposes only and shall not be relied upon in determining whether a proposed development is located within the NMUOZ.

On-Site shall mean that portion of any lot included within or directly impacted by a proposed development.
(Ord. No. 193-05/06, 4-19-06; Ord. No. 103-10/11, 12-20-10)

Sec. 14-307. Permitted uses.

Subject to a determination that the proposed use meets the standards of section 14-311, as applicable, the following uses are permitted in the waterfront central zone:

(a) *Marine:*

1. Marine products, wholesaling, distribution and retailing;

2. Marine repair services and machine shops;

3. Tugboat, fireboat, pilot boat and similar services;

4. Harbor and marine supplies and services, chandleries, and ship supply such as fueling and bunkering of vessels;

5. Marine industrial welding and fabricating;

6. Shipbuilding and facilities for construction, maintenance and repair of vessels;

7. Commercial marine transport and excursion services, including ferries, captained charter services, sport fishing and water taxis;

8. Cargo handling facilities, including docking, loading and related storage;

9. Boat repair yards;

10. Boat storage facilities, excluding rack storage facilities; (Boat rack storage facilities are included in conditional use, section 14-308(b)(3) below);

11. Seafood processing;

12. Seafood packing and packaging;

13. Seafood loading and seafood distribution;

14. Fabrication, storage and repair of fishing

equipment;

15. Ice-making services;

16. Facilities for marine construction and salvage;

17. Facilities for marine pollution control, oil spill cleanup, and servicing of marine sanitation devices;

18. Fabrication of marine-related goods;

19. Fishing and commercial vessel berthing;

20. Non-commercial berthing of a maximum of fifty (50) linear feet per pier. A non-commercial berth may not displace a commercial berth.

    Parking for any non-commercial berthing is subject to the provisions of section 14-311(d)8.

21. Marine office, including but not limited to offices of owners of wharves or their agents, and naval architects, and seafood brokers;

22. Public landings;

23. Marine research, education, and laboratory facilities;

24. Bait sales and processing;

25. Harbor security and emergency response services including but not limited to Harbor Master, Marine Patrol and Coast Guard.

(b) ***Non-marine commercial and industrial uses:*** Non-marine uses permitted by this section are subject to the standards listed in section 14-311.

1. Professional, business, government, and general offices;

2. Retail and service establishments, including craft and specialty shops. Convenience stores with gas

pumps shall not be permitted under this section;

3. Restaurants provided that full course meal food service and consumption shall be the primary function of the restaurant, and full course meal service shall be continued up until the hours of closing;

4. Banking services without drive-up services;

5. Laundry and dry cleaning services;

6. Cabinet and carpentry shops, studios for artists and crafts people;

7. Intermodal transportation facilities;

8. Cold storage facilities;

9. Museums and art galleries; and

10. Outside accessory activities.

(c) *Public:*

1. Landscaped pedestrian parks, plazas and other similar outdoor pedestrian spaces, including without limitation pedestrian and/or bicycle trails;

(d) *Other:*

1. Accessory uses:

a. Interior accessory uses customarily incidental and subordinate to the location, function and operation of permitted uses. Food service establishments, newsstands and other similar retail and service support uses shall only be permitted as accessory uses if they are part of and located within the lot lines of a use set forth in section 14-307(a)(1), (a)(7), or (a)(22); that such uses do not exceed two-thousand (2,000) square feet in total floor area of the building, or twenty-five percent

(25%) of the total floor area of the building, whichever is less, and that each individual use does not exceed one-thousand (1,000) square feet in total floor area of the building; and further provided that such accessory uses provide goods or services that are supportive of the principal use and its clientele. Exterior accessory usesshall be otherwise subject to the provision of 14-311(a); and

b. Interior meeting or classroom space accessory to uses permitted in section 14-307(a)(23) (marine research, education, and laboratory facilities) may be rented out for meeting use by marine-related or non-marine related groups or organizations, or the general public, and such accessory uses shall not be subject to the limitations contained in paragraph b, but shall onlybe permitted as accessory uses if the total of all support uses, including interior meeting or classroom space, does not exceed three-thousand (3,000) square feet in total floor area per building, or fifteen percent (15%) of the total floor area per building, whichever is less.

2. Street vendors licensed pursuant to chapter 19.

3. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 168-93, § 2, 1-4-93; Ord. No. 131-01/02, § 1, 1-23-02; Ord. No. 309-01/02, § 1, 7-15-02; Ord. No. 38-02/03, § 1, 9-4-02;Ord. No. 193-05/06, 4-19-06; Ord. No. 103-10/11, 12-20-10; Ord. No. 33-11/12, 1-18-12)

Sec. 14-308. Conditional use.

The uses listed herein shall be permitted as conditional uses in the waterfront central zone, provided that, notwithstanding section 14-471 and section 14-474(a), or any other provision of this code, the planning board shall be substituted for the board of appeals as the reviewing authority, and further provided that in addition to the provisions of section 14-474(c)(2), they shall also meet the applicable waterfront central zone development standards in section 14-311:

(a) Commercial marine conditional uses:

1. ***Fish by-products processing,*** provided that:

a. Any fish by-products processing facility has a valid rendering facility license under chapter 12;

b. Any existing fish by-products facility shall employ current and appropriate odor control technology (and any new fish by-product use shall employ current, available odor control technology) to eliminate or minimize detectable odors from such a process, and in no case shall odors exceed the odor limitation performance standards of the I-M zone; and

c. The processing of other material wastes or by-products shall not be deemed a lawful accessory use under any other provision of this article.

2. ***Boat rack storage facilities,*** provided that:

a. Parking shall be provided for one-hundred percent (100%) of the demand generated by the use (nothwithstanding 14-311(d)8, performance standard for parking), and such parking shall be provided off-site, in another zone permitting such use.

b. Boat rack structures shall not exceed ten thousand (10,000) square feet of building footprint.

(b) ***Residential:*** The primary owner of a marine business listed under section 14-307(a) located on the same site may occupy upper floor space with a residential use, provided the following conditions are met:

1. The applicant demonstrates a compelling business related need for living on-site that cannot otherwise be accomplished;

2. The residential living space shall not exceed one thousand (1,000) square feet, inclusive of all exterior porches and decks;

3. The occupancy of said space shall be limited to the primary owner of the marine related business. The residential use is not transferable to friends, family or anyone other than the primary business owner. No such residential space shall be leased out by or allowed to be used for occupancy by other than the primary owner of the marine related business;

4. The residential use shall be limited to one unit per wharf;

5. The residential use shall be year round use only, and shall not be used on a seasonal basis; and

6. Upon the vacancy in excess of three (3) months of the residential living space by the primary owner of the marine related business, the residential use shall automatically terminate and shall not be continued without new conditional use approval under this subsection.

For purposes of this subsection, "primary owner of the marine related business" shall mean a person who legally owns fifty percent (50%) or more of the marine business listed under section 14-307(a), permitted marine uses.

(c) ***Utility substations:*** Public utility substations, including but not limited to electrical transformers, sewage and stormwater pumps, and telecommunication switching stations, are permitted under the following conditions:

1. The facility is located more than one-hundred (100) feet from the water's edge;

2. The facility occupies no more than fifty (50) square feet of structure above ground;

3. The facility provides no dedicated on-site parking

and all subsurface elements of the facility are installed and operated such that land occupied by the facility is otherwise usable and made available for marine uses, including but not limited to parking, travel ways, and/or storage; and

4. The facility shall be sized, sited and screened to minimize visual impact and prominence from public ways.

(d) Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

1. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

2. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

3. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

4. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

5. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting

from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

6. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

7. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

8. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

(e) Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 168-93, § 2, 1-4-93; Substitute Ord. No. 00-42, 8-7-00; Ord. No. 73-01/02, § 1, 10-15-01, Ord. No. 131-01/02, § 2, 1-23-02; Ord. No. 193-05/06, 4-19-06; Ord. No. 29-09/10, 8-3-09, emergency passage; Ord. No. 240-09/10, 6-21-10; Ord. No. 278-09/10, 7-19-10; Ord. No. 103-10/11, 12-20-10; Ord. No. 33-11/12, 1-18-12)

Section 14-309. Prohibited uses.

Uses which are not enumerated in either section 14-307 or 14-308 as permitted or conditional uses are prohibited. Those uses that are prohibited shall include, without limitation:

(a) Except as provided in section 14-308, residential uses (not in existence on May 5, 1987);

(b) Hotels, motels or boatels;

(c) Auditoriums, civic centers, convention centers or other

meeting facilities;

(d) Drinking establishments;

(e) Ground mounted telecommunication towers, antennas, and/or disks; and

(f) Drive-up services for any use other than a permitted use listed under 14-307(a) or 14-308(a)(1).

(Ord. No. 168-93, § 2, 1-4-93; Ord. No. 73-01/02 § 2, 10-15-01; Ord. No. 193-05/06, 4-19-06; Ord. No. 103-10/11, 12-20-10)

Sec. 14-310. Dimensional requirements.

In addition to the provisions of division 25 of this article, lots in the waterfront central zone shall be subject to the following requirements:

(a) *Minimum lot size:* None.

(b) *Minimum frontage along Commercial Street:* Seventy-five (75) feet.

(c) *Minimum lot width within the NMUOZ:* Fifty (50) feet measured parallel with Commercial Street and such lot width shall be continuous for the full depth of the lot located within the NUMUOZ.

(d) *Minimum yard dimensions:*

1. Front setback: None.

2. Side setback: None

3. Rear setback: None.

4. Setback from pier edge: Notwithstanding the above requirements, a minimum setback of five (5) feet from the edge of any pier, wharf or bulkhead shall be required for any structure. The edge of any pier, wharf or bulkhead shall include any attached apron(s).

(e) *Maximum lot coverage:* One-hundred (100) percent.

(f) *Maximum building height:* Fifty (50) feet. Except as provided in (h) below, a structure in the waterfront central zone shall provide no more than three habitable floors; however, typical rooftop appurtenances and/or enclosed or open mechanical installations shall be allowed over the third floor.

(g) *Minimum ground floor clearance:* Any new building proposed to be larger than three-hundred (300) square feet, and located more than 35 feet from the southerly sideline of Commercial Street, shall provide no less than fifteen (15) feet of first floor to ceiling vertical clearance to promote marine industrial use potential. New buildings less than three-hundred (300) square feet or additions to existing multistory buildings are exempt from this provision but shall provide the maximum ground floor clearance practicable.

(h) *New non-marine use building exception for usable floors and minimum ground floor clearance:* Notwithstanding provisions (f) and (g) above, for new non-marine use buildings permitted within the NMUOZ, four (4) usable floors are allowed and ground floor clearance minimums do not apply.

(Ord. No. 168-93, §2, 1-4-93; Ord. No. 309-01/02, § 2, 7-15-02; Ord. No. 193-05/06, 4-19-06, Ord. No. 103-10/11, 12-20-10)

Sec. 14-311. Development standards.

(a) *Standards for non-marine uses located outside of the NMUOZ:* Non-marine uses listed above in Sec. 14-307(b) and 14-308(b) that are located outside of the NMUOZ shall be subject to the performance standards listed in 14-311(d) as well as the following standards:

1. *55% marine use required on ground floors:* At least 55% of the ground floor of all of the buildings on the lot (defined in 14-306 above), when calculated using the aggregate of all such ground floors, shall be occupied by marine uses, as listed under 14-307(a) or 14-308(a)(1).

2. *55% marine use required for all open areas:* After subtracting areas used for common circulation drives (defined in 14-306 above), at least 55% of un-built

area (meaning area not occupied by a building) on the lot, when calculated using the aggregate of all such un-built areas, shall be occupied by marine uses, as listed under 14-307(a) or 14-308 (a)1.

3. ***Ground floor vacancies and change of occupancy offered to water dependent/marine uses:*** Ground floor vacant space and areas proposed for a change of occupant outside of the NMUOZ shall not be filled with any non-marine use without adequate opportunity for marine uses to occupy the space.

   a. ***Ground floor vacancy and change of occupant outside of the NMUOZ advertised to marine users:*** In any lot or portion of lot outside of the NMUOZ, each time a ground floor occupant departs or gives notice to depart from the lot, the space must be made available to new marine occupants.

      Prior to renting to a non-marine user the property owner shall advertise for a new marine occupant for not less than a (60) day period in targeted media and by other means reasonably calculated to reach marine users. Should one or more marine users apply, the property owner shall make the space available to a marine occupant, in accordance with terms and rates generally consistent with comparable space in the 55% marine use portion of the zone (outside of the NMUOZ.) The property owner may stop advertising sooner than the end of the 60 day period if a lease is signed with a marine user. Should no marine user apply by the end of the 60 day period, the owner may fill the space with a non-marine user provided that the new non-marine occupant will not cause the lot to exceed the non-marine use occupancy maximum of 45% of the ground floor area or open area.

   b. ***Uses inventoried:*** To demonstrate adherence to the 55% marine use requirement, the applicant shall submit to the planning authority, upon request, an inventory which lists each occupant (tenant or otherwise), as well as a map which depicts the location of each occupant. The map

shall show all ground level space, including buildings, parking, open areas and submerged lands associated with the subject lot. For each occupant, the property woner must indicate the square footage of area occupied and whther the occupant is a marine use as defined herein. For vacant space, the last previous occupant shall be listed, along with the date of departure.

c. Applicants for site plan review or a change of use permit outside of the NMUOZ shall provide the planning authority with proof of compliance with the requirements of this section nas a condition of approval.

d. The city planning authority shall compile and report inventories of ground level uses, as reported under (b) above, into an annual report of ground level uses and investment in the Central Waterfront. The report shall include an aggregated assessment of ground floor marine and non-marine use ossupancy and a catalogue of marine infrastructyure investment for the reporting period. The report shall be submitted to the City Council as a communication not less than once every calendar year.

4. Pier or bulkhead edge reserved for marine uses: Notwithstanding anything in contained in 14-311(c) (Contract or conditional rezoning) or any other provision of this ordinance to the contrary, excepting only the portion of any pier which might be used for non-commercial berthing pursuant to 14-307(a)(20), all berthing and/or dockage space and associated floats plus the entire linear edge of that portion of every pier or bulkhead which is adjacent to greater than zero feet of water depth at mean low water, to a minimum setback line of at least five feet from the edge of the pier, builkhead, or engineered shoreline may only be used or occupied by one or more marine uses as defined in 14-307(a)) or 14-308(b). Said edge shall be the seaward extent of any engineered shoreline or working deck of any pier or wharf.

(b) ***NMUOZ standards:*** Non-marine uses listed under 14-

307(b) and 14-308 located within the NMUOZ, as defined in 14-306, shall be subject to the performance standards listed in 14-311(d) as well as the following standards:

1. ***Vessel access:*** Non-marine uses allwed under this provision shall not disrupt or block access to vessel berthing and shall otherwise adhere to the performance standards of this zone described in Sec. 14-311(d).

2. ***Maximum setback for new development on lots with seventy-five (75) or more feet of Commercial Street frontage:*** Any new non-marine development constructed subject to this provision which is located on a lot with seventy-five (75) or more feet of frontage along the Commercial Street right of way shall be located with its front façade no further than thirty-five feet (35) from the southerly sideline of the Commercial Street right of way. Furthermore, any such development shall orient its front façade and its primary pedestrian entrance toward Commercial Street and no vehicular circulation or parking may occupy the land or pier area between the front façade of the building and Commercial Street.

   Non-marine development subject to this provision on lots with fewr than seventy-five (75) feet of frontage along the Commercial Street right-of-way, changes of use within existing buildings, and/or building additions of less than 5,000 square feet of new development to existing buildings are exempt from the maximum setback provisions established herein.

3. ***Investment in marine infrastructure:*** All applicants for site plan review or a change of use permit for non-marine development in the NMUOZ are required to invest in marine infrastructure as a condition of development, provided that the total project costs exceed $250,000. The value of the investment shall be not less than five percent (5%) of total project costs over $250,000 for constructing non-marine space and associated site improvements in the NMUOZ.

   Required investment may occur by one or both the following methods:

a. Direct investment in marine infrastructure located on the same lot: Investment shall be for the benefit of marine uses listed in 14-307(a) within the same lot as the proposed non-marine development. Investment may include dredging, pile replacement, new or replaced structural decking (but not pavement resurfacing), new or replaced fendering systems, new or replaced floats, pier expansions, permanent conversions of recreational berthing to commercial berthing, bulkhead or seawall repair or improvements, or any combinationof similar improvements. Plans for the marine infrastructure investment shall be submitted to the planning authority with the application for site plan review or change of use permit and shall include details and a commitment as to how the marine infrastructure will be utilized by marine users. The marine infrastructure improvements shall be completed prior to the issuance of a certificate of occupancy for the non-marine development project.

b. Financial contribution: If direct investment in marine infrastructure is not made, the developer shall make a financial contributionto the ***city's waterfront loan and investment fund.***

(c) ***Contract or conditional rezoning standards:*** Applications for proposals deviating from any dimensional requirements under section 14-310 and/or including uses not listed under sections 14-307 and 14-308 may only be considered if the reviewing body finds the applicant has met the performance standards listed under 14-311(d) and the following standards:

1. ***Conditional or contract rezoning located outside of the NMUOZ:*** The ground level floor area of any building, existing or proposed, on the subject lot and the un-built area of the subject lot and the un-built area of the subject lot shall be subject to and meet the requirements of section 14-311(a) of this code.

2. ***Conditional or contract rezoning located within the NMUOZ:*** Conditional or contract rezoning applications located within the NMUOZ are subject to the provisions

of 14-311(b)(3) (*Investment in marine infrastructure).*

3. Residential dwellings are prohibited.

4. The development is consistent with the comprehensive plan and without the development the site could not otherwise support an economically viable water-dependent use.

5. Any physical or legal impediments which preclude or impede functional access from the site of the development to any portion of the water's edge are not the result of action taken by the current owner, the applicant for rezoning, or any prior owner after January 4, 1993.

6. The project's public benefits outweigh its potential negative impacts, taking into consideration as public benefits: protection of existing water-dependent uses, preservation of future water-dependent use development opportunities, contribution to the development of and/or on-going maintenance of the marine infrastructure for commercial vessels, and visual and physical access to the waterfront for the general public.

7. The development responds to any unique physical conditions and development opportunities along the shoreline in a manner that is consistent with section 14-305 (purpose).

8. The non-marine portion of the proposed development will not adversely affect the efficient operation of marine uses, such as producing less efficient traffic, parking or circulation patterns. Parking for the non-marine portion of the proposed development shall be subject to review under section 14-311(d)(8).

9. The rezoning contains adequate provisions and/or conditions to ensure that any associated water-dependent infrastructure remains occupied by any commercial marine use as listed in 14-307(a) and that said use is not abandoned after the project is developed.

(d) ***Performance standards***: All uses in the waterfront central zone shall comply with the following standards. Standards 8, 10, 13, 14, 15, 16, and 17 below shall be reviewed by the planning authority:

1. ***Outdoor storage of materials:*** Outdoor storage of commodities and materials accessory to normal conduct of business, except pilings and/or cranes, shall be permitted to a maximum height of forty-five (45) feet, and such materials shall be entirely contained, including runoff contaminants and residual material, within a designated area within the lot boundaries.

2. ***Noise:*** The level of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American National Standards Institute, Inc.), inherently and recurrently generated within the waterfront central zone shall not exceed seventy-five (75) decibels on the A scale at the boundaries of any lot, except for sound from construction activities, sound from traffic on public streets, sound from temporary activities such as festivals, and sound created as a result of, or relating to, an emergency, including sound from emergency warning signal devices. In measuring sound levels under this section, sounds with a continuous duration of less than sixty (60) seconds shall be measured by the maximum reading on a sound level meter set to the A weighted scale and the fast meter response (L maxfast). Sounds with a continuous duration of sixty (60) seconds or more shall be measured on the basis of the energy average sound level over a period of sixty (60) seconds (LEQ_1).

3. ***Vibration:*** Vibration inherently and recurrently generated shall be imperceptible without instruments at lot boundaries. This shall not apply to vibration resulting from activities aboard a vessel or from railroad vehicle activities, or from activities on a pile supported pier.

4. ***Federal and state environmental regulations:*** All uses shall comply with federal and state environmental statutes and regulations regarding emissions into the air, except where provisions of this Code are more stringent.

5. ***Discharges into harbor areas:*** No discharge into harbor water areas shall be permitted, unless permitted by the Maine Department of Environmental Protection under a waste discharge license and as approved by the department of public services in accordance with chapter 24, article III of this code. All private sewage disposal or private wastewater treatment facilities shall comply with the provisions of chapter 24, article II of this code and federal and state environmental statutes and regulations regarding wastewater discharges.

6. ***Storage of vehicles:*** Storage of any unregistered automotive vehicle on the premises for more than sixty (60) days shall not be permitted.

7. ***Landfill of docking and berthing areas:*** Landfill of docking and berthing areas shall be governed by 38 M.R.S.A. sections 480-A through480-HH, and permitted only if the landfill does not reduce the amount of linear berthing areas or space, or berthing capacity. If approved, construction shall be undertaken using methods approved by the department of public services and shall be accomplished in accordance with the provisions of division 25 of this article and in a manner so as to ensure that a stable and impermeable wall of acceptable materials will completely contain the fill material and will not permit any fill material to leach into docking areas or navigable waters.

8. ***Off-street parking and loading:*** Division 20 (off-street parking) and division 21 (off-street loading) of this article shall not apply.

The planning authority shall review applications for non-marine use parking against the following standards:

a. Applicants for non-marine parking in the waterfront central zone shall submit a parking and traffic circulation plan showing the location of all existing and proposed structures, travel ways and parking on the subject lot.

b. Outside of the NMUOZ, non-marine use parking is subject to the limitations described in 14-311(a)

("55% rule").

c. Non-marine use parking shall only be located on a lot where, based on the parking and traffic circulation plan and a parking analysis to be submitted for planning authority review, the marine use parking supply is reasonably sufficient to serve marine use space located on the subject lot.

d. Water-dependent use parking spaces shall be located as close as reasonably possible to associated vessels and/or ground floor lease areas.

9. ***Shoreland and flood plain management regulations:*** Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5 of this article.

10. ***Lighting:*** All lighting on the site shall be shielded such that direct light sources shall not unreasonably interfere with vessels transiting the harbor nor have an unreasonable adverse impact on adjacent residential zones.

11. ***Signs:*** Signs shall be permitted as set forth in division 22 of this article.

12. ***Storage of pollutants and oily wastes:*** On-premises storage of pollutants and oily wastes shall not be permitted for more than forty-five (45) days.

13. ***Urban design:*** Construction of new structures located within thirty-five (35) feet of the southerly edge of Commercial Street between Maine Wharf and the easterly property line of the city fish pier shall conform to the guidelines set forth in the downtown urban design guidelines, unless such structures are also located within one-hundred (100) feet of the water. Such structures that are also located within one-hundred (100) feet of the water shall conform to the extent practicable to the downtown urban design guidelines.

14. ***Pier and wharf expansions:*** In addition to meeting Harbor Commission and Coast Guard requirements for navigation,

any expansion or extension of a pier and or wharf in the waterfront central zone shall demonstrate its compatibility with fixed route ferry service and emergency vessel operations.

15. ***Compatibility of non-marine uses with marine uses:*** Non-marine uses, structures and activities, including but not limited to access, circulation, parking, dumpsters, exterior storage and loading facilities or other structures shall neither interfere with the existence or operation of marine uses nor impede access to vessel berthing or other access to the water by existing or potential marine uses. Siting of a use not set forth in section 14-307(a) shall not substantially reduce or inhibit existing public access to marine or tidal waters.

16. ***Functional utility of piers and access to the water's edge:*** All new development, whether for marine or non-marine uses, should anticipate current and future functional and operational needs of water-dependent pier tenants to access the water's edge for the transfer of goods and materials between berthed vessels and land bound vehicles, and shall demonstrate adherence to the following provisions:

    a. Provisions for the storage and movement of goods and materials must be designed into all waterside development and internal circulation routes must be maintained or otherwise provided as an element of any development. The siting, design, and circulation of non-marine uses, particularly those allowed on first floors, shall adjust if needed to accommodate reasonable access for pedestrians, vehicles, and freight transfer to and from berthed vessels.

    b. Any development that proposes to site a building within ten (10) feet of a pier edge (thus precluding vehicle use of the pier edge) should provide openings and circulation through or around the building to allow the transfer of goods and materials to trucks and circulation routes within the interior of the pier.

c. With the exception of non-commercial berthing allowed under section 14-307(a)(20), there is to be no other non-commercial berthing.

d. Except for common circulation drives as defined in 14-306, access ways, parking and loading areas designated for marine uses shall be exclusively for marine uses and shall not be shared with non-marine uses.

17. ***Public view protection:*** Any new development in the waterfront central zone shall perform a public view impact analysis for review and approval by the planning board or planning authority as a condition of site plan approval. The analysis shall: (a) demonstrate the project's adherence to the ***Portland View Corridor Protection Plan*** (City of Portland Comprehensive Plan, 2002)to the extent practicable; and (b) promote the public's visual access to the water through sensitive building placement.

The planning board or planning authority shall find at a minimum that the proposed development (a) retains street corridor views as extended across Commercial Street from the Portland peninsula; (b) retains panoramic views of the water from Commercial Street to the extent practicable; and (c) where loss of existing public views to the water is shown to be necessary for the reasonable development of the site, the developer provides alternative public views to the water through newly established view corridors or publicly accessible pedestrian ways. Such pedestrian ways shall not interfere with existing or potential water-dependent uses, nor shall they endanger the public through uncontrolled proximity to industrial activity.

(Ord. No. 103-10/11, 12-20-10)

Sec. 14-312 thru Sec. 14-317. Reserved.

DIVISION 18.5. WATERFRONT PORT DEVELOPMENT ZONE*

***Editor's Note—**See the editor's note to division 18 of this article.

Sec. 14-318. Purpose.

Transport of goods by water to and from Portland is an important component of both the local and regional economy. This commerce is dependent upon land with direct access to the dredged deep water channel of the Fore River.

Waterfront land with direct deep water access shall be restricted to uses which contribute to port activity. This zone exists, therefore, to ensure the continued viability of the Port of Portland. Uses in the port development zone, while governed by the same performance standards as other industrial zones, are limited to those uses which are dependent upon deep water and which contribute to port activity.

Nonmarine industrial activity may be allowed only on a temporary basis and only to the extent it will not preclude or impede any future water-dependent development.
(Ord. No. 168-93, § 2, 1-4-93)

Sec. 14-318.5. No adverse impact on marine uses.

No use shall be permitted, approved or established in this zone if it will have an impermissible adverse impact on future marine development opportunities. A proposed development will have an impermissible adverse impact if it will result in any one (1) or more of the following:

(a) The proposed nonwater-dependent use will displace an existing water-dependent use;

(b) The proposed use will reduce existing commercial vessel berthing space;

(c) The proposed nonwater-dependent use, structure or activities, including but not limited to access, circulation, parking, dumpsters, exterior storage or loading facilities, and other structures, will unreasonably interfere with the activities and operation of existing water-dependent uses or significantly impede access to vessel berthing or other access to the water by water-dependent uses; or

(d) The siting of a proposed nonwater-dependent use will substantially reduce or inhibit existing public access to marine or tidal waters.

(Ord. No. 168-93, § 2, 1-4-93)

Sec. 14-319. Permitted uses.

Subject to a determination that the proposed use meets the standards of section 14-318.5 (no adverse impact on marine uses), the following uses are permitted in the waterfront port development zone:

(a) *Marine:*

1. Marine repair services and machine shops;

2. Tugboat, fireboat, pilot boat and similar services;

3. Harbor and marine supplies and services and ship supply such as fueling and bunkering of vessels;

4. Shipbuilding and facilities for construction, maintenance and repair of vessels;

5. Marine cargo handling facilities, including docking, loading and related storage;

6. Boat repair yards;

7. Facilities for marine construction and salvage;

8. Facilities for marine pollution control, oil spill cleanup, and servicing of marine sanitation devices.

(b) *Commercial:*

1. Intermodal transportation facilities principally for vessels with regularly scheduled destination service or for railroad transportation service;

2. Warehousing and storage of goods which are awaiting shipment via cargo carriers;

3. Marine cargo container and chassis maintenance and

repair.

(c) *Public:*

Public uses including pedestrian and bicycle trails.

(d) *Other:*

1. Accessory uses customarily incidental and subordinate to the location, function and operation of permitted uses. Food service establishments, newsstands and other similar retail and service support uses shall only be permitted as accessory uses if they are part of and located within the lot lines of a use set forth in section 14-319(a)3, 6, or (b)1, if all such uses do not exceed two thousand (2,000) square feet in total floor area of the building or twenty-five (25) percent of the total floor area of the building, whichever is less, and if each individual use does not exceed one thousand (1,000) square feet in total floor area of the building; and further provided that such accessory uses provide goods or services that are supportive of the principal use and its clientele.

2. Street vendors licensed pursuant to Chapter 19 are a permitted use, but only in the following area of the waterfront port development zone: on Commercial Street from the intersection of India Street to the westerly side of the Maine State Pier.

3. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 168-93, § 2, 1-4-93; Ord. No. 38-02/03, § 2, 9-4-02; Ord. No. 33-11/12, 1-18-12)

Sec. 14-320. Conditional uses.

(a) The following uses shall be permitted as conditional uses in the waterfront port development zone, provided that, notwithstanding section 14-471(c), section 14-474(a), or any other provision of this Code, the Planning Board shall be substituted for the board of appeals as the reviewing authority, and provided further that in addition to the provisions of section 14-474(c)(2)

such uses will not impede or preclude existing or potential water-dependent development on other lots, will allow for adequate right-of-way access to the water, are compatible with marine uses, and are physically adaptable or relocatable to make way for future development for water-dependent uses, and meet any additional standards set forth below:

1. *Marine:*

    a. Marine products, wholesaling and retailing;

    b. Boat storage facilities, excluding rack storage;

    c. Seafood processing;

    d. Seafood packing and packaging;

    e. Fabrication, storage and repair of fishing equipment;

    f. Ice-making services;

    g. Fabrication of marine-related goods;

    h. Fish by-products processing, provided that:

        i. Any fish by-product processing facility has a valid rendering facility license under chapter 12; and

        ii. The processing of other material wastes or by-products shall not be deemed a lawful accessory use under any other provision of this article.

2. *Commercial:*

    Off-street parking lots, excluding parking structures.

3. *Industrial:*

    a. Storage of goods in existing structures;

    b. Facilities for combined marine and general construction;

c. Low impact industrial uses, including but not limited to bakeries, breweries, bottling, printing and publishing, pharmaceuticals, machine shops, manufacture of products, assembly of electrical components, tool and die shops, and the packaging of food, provided that such uses shall be subject to the performance standards set forth in §14-252.

4. *Public:*

Utility substations, including sewage collection and pumping stations, water pumping stations, transformer stations, telephone electronic equipment enclosures and other similar structures, provided that such structures are located more than one hundred (100) feet from the water.

(b) The following use shall be permitted only upon the issuance of a conditional use permit subject to the provisions of section 14-474 (conditional uses), and any special provisions, standards or requirements specified below:

1. Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

a. Towers may be installed for the purpose of wind data collection for no more than two (2) years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

d. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

f. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

2. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 168-93, § 2, 1-4-93; Ord. No. 149-01/02, 2-4-02; Ord. No. 29-09/10, 8-3-09, emergency passage; Ord. No. 33-11/12, 1-18-12)

Sec. 14-320.1. Prohibited uses.

Uses which are not enumerated in either section 14-319 or 14-320 as permitted or conditional uses are prohibited. Those uses that are prohibited shall include, without limitation:

a. Residential uses (not in existence on May 5, 1987).

b. Hotels, motels or boatels.

c. Auditoriums, civic centers, convention centers or other meeting facilities.

d. Restaurants and drinking establishments.

(Ord. No. 168-93, § 2, 1-4-93)

Sec. 14-320.2. Dimensional requirements.

In addition to the provisions of article III, division 25 of this Code, lots in the waterfront port development zone shall be subject to the following requirements:

(a) *Minimum lot size:* None.

(b) *Minimum frontage:* None.

(c) *Minimum yard dimensions:*

Front setback: None.

Side setback: None.

Rear setback: None.

Setback from pier line: Notwithstanding the above requirements, a minimum setback of five (5) feet from the edge of any pier, wharf or bulkhead shall be required for any structure. The setback area may be utilized for activities related to the principal uses carried on in the structure, subject to the provisions of sections 14-319 and 14-320, but shall not be utilized for off-street parking. The edge of any pier, wharf or bulkhead shall include any attached apron(s).

(d) *Maximum lot coverage:* One hundred (100) percent.

(e) ***Maximum building height:*** Forty-five (45) feet, except as follows:

1. In the areas bounded as described below, facilities for bulk storage of materials delivered to a site by waterborne transportation or awaiting transportation from the site by means of waterborne transportation may be erected up to the maximum heights indicated (above mean sea level):

   a. In the area that lies between Danforth Street and the Veterans Memorial Bridge: One hundred forty-five (145) feet.

   b. In the area between Danforth Street and the projection of the centerline of Vaughn Street between its intersections with Orchard Street and Danforth Street: Seventy (70) feet.

   c. In the area between the projection of the centerline of Vaughn Street between its intersections with Orchard Street and Danforth Street and the projection of the centerline of Fletcher Street between its intersections with Orchard Street and Danforth Street: Seventy-five (75) feet.

   d. In the area formed by the projection of the centerline of Fletcher Street between its intersections with Orchard Street and Danforth Street easterly to the projection of the centerline of Emery Street between its intersections with Taylor Street and Danforth Street: Seventy-five (75) feet.

   e. In those areas where the maximum height may not exceed forty-five (45) feet above grade, no structure may exceed sixty-five (65) feet in height above mean sea level.

   For purposes of this section, a projection of the centerline of a street shall consist of an extension of the centerline of the street to the water side boundary of the waterfront port development zone.

2. Additional bulk, height and location standards for structures exceeding forty-five (45) feet in height above grade within the waterfront port development zone:

   a. The maximum horizontal diagonal measurement of portions of a structure, cluster of structures or equipment exceeding forty-five (45) feet in height above grade shall not exceed one hundred (100) feet, except that for each foot that the structure, cluster of structures, or equipment is lowered from the maximum permitted height, the maximum horizontal measurement may increase by one (1) foot.

   b. In addition to any other setback requirements, portions of structures or clusters of structures exceeding forty-five (45) feet in height above grade shall be set back a minimum of one (1) foot from the exterior property line of the owner of the underlying fee interest for each foot that the structure or cluster of structures exceeds forty-five (45) feet in height above grade.

   c. No structure or cluster of structures exceeding forty-five (45) feet in height above grade may be located closer than one hundred fifty (150) feet from any other such structure or cluster of structures.

   d. The cumulative width of the portion of structures exceeding forty-five (45) feet in height above grade shall not exceed more than thirty (30) percent of the average width of the lot as measured by a line drawn parallel to the water.

   e. No structure shall exceed forty-five (45) feet in height above grade within the view corridors established by the projection of the street right-of-way lines of Vaughn Street or Emery Street.

f. For purposes of this section only, moveable elements such as cranes and gantries, and connection devices such as conveyors or bridges shall not be subject to the space and bulk requirements, but shall be subject to a determination by the Federal Aviation Administration that the location of such equipment will not create a hazard to navigation. Other rooftop appurtenances shall not exceed the maximum height limits set forth in this section.

g. The applicant must provide a determination from the Federal Aviation Administration that structures and equipment will not exceed the applicable height guidelines for the runway approach and will not create a hazard to navigable airspace. Such a determination shall be accepted as conclusive evidence that the proposed development will not create a hazard.

h. Accessory uses in structures which exceed forty-five (45) feet in height above grade shall not be located higher than forty-five (45) feet within the structure.

(Ord. No. 168-93, § 2, 1-4-93)

Sec. 14-320.3. Performance standards.

All uses in the waterfront port development zone shall comply with the following standards:

(a) ***Outdoor storage of materials:*** Outdoor storage of commodities and materials accessory to normal conduct of business, except pilings and/or cranes, shall be permitted to a maximum height of forty-five (45) feet, and such materials shall be entirely contained, including runoff contaminants and residual material, within a designated area within the lot boundaries.

(b) ***Noise:***

1. The level of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American

National Standards Institute, Inc.), inherently and recurrently generated within the waterfront port development zone between the hours of 7:00 p.m. and 7:00 a.m. from industrial facilities or operation commenced on or after July 1, 1988, shall not exceed fifty-five (55) decibels on the A scale at or within the boundaries of any residential zone, except for sound from construction activities, sound from traffic on public streets, sound from temporary activities such as festivals, and sound created as a result of, or relating to, an emergency, including sound from emergency warning signal devices.

2. In measuring sound levels under this section, sounds with a continuous duration of less than sixty (60) seconds shall be measured by the maximum reading on a sound level meter set to the A weighted scale and the fast meter response (L maxfast). Sounds with a continuous duration of sixty (60) seconds or more shall be measured on the basis of the energy average sound level over a period of sixty (60) seconds (LEQ_1).

3. In addition to the sound level standards otherwise established, facilities or operations established or built in the waterfront port development zone on or after July 1, 1988, shall employ best practicable sound abatement techniques to prevent tonal sounds and impulse sounds or, if such tonal and impulse sounds cannot be prevented, to minimize the impact of such sounds in residential zones. Tonal sound is defined as a sound wave usually perceived as a hum or which because its instantaneous sound pressure varies essentially as a simple sinusoidal function of time. Impulse sounds are defined as sound events characterized by brief excursions of sound pressure, each with a duration of less than one (1) second.

(c) ***Vibration:*** Vibration inherently and recurrently generated shall be imperceptible without instruments at lot boundaries. This shall not apply to vibration resulting from activities aboard a vessel or from railroad vehicle activities, or from activities on a pile supported pier.

(d) ***Federal and state environmental regulations:*** All uses shall comply with federal and state environmental statutes and regulations regarding emissions into the air, except where provisions of this Code are more stringent.

(e) ***Discharges into harbor areas:*** No discharge into harbor water areas shall be permitted, unless permitted by the Maine Department of Environmental Protection under a waste discharge license and as approved by the department of parks and public works in accordance with chapter 24, article III of this Code. All private sewage disposal or private wastewater treatment facilities shall comply with the provisions of chapter 24, article II of this Code and federal and state environmental statutes and regulations regarding wastewater discharges.

(f) ***Storage of vehicles:*** Storage of any unregistered automotive vehicle on the premises for more than sixty (60) days shall not be permitted.

(g) ***Landfill of docking and berthing areas:*** Landfill of docking and berthing areas shall be governed by 38 M.R.S.A. Sections 471 through 478, and permitted only if the landfill does not reduce the amount of linear berthing areas or space, or berthing capacity. If approved, construction shall be undertaken using methods approved by the department of parks and public works and shall be accomplished in accordance with the provisions of division 25 of this article and in a manner so as to ensure that a stable and impermeable wall of acceptable materials will completely contain the fill material and will not permit any fill material to leach into docking areas or navigable waters.

(h) ***Off-street parking:*** Off-street parking is required as provided in division 20 (off-street parking) of this article.

(i) ***Off-street loading:*** Off-street loading is required as provided in division 21 of this article.

(j) ***Shoreland and flood plain management regulations:*** Any lot or portion of a lot located in a shoreland zone as

identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5.

(k) ***Lighting:*** All lighting on the site shall be shielded such that direct light sources shall not unreasonably interfere with vessels transiting the harbor nor have an unreasonable adverse impact on adjacent residential zones.

(l) ***Signs:*** Signs shall be permitted as set forth in division 22 of this article.

(m) ***Storage of pollutants and oily wastes:*** On-premises storage of pollutants and oily wastes shall not be permitted for more than forty-five (45) days.

(n) ***Compatibility of nonmarine uses with marine uses:*** Nonmarine uses, structures and activities, including but not limited to access, circulation, parking, dumpsters, exterior storage and loading facilities or other structures shall neither unreasonably interfere with the existence or operation of marine uses nor significantly impede access to vessel berthing or other access to the water by existing or potential marine uses.

(Ord. No. 168-93, § 2, 1-4-93; Ord. No. 240-09/10, 6-21-10)

DIVISION 18.7. WATERFRONT SPECIAL USE ZONE*

***Editor's Note—**See the editor's note to division 18 of this article.

Sec. 14-320.5. Purpose.

The waterfront special use zone recognizes that the uses appropriate in this zone are constrained by its proximity to heavy industrial use on the western end, a high-density residential neighborhood on the north, and park and R-OS land to the east. Uses to be located in this zone must be compatible with these existing neighborhood uses.

At a minimum, parcels in this zone generally enjoy visual access to the port. It is further recognized that this area has historically been used for marine uses and that some of the parcels

have the capacity to accommodate active water-dependent uses. While physical access to the water may not currently be legally available to all parcels in this zone, it is anticipated that developments in this zone may be able to negotiate easements for access. At a minimum, development in this zone should not be incompatible with marine and water-dependent uses. Uses which contribute to the maintenance and improvement of the infrastructure along the water's edge as a condition of use are strongly encouraged.
(Ord. No. 168-93, § 2, 1-4-93)

Sec. 14-320.5.5. No adverse impact on marine uses.

No use shall be permitted, approved or established in this zone if it will have an impermissible adverse impact on future marine development opportunities. A proposed development will have an impermissible adverse impact if it will result in any one (1) or more of the following:

(a) The proposed nonwater-dependent use will displace an existing water-dependent use;

(b) The proposed use will reduce existing commercial vessel berthing space;

(c) The proposed nonwater-dependent use, structure or activities, including but not limited to access, circulation, parking, dumpsters, exterior storage or loading facilities, and other structures, will unreasonably interfere with the activities and operation of existing water-dependent uses or significantly impede access to vessel berthing or other access to the water by water-dependent uses; or

(d) The siting of a proposed nonwater-dependent use will substantially reduce or inhibit existing public access to marine or tidal waters.

(Ord. No. 168-93, § 2, 1-4-93)

Sec. 14-320.6. Permitted uses.

Subject to a determination that the proposed use meets the standards of section 14-320.5.5 (no adverse impact on marine uses):

(a) The following uses are permitted in the waterfront special use zone on both the north and south sides of the

railroad line indicated on the City of Portland Zoning Map:

1. *Marine:*

   a. Marine products, wholesaling, distribution and retailing;

   b. Marine repair services and machine shops;

   c. Tugboat, fireboat, pilot boat and similar services;

   d. Harbor and marine supplies and services, chandleries, and ship supply such as fueling and bunkering of vessels;

   e. Marine industrial welding and fabricating;

   f. Shipbuilding and facilities for construction, maintenance and repair of vessels;

   g. Commercial marine transport and excursion services, including ferries, captained charter services, sport fishing and water taxis;

   h. Cargo handling facilities, including docking, loading and related storage;

   i. Boat repair yards;

   j. Boat storage facilities, including rack storage facilities;

   k. Seafood processing;

   l. Seafood packing and packaging;

   m. Seafood loading and seafood distribution;

   n. Fabrication, storage and repair of fishing equipment;

   o. Ice-making services;

p. Facilities for marine construction and salvage;

q. Facilities for marine pollution control, oil spill cleanup, and servicing of marine sanitation devices;

r. Fabrication of marine-related goods;

s. Fishing and commercial vessel berthing;

t. Noncommercial berthing;

u. Marine office, including but not limited to offices of owners of wharves or their agents, and naval architects, and seafood brokers;

v. Public landings;

w. Marinas;

x. Intermodal transportation facilities.

2. *Industrial uses:*

Industrial uses which meet the performance standards of the I-2 zone.

3. *Public:*

Pedestrian and bicycle trails.

The following uses are permitted in the waterfront special use zone only on the north side of the railroad tracks indicated on the City of Portland Zoning Map only in (a) buildings in existence on January 4, 1993, or (b) one (1) new structure per parcel (as defined in 30-A M.R.S.A. Section 4401(6)), which parcel was in existence on January 4, 1993, of up to five thousand (5,000) square feet in total floor area. No construction of a new structure of more than five thousand (5,000) square feet in total floor area or in excess of one (1) per parcel for uses other than those specified in subsections (1) through (3) above is allowed without approval of a conditional use pursuant to section 14-320.6.5 or conditional or contract rezoning pursuant to division 1.5 of this article:

4. *Commercial uses:*

a. Professional, business, and general offices;

b. Business service establishments;

c. Restaurants, provided that food service and consumption shall be the primary function of the restaurant;

d. Cabinet and carpentry shops;

e. Cold storage facilities;

f. Museums and art galleries.

5. *Other:*

a. Accessory uses customarily incidental and subordinate to the location, function and operation of permitted uses or temporary exhibition uses, provided that all such exhibition uses on a lot do not exceed a combined total of sixty (60) days per year and that the total floor area utilized for such uses does not exceed seventy thousand (70,000) square feet at any one (1) time;

b. Parking: Parking shall be permitted as long as it does not impede access to water by existing or potential marine uses.

c. Institutional uses including marine research, education and laboratory facilities. Such uses shall not include any type of overnight accommodations.

d. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

6. *Public:*

a. Utility substations, including sewage collection and pumping stations, water pumping stations, transformer stations, telephone

electronic equipment enclosures and other similar structures, provided that such structures are located more than one hundred (100) feet from the water;

b. Municipal uses;

c. Landscaped pedestrian parks, plazas and similar outdoor pedestrian spaces, including without limitation pedestrian and bicycle trails.

7. *Industrial uses:*

Warehousing and wholesaling.

(Ord. No. 168-93, § 2, 1-4-93; Ord No. 187-99, 1-4-99; Ord. No. 33-11/12, 1-18-12)

Sec. 14-320.6.5. Conditional uses.

(a) The following uses shall be permitted only upon the issuance of a conditional use permit, subject to the provisions of sections 14-320.5.5, 14-474 and any special provisions, standards or requirements specified below, and further provided that, notwithstanding section 14-474(a) or any other provision of this Code, the Planning Board shall be substituted for the board of appeals as the reviewing authority:

1. Any use permitted in section 14-320.6(d)2, 4, 5 or 6, (e), (f) or (g), in one (1) new structure of more than five thousand (5,000) square feet, but not more than ten thousand (10,000) square feet in total floor area per parcel.

(b) The following use shall be permitted only upon the issuance of a conditional use permit subject to the provisions of section 14-474 (conditional uses), and any special provisions, standards or requirements specified below:

1. Temporary wind anemometer towers, as defined in Sec 14-47, are permitted provided the following standards are met in addition to Sec 14-430:

a. Towers may be installed for the purpose of wind data collection for no more than two (2)

years after the issuance of a Certificate of Occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the Board of Appeals with the application; and

c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

d. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the Board of Appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in terms of strength, stability, security, grounding, icing impacts and maintenance; and

e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to Corporation Counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

f. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meteorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, or the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

2. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Ord. No. 168-93, § 2, 1-4-93; Ord. No. 29-09/10, 8-3-09, emergency passage; Ord. No. 33-11/12, 1-18-12)

Sec. 14-320.7. Contract or conditional zoning.

An applicant may only construct a new structure of either more than five thousand (5,000) square feet in total floor area for occupancy by uses enumerated in section 14-320.6(d)1, or ten thousand (10,000) square feet in total floor area for occupancy by uses enumerated in section 14-320.6(d)2, 4, 5 or 6, (e), (f) or (g) or in excess of one (1) per parcel for occupancy by those same uses if a rezoning is approved pursuant to division 1.5 of this article. A conditional or contract rezoning shall only be approved if, after public hearing and opportunity for public comment, the reviewing body finds that the applicant has carried the burden of proof to show that the proposed development meets the standards of section 14-320.55 and all of the following standards:

(a) The proposed development is consistent with the comprehensive plan.

(b) The project's public benefits outweigh its potential negative impacts, taking into consideration as public benefits protection of existing water-dependent uses, preservation of future water-dependent use development opportunities, contribution to the development of and/or on-going maintenance of the marine infrastructure for commercial vessels (either on- or off-site), and visual and physical access to the waterfront for the general public.

(c) The proposed development responds to any unique physical conditions and development opportunities along the

shoreline.

(d) The proposed development is sensitive to design opportunities and local environmental conditions, makes use of creative design solutions, does not significantly restrict air, light or water views of other structures located in the vicinity and does not create significant adverse local climatic effects such as increased winds, shadowing, or less efficient traffic, parking or circulation patterns.

(e) The proposed development is consistent with the Portland Waterfront Public Access Design Guidelines, a copy of which is on file in the department of planning and urban development.

(f) The proposed rezoning contains adequate provisions and/or conditions to ensure that the water-dependent use is not abandoned after the project is developed.

(Ord. No. 168-93, § 2, 1-4-93)

Sec. 14-320.8. Prohibited uses.

Uses which are not enumerated in section 14-320.6 as permitted or in section 14-320.6.5 as conditional uses are prohibited.

(Ord. No. 168-93, § 2, 1-4-93)

Sec. 14-320.9. Dimensional requirements.

In addition to the provisions of article III, division 25 of this Code, lots in the waterfront special use zone shall be subject to the following requirements:

(a) *Minimum lot size:* None.

(b) *Minimum frontage:* None.

(c) *Minimum yard dimensions:*

Front setback: None.

Side setback: None required unless adjacent to a residential zone; if adjacent to a residential zone, twenty-five (25) feet.

Rear setback: None required unless adjacent to a

residential zone; if adjacent to a residential zone, twenty-five (25) feet.

Setback from pier line: Notwithstanding the above requirements, a minimum setback of five (5) feet from the edge of any pier, wharf or bulkhead shall be required for any structure. The setback area may be utilized for activities related to the principal uses carried on in the structure, subject to the provisions of sections 14-313 and 14-314, but shall not be utilized for off-street parking. The edge of any pier, wharf or bulkhead shall include any attached apron(s).

(d) ***Maximum lot coverage:*** One hundred (100) percent.

(e) 1. ***Maximum building height:*** Forty-five (45) feet, except in the area formed by the projection of the centerline of Atlantic Street between its intersections with Wilson Street and the Eastern Promenade easterly to the easternmost boundary of the waterfront special use zone, where facilities for bulk storage of materials delivered to a site by waterborne transportation or awaiting transportation from the site by means of waterborne transportation may be erected to heights that shall not exceed sixty-five (65) feet above mean sea level. In those areas where the maximum height may not exceed forty-five (45) feet above grade, no structure may exceed sixty-five (65) feet in height above mean sea level. For purposes of this section, a projection of the centerline of a street shall consist of an extension of the centerline of the street to the water side boundary of the waterfront special use zone.

2. ***Additional bulk, height and location standards for structures exceeding forty-five (45) feet in height above grade within the waterfront special use zone:***

a. The maximum horizontal diagonal measurement of portions of a structure, cluster of structures or equipment exceeding forty-five (45) feet in height above grade shall not exceed one hundred (100) feet, except that for each foot that the structure, cluster of structures, or

equipment is lowered from the maximum permitted height, the maximum horizontal measurement may increase by one (1) foot.

b. In addition to any other setback requirements, portions of structures or clusters of structures exceeding forty-five (45) feet in height above grade shall be set back a minimum of one (1) foot from the exterior property line of the owner of the underlying fee interest for each foot that the structure or cluster of structures exceeds forty-five (45) feet in height above grade.

c. No structure or cluster of structures exceeding forty-five (45) feet in height above grade may be located closer than one hundred fifty (150) feet from any other such structure or cluster of structures.

d. The cumulative width of the portion of structures exceeding forty-five (45) feet in height above grade shall not exceed more than thirty (30) percent of the average width of the lot as measured by a line drawn parallel to the water.

e. No structure shall exceed forty-five (45) feet in height above grade within the view corridors established by the projection of the street right-of-way lines for Atlantic Street, Vesper Street or for O'Brion Street.

f. For purposes of this section only, moveable elements such as cranes and gantries, and connection devices such as conveyors or bridges shall not be subject to the space and bulk requirements, but shall be subject to a determination by the Federal Aviation Administration that the location of such equipment will not create a hazard to navigation. Other rooftop appurtenances shall not exceed the maximum height limits set forth in this section.

g. The applicant must provide a determination from the Federal Aviation Administration that structures and equipment will not exceed the applicable height guidelines for the runway approach and will not create a hazard to navigable airspace. Such a determination shall be accepted as conclusive evidence that the proposed development will not create a hazard.

h. Accessory uses in structures which exceed forty-five (45) feet in height above grade shall not be located higher than forty-five (45) feet within the structure.

(Ord. No. 168-93, § 2, 1-4-93)

Sec. 14-320.10. Performance standards.

All uses in the waterfront special use zone shall comply with the following standards:

(a) *Outdoor storage of materials:* Outdoor storage of commodities and materials accessory to normal conduct of business, except pilings and/or cranes, shall be permitted to a maximum height of forty-five (45) feet, and such materials shall be entirely contained, including runoff contaminants and residual material, within a designated area within the lot boundaries.

(b) *Noise:*

1. The level of sound, measured by a sound level meter with frequency weighting network (manufactured according to standards prescribed by the American National Standards Institute, Inc.), inherently and recurrently generated within the waterfront special use zone between the hours of 7:00 p.m. and 7:00 a.m. from industrial facilities or operations commenced on or after July 1, 1988, shall not exceed fifty-five (55) decibels on the A scale at or within the boundaries of any residential zone, except for sound from construction activities, sound from traffic on public streets, sound from temporary activities such as festivals, and sound created as a result of, or relating to, an emergency, including sound from emergency warning

signal devices.

2. In measuring sound levels under this section, sounds with a continuous duration of less than sixty (60) seconds shall be measured by the maximum reading on a sound level meter set to the A weighted scale and the fast meter response (L maxfast). Sounds with a continuous duration of sixty (60) seconds or more shall be measured on the basis of the energy average sound level over a period of sixty (60) seconds (LEQ_1).

3. In addition to the sound level standards otherwise established, facilities or operations established or built in the waterfront special use zone on or after July 1, 1988, shall employ best practicable sound abatement techniques to prevent tonal sounds and impulse sounds or, if such tonal and impulse sounds cannot be prevented, to minimize the impact of such sounds in residential zones. Tonal sound is defined as a sound wave usually perceived as a hum or which because its instantaneous sound pressure varies essentially as a simple sinusoidal function of time. Impulse sounds are defined as sound events characterized by brief excursions of sound pressure, each with a duration of less than one (1) second.

(c) ***Vibration:*** Vibration inherently and recurrently generated shall be imperceptible without instruments at lot boundaries. This shall not apply to vibration resulting from activities aboard a vessel or from railroad vehicle activities, or from activities on a pile supported pier.

(d) ***Federal and state environmental regulations:*** All uses shall comply with federal and state environmental statutes and regulations regarding emissions into the air, except where provisions of this Code are more stringent.

(e) ***Discharges into harbor areas:*** No discharge into harbor water areas shall be permitted, unless permitted by the Maine Department of Environmental Protection under a waste discharge license and as approved by the department of parks and public works in accordance with chapter 24,

article III of this Code. All private sewage disposal or private wastewater treatment facilities shall comply with the provisions of chapter 24, article II of this Code and federal and state environmental statutes and regulations regarding wastewater discharges.

(f) ***Storage of vehicles:*** Storage of any unregistered automotive vehicle on the premises for more than sixty (60) days shall not be permitted.

(g) ***Landfill of docking and berthing areas:*** Landfill of docking and berthing areas shall be governed by 38 M.R.S.A. Sections 471 through 478, and permitted only if the landfill does not reduce the amount of linear berthing areas or space, or berthing capacity. If approved, construction shall be undertaken using methods approved by the department of parks and public works and shall be accomplished in accordance with the provisions of division 25 of this article and in a manner so as to ensure that a stable and impermeable wall of acceptable materials will completely contain the fill material and will not permit any fill material to leach into docking areas or navigable waters.

(h) ***Off-street parking:*** Off-street parking is required as provided in division 20 (off-street parking) of this article.

(i) ***Off-street loading:*** Off-street loading is required as provided in division 21 of this article.

(j) ***Shoreland and flood plain management regulations:*** Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5.

(k) ***Lighting:*** All lighting on the site shall be shielded such that direct light sources shall not unreasonably interfere with vessels transiting the harbor nor have an unreasonable adverse impact on adjacent residential zones.

(l) ***Signs:*** Signs shall be permitted as set forth in division 22 of this article.

(m) ***Storage of pollutants and oily wastes:*** On-premises storage of pollutants and oily wastes shall not be permitted for more than forty-five (45) days.

(n) ***Compatibility of nonmarine uses with marine uses:*** Nonmarine uses, structures and activities, including but not limited to access, circulation, parking, dumpsters, exterior storage and loading facilities or other structures shall neither unreasonably interfere with the existence or operation of marine uses nor significantly impede access to vessel berthing or other access to the water by existing or potential marine uses.

(Ord. No. 168-93, § 2, 1-4-93; Ord. No. 240-09/10, 6-21-10)

DIVISION 19. R-P RESOURCE PROTECTION ZONE

Sec. 14-321. Use.

No building shall be erected, altered, enlarged, rebuilt or used, and no premises shall be used, in a R-P resource protection zone except for the following uses:

(a) Nonintensive recreational uses not requiring structures, such as fishing and hiking;

(b) Motorized and nonmotorized vehicular traffic on existing roads, trails and rails, as appropriate;

(b2) Bikeways, pedestrian trails and walkways;

(c) Fire prevention activities;

(d) Wildlife management activities;

(e) Soil and water conservation activities;

(f) Surveying and natural resource analysis;

(g) Emergency operations as defined in section 14-47;

(h) Harvesting of wild crops;

(i) Nonresidential structures for educational, scientific or nature interpretation purposes, containing a maximum

floor area of not more than ten thousand (10,000) square feet;

(j) Public and private parks and recreational areas, including one (1) or more structures containing a total maximum floor area of not more than ten thousand (10,000) square feet;

(k) Permanent and temporary piers, docks, wharves, bridges and uses projecting into water bodies, as allowed in section 14-449(b);

(l) Reserved;

(m) Storehouses for fishermen's gear;

(n) Reserved;

(o) Essential services as defined in section 14-47 accessory to the uses permitted herein;

(p) Signs, as allowed in division 22 of this article;

(q) Road construction, in accordance with the provisions of section 14-449;

(r) Parking facilities for uses permitted under this section;

(s) Reserved;

(t) Landfill and other earth-moving activity, as allowed in section 14-449(d).

(u) The following uses are permitted in the R-P zone only upon the issuance of a conditional use permit, subject to the provisions of section 14-474 (conditional uses) of this article and any special provisions, standards or requirements specified below.

1. Temporary wind anemometer towers, as defined in section 14-47, are permitted provided the following standards are met in addition to section 14-430:

a. Towers may be installed for the purpose of wind data collection for no more than two (2)

years after the issuance of a certificate of occupancy for the tower. At the conclusion of the aforementioned two (2) years, the tower must be dismantled and removed from the site within sixty (60) days; and

b. Towers shall be constructed according to plans and specifications stamped by a licensed professional engineer, which shall be provided to the board of appeals with the application; and

c. Towers shall be set back from habitable buildings by a distance equal to 1.1 times the tower height; and

d. The applicant shall provide a safety report prepared and stamped by a licensed professional engineer to the board of appeals with their application for conditional use, which demonstrates how the proposed temporary wind anemometer tower is safe in temrs of strength, stability, security, grounding, icing impacts and maintenance; and

e. The applicant shall provide evidence of commercial general liability insurance, such insurance to be satisfactory to corporation counsel and cover damage or injury resulting from construction, operation or dismantling of any part of the temporary wind anemometer tower; and

f. Towers and associated guy wires shall be sited to minimize their prominence from and impacts on public ways (including pedestrian ways); and

g. Towers shall be used for installing anemometers and similar devices at a range of heights from the ground to measure wind characteristics (speed, direction, frequency) and related meterorological data, but shall not be used for any other purpose; and

h. A performance guarantee shall be required for the cost of removal of the tower, guy wires and anchors. This requirement may be satisfied by surety bond, letter of credit, escrow account or by evidence, acceptable to the City, of the financial and technical ability and commitment of the applicant or its agents to remove the facility at the end of the use period.

2. Wind energy systems, as defined and allowed in Article X, Alternative Energy.

(Code 1968, § 602.13A.A; Ord. No. 499-74, § 6, 8-19-74; Ord. No. 15-92, § 24, 6-15-92; Ord. No. 33-11/12, 1-18-12)

Sec. 14-322. Space and bulk.

No building or structure shall be erected, altered, enlarged, rebuilt, or used in a R-P resource protection zone which does not comply with the following requirements:

(a) *Minimum rear yards:* Principal building or structure, other than a boathouse or storehouse for fishermen's gear: Seventy-five (75) feet.

(b) *Minimum side yards:*

1. Principal building or structure: Fifteen (15) feet.

2. Accessory building or structure: Five (5) feet.

(c) *Minimum side yard on side streets:*

1. Principal building or structure: Twenty (20) feet.

2. Accessory building or structure: Twenty (20) feet.

(d) *Minimum front yards:*

1. Principal building or structure: Twenty-five (25) feet.

2. Accessory building or structure: Twenty-five (25) feet.

(e) *Maximum height:*

1. Principal building or structure: Two (2) stories or twenty-five (25) feet.

2. Accessory building or structure: One (1) story or fifteen (15) feet.

(f) *Maximum building area:* Principal building or group of buildings: Ten (10) percent of lot area.

(g) *Minimum lot area:* Twenty thousand (20,000) square feet.

(h) *Minimum width of lot:* One hundred (100) feet.

(i) *Minimum lot frontage on street or shoreline:* One hundred (100) feet.

(j) *Minimum shoreline setback:* All principal structures other than permitted piers, docks, wharves, breakwaters, causeways, bridges, boathouses and storehouses for fishermen's gear: Seventy-five (75) feet.

(Code 1968, § 602.13A.B; Ord. No. 499-74, § 6, 8-19-74)

Sec. 14-323. Off-street parking.

Any off-street parking in a R-P resource protection zone is required as provided in division 20 of this article.

(Code 1968, § 602.13A.B; Ord. No. 499-74, § 6, 8-19-74)

Sec. 14-324. Shoreland and flood plain management regulations.

Any lot or portion of a lot located in a shoreland zone as identified on the city shoreland zoning map or in a flood hazard zone shall be subject to the requirements of division 26 and/or division 26.5.

(Ord. No. 15-92, § 25, 6-15-92)

DIVISION 19.5. HELISTOP OVERLAY ZONE

Sec. 14-325. Purpose.

The intent of this zone is to create an overlay zone in which helicopter landing areas are permitted on individual sites in addition to those uses permitted in the underlying zone. The

purpose of this zone is to protect the public health and safety by allowing helicopters serving medical needs to land in certain areas, while protecting surrounding areas from any negative effects associated with such a use.
(Ord. No. 48-93, 7-19-93)

Sec. 14-326. Helistop defined.

A helistop, for purposes of this division, shall be defined as an area used for the landing of helicopters at any location other than an airport. Such area shall include a landing area or pad, and may include parking required for access to the landing area or pad, a loading and unloading area for emergency vehicles, and other related facilities other than maintenance and repair facilities.
(Ord. No. 48-93, 7-19-93)

Sec. 14-327. Regulations for helistops.

(a) *Helistops which have more than five landings per month:*

(1) All such helistops must comply with all applicable Federal Aviation Association regulations, including those for marking of landing areas.

(2) All take-off, landing and parking areas at such a helistop site shall be surfaced with grass or with a dust-proof material.

(3) Each landing pad shall be set back at least two hundred (200) feet from any residence, school or church. Each landing pad shall be set back at least fifty (50) feet from any commercial or industrial structure. All setbacks shall be measured from the edge of the landing pad.

(4) The area in which a landing pad is located shall be enclosed by a fence or other barrier of not less than three (3) feet in height or shall be secured by a locked gate, as approved by the fire department.

(5) All such helistops shall be subject to review under article V of this chapter.

(b) *Helistops which have five or fewer landings per month:*

(1) All such helistops must comply with all applicable

Federal Aviation Association regulations.

(2) All such helistops shall be subject to approval by the zoning administrator and the fire department.

(3) Such helistops shall not be subject to review under article V of this chapter.

(Ord. No. 48-93, 7-19-93)

Sec. 14-328 – Sec. 14-330. Reserved.

DIVISION 19.7. RESERVED.

Sec. 14-330.1. – Sec. 14-330.5 Reserved.

***Editor's Note-** Pursuant to Order 142-06/07 passed on 2/21/07 repealed Division 19.7.(Formula Businesses) Sections 14-330.1.-14-330.5. in its entirety and established a task force on business diversity to develop a strategy for preserving and enhancing the economic health of Portland's downtown business district related to its unique character, business diversity, economic vitality, and quality of life. As part of its charge, the Task Force shall undertake the following actions:

1. Study and report on the strengths and challenges of various regulatory tools
used in other municipalities to maintain business diversity, including community impact review; formula business restrictions; local purchasing preferences; site plan review standards; Tax Increment Financing; and District Improvement Financing.

2. Consider the legality of the various regulatory tools noted in paragraph 1.

3. Consider the potential economic impact of the various regulatory tools noted in paragraph 1 on the downtown business district, including but not limited to consideration of measured impacts of the Formula Business Ordinance adopted in November of 2006; development patterns in and surrounding the downtown business district; review of lease rates and real estate values within the downtown business zone; and a review of openings and closings of establishments within the zone in the recent past.

4. Upon completion of its review, the Task Force will prepare a report summarizing its research and findings, including any recommendations needed to maintain the economic health of Portland's downtown business district. Such report shall be submitted to the Council and Planning Board for review and consideration.

The Task Force shall consist of 15 individuals appointed by the Mayor representing the following groups:

Portland City Council: Two City Councilors who shall be Co-chairs.
One representative nominated by the Maine Real Estate and Developers Association.
One representative nominated by the Portland Community Chamber of Commerce.
One representative nominated by Portland Buy Local.
One representative nominated by the Bayside Community Development Corporation.
One representative nominated by the Portland Downtown District.
One District One resident.
One District Two resident.
One District Three resident.
One District Four resident.
One District Five resident.
One representative of formula businesses.
One representative of small independent businesses.
One representative of downtown Portland property owners.

DIVISION 19.8. DOWNTOWN ENTERTAINMENT OVERLAY ZONE

Sec. 14-330.11. Purpose.

The purpose and intent of this section is to regulate the location of businesses with entertainment licenses in order to maintain and improve public safety and the quality of life of Portland residents by preventing an over concentration of businesses with entertainment licenses, particularly those which also have liquor licenses, and the public safety problems that have and will be experienced when too many of these businesses are located too close to each other. These problems include large late-night crowds within which fights and assaults, disorderly conduct and other breaches of the peace occur and that are difficult to effectively police and that expose not only innocent bystanders but also police officers to danger and personal injury.
(Ord. No. 164-06/07, 4-4-07)

Sec. 14-330.12. Definitions.

(a) *After-hours entertainment license.* For the purpose of the after-hours entertainment prohibition in section 14-330.15, "after-hours entertainment license" means any of the music, dancing and special entertainment licenses required or authorized by article III, chapter 4 of this Code.

(b) *Downtown entertainment overlay zone.* For the purposes of this section, the "downtown entertainment overlay zone"

includes and is defined by the boundaries of the following zones as shown on the attached downtown entertainment overlay zone map: B-3, B-3(c) and WCZ zones, a copy of which is on file in the department of planning and urban development.

Any property that lies partly within the overlay zone and partly outside it shall be subject to this ordinance.
(Ord. No. 164-06/07, 4-4-07)

Sec. 14-330.13. Dispersal requirement for facilities with entertainment license in downtown entertainment overlay zone.

A business with an entertainment license as required or authorized by section 4-51(a) of this code located within the downtown entertainment overlay zone may not be located within 100 feet of another business with an entertainment license, as measured along or across public ways from the main entrance or entrances of each.
(Ord. No. 164-06/07, 4-4-07)

Sec. 14-330.14. Exemption.

(a) A business with an entertainment license located in the downtown entertainment overlay zone on or before January 3, 2006 shall not have to comply with the requirements of this section and if located within 100 feet of another licensee shall be considered a non-conforming use controlled by chapter 14, division 23 of this code. Such a business is considered an entertainment business for the purpose of calculating dispersion requirements under section 14.330.13 for a new or relocating entertainment business in the downtown entertainment overlay zone.

(b) A business with an entertainment license that does not allow amplified entertainment shall not have to comply with the dispersal requirement of section 14-330.13.
(Ord. No. 164-06/07, 4-4-07; Ord. No. 68-09/10, 10-19-09)

Sec. 14-330.15. Separate business entities.

Where two or more entertainment businesses operate on one site, and where each business entity requires or has a separate business license, or displays in a manner visible from public property separate business trademarks, logos, service marks or other mutually identifying names or symbols, each business entity shall be counted as a separate entertainment business for

the purpose of this section.
(Ord. No. 164-06/07, 4-4-07)

Sec. 14-330.16. Conditions on after-hours food service in the downtown entertainment overlay zone.

(a) Following a hearing held pursuant to chapter 15, section 15-10, the clerk may impose conditions to maintain or improve public safety on the food service license of any business in the downtown entertainment overlay zone that operates between 1:00 a.m. and 4:00 a.m., following a written recommendation from the Portland police department that such conditions are necessary.

(b) The clerk's decision may be appealed to the city manager pursuant to section 15-9 of this code.

(c) Nothing in this section shall be construed to limit the clerk's authority in chapter 15 to deny, suspend or revoke any license pursuant to the standards and process in that chapter.
(Ord. No. 164-06/07, 4-4-07)

DIVISION 20. OFF-STREET PARKING

Sec. 14-331. Defined.

Off-street parking, either by means of open-air spaces or by garage spaces which meet the standards set forth in the City of Portland Technical Manual, as hereafter amended, in addition to being a permitted use in certain zones, shall be considered as an accessory use when required or provided to serve conforming uses in any zone.
(Code 1968, § 602.14.A; Ord. No. 272-77, 5-16-77; Ord. No. 389-89, § 1, 4-3-89; Ord. No. 278-09/10, 7-19-10)

Cross reference(s)—Definitions and rules of construction generally, § 1-2.

Sec. 14-332. Uses requiring off-street parking.

Except as provided in Section 14-332.1, 14-332.2 (exceptions) and 14-345 (fee in-lieu of parking) of this division, for the uses listed below the following minimum off-street parking requirements shall be provided and maintained in the case of new construction, alterations which increase the number of units, and changes of use:

(a) *Residential structures:*

1. For new construction, two, (2) parking spaces for each dwelling unit, plus one (1) additional parking space for every six (6) units or fraction thereof.

2. For alterations or changes of use in existing structures, which create new or additional dwelling units in such structures, and for accessory units pursuant to §§14-68,78,88, one (1) additional parking spaces for each such unit. Existing parking spaces shall not be used to meet the parking requirements of this paragraph, unless the existing parking spaces exceed one (1) space for each dwelling unit.

3. For residential development on the peninsula (area defined as southerly of I-295).

   a. One (1) space per unit;

   b. The required parking for multi-unit residential buildings may be partially met through provision of shared-use vehicles, which are vehicles owned and maintained by the owner/manager of the building and available for use on a fee basis to the residents of the building. One shared use vehicle shall be deemed to satisfy eight (8) required car spaces, but in no case shall more than 50% of the parking requirement be satisfied by shared vehicle use.

   c. The planning board may establish a parking requirement that is less than the normally required number of spaces upon a finding of unique conditions that result in a lesser parking demand, such as housing for persons who cannot drive, housing that participates in a travel demand management program, availability of transit, or housing which includes permanent restrictions on automobile usage, and which is permanently restricted from utilizing resident on-street parking stickers.

4. For residential development in the B-2, B-2b, B-2c zones:

   a. One (1) parking space per dwelling unit.

(b) ***Motel:*** One (1) parking space for each sleeping room.

(c) ***Hotels:*** One (1) parking space for each four (4) guest rooms.

(d) ***Schools providing instruction for students up to and including those fifteen (15) years of age:*** One (1) parking space for each room used for purposes of instruction.

(e) ***Schools providing instruction for students sixteen (16) years of age and over:*** One (1) parking space for each ten (10) seats or major fraction thereof, used for purposes of instruction; if no fixed seats, one (1) parking space for each one hundred (100) square feet or major fraction thereof used for purposes of instruction.

(f) ***Hospitals:*** One (1) parking space for each five hundred (500) square feet or major fraction thereof, of floor area, exclusive of cellar.

(g) ***Auditoriums, theaters, assembly halls, funeral homes:*** One (1) parking space for each five (5) seats or for each one hundred (100) square feet, or major fraction thereof, of assemblage space if no fixed seats.

(h) ***Retail stores:*** One (1) parking space for each two hundred (200) square feet of first floor area in excess of two thousand (2,000) square feet not used for bulk storage and one (1) parking space for each seven hundred (700) square feet, or major fraction thereof, for each floor above the first floor not used for bulk storage.

(i) ***Restaurants or establishments constructed and intended for the dispensing of food and drink as the principal activity:*** One (1) parking space for each one hundred fifty (150) square feet, or major fraction thereof, of floor area not used for bulk storage or food preparation.

(j) ***Offices; professional and public buildings:*** One (1) parking space for each four hundred (400) square feet, or major fraction thereof, of floor area exclusive of cellar not used for bulk storage.

(k) ***Places of assembly (which includes private club and fraternal halls, places of religious assembly, and community halls):*** One (1) parking space for reach one hundred and twenty five (125) square feet, or major fraction thereof, of floor area used for assembly area not including bathrooms, bulk storage, stairways, closets or other non-assembly areas.

(l) ***For that part of every business, manufacturing, and industrial building not catering to retail trade and with floor area over three thousand (3,000) square feet:*** One (1) parking space for each one thousand (1,000) square feet of floor area, or major fraction thereof.

(m) ***Hostels:*** One (1) parking space for each eight (8) beds, or major fraction thereof. This requirement may be reduced to one (1) parking space for each twelve (12) beds if the site is within one quarter (1/4) mile of a public transit stop.

(n) ***Long-term, extended care and intermediate care facilities:*** One (1) parking space for each five (5) beds, or major fraction thereof, plus one (1) parking space per each employee normally present during one (1) weekday morning shift.

(o) ***Lodging houses:*** One (1) parking space for each five (5) rooming units, except in the R-5 zone; in the R-5 zone, one (1) parking space for every two (2) rooming units.

(p) ***Sheltered care group homes and emergency shelters:*** One (1) parking space for every two (2) employees.

(q) ***Congregate care facilities:*** One (1) parking space for every three (3) living units.

(r) ***Special needs independent living units:*** One (1) parking space per every four (4) living units, plus one (1) parking space for each staff member, if any, normally present at any one time.

(s) *Bed and breakfast:*

1. *Except in the I-B zone:* One (1) parking space for each two (2) guest rooms or fraction thereof for the first four (4) guest rooms; one (1) parking space for each additional guest room in excess of four (4).

2. *In the I-B zone:* No off-street parking required.

(t) *Day care facilities*: Off-street parking shall be provided on the site for all staff of the facility. Parking for the facility shall not interfere with access to or use of play areas. In residential zones parking spaces may be stacked or placed side by side in order to less their impact on the residential character of the lots and the neighborhood, and shall not be located closer than five (5) feet from the property line of any abutting residential use or residentially zoned site.

(u) *Private clubs:* One (1) parking space for each one hundred fifty (150) square feet, or major fraction thereof, of floor area.

(v) *Neighborhood Centers:* One (1) parking space for each 150 square feet, or major fraction thereof, of floor area, except for neighborhood centers which serve primarily clientele from the surrounding neighborhood, the parking requirement shall be one (1) parking space per 1,000 square feet, or major fraction thereof, of floor area.

(Code 1968, § 602.14.B; Ord. No. 268-77, 5-16-77; Ord. No. 431-82, § 2, 2-22-82; Ord. No. 575-86, §§ 1, 2, 5-19-86; Ord. No. 65-87, 11-2-87; Ord. No. 230-90, § 2, 3-5-90; Ord. No. 33-91, § 14, 1-23-91; Ord. No. 243-91, § 1, 3-11-91; Ord. No. 33A-91, § 8, 4-17-91; Ord. No. 125-97, § 10, 3-3-97; Ord. No. 232, §4, 3-15-99; Ord. No. 94-99, 11-15-99; Ord. No. 77-02/03, § 1, 10-21-02; Ord. No. 199-04/05, 4-4-05; Ord. No. 84-08/09, 10-20-08; Ord. No.36-09/10, 8-17-09; Ord. No. 127-09/10, 1-4-10 emergency passage; Ord. No. 240-09/10, 6-21-10; Ord. No. 241-09/10, 11-15-10; Ord. No. 149-10/11, 3-7-11; Ord. No. 279-09/10, 6-6-11)

Sec. 14-332.1. Zone specific off-street parking exceptions and modifications.

The off-street parking requirements established for uses, established above in section 14-332 of this division, are hereby modified for the following zones a according to the provisions

described below.

(a) ***IR-3, Island Residential Zone, Off-street parking:*** Off-street parking shall not be required irrespective of the requirements of division 20 (off-street parking) of this article.

(b) ***USM Overlay Zone, parking:*** The parking requirements of section 14-332 (division 2) shall not apply to university buildings. Instead, the amount of parking required for any university building or building addition shall be determined by the planning board during site plan review, based on an analysis of campus-wide parking demand and supply, pursuant to a comprehensive university parking management plan, and treating all contiguous land (including land on opposite sides of the street) owned by the university as one lot. In determining the amount of parking required for any university building, the planning board may take into account such factors as:

1. The availability of off-campus parking and shuttle transportation to and from such off-campus facilities.

2. The ratio of commuter students to resident students.

3. The use of centrally located on-campus parking facilities so situated that students, faculty, staff and visitors arriving on campus can reasonably be expected to park in the central facilities and walk to their various on-campus destinations during the course of a school day.

4. Shared use of a single parking facility by two or more buildings when the peak parking demand period for such buildings do not overlap.

5. Development and implementation of a parking management plan which discourages on-street parking. On-street parking shall not be used to satisfy the university's parking demand.

6. Development and implementation of programs designed to reduce the number of automobiles

parking on campus, such as ride share programs and incentives for use of bicycles and public transportation.

(c) ***Recreation open space zone:*** Off-street parking adequate to serve projected employee and visitor needs shall be provided. Parking needs projections provided by the applicant or the planning department should be considered in the review.

(d) ***Change of use in the B-2b zone:***

1. A change of use of 10,000 sq. ft. or less of floor area of a building or a portion of a building need not provide parking for non-residential uses, provided that if the number of existing parking spaces serving the site is less than the requirements of this division, that number of parking spaces may not be reduced lower than the required amount prior to the change of use except:

   a. To the extent necessary to meet the requirements of the Americans with Disability Act; or

   b. To the extent it is a requirement or a condition of site plan review; or

   c. To the extent the change of use requires less parking than the previous use and the total number of parking spaces serving the site exceeds the parking requirements of this division for all uses on the site including the change of use.

2. A newly constructed building, a building addition or a change of the use of a building exceeding 10,000 sq. ft. of floor area, shall provide the parking required by this division.

(e) ***B-3 Zone***: No off-street parking is required for changes of use.

(f) ***I-R1, Island Business Zone:*** Off-street parking shall be required at twenty-five (25%) percent of the

required number of parking spaces for specified uses as provided in division 20 (off-street parking) of this article, except that residential uses shall meet the full parking requirement.

(g) *B-5 Zone:* No off-street parking shall be required.

(h) *B-6 Eastern Waterfront Mixed Use Zone:* Off-street parking for all projects regardless of size shall be governed by 14-332.2(c) of this article.

(i) *B-7, Mixed Development District Zone:* Off-street parking for all projects regardless of size, shall be governed by 14-332.2(c) of this article.

(j) *Waterfront Zone parking requirements; Eastern Waterfront Port Zone; Waterfront Central Zone; Waterfront Port Development Zone; Waterfront Special Use Zone*: Off-street parking is required at fifty (50%) percent of the required number of parking spaces for specifi8ed uses as otherwise provided in division 20 of this article.

(Ord. No. 240-09/10, 6-21-10)

Sec. 14-332.2. Categorical exceptions and modifications to off-street parking requirements.

Regardless of which zone a project of use is located, the following exceptions to the off-street parking requirements listed above in section 14-332 are additionally hereby established.

(a) *Home occupations, Section 14-410:* Any need for parking generated by the conduct of a home occupation allowed under section 14-410 of this article shall be met off the street and other than in a required front yard.

(b) *Incentives for affordable housing- parking reductions:* For each affordable housing unit for rent or sale within an eligible project under the Affordable Housing Ordinance established in 14-488(b) of this article, no more than one (1) parking space shall be required. The planning board may establish a parking requirement for affordable housing units for rent or sale within an eligible project that is less than one (1) parking

space per affordable housing unit, regardless of the size of the structure.

(c) *Site plans over 50,000 square feet and projects in the B-6, B-7, and USM Overlay Zones:* Where construction is proposed of new structures having a total floor area in excess of fifty thousand (50,000) square feet, the planning board shall establish the parking requirement for such structures. The parking requirement shall be determined based upon a parking analysis submitted by the applicant and upon the recommendation of the city transportation engineer.

(d) *Exception for historic structures:* No parking in excess of that existing on or servicing the lot as of March 15, 1999 shall be required for any structure under Article IX of this chapter, as a contributing structure in a local or National Register historical district, or as a locally designated or National Register landmark building; however, parking may not be decreased from that existing on or servicing the lot on March 15, 1999 except to the extent necessary to meet the requirements of the Americans with Disabilities Act.

(Ord. No. 240-09/10, 6-21-10)

Sec. 14-332.3. Uses requiring off-street bicycle parking.

In all zones where off-street motor vehicle parking is required, minimum off-street bicycle parking requirements shall be provided and maintained in the case of new construction, alterations and changes of use as specified in Section 14-526(a)(2) (Site Plan Standards).

(Ord. NO. 134-07/08, 2-4-08)

Sec. 14-333. To be located on lot with principal use in residential zones; exceptions.

Required off-street parking in all residential zones and accessory off-street parking in R-1 through R-5 zones shall be located on the same lot with the principal building or use, except that the Board of Appeals may permit such off-street parking to be located at a distance of not more than three hundred (300) feet from the principal building or use, measured along lines of public access where it cannot reasonably be provided on the same lot if the premises to be used for parking are held under the same

ownership or lease as the building or use served and if said premises are located in the same or a less restricted zone as the building or use served. Evidence of such control, either deed or lease, shall be required. The Planning Board may be substituted for the Board of Appeals only where an applicant is otherwise before the Planning Board for site plan approval.

Whenever any exception to the parking requirements under this section has been finally denied on its merits by either the Zoning Board of Appeals or the Planning Board, a second request for an exception seeking essentially the same relief, whether or not in the same form or on the same theory, shall not be brought before either body within one (1) year of such denial unless, in the opinion of the board before which it was initially brought, substantial new evidence is available or a mistake of law or fact significantly affected the prior denial.
(Code 1968, § 602.14.C; Ord. No. 94-99, 11-15-99)

Sec. 14-334. To be located on lot with principal use in nonresidential zones; exceptions.

Required off-street parking in all nonresidential zones shall be located on the same lot with the principal building or use, or within one hundred (100) feet measured along lines of public access, except the Board of Appeals, or Planning Board when applicable, may permit off-street parking located further than one hundred (100) feet from the principal building or use upon finding that such off-street parking meets the following standards:

(a) *Distance from principal building or use site:* Off-street parking shall be located no more than 1500 ft. from the principal building or use site measured along lines of public access.

(b) *Control by ownership or lease:* The premises to be used for parking shall be held under the same ownership as the principal building or use or by lease with a term of not less than five (5) years with an option to renew. Evidence of such control, shall be required by showing for review and approval by City Corporation Counsel, at a minimum, a signed letter of intent, purchase and sale agreement, or option for sale or lease at the time of approval, and an executed deed or lease prior to issuance of any certificate of occupancy.

The Planning Board may be substituted for the Board of Appeals only where an applicant is otherwise before the Planning Board for site plan approval.

Whenever any exception to the parking requirements under this section has been finally denied on its merits by either the Zoning Board of Appeals or the Planning Board, a second request for an exception seeking essentially the same relief, whether or not in the same form or on the same theory, shall not be brought before either body within one (1) year of such denial unless, in the opinion of the board before which it was initially brought, substantial new evidence is available or a mistake of law or fact significantly affected the prior denial.

(Code 1968, § 602.14.D; Ord. No. 430-83, § 1, 4-25-83; Ord. No. 94-99, 11-15-99; Ord. No. 241-10/11, 11-15-10)

Sec. 14-335. Off-street parking restricted.

Off-street parking shall not include:

(a) More than one (1) commercial motor vehicle in any residence zone, the R-P zone or any B-1 zone;

(b) More than six (6) commercial motor vehicles in any B-2 zone;

(c) Loading, sales, dead storage, repair, or servicing of any kind, except when customarily incidental or accessory to a conforming principal building or use when located in an I-2, I-2b, I-3 zone and I-3b zone;

(d) Except in the case of a car dealer, more than one (1) unregistered motor vehicle stored outside for a period in excess of thirty (30) days in any residence zone, the R-P zone or any business zone;

(e) Notwithstanding (1) above, any truck body, commercial trailer or similar commercial vehicles in any residence zone or the R-P zone.

(Code 1968, § 602.14.E; Ord. No. 298-88, 5-31-88)

Sec. 14-336. Location in residence zones for six or fewer vehicles.

(a) Where off-street parking for six (6) or fewer vehicles is required or provided in any residence zone, it shall not be located closer than fifty (50) feet to any street line if less than five

(5) feet from any lot line and shall not be closer to any street line than the required depth of the front yard for the same lot, except on a corner lot where the minimum depth from the line of the side street shall be the minimum width of the side yard on the side street. Lots in the R-6 zone shall not be required to provide the five-foot setback required by this section, but parking in the R-6 zone shall meet the front yard setbacks set forth in this section.

(b) Parking shall be prohibited in the front yard of lots containing two (2) or more dwelling units, except within one (1) driveway on the lot. "Driveway," as used in this paragraph, shall not include any turnaround area.

(Code 1968, § 602.14.F; Ord. No. 231-90, § 1, 3-5-90; Ord. No. 310-98, § 2, 5-4-98)

Sec. 14-337. Location in residence zones for more than six vehicles.

Where off-street parking for more than six (6) vehicles is required or provided for nonresidential uses in residence zones, it shall not be located closer than twenty-five (25) feet to any residential structure on an adjoining lot.

(Code 1968, § 602.14.G)

Sec. 14-338. When located within required open yard areas in residence zones.

(a) Where off-street parking for more than six (6) vehicles is required or provided on a lot in a residence zone and vehicles are to be or may be parked within the area otherwise required to be kept open and unoccupied for front, side and rear yards in the zone in which such parking is located, the following requirements shall be met:

(1) A continuous curb guard, rectangular in cross-section, at least six (6) inches in height and permanently anchored, shall be provided and maintained at least five (5) feet from the street or lot line between such off-street parking and that part of the street or lot line involved; or a continuous bumper guard of adequate strength, the top of which shall be at least twenty (20) inches in height, shall be provided and maintained between such off-street parking and that part of the street or lot line involved so that bumpers of vehicles cannot project beyond its face toward the street or lot line involved,

either above or below the impact surface.

(2) Where such off-street parking shall abut a lot in residential use or an unoccupied lot which is located in a residence zone, a chain link, picket or sapling fence, not less than forty-eight (48) inches in height, shall be provided and maintained between such off-street parking and that part of the lot line involved.

(b) Notwithstanding the provisions of subsection (a) of this section, parking shall be prohibited in the front yard of lots containing two (2) or more dwelling units, except within one (1) driveway on the lot. "Driveway," as used in this paragraph, shall not include any turnaround area.

(Code 1968, § 602.14.H; Ord. No. 231-90, § 2, 3-5-90)

Sec. 14-339. When located adjacent to a street or a residential use.

Where off-street parking for more than six (6) vehicles is required or provided on a lot in any business zone, the following requirements shall be met:

(a) Where vehicles are to be or may be parked within ten (10) feet of any street line, a continuous curb guard, rectangular in cross-section, at least six (6) inches in height and permanently anchored, shall be provided and maintained at least five (5) feet from the street line between such off-street parking and that part of the street line involved; or a continuous bumper guard of adequate strength, the top of which shall be at least twenty (20) inches in height, shall be provided and maintained between such off-street parking and that part of the street line involved so that bumpers of vehicles cannot project beyond its face toward the street line involved either above or below the impact surface.

(b) Where such off-street parking shall abut a lot in a residence zone or a lot in residential use, a chain link, picket or sapling fence, not less than forty-eight (48) inches in height, shall be provided and maintained between such off-street parking and that part of the lot line involved.

(Code 1968, § 602.14.1)

Sec. 14-340. Construction requirements when more than six vehicles parked.

Where off-street parking for more than six (6) vehicles is required or provided, the following construction requirements shall apply:

(a) Appropriate driveways from streets or alleys, as well as maneuvering areas, shall be provided. Location and width of approaches over public sidewalks shall be approved by the traffic engineer.

(b) The surface of driveways, maneuvering areas and parking areas shall be uniformly graded with a subgrade consisting of gravel or equivalent materials at least six (6) inches in depth, well compacted, and with a wearing surface equivalent in quantities of compaction and durability to fine gravel.

(c) A system of surface drainage shall be provided in such a way that the waste run-off shall not run over or across any public sidewalk or street.

(d) Where artificial lighting is provided, it shall be shaded or screened so that no light source shall be visible from outside the area and its access driveways.

(Code 1968, § 602.14.J; Ord. No. 96-88, § 1, 7-19-88)

***Editor's note—**Ord. No. 96-88, § 1, adopted July 19, 1988, amended subsection (a) of this section to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 96-88.

Sec. 14-341. Aisles required for six or more spaces.

In parking facilities containing six (6) or more parking spaces, there shall be provided vehicular access by one (1) or more aisles. Aisle widths shall be in conformance with the standards set forth in the City of Portland Technical Manual, as hereafter amended.

(Code 1968, § 602.14.A; Ord. No. 272-77, 5-16-77; Ord. No. 389-89, § 2, 4-3-89; Ord. No. 278-09/10, 7-19-10)

Sec. 14-342. Reserved.

***Editor's note**—Section 1 of Ord. No. 354-85, adopted Jan. 7, 1985, repealed § 14-342, relative to a reduction of requirements by the board of appeals, which derived from Code 1965, § 602.14.K.

Sec. 14-343. Either the Board of Appeals or the Planning Board may approve joint use.

(a) Except as provided in subsection (b) below, the Board of Appeals may approve the joint use of a parking facility by two (2) or more principal buildings or uses where it is clearly demonstrated that the parking facility will substantially meet the intent of the requirements by reason of variation in the probable time of maximum use by patrons or employees among such establishments. This section shall apply to residential uses in the B-1, B-1b, B-2, B-2c and B-3 zone which propose joint use of a parking facility with another principal use in the B-1, B-1b, B-2 and B-3 zone. The Planning Board may be substituted for the Board of Appeals only where an applicant is otherwise before the Planning Board for site plan approval.

Whenever any exception to the parking requirements under this section has been finally denied on its merits by either the Zoning Board of Appeals or the Planning Board, a second request for an exception seeking essentially the same relief, whether or not in the same form or on the same theory, shall not be brought before either body within one (1) year of such denial unless, in the opinion of the board before which it was initially brought, substantial new evidence is available or a mistake of law or fact significantly affected the prior denial.

(b) Requests for joint use of parking in the B-2b zone shall be reviewed and approved by the Zoning Administrator only in the following circumstances:

1. Residential uses above the first (1st) floor in buildings in the B-2b zone shall be permitted to share parking spaces with commercial uses located in the same building; and

2. It is clearly demonstrated that the joint parking arrangement will substantially meet the intent of the parking requirements by reason of a variation in the probable time of maximum use by patrons or employees of the commercial establishment and tenants of the

residential dwelling units; and

3. Parties involved in the joint use of parking shall provide evidence of a binding agreement for the joint use of parking. Any subsequent modifications to the structure or change in the tenant occupancy of the commercial use(s) shall require review by the Zoning Administrator for conformance with this section.

Any decision by the Zoning Administrator on shared parking requests may be appealed to the Zoning Board of Appeals as an interpretive appeal pursuant to 14-471(a).

(Code 1968, § 602.14.L; Ord. No. 243-91, § 2, 3-11-91; Ord. No. 94-99, 11-15-99; Ord. No. 36-09/10, 8-17-09)

Sec. 14-344. Either the Board of appeals or the Planning Board may authorize parking in certain residence zones.

In R-3 through R-5 zones, the Board of Appeals may permit off-street parking for passenger cars only accessory to a use located in and conforming with the provisions of a nearby business or industrial zone (except B-1 zones) if the lot on which the use is proposed is located wholly within three hundred (300) feet, measured along lines of public access, of the principal building of the use to which the proposed use would be accessory and provided further that:

(a) The lot where the parking use is proposed shall be under the control of the owner of the use to which the parking use would be accessory. Evidence of such control by deed or lease shall be required before the certificate of occupancy is issued. If such control should be abrogated, the parking use thus allowed shall automatically revert to a nonconforming use in violation of this article and shall be terminated forthwith.

(b) The Board of Appeals may impose such conditions as deemed necessary to insure development compatible with that of the immediate neighborhood notwithstanding the provisions of any other section of this article and may at its discretion limit the period of such use.

(c) The Planning Board may be substituted for the Board of Appeals only where an applicant is otherwise before the Planning Board for site plan approval.

Whenever any exception to the parking requirements under this section has been finally denied on its merits by either the Zoning Board of Appeals or the Planning Board, a second request for an exception seeking essentially the same relief, whether or not in the same form or on the same theory, shall not be brought before either body within one (1) year of such denial unless, in the opinion of the board before which it was initially brought, substantial new evidence is available or a mistake of law or fact significantly affected the prior denial.
(Code 1968, § 602.14.M; Ord. No. 541-84, 5-7-84; Ord. No. 94-99, 11-15-99)

Sec. 14-345. Peninsula fee-in-lieu of parking.

Any major or minor development subject to site plan review located in a non-residential zone on the Portland Peninsula shall either provide the required parking or pay a fee according to the provisions of (a) and (b) below.

(a) Provide the number of off-street parking spaces according to the provisions of section 14-332 (uses requiring off-street parking) and section 14-334 (off-site parking) of this division; or,

(b) Pay a fee-in-lieu of parking of not less than $5,000.00 as adjusted annually per (c) below, per space not provided. Fees shall be deposited into the Sustainable Transportation Fund, as established in section 14-346 of this division.

(c) The value of the fee shall be adjusted annually according to the Engineer's News Record construction index as published on January 1st of the current calendar year. The fee adjustment shall be calculated by taking the index amount published on January 1st, of the current year, divided by the index amount published on January 1, 2010 (8660), multiplied by (the fee amount from (b) above). The base fee, the adjustment index, or the calculation method may be otherwise amended by action of the city council from time to time.

(d) The fee shall be paid on or before the date upon which a certificate of occupancy is issued. Payment shall be secured by a bond at the time the amount of the fee is

set.
(Ord. No. 241-09/10, 11-15-10)

Sec. 14-346. Sutainable transportation fund established.

By act of the Portland City Council, the Sustainable Transportation Fund is hereby established.
(Ord. No. 241-09/10, 11-15-10)

Sec. 14-346.1 Sustainable transportation fund purpose.

The purpose of the fund is to implement those provisions of the Peninsula Transit Study Report, and Action Plan, as adopted by the Portland City Council on August 3, 2009 as a component of the city's Comprehensive Plan, which recommended creation of a Sustainable Transportation Fund. The Peninsuala Transit Study Report and Action Plan establish a goal to reduce the number and impact of single occupancy vehicle trips to and from the Portland Peninsula. Achieving this goal requires transportation choice for residents, businesses, and visitors to the Portland Peninsula. This ordinance establishes a funding source for broadening transportation choice and facilitating development with lower traffic impacts and reduced parking requirements.

The mechanism and protocol for collecting fees and spending funds are consistent with state requirements for utilizing transportation related impact fees.
(Ord. No. 241-09/10, 11-15-10)

Sec. 14-346.2. Deposits and expenditures for the Sustainable Transportation Fund.

(a) *Deposits*

1. The city shall establish a Sustainable Transportation Fund to be set up as a seprate account within the city. Deposits into the fund shall include:

   a. 100% of the revenue generated by the fee in-lieu of parking program, as established in section n14-345 of the city Land Use Code;

   b. Funds appropriated for deposite into the fund by vote of the city council;

c. Voluntary contributions of money or other liquid assets to the fund; and,

d. Any federal, state or private grant or loan funds provided to the fund.

2. ***Accounting of deposits by project and sub-district:*** Funds from the fee in-lieu of parking program, as established in section 14-345 above, shall be individually collected and accounted for by project and the geographic ***fee in-lieu of parking sub-district*** in which it is located, as shown on the Portland Peninsula fee in-lieu of parking sub-district map on file with the Department of Planning and Urban Development.

3. ***Funds to be used within 10 years of deposit:*** Funds collected under the fee in-lieu of parking ordinance shall be spent on eligible infrastructure and/or capital improvements or expenses, as outlined in (b) and (c) below, within 10 years of the date of collection. Any funds which are not so utilized and which exceed the City's actual costs of implementing the infrastructure improvement or improvements for which such fees were collected shall be refunded. Refunds shall be paid to the owner of records of the property for which the funds were collected, determined as of the date the refund is made.

4. ***Use of funds by sub-district:*** Funds collected under the fee in-lieu of parking ordinance shallbe spent on permitted expenditures of the fund, as outlined in (b) below, within the same geographic fee in-lieu of parking sub-district as the contributing project as depicted on the Portland Peninsula Fee In-Lieu of Parking Sub-district Map on file with the Department of Planning and Urban Development. However, for projects located within two hundred fifty (250) feet of an abutting sub-district, contributed fees can be used for eligible infrastructure projects in either abutting sub-district.

(b) ***Permitted expenditures of the fund***.

The Sustainable Transportation Fund may only be expended on the activities as described below:

1. Funds collected as fees in-lieu of parking shall be expended toward capital transportation improvements on the Portland Peninsula. Such capital improvements shall include but are not limited to the following:

    a. Parking Infrastructure

        i. Shared-use, publicly accessible parking facilities;

        ii. Publicly accessible bicycle racks and bicycle parking shelters;

    b. Transit Capital Improvements and Expenses

        i. Bus shelters, bus turnouts, transit signage and other transit amenities;

        ii. Buses andtransit vehicles;

        iii. Transit and transportation information systems;

        iv. Fixed guide way and/or rail transit systems;

    c. Pedestrian and Bicycle Infrastructure

        i. Multi-use trails, and non-vehicular transportation corridors;

        ii. Pedestrian infrastructure and amenities located on publicly accessible rightsof way including, but not limited to cross walks, signalization, landscaping, street furniture, wayfinding signage, traffic calming, and lighting;

        iii. New publicsidealksa nd new bicycle lanes along publicly accessible rights of way

or corridors where such facilities are not previously provided;

d. Other such improvements intended to enhance transportation choice and promote transit and non-automotive transport on the Portland Peninsula.

2. Funds collected or appropriated by means other than from a fee in-lieu of parking may be used for any of the capital transportation improvements listed above in (b)(1), and for any of the following uses:

a. Transportation Demand Management Program administration;

b. On or off-peninsula transit and/or non-automotive transportation capital or operating expenses;

c. Transit and/or non-automotive transportation promotion and education material; and

d. Other such programs or improvements intended to enhance transportation choice and promote transit and non-automotive transport for the City of Portland.

(c) *Annual Sustainable Transportation Plan and Appropriations Schedule:*

Annually, the city manager shall submit to the city council a recommended sustainable transportation plan and appropriations schedule, utilizing the revenues of the Sustainable Transportation Fund. The Transportation Committee of the city council or such other committee as the council shall designate shall recommend and refer the plan and appropriations schedule to the city council for action.

(Ord. No. 241-09/10, 11-15-10)

***Editor's Note—**The effect of Section 14-346.2(a)(iv) above is to establish the western boundary of the central sub-district as State Street, no High Street.

Sec. 14-347. - Sec. 14-350 Reserved.

DIVISION 21. OFF-STREET LOADING

Sec. 14-351. Minimum loading bays or loading berths.

In those zones where off-street loading is required, the following minimum off-street loading bays or loading berths shall be provided and maintained in the case of new construction, alterations and change of use:

(a) Office buildings and hotels with a gross floor area of more than one hundred thousand (100,000) square feet: One (1) bay.

(b) Retail, wholesale and industrial operations with a gross floor area of more than five thousand (5,000) square feet:

1. 5,000 to 40,000: 1 bay;

2. 40,001 to 100,000: 2 bays;

3. 100,001 to 160,000: 3 bays;

4. 160,001 to 240,000: 4 bays;

5. 240,001 to 320,000: 5 bays;

6. 320,001 to 400,000: 6 bays;

7. Each 90,000 over 460,000 square feet: 1 additional bay.

(c) Hospitals and nursing and convalescent homes: Two (2) off-street loading areas shall be provided whereby one (1) service area for ambulance and other emergency vehicles shall be separate from one (1) service area accommodating supply vehicles, and whereby both off-street loading areas shall be separate from parking and entrance locations.

(Code 1968, § 602.15.A; Ord. No. 49-74, 1-7-74)

Sec. 14-352. Dimensions.

Each loading bay shall have minimum dimensions of fifty (50) feet by fourteen (14) feet and may be located either within a building or outside and adjoining an opening in the building, except that in the cue of hospitals and nursing homes and convalescent homes, the off-street loading area provided for ambulance and other emergency vehicles shall be exempt from the minimum dimension requirement but shall be of sufficient width and depth to permit expeditious access and egress from the loading area. Every part of such loading bay shall be located completely off the street. In case trucks, trailers, or other motor vehicles larger than the dimensions of the minimum loading bay habitually serve the building in question, additional space shall be provided so that such vehicle shall park or stand completely off the street. (Code 1968, 602.15.B; Ord. No. 49-74, 1-7-74)

Sec. 14-353. Requirements to be met for additional bays and for alterations or modifications.

Any additional loading bays which are provided in excess of the requirements of this article or any loading bays otherwise established shall meet the requirements of section 14-352, and no alterations or modifications shall be made in an existing building or structure whereby loading openings or platforms are constructed or established unless the provisions of section 14-352 are met. (Code 1968, § 602.15.C)

Sec. 14-354. Reserved.

***Editor's note—**Section 2 of Ord. No. 354-85, adopted Jan. 7, 1985, repealed § 14-354, relative to variance prohibited, exception, which derived from Code 1968, § 602.15.D.

Sec. 14-355. - Sec. 14-365. Reserved.

DIVISION 22. SIGNS*

***Editor's note—**Ord. No. 252-94, § 2, passed Apr. 4, 1994, repealed Div. 22 of this article, §§ 14-366—14-368, relative to signs and billboards, and added new provisions relative to signs as set forth in §§ 14-366—14-372.5. Formerly, such provisions derived from §§ 602.10A.G, 602.13B and 602.16.A—602.16.C of the 1968 Code as amended by the following legislation:

Ord. No.	Section	Date	Ord. No.	Section	Date
499-74	7	8-19-74	538-81	1	2-18-81
536-74	2	8-19-74	39-85	1	7-15-85
334-76	7	7- 7-76	284-88		12-12-88
269-77		5-16-77	371-91	1	6- 5-91
270-77		5-16-77			

Cross reference(s)—Signs prohibited in cemeteries, § 7-137.

Sec. 14-366. Purpose.

The purpose of this division is to balance the need for adequate identification, communication and advertising for all land uses with the need to protect the public safety and welfare and to maintain and enhance the aesthetic environment of the City of Portland. The following policies shall apply in regulating signs:

(a) To allow for the orderly advertisement and identification of goods and services by public and private establishments in the city;

(b) To enhance public awareness of and access to goods, services and attractions by promoting visual order and clarity on city streets;

(c) To promote traffic safety by controlling the location, design and placement of signs on city streets; and

(d) To protect property values by ensuring the appropriate location, size, number and use of signs in neighborhoods and business districts.

(Ord. No. 252-94, § 2, 4-4-94)

Sec. 14-366.5. Applicability.

A sign may be erected, placed, established, painted, created or maintained in the city only in conformance with the standards,

procedures, exemptions and other requirements of this division.

All signage of a commercial nature, whether or not exempt from the receipt of a permit hereunder, shall be removed within thirty (30) days from the earlier of: vacancy of the advertised space by the applicable owner and/or tenant, or the cessation of the commercial enterprise so advertised. This subsection shall not apply to signs which have acquired historic significance, such as painted wall signs, as so determined by the Historic Preservation Program Manager. The owner of the building and/or any tenant advertising through the use of such signage each shall be responsible for adhering to this requirement.
(Ord. No. 252-94, § 2, 4-4-94; Ord. No. 187-02/03, 4-7-03)

Sec. 14-367. Definitions.

For the purposes of this division, the following definitions shall apply, in addition to the provisions of section 14-47:

Animated sign: Any sign that uses movement or change of lighting to depict action or create a special effect or scene.

Awning sign: Any sign that is a part of or attached to an awning, canopy or other fabric, plastic or structural protecting cover over a door, entrance, window, storefront or outdoor service area or any internally illuminated awning sign. A marquee shall not be considered an awning.

Banner: Any sign of lightweight fabric or similar material that is permanently mounted to a pole or a building by a permanent frame at one (1) or more edges. National, state and municipal flags or the official flag of any institution or business shall not be considered banners.

Beacon: Any light with one (1) or more beams directed into the atmosphere or directed at one (1) or more points not on the same lot as the light source or any light with one (1) or more beams that rotate or move.

Building marker: Any sign indicating the name of a building, date of construction, or other incidental information about its construction and/or history.

Building sign: Any wall sign, projecting sign, suspended sign, or any sign attached to any exterior part of a building. Interior

window signs shall not be considered building signs and shall not be included in the calculation of maximum cumulative sign area or maximum number of permitted signs.

Bus shelter signs: as specified in 23 M.R.S.A. § 1908-A, a bus shelter sign is any outdoor sign visible to the traveling public from a public way that is affixed to a publicly owned bus shelter where a public transport bus stops for the purpose of sallowing passengers to board and/or leave the bus.

Changeable copy sign: A sign or portion thereof with characters, letters or illustrations that can be changed or rearranged without altering the face or the surface of the sign. A sign on which the message changes more than eight (8) times per day shall be considered an animated sign and not a changeable copy sign for the purposes of this division. A sign on which the only copy that changes is an electronic or mechanical indication of time or temperature shall be considered a time and temperature portion of a sign and not a changeable copy sign for purposes of this division.

Commercial message: Any sign wording, logo or other representation that, directly or indirectly, names, advertises or calls attention to a business, product, service or other commercial activity.

Community/cultural banner: Banners located in the public right-of-way intended to serve a community purpose or convey information of community-wide interest.

Department: The department of planning and urban development.

Directory sign: A sign located at or near the entrance of a multi-tenant building, lot or park, the sole purpose of which is to provide a listing of names of individual tenants located thereon.

Flag: Any fabric, banner or bunting containing distinctive colors, patterns or symbols, used as a symbol of a government, political subdivision or other entity.

Freestanding sign: Any sign supported by structures or supports that are placed on or anchored in the ground and that are independent from any building or other structure.

Incidental sign: A sign, generally informational, that has a purpose secondary to the use of the lot on which it is located,

such as "no parking," "entrance," "loading only," "telephone," and other similar directives. Directional signs indicating the location of a building, tenant or entrance shall also be considered incidental signs. No sign with a commercial message legible from a position off the lot on which the sign is located shall be considered incidental.

Internally illuminated awning sign: An awning that is translucent and lighted from within and which either incorporates any commercial message, trademark or symbol or is readily concurrently visible with another internally illuminated awning sign that incorporates a commercial message, trademark or symbol.

Landmark sign: An existing sign determined by the department to have attained a high degree of community, cultural, aesthetic or historic significance.

Marquee: Any permanent roof-like structure projecting beyond a building or extending along and projecting beyond the wall of the building, generally designed and constructed to provide protection from the weather.

Marquee sign: Any sign attached to in any manner, or made part of, a marquee.

Multi-tenant lot: Any lot with more than one (1) business or more than one (1) use with exterior signs.

Nonconforming sign: Any sign that does not comply with the requirements of this division.

Pennant: Any lightweight plastic, fabric or other material, whether or not containing a message of any kind, suspended from a rope, wire or string, usually in a series, designed to move in the wind.

Portable sign: Any sign not permanently attached to the ground or some type of permanent structure, or a sign designed to be transported including, but not limited to, signs designed to be transported by means of wheels; signs converted to or located on A- or T-frames; menu and sandwich board signs; inflatable signs or large-scale tethered balloons; and/or signs attached to or painted on vehicles parked and visible from the public right-of-way, unless said vehicle is used in the normal day-to-day operations of the business.

Principal facade: Any facade or facades that constitute the primary visual and functional orientation of the building or tenant space, characterized by a combination of such features as principal entry, storefront and visibility from streets or parking areas.

Projecting sign: Any sign affixed to a building or wall in such a manner that its leading edge extends more than twelve (12) inches beyond the surface of the building or wall. A projecting sign may be either perpendicular or parallel to a wall and may have a message on more than one (1) face.

Readily concurrently visible signs: Any combination of signs that can be clearly and simultaneously viewed by an individual from any publicly accessible vantage point.

Residential sign: Any sign located in a district zoned for residential uses that contains no commercial message except advertising for goods and services offered on the premises where the sign is located, provided that offering such goods or services conforms with all requirements of this article.

Roof sign: Any sign erected and constructed wholly on and over the roof of a building, including attachment to a rooftop mechanical parapet supported by the roof structure, and extending vertically above the highest portion of the roof.

Roof sign, integral: Any sign incorporated as an integral or essentially integral part of a normal roof structure of any design, including attachment to a rooftop mechanical parapet, where no part of the sign extends vertically above the highest portion of the roof and such that no part of the sign is separated from the rest of the roof by a space of more than six (6) inches.

Security sign: Any sign that is placed upon a lot or a building to inform of the location of a security or other alarm system located upon the lot or within the building.

Sign: Any device, fixture, placard or structure that uses any color, form, graphic, illumination, symbol or writing to advertise, announce the purpose of, or identify the purpose of a person or entity, or to communicate information of any kind to the public.

Street frontage: The distance for which a lot line of a lot adjoins a public street, from one (1) lot line intersecting said

street to the furthest distant lot line intersecting the same street.

Suspended sign: A sign that is suspended from the underside of a horizontal plane surface and is supported by that surface.

Temporary sign: Any sign, except for a window sign, that is used for a period of not more than thirty (30) days and that is not permanently mounted.

Wall area: The area of a wall within a single plane.

Wall sign: Any sign parallel and attached to a wall, painted on the wall surface of, or erected and confined within the limits of an outside wall of any building or structure, which is supported by such wall or building, and which displays only one (1) sign surface.

Window sign: Any sign, pictures, symbol or combination thereof, designed to communicate information about an activity, business, commodity, event, sale or service, that is placed inside a window or upon the interior face of window panes or glass, and is visible from the exterior of the window.
(Ord. No. 252-94, § 2, 4-4-94; Ord. No. 37 06/07, 9-6-06; Ord. No. 91-11/12, 5-21-12)

Sec. 14-368. Regulations.

(a) ***Signs allowed on private property with and without permits.*** Signs shall be allowed on private property in the city in accordance with, and only in accordance with, Table 1 of section 14-369.5. If the notation "A" appears for a sign type in a column, such sign is allowed without prior approval as provided in this division in the zoning district(s) represented by that column. If the notation "B" appears for a sign type in a column, such sign is allowed only with prior permit approval in the zoning district(s) represented by that column. Special conditions may apply in some cases. If the notation "D" appears for a sign type in a column, such a sign is not allowed in the zoning district(s) represented by that column under any circumstances.

Although permitted under the previous paragraph, a sign designated by an "A" or "B" in Table 1 of section 14-369.5 shall be allowed only if:

1. The sum of the area of all building and freestanding signs on the lot conforms with the maximum permitted sign areas for such as determined by the formula for the zoning district in which the lot is located as specified in Table 2 of section 14-369.5; and

2. The size, location and number of signs on the lot conform with the requirements of Table 2 of section 14-369.5, which establish permitted sign dimensions by sign type, and with any additional limitations listed therein.

(b) ***Permits required.*** If a sign requiring a permit under the provisions of this division is to be placed, constructed, erected or modified on a lot, the owner of the lot shall secure a sign construction permit prior to the construction, placement, erection or modification of such a sign in accordance with the requirements of section 14-368.5. In addition, the property owner shall maintain in force at all times a sign construction permit for such sign in accordance with section 14-368.5.

No signs shall be erected in the public right-of-way except in accordance with subsection (e) of this section and the permit requirements of section 14-368.5.

No sign permit of any kind shall be issued for an existing or proposed sign unless such sign is in compliance with the requirements of this division, including those protecting existing signs.

(c) ***Design, construction and maintenance.*** All signs shall be designed, constructed and maintained in accordance with the following standards:

1. All signs shall comply with applicable provisions of the building code and the electrical code of the city at all times;

2. Except for banners, flags, temporary signs, portable signs and window signs conforming in all respects with the requirements of this division, all signs shall be constructed of permanent materials and shall be permanently attached to the ground, a building or another structure by direct attachment to a rigid wall, frame or structure; and

3. All signs shall be maintained in good structural condition, in compliance with all building and electrical codes, and in conformance with this Code, at all times;

4. Signs located in or adjacent to residential zones shall not cause light spillover or glare into properties within the residential zone.

(d) ***Signage plan.*** No permit shall be issued for an individual sign requiring a sign construction permit unless and until a signage plan for the lot on which the sign will be erected has been submitted to the department.

For any lot on which the owner proposes to erect one (1) or more signs requiring a permit, the owner shall submit to the department a signage plan containing the following:

1. A sketch plan of the lot. The sketch plan should indicate the location of buildings and driveways on the lot, as well as any abutting streets. Length of building frontages and street frontage(s) should also be noted;

2. An indication on the sketch plan of the proposed location of each existing and proposed sign of any type, except that incidental, portable, temporary and window signs need not be shown. For building signs, a sketch or a photograph of each building wall shall be provided indicating wall and sign dimensions; and

3. Computations of the following:

   a. A listing of each building sign (existing and proposed), identifying the location of each such sign and its sign area;

   b. A listing of each freestanding sign (existing and proposed), indicating the area, height and setback of each such sign; and

4. A sketch of proposed signs, indicating dimensions, materials, source of illumination and construction method.

For purposes of this section, a sketch plan shall not require a stamp by a licensed professional such as an engineer or an

architect. Measurements may be estimated. For multi-tenant lots or buildings, individual tenants shall be required to submit only those measurements applicable to their individual frontage or as otherwise required to review their application. Once a sketch plan has been filed for a property, the department shall keep a record of such plan so that a new sketch plan shall not be required for later changes to signage on a site for which a sketch plan has been previously submitted.

(e) ***Signs in the public right-of-way.*** No signs shall be allowed in the public right-of-way, except for the following:

1. Permanent signs, limited to the following: Public signs erected by or on behalf of a governmental body to post legal notices, identify public property, convey public information, and direct or regulate pedestrian or vehicular traffic, including parking regulatory signs; bus stop signs erected by a public transit company; informational signs of a public utility regarding its poles, lines, pipes or facilities.

2. Signage meeting the requirements of section 14-370.

3. Emergency warning signs erected by a governmental agency, a public utility company or a contractor doing authorized or permitted work within the public right-of-way.

4. Community/cultural banners.

5. Permanent directional signs retail/accessory retail in residential zones. A lawfully existing retail business, existing as of March 1, 2008 and located in a residential zone, qualifies for an off-premise sign if it meets the following requirements: 1) the establishment is not a home occupation; 2) the establishment is not located within 500 feet of a major or minor arterial; 3) the sign would be no larger than 12 inches x 48 inches and would otherwise adhere to the requirements set out by MDOT/MUTCD in their standard sign manual. Such establishment may qualify for one, two-sided, or two one-sided, off-premise signs to be located on a major or minor arterial in a location determined safe by the city traffic engineer and upon the payment of an initial fee of $300.00, with an annual renewal fee of $30.00. In the event the sign is damaged or destroyed, the replacement

of any sign shall be the sole responsibility of the permittee. The permittee shall be required to obtain a permit for said sign from the building inspections department, after securing $400,000 insurance for said sign, naming the City of Portland as an additional insured.

6. Bus shelter signs as provided for in section 14-371 (k).

(f) ***Signs in historic districts, in historic landscape districts, or on individual landmark properties.*** Signs in historic districts, in historic landscape districts, or on individual landmark properties shall also be subject to the provisions of article IX of this chapter. Where the regulations of article IX are either more or less stringent than those set forth in this division, the more stringent standard shall apply.

(g) ***Signs in Pedestrian Activities District (PAD) overlay zone and PAD encouragement areas.*** Signs in PAD overlay zone and PAD encouragement areas of the B-3 zone shall also be subject to the standards set forth in the Downtown Urban Design Guidelines. Where those standards are either more or less stringent than the regulations set forth in this division, the more stringent standard shall apply.

(Ord. No. 252-94, § 2, 4-4-94; Ord. No. 143-07/08, 5-19-08; Ord. No. 91-11/12, 5-21-12)

Sec. 14-368.5. Permits.

The procedures set forth below shall govern the application for, and issuance of, all sign permits under this division, unless a sign is also subject to review under any other division or section of this chapter or any other chapter of this Code, including site plan and historic preservation ordinances. Where a sign requires such other review, the time periods set forth in the ordinance for that review process shall control.

(a) ***Applications.*** All applications for sign permits of any kind shall be submitted to the department on an application form or in accordance with application specifications published by the department.

(b) ***Fees.*** Each application for a sign permit shall be accompanied by the applicable fees, which shall be established by the council order.

(c) ***Action on sign permit application.*** Within ten (10) working days of receipt of a complete application, the department shall either:

1. Issue the sign permit, if the sign that is the subject of the application conforms in every respect with the requirements of this division; or

2. Deny the sign permit if the sign that is the subject of the application fails in any way to conform with the requirements of this division. In the event of a denial, the department shall set forth in writing the reasons for the denial.

(d) ***Permits to construct or modify signs.*** Signs identified with the notation "B" on Table 1 shall be erected, installed or created only in accordance with a duly issued and valid sign construction permit issued by the department. Such permits shall be issued only in accordance with the requirements and procedures of subsection (f) of this section.

(e) ***Application for new sign or for sign modification.*** An application for construction, creation or installation of a new sign or for modification of an existing sign shall be accompanied by drawings to show the dimensions, design, source of illumination, construction method and location of each particular sign. One (1) application and construction permit may include more than one (1) sign on the same lot.

(f) ***Assignability of sign permits.*** A current and valid sign permit issued under this division shall be freely assignable to a successor as owner of the property or operator of the premises. The assignment shall not require approval by the department. This provision shall also apply to signs lawfully in existence on April 4, 1994, which are further subject to the provisions of section 14-372.

(g) ***Issuance pursuant to level II site plan review.*** An applicant for a permit or other approval under this division whose application has been denied for failure to meet the regulations contained in section 14-369.5 may

apply to the planning authority for review of the denied signage pursuant to the standards set forth in section 14-526(d)8, provided, however, that no site plan fee shall be required for this review and no site plan submission materials shall be required beyond those necessary to allow review under this section.

(Ord. No. 252-94, § 2, 4-4-94; Ord. No. 278-09/10, 7-19-10)

Sec. 14-369. Computations.

Sign area, sign height and number of signs shall be computed in accordance with the following principals:

(a) *Computation of area of individual signs:* For all signs other than awning signs, the area of a sign face shall be computed by means of the smallest square, circle, rectangle, triangle or simple polygon that will encompass the extreme limits of the writing, representation, emblem or other display, together with any material or color forming an integral part of the background of the display, but not any supporting framework, bracing or decorative fence or wall when such fence is clearly incidental to the display itself.

(b) *Computation of area of multifaced signs:* The sign area for a sign with more than one (1) face shall be computed by adding together the area of all sign faces visible from any one (1) point. When two (2) identical sign faces are placed back to back so that both faces cannot be viewed from any point at the same time and when such sign faces are part of the same sign structure and are not more than forty-two (42) inches apart, the sign shall be computed by the measurement of one (1) of the faces.

(c) *Computation of area of awning signs:*

1. For opaque awnings, only those sections which incorporate writing, symbols, emblems or other types of graphics used for the purposes of identification or advertisement shall be included in computing sign area. The methods set forth in subsection (1) of this section shall be utilized in measuring sign area on opaque awnings. Street names and numbers on opaque awnings shall not be considered to be signs for purposes of this

section, unless a business located within the building has the street name and/or the street number as its name.

2. For awnings that are translucent and internally illuminated and that incorporate any commercial message, trademark or symbol, the sign area shall be computed as the two-dimensional projection of the awning onto the face of the building on which the awning is to be installed. Such awnings which wrap around building corner(s) shall be treated as separate awnings on each respective building face and shall be considered as signs if they include any message, trademark or symbol. Internally illuminated bands shall be permitted across the building face without being included in the calculations under this subsection, provided that such bands do not include any message, trademark or symbol and that the bands do not exceed three (3) feet in height.

3. Where only a portion of the awning is translucent and internally illuminated, only the area of the translucent illuminated portion shall be included in computing sign area, unless commercial message content appears on other opaque portion(s) of the awning. Opaque portions of these types of awnings shall be computed in accordance with subsection a. above.

(d) ***Computation of height:*** The height of a sign shall be computed as the distance from the base of the sign at normal grade to the top of the highest attached component of the sign. Normal grade shall be considered the lower of either existing grade prior to construction or the newly established grade after construction excluding any filling, berming, mounding or excavating accomplished solely for the purpose of locating the sign. In cases where the normal grade cannot reasonably be determined, sign height shall be computed based upon the assumption that the elevation of the normal grade at the base of the sign is equal to the elevation of the nearest point of the crown of a public street or the grade of the land at the principal entrance to the principal structure on the lot, whichever is lower.

(e) *Computation of number of signs:* For purposes of computing the number of signs, a single sign shall be considered either enclosed within a single frame or composed of modular parts with identical frame elements designed to be joined together to form a single composite sign.

(Ord. No. 252-94, § 2, 4-4-94)

Sec. 14-369.5. Tables.

(a) *Table 1. Permitted sign types by zone.*
Note: The following legend applies for Table 1 below:

A. Allowed, no permit required;
B. Allowed, permit required;
C. Allowed, subject to licensing and permit required;
D. Prohibited;
E. Not Applicable

Parenthetical letters, i.e. (a), refer to the notes provided at the end of Table 1.

	R-1/R-6 IR-1/IR-3 Residential	*Institutional Uses in Residential Zones (a)*	*RP Residence Zones*	*ROS/RPZ Open Space*	*B-1 Neighborhood Business*	*B-2 Regional Business*
Freestanding	D	B	B	B	B	B
In general(b)						
ResidentialI	A	A	A	E	A	A
Residential(d)	D	A	A	A	A	A
Temporary/ Portable (b)	D	D	D	D	D	B
Building	D	D	D	B	B	B
Commercial Banner						
Building Marker(f)	A	A	A	A	A	A
Awning	D	D	D	B	B	B
Identification(e)	A	A	A	A	A	A
Incidental(d)	A	A	A	A	A	A
Marquee(g)	D	D	D	D	D	B
Projecting	A	D	D	B	B	B
Residential(b)	A	D	A	E	A	A
Roof	D	D	D	D	D	D
Roof Integral	D	D	D	D	D	D
Suspended(g)	A	D	D	B	B	B
Temporary(h)	D	D	D	B	B	B
Wall	A	B	D	B	B	B
Window(I)	D	D	A	A	A	A

Miscellaneous	D	A	A	A	A	A
Community, Cultural Banner						
Directory(j)	D	A	A	D	A	A
Flag(k)	A	A	A	A	A	A
Pennant	D	D	D	D	D	D
Portable-in City right-of-way (A-frame)	D	D	D	D	C	C

	AB Airport Business	***Mixed-use Urban B-6/B-7*** *Downtown Business(B-3) & Urban Commercial(B-5)*	*I-B Island Business*	*B-4 Commercial Corridor*	*O-P Office Park*	*I-L,I-Lb Industrial*
Freestanding	B	B	D	B	B	B
In general(b)						
ResidentialI	A	A	A	A	E	A
Residential(d)	A	A	A	A	A	A
Temporary/ Portable (b)	D	D	D	B	D	D
Building	B	B	B	B	D	B
Commercial Banner						
Building Marker(f)	A	A	A	A	A	A
Awning	B	B	B	B	B	B
Identification(e)	A	A	A	A	A	A
Incidental(d)	A	A	A	A	A	A
Marquee(g)	B	B	D	B	B	B
Projecting	B	B	B	B	B	B
Residential(b)	A	A	A	A	E	A
Roof	D	D	D	D	D	D
Roof Integral	D	D	D	D	D	D
Suspended(g)	B	B	B	B	B	B
Temporary(h)	B	B	B	B	D	B
Wall	B	B	B	B	B	B
Window(I)	A	A	A	A	A	A
Miscellaneous	A	A	A	A	A	A
Community, Cultural Banner						
Directory(j)	A	A	A	A	A	A
Flag(k)	A	A	A	A	A	A
Pennant	D	D	D	D	D	D
Portable-in City right-of-way (A-frame)	C	C	C	C	D	D

I-M,I-Ma,	*Eastern Waterfront Port Waterfront Central*	*Waterfront*

	I-Mb Industrial	*I-H,I-Hb Industrial*	*Waterfront Special Use*	*Port Development*
Freestanding	B	B	B	B
In general(b)				
ResidentialI	A	A	A	A
Residential(d)	A	A	A	A
Temporary/	D/D	B/D	D	D
Portable (b)				
Building	B	B	B	B
Commercial				
Banner				
Building	A	A	A	A
Marker(f)				
Awning	B	B	B	B
Identification(e)	A	A	A	A
Incidental(d)	A	A	A	A
Marquee(g)	B	B	B	B
Projecting	B	B	B	B
Residential(b)	A	A	A	A
Roof	D	D	D	D
Roof Integral	D	D	D	D
Suspended(g)	B	B	B	B
Temporary(h)	B	B	B	B
Wall	B	B	B	B
Window(I)	A	A	A	A
Miscellaneous	A	A	A	A
Community,				
Cultural Banner				
Directory(j)	A	A	A	A
Flag(k)	A	A	A	A
Pennant	D	D	D	D
Portable-in				
City right-of-way				
(A-frame)	D	D	C	D

Notes for Table 1 (Permitted Sign Types by Zone).

(a) This column does not represent a zoning district. It applies to institutional uses permitted under the zoning ordinance in residential zoning districts. Such uses may include, but are not necessarily limited to, churches, schools and hospitals.

(b) The following limiting provision shall apply to freestanding signs in the B-1, B-2 and B-3 zones on the Portland Peninsula (except for the B-2 zone in the vicinity of St. John Street): Such signs shall be allowed only if the front facade of the building (or individual tenant's/tenants' frontage in the case of a multi-tenant

building) is set back a distance of at least twenty (20) feet from either of the front facades of the abutting buildings (or other tenants' frontage in the same multi-tenant building). Notwithstanding the limitations of this section, freestanding signs shall be permitted for gas stations provided that all signage for such gas stations conform to the requirements of this division.

(c) No commercial message allowed on sign, except for a commercial message drawing attention to an activity legally offered on premises.

(d) No commercial message of any kind allowed on a sign if such message is legible from any location off the zone lot on which the sign is located.

(e) Only address and name of occupant allowed on sign.

(f) May include only building name, date of construction, or historical data on historical site.

(g) If such a sign is suspended or projects above a public right-of-way, the issuance and continuation of a sign permit shall be conditioned on the sign owner obtaining and maintaining in force liability insurance for such a sign.

(h) The provisions governing portable/temporary signs shall apply. See section 14-370.

(i) Window signs shall be allowed without a permit and shall not be included when calculating cumulative sign area. However, in no event shall more than fifty (50) percent of window area be obscured.

(j) Directory signs, freestanding or on buildings, shall be allowed without a permit and shall not be included when calculating cumulative sign area, provided the sign area for each tenant does not exceed one and one-half (1.5) square feet.

(k) Flags used as a symbol of a government, political subdivision or other entity. Any flag not meeting this description shall be considered a banner sign or pennant and shall be subject to regulation as such.

(b) ***Table 2. Sign regulations by zone.*** Table 2 is comprised of fourteen (14) individual charts outlining sign regulations for each zone in the city. Regulations are for permanent freestanding and building signs and shall not apply to portable/temporary signs, special sign types, incidental signs, directory signs or exempt signs. See applicable sections of this division for regulations governing such signs.

Other applicable regulations:

* Signs in historic districts, in historic landscape districts, or on individual landmark properties shall also be subject to the provisions of article IX of this chapter. Where the regulations of article IX are more stringent than those set forth in this division, the more stringent standard shall apply.

* Signs associated with projects otherwise subject to site plan review shall also be subject to the provisions of article V of this chapter.

* Signs located in the Pedestrian Activities District (PAD) overlay zone and in PAD Encouragement Areas within the B-3 zone shall also be subject to the standards set forth in the Downtown Urban Design Guidelines.

Contents of Table 2:

2.1 Sign Regulations for R-1—R-7, IR-1—IR-3 Residential Zones

2.2 Sign Regulations for Institutional Uses in Residential Zones

2.3 Sign Regulations for RP Residence-Professional Zone

2.4 Sign Regulations for ROS/RPZ Open Space Zones & Signs in all Municipal Parks

2.5 Sign Regulations for B-1 Neighborhood Business Zone — Single Tenant Lots

2.6 Sign Regulations for B-2 Regional Business Zone — Single Tenant Lots

2.7 Sign Regulations for AB Airport Business Zone — Single Tenant Lots

2.8 Sign Regulations for B-3 Downtown Business, B-5 Urban Commercial, B-6 and B-7 Mixed Use Urban, WC Waterfront Central, WSU Waterfront Special Use, and EWP, Eastern Waterfront Port Zones

2.9 Sign Regulations for IB Island Business Zone — Single Tenant Lots

2.10 Sign Regulations for B-4 Commercial Corridor Zone — Single Tenant Lots

2.11 Sign Regulations for OP Office Park Zones

2.12 Sign Regulations for I-L, I-Lb, I-M, I-Ma, I-Mb, I-H, I-Hb Industrial and WPD Waterfront Port Development Zones

2.13 Sign Regulations for B-1, B-2, AB, IB, and B-4 Business Zones — Multi-Tenant Lots

2.14 Sign Regulations for Gas Stations — All Zones Where Permitted

TABLE 2.1 R1 — R6, IR1 — IR3: RESIDENTIAL AND ISLAND RESIDENTIAL ZONES

Freestanding Signs

	Single-Family Lots	*PRUDs, Single-Family Subdivisions & Multifamily Developments — Development Identification*

		Signs
Area	2 sq. ft.	15 sq. ft.
Height	5 feet	5 feet
Setback	5 feet	5 feet
Number freestanding signs per lot	1(a)	1 per major entrance

(a) A maximum of one (1) sign is allowed per lot. Such sign may be either a freestanding or a building sign.

Building Signs

	Single-Family Lots	*PRUDs, Single-Family Subdivisions & Multifamily Developments — Development Identification Signs*
Maximum permitted sign area	2 sq. ft.	10 sq. ft.
Number building signs permitted per lot	1(a)	1(b)

(a) A maximum of one (1) sign is allowed per lot. Such sign may be either a freestanding or a building sign.

(b) One (1) allowed per street frontage, provided there are no freestanding signs on the lot or development.

TABLE 2.2 INSTITUTIONAL USES IN RESIDENTIAL ZONES

(Regulations apply to institutions permitted as conditional uses in residential zoning districts. Such uses may include, but are not necessarily limited to, churches, schools, private clubs, fraternal organizations and hospitals.)

Freestanding Signs

	Street Frontage < 100'	*Street Frontage 100' to 250'*	*Street Frontage > 250'*
Area	15 sq. ft.	25 sq. ft.	50 sq. ft.
Height	6 feet	8 feet	8 feet
Setback	5 feet	5 feet	5 feet
Number freestanding signs per lot	1/st. frontage(a)(b)	1/st. frontage(a)(b)	1/st. frontage(a)(b)

(a) Lots fronting on two (2) or more streets are allowed one (1) freestanding sign for each frontage. However, the area of each sign shall correspond to the length of the applicable frontage. Freestanding signs shall be positioned such that they are not readily concurrently visible.

(b) Where one (1) lot contains more than one (1) affiliated use, each use shall be allowed one (1) sign per street frontage.

Note: Pertinent directional information shall, to the extent possible, be included on the principal freestanding sign. Additional directional signs shall be allowed only in the event that necessary information cannot fit reasonably within the permitted sign area. The size of additional signs shall be the minimum necessary to achieve the informational objective.

Building Signs (a)

Maximum permitted sign area	na
Percent of wall area on which sign is to be placed	5%
Number building signs permitted per lot	1/building face(b)

(a) Building signs shall be reviewed for compliance with sign standard(s) included in site plan ordinance and shall under no circumstances be internally illuminated.

(b) One (1) sign is allowed per building face, provided such signs are not readily concurrently visible.

TABLE 2.3 RESIDENCE-PROFESSIONAL (R-P) ZONE

Freestanding Signs

Area	30 sq. ft.
Height	8 feet
Setback	5 feet
Number permitted per lot	1(a)

(a) Lots fronting on two (2) or more streets are allowed one (1) freestanding sign of equivalent size for each street frontage with vehicular entry, provided such signs are not readily concurrently visible.

Building Signs

None allowed, other than incidental and/or directory signs.

TABLE 2.4 ROS & RPZ OPEN SPACE ZONES AND SIGNS IN ALL MUNICIPAL PARKS

These regulations shall not apply to municipal stadiums with a seating capacity of greater than six thousand (6,000) seats.

See also section 14-370.7 (special sign types) for regulation of signs associated with seasonal sales/markets, special events, fairs/festivals, etc. Signs in designated historic landscape districts shall also be subject to the provisions of article IX of this chapter.

Freestanding Signs(a)

	General Park Identification Sign	*Concession/Facility Signs(b)*
Area	20 sq. ft.	16 sq. ft.
Height	5 feet	8 feet
Setback	5 feet	5 feet
Number freestanding signs per lot	1 per major vehicular entry	1 per concession or facilityI

(a) All signs shall be integrated with existing landscape features or shall be visually related to existing architecture in terms of materials, color, scale, etc., as determined by the planning authority.

(b) Product trademarks shall be limited to not more than five (5) percent of the total sign area.

(c) Concession stands or other facilities located within an RPZ or ROS zone shall be allowed one (1) freestanding sign or building sign, not both.

Building Signs(a)

	Concession/Facility Signs
Maximum permitted sign area	20 sq. ft.
Square feet per linear foot of building facade on which sign will be placed	1 sq. ft.
Number building signs permitted per lot	1 per concession or facility(b)

(a) Building signs shall be visually related to the building on which they are located in terms of materials, color, scale, etc., as determined by the planning authority. Product trademarks shall be limited to not more than five (5) percent of the total sign area.

(b) Concession stands or other facilities located within an RPZ or ROS zone shall be allowed one (1) freestanding sign or building sign, not both.

Scoreboards

Scoreboard size shall correspond to the size and type of facility in which it is to be located, as determined by the recreation director. Commercial sign content shall not exceed fifteen (15) percent of surface area of scoreboard.

Ballfield Booster or Sponsor Signs

Such signs shall be exempt from regulation, provided they remain in place only for the applicable season and do not exceed thirty-two (32) square feet in area each.

TABLE 2.5 NEIGHBORHOOD BUSINESS (B-1) ZONE—SINGLE TENANT LOTS

Freestanding Signs

Area	32 sq. ft.
Height	16 feet
Setback	5 feet
Number freestanding signs permitted per lot	1

Building Signs

	As of Right
Maximum cumulative area of all building signs	100 sq. ft.
Square feet per linear foot of building facade on which sign will be placed	1 1/2 feet
Number building signs permitted per lot	1 per building facade facing on abutting st. + 1 additional

TABLE 2.6 REGIONAL BUSINESS (B-2) ZONE — SINGLE TENANT LOTS

Freestanding Signs

	Facing Street Frontage < 200'	*Facing Street Frontage > 200'*
Area	65 sq. ft.	100 sq. ft.
Height	18 feet	18 feet
Setback	5 feet	5 feet

Number permitted per lot	1(a)	1(a)

(a) If lot fronts on more than one (1) street, one (1) freestanding sign is permitted for each additional frontage, but at one-half the maximum allowable area for the original, except in those instances where the freestanding signs are not concurrently visible. In such an instance, additional freestanding signs shall be permitted the full area allowance.

Building Signs

	Building Face < 150 Linear Feet	*Building Face > 150 Linear Feet*
Maximum cumulative area of all building signs (b)	150 square feet (a)	225 (a)
Square feet per linear foot of building facade on which sign will be placed	2 feet	Same
Number of building signs permitted per lot	1 per building facade facing an abutting street + 1 additional	Same

(a) If any one (1) building face on which a sign is to be placed exceeds one hundred fifty (150) linear feet, then the maximum allowable sign area for the building as a whole is increased to two hundred twenty-five (225) square feet. However, the limit of two (2) square feet per linear foot of building frontage still applies for purposes of calculating maximum sign area for each building face.

(b) Where a building features two (2) principal entry facades

facing parallel streets, each such entry facade shall be eligible for the full amount of signage relative to its frontage, notwithstanding the maximum cumulative sign area.

TABLE 2.7 AIRPORT BUSINESS (AB) ZONE

Freestanding Signs

	Facing Street Frontage < 200'	*Facing Street Frontage > 200'*
Area	32	65
Height	16	16
Setback	5	5
Number permitted per lot	1(a)	1(a)

(a) If lot fronts on more than one (1) street, one (1) freestanding sign is permitted for each additional frontage, provided such signs are not readily concurrently visible.

Building Signs

Maximum cumulative area of all building signs	na
Square feet per linear foot of building facade on which sign will be placed — or -	2 sq. ft.; or
Maximum percent of wall area on which sign(s) is(are) to be placed	6%

Number building signs permitted per lot	1 per building facade facing an abutting street + 1 additional

TABLE 2.8 SIGN REGULATIONS BY ZONE

Downtown Business (B-3), Urban Commercial (B-5), Waterfront Central (WC), and Waterfront Special Use (WSU) Zones

* Signs located on individual landmark properties or within historic districts, PAD overlay districts or PAD encouragement areas shall, in addition to the provisions herein, be subject to article IX of this Code or the Downtown Urban Design Guidelines, as applicable. Where the design guidelines are more restrictive than these regulations, the design guidelines shall supersede the otherwise applicable dimensional standards.

(o) Freestanding signs shall be allowed only if the front facade of the building (or individual tenant's/tenants' frontage in the case of a multi-tenant building) is set back a distance of at least twenty (20) feet from either of the front facades of the abutting buildings (or other tenants' frontage in the same multi-tenant building).

Freestanding Signs

	Single & Multi-Tenant Buildings
Area	16 sq. ft.
Height	6 ft.
Minimum setback	5 ft.
Number of freestanding signs	1 per abutting street

per lot	

Building Signs

		Multi-Tenant Buildings	
	Single Tenant Buildings	*Building ID Sign and/or Upper Floor Tenant Signs*	*Ind. Ground Floor Tenant Signs*
Maximum cumulative permitted area of all building signs	Na	*Na*	*na*
Square feet per linear feet of building facade on which sign will be placed	2 sq. ft.	na	2 sq. ft. per ft. of tenant's building frontage
Maximum percent of wall area on which sign(s) is(are) to be placed	Na	5%	na
Number of building signs permitted per lot	1 per facade + 1	1 per facade + 1 per tenant	1 per tenant (a)

(a) If individual tenant fronts on more than one (1) street, one (1) additional building sign is permitted for each additional frontage.

TABLE 2.9 ISLAND BUSINESS (IB) ZONE

Freestanding: None allowed, except for marine-related uses serving vessel traffic. Such signs shall not exceed twenty (20) square feet in area and ten (10) feet in height. One (1) such sign is allowed per use.

Building

Maximum permitted sign area	40 sq. ft.
Square feet per linear feet of building facade on which sign will be placed	1 sq. ft.
Number of building signs permitted per lot	1 per building facade facing an abutting street + 1 additional

TABLE 2.10 COMMERCIAL CORRIDOR (B-4) ZONE — SINGLE TENANT LOTS

Freestanding Signs

	Facing Street Frontage < 200'	*Facing Street Frontage > 200'*
Area	65 sq. ft.	100 sq. ft.
Height	25 ft.	35 ft.
Setback	5 ft.	Same
Number permitted per lot	1 (a)	Same

(a) If lot fronts on more than one (1) street, one (1)

freestanding sign is permitted for each additional frontage, provided such signs are not readily concurrently visible.

Building Signs

	Building Face < 150 Linear Feet
Maximum cumulative area of all building signs	na
Square feet per linear feet of building facade on which sign will be placed —or-	2 sq. ft. —or-
Maximum percent of wall area on which sign(s) is(are) to be placed	6%
Number of building signs permitted per lot	1 per bldg. facade facing an abutting street and 1 additional

TABLE 2.11 OFFICE PARK (O-P) ZONE

Freestanding Signs

	Joint Identification Sign (a)	*Individual Tenant Signs (a)*
Maximum permitted area	50 sq. ft.	15 sq. ft.
Height	8 ft.	5 ft.
Setback	5 ft.	5 ft.

Number of freestanding signs per lot	1 per major vehicular entry	1 per tenant

(a) In the case of multi-tenant office parks, individual tenants may be identified on joint identification sign at park entranceway, on directory signs within the office park development, and/or on individual signs located immediately in front of individual business establishment, but shall not be allowed additional freestanding signs at the principal entryway(s) into the development.

Building Signs

	Single Tenant Buildings	*Multi-Tenant Buildings*
Maximum permitted sign area	na	na
Maximum percent of wall area on which sign(s) is(are) to be placed	6%	8%
Number of building signs permitted per lot	1	1 per tenant

TABLE 2.12 INDUSTRIAL I-L, I-Lb, I-M, I-Ma, I-Mb, I-H, I-Hb AND WATERFRONT PORT DEVELOPMENT ZONES

Freestanding Signs

	Single Tenant Buildings	*Multi-Tenant Buildings*
Maximum permitted area	35 sq. ft.	70 sq. ft.

Height	10 ft.	15 ft.
Setback	5 ft.	5 ft.
Number of freestanding signs per lot	1 (a)	1 (a)

(a) If lot fronts on more than one (1) street, one (1) freestanding sign of equivalent permitted sign area is allowed for each additional frontage, provided such signs are not readily concurrently visible.

Building Signs

	Single Tenant Buildings	*Multi-Tenant Buildings*	
Maximum permitted sign area	Na	na	
Maximum percent of wall area on which sign(s) is(are) to be placed	6%	Principal facade(s) 8%	All other facade(s) 2%
Number of building signs permitted per lot	2/building face	1/tenant plus 1 additional per building face (a)	

(Editor's note: "TABLE 2.12 (CONTINUED) SPECIAL PROVISION FOR ZONES WITHIN 800 FEET OF I-295" repealed by Ord. No. 15-00, 6-7-00, retroactive to 6/01/00)

TABLE 2.13 MULTI-TENANT LOTS — B-1, B-2, AB, B-4, AND IB ZONES

Freestanding Signs (a)

	B-1, B-2, AB, B-4, IB Zones		
	Land Area		
	< 1 acre	1—2.5 acres	☎□◑2.5 acres
Area	Same as single	100	140
Height	Tenant	Same as for single tenant lots in applicable zones	
Number permitted per lot (b)	lots	1	1

(a) Freestanding signs shall be for purposes of joint identification. Individual tenants shall not be permitted their own freestanding sign. Such sign may identify name of center and may also include names of individual tenants.

(b) Lots fronting on two (2) or more streets are allowed an additional freestanding sign of one-half the area of the first for each frontage which includes a vehicular entry point, provided signs are not readily concurrently visible. Such signage cannot be accumulated and used on one (1) street in excess of that allowed for lots with only one (1) street frontage.

Building Signs

a. *Joint identification sign (a):*

	B-1, IB	*B-2, AB, B-4 I*
Maximum area	na	250 sq. ft. I

Number permitted per lot (b)	not allowed	1 (b)

(a) Sign identifying name of building or shopping center only. Unused sign area cannot be applied to area allowances for other freestanding or individual tenant signs. Where name of shopping center is the same as or incorporates name of one (1) or more of the businesses located within the center, such business(es) shall elect between a joint identification sign and an individual business sign and shall not be allowed both.

(b) See (a) above.

(c) Allowed only on shopping centers featuring four (4) or more tenants and occupying a land area in excess of two and one-half (2.5) acres.

TABLE 2.13, CONTINUED

b. *Individual business signs:*

Alternative 1

	B-1, B-2, AB, B-4, IB Zones	
	Tenant's Frontage < 150 linear ft.	*Tenant's Frontage 150 linear ft.*
Maximum area	150 sq. ft.	Na
Square feet per linear feet of building front	1.5 sq. ft.	na
Maximum percent of wall area on which sign(s) is(are) to be placed	na	5%
Number permitted per business (a)	1	1

(a) If individual tenant fronts on more than one (1) street, one (1) additional building sign is permitted for each additional frontage, but at one-half the maximum allowable area of the first.

Alternative 2

Note: Alternative 2 is available as an option to proprietors of multi-tenant lots needing greater flexibility in allocating signs to tenants. This option requires the submission of a signage plan as described in section 14-368(d) as evidence that all building signs on the subject lot comply with the provisions of this division, including the size and number limits of this table. All nonconforming building signs must be brought into compliance to be eligible for the Alternative 2 option.

Maximum permitted sign area	na	
Maximum percent of wall area on which signs are to be placed	Principal facade(s) 5%	All other facade(s) 2%
Number of building signs permitted per lot	1 per tenant plus 1 additional per building face	

TABLE 2.14 GAS STATIONS — ALL ZONES WHERE PERMITTED

Freestanding Signs

	B-1, IB	*B-4*	*All Other Zones*
Area	32 sq. ft./10 sq. ft./20 sq.	60 sq. ft./20 sq. ft./30 sq.	40 sq. ft./15 sq. ft./24 sq.

	ft. (a)	ft. (a)	ft. (a)
Height	16 feet	35 feet	18 feet
Setback	5 feet	5 feet	5 feet
Number permitted per lot	1/major principal and auxiliary use + 1 price sign (a)(b)	Same	Same

(a) Area limits are broken down according to sign types, as follows: Sign area for principal use/sign areas for additional major auxiliary use(s) on site (for example, car wash, repair garage, convenience store)/sign area for gas prices. In the B-1 and IB zones, for example, the maximum permitted sign area for the principal use is twenty-five (25) square feet. The maximum permitted sign area for each auxiliary use is ten (10) square feet and the maximum permitted area for the gas price sign is twenty (20) square feet.

(b) All signs shall be mounted on the same base.

Building/Canopy Signs

	All Zones
Maximum permitted area	30 sq. ft. for principal building sign/10 sq. ft. for each additional major activity/20 sq. ft. for canopy sign
Square feet per linear foot of building facade on which sign will be placed	Na

Maximum vertical dimension	2 feet
Number permitted per lot	1 building sign for each major activity/2 canopy signs (a)

(a) Maximum two (2) signs allowed on large canopy; one (1) each on opposite facing planes.

Miscellaneous Signs

Signs placed on individual pumps shall be considered incidental signs and shall not be calculated in total allowable sign area. Incidental signs shall not be limited in number. However, no individual sign shall exceed one (1) square foot.
(Ord. No. 252-94, § 2, 4-4-94; Ord. No. 164-97, § 10, 1-6-97; Ord. No. 37-06/07, 9-6-06)

Sec. 14-369.6. Signs prohibited under this division.

All signs not expressly permitted under this division or exempt from regulation hereunder in accordance with section 14-371 are prohibited.
(Ord. No. 252-94, § 2, 4-4-94)

Sec. 14-370. Portable/temporary signs.

(a) *On private property.* Portable and temporary signs shall meet, in addition to the other requirements of this division, the following requirements:

1. *Number of signs.* There shall be no more than one (1) portable or one (1) temporary sign on any lot.

2. *Term.* A portable or temporary sign permit shall allow the use of a portable or temporary sign for a specified thirty-day period.

3. *Number of permits.* No more than two (2) portable or temporary sign permits shall be issued to each business on the same lot in any calendar year. In no event shall any lot have a portable or temporary sign for more than sixty (60) days in one (1) calendar year.

4. ***Other conditions.*** A portable or a temporary sign shall be allowed only in those districts indicated on Table 1 of section 14-369.5.

5. ***Permit sticker.*** Each portable sign and each temporary sign shall display a permit sticker issued by the building authority. The sticker shall contain the expiration date of the permit.

(b) ***Additional requirements for freestanding portable or temporary signs.*** In addition to the requirements of subsection (a) of this section, freestanding portable or temporary signs on private property shall meet the following requirements:

1. No portable or temporary sign shall interfere with the sight distance of traffic passing the site. The determination of sight distance shall be made by the traffic engineer.

2. Portable and temporary signs shall be set back a minimum of five (5) feet from the side line of the city right-of-way and a minimum of five (5) feet from any property line.

3. No portable or temporary sign shall exceed four (4) feet by eight (8) feet in size.

(c) ***Portable signs in the city right-of-way.*** Portable signs to be located in the city right-of-way shall receive a license from the building authority and shall be subject to the regulations promulgated by the building authority.

(d) ***Calculations.*** Portable and temporary signs shall not be included in calculations for other types of signage permitted by this division.
(Ord. No. 252-94, § 2, 4-4-94)

Sec. 14-370.7. Special sign types.

(a) ***Window signs.*** Window signs shall be permitted without a permit and shall not be included when calculating cumulative sign area. In no event, however, shall window signs cover more than fifty (50) percent of the area of any window.

(b) ***Real estate/construction/for sale or lease signs.*** Such signs shall be permitted without a permit, provided that in residential zones there shall be no more than one (1) such sign for each residential unit offered for sale or lease and such sign shall not exceed fifteen (15) square feet in area. In commercial and industrial zones, there shall be no more than one (1) such sign per unit offered for sale or lease for each street frontage of the property and the area of such signs shall not exceed sixty-four (64) square feet in the aggregate for each frontage.

(c) ***Works of art containing signage.*** Decorative murals, outdoor paintings, sculpture or other bona fide works of art that contain any commercial message, trademark or symbol are permitted in all zones except residential zones, provided that such commercial message, trademark or symbol does not comprise more than ten (10) percent of the total area of the artwork. Works of art containing a commercial message, trademark or symbol shall be permitted in residential zones only where such signage is ornamental in nature and does not serve any type of advertising function for the site upon which it is located or for any other site owned or controlled by the residential property owner or tenant.

(d) ***Building marker.*** Building markers shall be permitted without a permit.

(e) ***Seasonal sales/special activities signs.*** Signs associated with special events or activities that are licensed or authorized by the city council or its designee, such as seasonal sales or markets, special events, fairs and festivals, shall be permitted subject to applicable conditions or limitations that are imposed as part of the licensing or authorization process.

(f) ***Directory signs.*** Except where prohibited by section 14-369.5, directory signs, freestanding or attached to buildings, shall be allowed without a permit and shall not be included when calculating cumulative sign area, provided that the sign area for each tenant does not exceed one and one-half (1.5) square feet.
(Ord. No. 252-94, § 2, 4-4-94)

Sec. 14-371. Exemptions.

The following signs shall be exempt from regulation under this division and shall not be included when calculating cumulative sign area:

(a) Any public notice or warning required by a valid and applicable federal, state or local law, regulation or ordinance;

(b) Any sign inside a building that is not attached to a window or door;

(c) Works of art that do not include a commercial message;

(d) Holiday lights and decorations with no commercial message;

(e) Traffic control signs on private property, such as stop, yield and similar signs, the face of which meets department of transportation standards and which contains no commercial message of any sort;

(f) Public signs erected by or on behalf of a governmental body to post legal notices, convey public information, and direct or regulate pedestrian or vehicular traffic, including parking regulatory signs; bus stop signs erected by a public transit company; informational signs of a public utility regarding its poles, lines, pipes or facilities;

(g) Political signs, subject to the provisions of 23 M.R.S.A. § 1913;

(h) Signs inside office park developments with a single tenant, where such signs are not visible from any public street or public open space;

(i) Landmark signs; and

(j) Security signs, except that no commercial message of any kind shall be allowed on a sign if such message is legible from any location off the lot on which the sign is located.

(k) Bus shelter signs, as defined in section 14-367, subject to the provisions of Section 1 of the Technical Manual concerning the placement and permitted dimensions of bus shelter signs.

(Ord. No. 252-94, § 2, 4-4-94; Ord. No. 91-11/12, 5-21-12)

Sec. 14-372. Nonconforming signs.

(a) All signs lawfully existing on April 4, 1994, that do not conform to the terms of this division may be continued, subject to subsection (b) of this section.

(b) Notwithstanding subsection (a) of this section, lawfully nonconforming signs shall be made to conform or shall be removed if any of the following occurs, unless such improvements are required to achieve compliance with applicable federal, state or local regulations, other than the provisions of this division, and such improvements do not require replacement of the nonconforming sign:

1. Level III site plan review is sought for any new structures or building additions on the site, except as provided in subsection (5).

2. A building permit is sought for a rehabilitation of a building where the value of the rehabilitation exceeds fifty (50) percent of the assessed value of the building, or one hundred thousand dollars ($100,00.00), whichever is less, provided that where rehabilitation is of a multi-tenant building, only the tenant or tenants whose building or area is being rehabilitated shall be required to come into conformance with this division.

3. An application is filed for a new sign permit, except as provided in subsection (5), in accordance with the following:

    a. When an application is filed for a new building sign, all building signs on the lot shall be required to come into compliance with all requirements of this division for building signs.

    b. When an application is filed for a new freestanding sign, all freestanding signs on the lot shall be required to come into compliance with all requirements of this division for freestanding signs.

4. A sign is modified in any way, except for routine maintenance or repair of sudden and accidental damage, or for a change in the message panel only, unless otherwise

required to conform under this section. Repair of sudden and accidental damage shall not include replacement of the entire sign, which shall be treated as a modification under this subsection. Letters on nonconforming signs designed for changeable messages may be changed without triggering the terms of this subsection as long as no other change is made to the sign. Replacement of an awning covering with substantially the same material and text shall also not be considered a modification.

5. In the case of nonconforming freestanding joint identification signs for multi-tenant properties, signs may be added or modified to reflect a change in individual tenants without triggering the terms of this subsection, provided that the degree of nonconformity is not increased. In the case of building signs on multi-tenant properties, this subsection shall apply only to the individual business tenant that is adding or modifying a sign or seeking level III site plan review and shall not trigger the conformance requirement for other tenants' building signs, unless the building owner(s) elects to proceed under alternative 2 of Table 2.13- of section 14-369.5. In that case, all building signs on the subject lot shall be made to conform to the provisions of this division or shall be removed.

6. In no event shall the degree of nonconformity of any sign or type of signage on any lot be increased.

(Ord. No. 252-94, § 2, 4-4-94; Ord. No. 278-09/10, 7-19-10)

Sec. 14-372.5. Violations and enforcement.

Failure to perform any act required by this division or by any permit issued hereunder or performance of any act prohibited by this division shall constitute a violation and shall be subject to penalties as set forth in 30-A M.R.S.A. § 4452. Each day on which a violation exists shall constitute a separate violation for purposes of this section. The building authority shall be responsible for enforcement of this division.

(Ord. No. 252-94, § 2, 4-4-94)

DIVISION 22.5. ADULT BUSINESS ESTABLISHMENTS*

***Cross reference(s)—**Amusements, Ch. 4.

Sec. 14-373. Findings and purpose.

The council hereby finds that, because of their unique and potentially offensive nature, adult business establishments can have a blighting influence on the surrounding neighborhood if permitted at all in certain zones, or if allowed to concentrate in certain other zones, within the city. Moreover, such establishments are incompatible with uses characterized by family and youth-related activities. The purpose of this division is, therefore, to prevent such deleterious effects and, thus, protect the public health, safety, and general welfare by regulating the location and certain other aspects of adult business establishments.

(Ord. No. 187-81, § 602.16A(1), 9-21-81; Ord. No. 356-82, 1-18-82)

Sec. 14-374. Definitions.

Except as provided herein or in section 14-47, all words used in this division shall have their common meanings unless the context clearly implies otherwise.

Adult business establishment means and includes any retail business, including but not limited to any bookstore, newsstand, novelty store, nightclub, bar, cabaret, amusement arcade, or theater, which:

(a) Keeps for public patronage or permits or allows the operation of any adult amusement device as defined in section 4-16; or

(b) Customarily exhibits motion pictures or displays any other visual representation described or advertised as being "X-rated" or "for adults only," or which customarily excludes persons from any portion of the premises by reason of immaturity of age by the use of such, or similar, phrases; or

(c) Is adjudged to be in violation of 17 M.R.S.A. §§ 2911, 2912.

Customarily means more often than an average of one (1) calendar week during any calendar month of operation.

Sexually explicit means the display or depiction of sex organs

during actual or simulated sexual intercourse or sexual acts as defined in 17-A M.R.S.A. § 251.
(Ord. No. 187-81, § 602.16A(2), 9-21-81; Ord. No. 356-82, 1-18-82)

Cross reference(s)—Definitions and rules of construction generally, § 1-2.

Sec. 14-375. Adult business establishments permitted; special requirements.

(a) Notwithstanding any other provision of this article, adult business establishments shall be permitted only in the B-2 and B-3 zones, provided that such establishments, but for this division, would otherwise be permitted therein, and subject to the following special requirements:

1. Such establishment shall be at least one thousand (1,000) feet from any other adult business establishment, and at least five hundred (500) feet from any residential zone, as measured in a straight line, without regard to intervening structures or objects;

2. No sexually explicit materials, entertainment, or activity shall be visible from the exterior of the premises.

(b) Except as expressly provided herein, nothing in this division shall be construed to waive or otherwise affect any other provision of this article.
(Ord. No. 187-81, § 602.16A(3), 9-21-81; Ord. No. 356-82, 1-18-82; Ord. No. 54-85, 6-17-85; Ord. No. 164-97, § 11, 1-6-97)

Sec. 14-376. – Sec. 14-380. Reserved.

DIVISION 23. NONCONFORMING USE AND NONCONFORMING BUILDINGS

Sec. 14-381. Continuation.

Any lawful use of buildings, structures, premises or parts thereof, existing on June 5, 1957, and made nonconforming by the provisions of this article or any amendment thereto may be continued although such use does not conform with the provisions of this article or amendment thereto.
(Code 1968, § 602.17.A)

Sec. 14-382. Increase in nonconforming use of structure or alterations to nonconforming structures limited.

(a) A lawful nonconforming non-residential structure may be maintained, repaired, or reconstructed in kind within a one (1) year period or within a two (2) year period for a nonconforming residential structure, but no alterations, modifications or additions shall be made to it, except as provided in this division.

(b) A building whose use is wholly nonconforming shall not be altered so as to increase the cubical content or the degree of nonconformity.

(c) No alterations, modifications or additions shall be made so as to increase the cubical content or the degree of nonconforming use, nor shall a nonconforming use be extended to any other part of such building, unless such part was clearly arranged and designed for such nonconforming use prior to June 5, 1957, or such extension of a nonconforming use is solely for the purpose of bringing the use into compliance with health or safety codes, or to correct a condition that may not technically be in violation but which is determined by the board of appeals to constitute a health or safety problem. In either case, the expansion shall be limited to the minimum necessary to accomplish that purpose.

(d) Alteration, modification or addition may be made to a building which is lawfully nonconforming as to space and bulk or any dimensional requirement where the proposed changes in existing exterior walls and/or roofs would be within the space occupied by the existing shell of the building, and would not create any new nonconformity nor increase any existing nonconformity. This subsection shall not apply to buildings located within shoreland zones and existing on June 15, 1992, which are nonconforming only as to setbacks from wetlands, tributary streams or other water bodies, which shall be regulated in accordance with subsection (f) of this section.

(e) Except as expressly provided herein, any alteration, modification or addition permitted under this section shall be in compliance with all other applicable sections of this chapter. Nothing within this section shall be construed to permit an increase in the number of nonconforming units in a building which is nonconforming as to the number of dwelling units or will become nonconforming as a result of such alteration, modification or addition.

(f) ***Expansions.*** A non-conforming structure may be added to

or expanded after obtaining a permit from the same permitting authority as that for a new structure, if such addition or expansion does not increase the non-conformity of the structure and is in accordance with the sections below.

1. After January 1, 1989, if any portion of a structure is less than the required setback from the normal high water line of a water body or tributary stream or the upland edge of a wetland that portion of the structure shall not be expanded, as measured in floor area or volume, by thirty (30%) percent or more, during the lifetime of the structure. If a replacement structure conforms with the requirements of section 14-382, and is less than the required setback from a water body, tributary stream or wetland, the replacement structure may not be expanded if the original structure existing on January 1, 1989 had been expanded by thirty (30%) percent in floor area and volume since that date.

2. Whenever a new, enlarged, or replacement foundation is constructed under a non-conforming structure, the structure and new foundation must be placed such that the setback requirement is met to the greatest practical extent as determined by building authority, basing its decision the criteria specified in subsection (3) below. If the completed foundation does not extend beyond the exterior dimensions of the structure, except for expansion in conformity with section (f) above, and the foundation does not cause the structure to be elevated by more than three (3) additional feet as measured from the uphill side of the structure (from original ground level to the bottom of the first floor sill), it shall not be considered to be an expansion of the structure.

3. A nonconforming structure may be relocated within the boundaries of the parcel on which the structure is located, provided that the site of the relocation conforms to all setback requirements to the greatest practical extent as determined by the building authority, and provided that the applicant demonstrates that the present subsurface sewage disposal system meets the requirements of state law, the State of Maine Subsurface Wastewater Disposal Rules (Rules), or that a new system can be installed in compliance with state law, such rules, and all applicable sections of this Code. In no

event shall a structure be relocated in a manner that causes the structure to be more nonconforming. In determining whether the building relocation meets the setback requirements to the greatest practical extent, the building authority shall consider the size of the lot, the slope of the land, the potential for soil erosion, the location of other structures on the property and on adjacent properties, the location of septic system and other on-site soils suitable for septic systems, the type and amount of vegetation to be removed to accomplish the relocation. When it is necessary to remove vegetation within the water or wetland setback are in order to relocate a structure, the building authority shall require replanting of native vegetation to compensate for the destroyed vegetation. In addition, the area from which the relocated structure was removed must be replanted with vegetation. Replanting shall be required as follows:

a. Trees removed in order to relocate a structure must be replanted with at least one native tree, three (3) feet in height, for every tree removed. If more than five trees are planted, no one species of tree shall make up more than fifty (50%) percent of the number of trees planted. Replaced trees must be planted no further from the water or wetland than the trees that were removed.

   Other woody and herbaceous vegetation, and ground cover, that are removed or destroyed in order to relocate a structure must be re-established within the setback area. The vegetation and/or ground cover must consist of similar native vegetation and/or ground cover that was disturbed, destroyed or removed.

b. Where feasible, when a structure is relocated on a parcel the original location of the structure shall be replanted with vegetation which may consist of grasses, shrubs, trees, or a combination thereof.

4. Buildings in existence on January 1, 1989, and located in shoreland zones may be expanded once during the lifetime of the structure up to twenty-five (25) feet toward a freshwater wetland or tributary stream, provided that a

minimum setback of forty (40) feet is maintained and that the existing floor area or volume is not increased by more than thirty (30%) percent, and shall not create any undue environmental impact or flood prone condition.

(Code 1968, § 602.17.B; Ord. No. 271-89, 2-22-89; Ord. No. 96-89, § 2, 9-18-89; Ord. No. 15-92, § 26, 6-15-92; Ord. No. 284-99, §1, 5-17-99, enacted as an emergency; Ord. No. 296-08/09, 6-15-09; Ord. No. 139-12/13, 2-4-13)

Sec. 14-383. Extension of nonconforming use of land prohibited.

A lawful nonconforming use existing on premises outside of a building shall not be extended to or allowed to occupy any part or parts of such premises outside of the building.

(Code 1968, § 602.17.C; Ord. No. 354-85, § 3, 1-7-85)

Sec. 14-384. Change of nonconforming use.

A lawful nonconforming use in a structure designed for a use permitted in the zone in which it is located shall not be changed to any use other than a use permitted in the zone in which the structure is located. When a nonconforming use in such a structure has been changed to a permitted use, it shall not thereafter be changed back to any non-permitted use. For purposes of this section, a use shall be deemed to have been so changed when an existing nonconforming use shall have been terminated and a permitted use shall have commenced and continued for a period of seven (7) days. Any change of use in violation of this division shall be deemed to be an abandonment of the lawfully existing nonconforming use. A lawful nonconforming use in a structure not designed for a use permitted in the zone in which it is located shall not be changed to any use other than a use permitted in the zone in which the use is located or to any use other than a nonconforming use of a more restricted zone, as set forth in the following schedule, provided that in no such case shall any structural alterations be made in any building except those required by law, ordinance or other regulations:

(a) In a business zone, from any use permitted in an industrial zone to any use permitted in a business zone.

(b) In a B-1 zone, from any use permitted in a B-3 zone to any use permitted in a B-2 zone.

(c) In a residence zone, from any use permitted in a B-2 zone to any use permitted in a B-1 zone.

(d) In a residence zone, from any use permitted in any other residence zone to any use permitted in a more restricted residence zone. For the purpose of this subsection, an R-6 zone shall be deemed the least restricted and an R-2 zone shall be deemed the most restricted, with the intervening zones restricted in order of zone number.

(Code 1968, § 602.17.D; Ord. No. 499-74, § 8, 8-19-74)

Sec. 14-385. Restoration or reconstruction within an existing footprint of damaged nonconforming structure.

A nonconforming structure damaged by fire, explosion, flood, riot, act of the public enemy, accident of any kind, decay or otherwise may be restored or rebuilt only where:

(a) The restoration or reconstruction is of a building which is nonconforming only as to land area, setbacks or any other dimensional requirements; and

(b) Where the restoration or reconstruction will occur entirely within the existing footprint and previous shell of the building and will not create a new nonconformity; and

(c) Restoration or reconstruction occurs within one (1) year for a nonconforming non-residential structure, or two (2) years for a nonconforming residential structure, of the initial damage where such damage is sudden and accidental. Note that for buildings in SHoreland zones, stte regulations may also govern and provide for a shorter period for restoration or reconstruction of non-conforming structures; and

(d) Restoration or reconstruction necessitated by decay must be completed within one (1) year of the demolition of the building or the commencement of the restoration or reconstruction, whichever occurs first; and

(e) Any reconstruction, under this provision, in the residential R-6 zone on a lot with 10,000 square feet or less, other than the exact restoration of a previously existing building on the site, shall comply with the applicable standards contained within the Planning and Development Design Manual; and

(f) A nonconforming building located in the R-6 which is destroyed by fire, explosion, flood, riot, act of the enemy, or accident may be rebuilt under the small residential lot development provisions of the R-6 zone as if the lot were vacant as of January 1, 2005 and such reconstruction shall meet the setback requirements contained therein to the extent practicable; otherwise the building shall be reconstructed within the footprint of the previously existing building such that any nonconformity will not be enlarged.

For the purpose of this section, the footprint of a building is the perimeter of the foundation supporting a structure.
(Code 1968, § 602.17.E; Ord. No. 89-88, 7-19-88; Ord. No. 284-99, §2, 5-17-99, enacted as an emergency; Ord. No.254-05/06, 6-5-06; Ord. No. 61-07/08, 10-1-07; Ord. No. 240-09/10, 6-21-10; Ord. No. 139-12/13, 2-4-13)

***Editor's note—**Ord. No. 89-88, adopted July 19, 1988, amended this section to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 89-88.

Sec. 14-386. Discontinuance of use of land for ninety days.

A nonconforming use of land where no buildings or only incidental or accessory buildings are employed together with such use shall not be changed to any other nonconforming use, and if such use is discontinued for a period of ninety (90) days, it shall not be reestablished.
(Code 1968, § 602.17.G)

Sec. 14-387. Discontinuance of use of property.

If a legally nonconforming non-residential use is discontinued for a period of twelve (12) months or if a legally nonconforming residential use is discontinued for a period of twenty-four (24) months, such discontinuance shall constitute an abandonment of the use and the property shall not thereafter be occupied or used except in conformity with the provisions of this article. In cases of foreclosure or similar situations involving a legally nonconforming residential structure, the Planning Authority shall be authorized to extend the aforementioned period up to an additional five (5) years provided that the extension is for good cause and the minimum length considered necessary to resume the

legally nonconforming use of the structure. A nonconforming use of land which is incidental or accessory to such nonconforming structure shall be considered as being discontinued at the same time as the nonconforming use of the structure. Note that for buildings in SHoreland zones, state regulations may also govern and provide for a shorter period of time for nonconforming properties.
(Code 1968, § 602.17.F; Ord. No. 499-74, § 9, 8-19-74; Ord. No. 139-12/13, 2-4-13)

Sec. 14-388. Reserved.

***Editor's Note—**Per Council Order 125-09/10 passed on January 4, 2010 Section 14-388 (Nonconformity as to the area of dwelling) was repealed in its entirety.

Sec. 14-389. Nonconformity as to off-street parking.

A building or structure which is nonconforming as to the requirements for off-street parking shall not be enlarged or altered to create additional dwelling units, or seats as in the case of places of public assembly, or floor area as in the case of industrial, business, manufacturing, institutional or recreational buildings, or accommodations as in the case of hotels, tourist homes and tourist courts, unless required off-street parking is provided for such addition or enlargement.
(Code 1968, § 602.17.I)

Sec. 14-390. Nonconformity as to off-street loading.

A building which is nonconforming as to the requirements for off-street loading shall not be enlarged or added to, unless off-street loading is provided sufficient to satisfy the requirements of this article for both the addition or enlargement and the original building or structure.
(Code 1968, § 602.17.J)

Sec. 14-391. Nonconformity as to number of dwelling units.

(a) Purpose. The purpose of this provision is to establish a process whereby certain dwellings which contain more dwelling units than the number permitted by the applicable provisions of the Land Use Code may be recognized as legal, nonconforming uses. This provision shall not apply to rooming units.

(b) Approval by Zoning Administrator.

1. Application. Application for validation of such non-conforming dwelling units shall be on a form provided by the Division of Housing and Neighborhood Services, Inspection Services Office. The application fee will be $300.00 for each dwelling unit which is the subject of the application, and will be accompanied by: (i) a plan, drawn to scale, which shows the location of the building(s) on the lot, parking, easements, dumpsters, fencing, public ways and any other significant feature and (ii) a floor plan for each unit in the dwelling, whether or not it is the subject of the application.

(c) Eligibility. In order for a nonconforming dwelling unit to be validated by administrative action of the Zoning Administrator as authorized herein, the Zoning Administrator must find, based on competent evidence, supported by public records, that:

1. The nonconforming dwelling units were either in existence April 1, 1995, or the structure in which they are located was originally designed to accommodate more than the number of such units presently in use.

2. The applicant neither constructed nor established the non-conforming dwelling units.

3. The nonconforming dwelling units comply with or can be made to comply with current standards of the National Fire Protection Association Life Safety Code (§16-1)and the National Fire Protection Association 1: Fire Prevention Code (§10-16), as amended.

4. Each of the nonconforming dwelling units complies with provisions of the City's Housing Code or can be made to conform with, as amended, including, but not limited to, the requirements of §6-110, Minimum Standards for Space and Occupancy and §6-111, Minimum Plumbing Standards, and §6-112 Minimum Ventilation Standards.

5. The structure containing the nonconforming dwelling units is located in the R-3, R-4, R-5, R-6 or R-7 Zones; or the B-1, B-1(b), B-2, B-2(b) or B-3 Zones.

6. In the absence of legally competent evidence, supported

by records, (such as, but not limited to, Assessor's records, purchase and sale agreements, affidavits, deeds, mortgages, as well as reliable secondary sources, such as the Portland Director), that the conditions of subsections c(1), C(2), c(3), c(4), or c(5) can be met, the Zoning Administrator may not approve the application, but shall advise the applicant that the matter may be appealed to the Board of Appeals.

(d) Notice to Abutters. Upon receipt of a completed application, the Zoning Administrator will provide both the owners of abutting properties as well as the owners of property situated within 300 feet of the structure of the essential information contained in the application, along with a notice that they may object to the Zoning Administrator's acting on the application and require the applicant to appeal to the Board of Appeals. The notice shall be in conspicuous type and advise the abutters and owners of property within 300 feet that any objection must be submitted in writing to the Zoning Administrator within ten (10) days of the date of the notice sent to them.

The failure of any property owner to receive the notice described above shall not invalidate any action by the Zoning Administrator. The Zoning Administrator shall promptly notify the applicant of receipt of the objection, that the Zoning Administrator is without authority to proceed and advise the applicant that, within 30 days from receipt of the letter, an application may be filed to have the matter reviewed by the Board of Appeals as a conditional use.

(e) Approval of Application.

1. The Zoning Administrator may approve the application, provided: (i) the evidence presented satisfies all of the requirements of this section; (ii) the Office of Inspection Services and Fire Prevention Bureau have certified that the nonconforming units conform with or can be made to conform with the applicable codes; and (iii) no abutter nor person entitled to notice has requested that the application be referred to the Board of Appeals, instead of the Zoning Administrator.

2. Upon approval of the application and receipt of an additional fee in the amount of $75.00 for each

nonconforming dwelling unit which has been recognized as a lawful, nonconforming use, the Zoning Administrator will issue a certificate of occupancy.

(f) Disapproval of Application. In the event the application is not approved by the Zoning Administrator or in the event of a timely objection filed by a person qualified herein to file such an objection, the applicant, within (30) days from the decision of the Zoning Administrator or objection, may appeal the matter to the Board of Appeals as a conditional use.

(g) Action by Board of Appeals. The Board of Appeals shall treat applications filed under this section as an application for a conditional use (§14-474) applying the standards applicable to conditional uses as well as the requirements of this section.

(h) Dimensional and Parking Requirements. In marking decisions under this section neither the Zoning Administrator nor the Board of Appeals shall apply the dimensional or parking requirements which would otherwise apply in the zones where the nonconforming dwelling units are situated.

(i) Exclusions.

1. The provisions of this section shall not apply to rooming units (§14-47), but shall apply to efficiency apartments (§6-110(b)).

2. The Board of Appeals is without jurisdiction to grant any relief (including, but not limited to, variances) which would recognize the particular dwelling units which are the subject of this section as legal, nonconforming uses, except in strict compliance with each requirement of this section.

(j) Prior Judicial and Administrative Action. Decisions of any court or administrative body, including but not limited to, the Zoning Administrator, the Planning Board or the Board of Appeals made prior to the effective date of this section and which addressed the number of nonconforming dwelling units in a particular structure, will not bar relief under this section.

(Ord. No. 153-03/04, 02/23/04)

***Editor's note—**Section 4 of Ord. No. 354-85, adopted Jan. 7, 1985, repealed the pre-2004 version of § 14-391, relative to the Board of Appeals permitting temporary nonconforming uses, which derived from Code 1968, § 602.17.K.

Sec. 14-392. - Sec. 14-400. Reserved.

DIVISION 24. USE REGULATIONS AND EXCEPTIONS

Sec. 14-401. Generally.

The requirements of this article shall be subject to the use regulations and exceptions of this division.
(Code 1968, § 602.18)

Sec. 14-402. Relationship of buildings to lots.

Every building hereafter erected shall be located on a lot as defined in section 14-47.
(Code 1968, § 602.18.A)

Sec. 14-403. Street access.

(a) *In general.* No building intended for use as a habitation shall be erected on a lot which has its only street frontage on a street less than thirty-five (35) feet wide. No building shall be erected on a lot, except on the islands in Casco Bay, which does not abut a street meeting the minimum requirements for street improvements set forth in this section. For purposes of this section, street shall be as defined in section 14-47, except that a dedicated street which may no longer be accepted due to lapse of time and an accepted street which may have been discontinued by abandonment shall also be deemed to be streets, provided that an applicant for a building permit respecting any lot abutting such street shall, without compensation or claim for damages, and at his own cost and expense, first submit to the building authority (a) a deed from the owner of such lot conveying to the city all his right, title and interest in and to such street or any portion thereof; and (b) an agreement by such owner forever releasing the city from any and all claims for damages for the laying out and taking of such street and indemnifying the city against any and all other such claims, both such instruments to be executed and in recordable form acceptable to the corporation counsel and to encumber and run with the land.

(b) ***Minimum requirements for street improvements on unimproved and improved but unpaved streets.*** For a lot abutting any portion of a street which is unimproved or improved but not permanently paved, that portion which abuts the lot, and any like portion between such portion and the nearest permanently paved street or portion which is the principal access to such lot, shall be improved, including sewers, storm drains, pavements, curbs and, if located on a designated school walking route, sidewalks, in accordance with the minimum technical standards promulgated by the public works authority pursuant to section 14-498(a) of article IV of this chapter. Where the nearest permanently paved street does not have granite curbing, the public works authority may waive the requirement of curbing under this section, if it determines that an acceptable alternative drainage plan will be provided. Prior to the issuance of a building permit for erection of a building on a lot abutting any portion of a street which is unimproved or improved but not permanently paved, the following shall occur: (1) A plan of the street improvements required by this section shall be submitted to the public works authority; and (2) upon determination by the public works authority that the plan meets the street improvement requirements established by this subsection, a performance guarantee and inspection fee for said improvements shall be submitted to the city as set forth in section 14-501. Also as set forth in section 14-501, a one-year defect bond shall be tendered to the city prior to release of the performance guarantee required hereby. The provisions of this subsection (b) shall not apply to the erection of any single-family dwelling on any lot where the owner of the lot establishes that he or she was the owner of that same lot on November 19, 1984, and at all times thereafter, and states his or her intention under oath to make the structure his or her personal residence.

I ***Exceptions.*** The requirements of this section shall not apply to the following city streets upon their construction by the public works authority to such standards as are determined by the authority to be the most feasible:

1. Dingley Court;

2. Morgan Court.

(Code 1968, § 602.18.B; Ord. No. 193-84, § 1, 11-19-84; Ord. No. 178-87, 11-2-87; Ord. No. 372-89, 3-20-89; Ord. No. 273-90, 3-19-90)

Sec. 14-404. Accessory use.

The term "accessory use" shall include only the following:

(a) A subordinate use of land or building which is customarily incidental to the main building or to the principal use of the land and which is located on the same lot with the principal building or use. No "garage sale," "lawn sale," "attic sale," "rummage sale," or other similar casual sale of tangible personal property which is advertised by any means whatsoever whereby the public at large is or can be made aware of such sale, shall be deemed to be "customarily incidental" if such sale occurs after sales have been conducted on the same premises for six (6) or more days previously during the calendar year.

Except where the principal use consists of the sale of alcoholic beverages for consumption on premises or where the principal structure is an airline terminal, pinball machines or amusement devices shall not be considered to be accessory uses whenever there are more than a total of two (2) such machines or devices on the premises.

(b) Off-street parking when serving conforming uses located in any zone.

(c) Home occupations as defined in section 14-47 and section 14-410.

(d) Signs as defined in division 22 of this article.

(e) The letting of rooms within an existing dwelling unit in any residential zone, provided that:

1. There shall be no more than two (2) persons occupying such room or rooms;

2. There shall be not more than two (2) rooms per dwelling unit occupied for such use; and

3. There shall be no increase in the bathroom and/or kitchen facilities in the dwelling, and no such facility shall have been constructed in the immediately preceding two (2) years.

(Code 1968, § 602.18.C; Ord. No. 574-81, 4-6-81; Ord. No. 66-87, § 1, 11-2-87; Ord. No. 240-09/10, 6-21-10)

Sec. 14-405. Business entrances.

In any business zone which abuts a residence zone in such a manner that the dividing line between the zones is one hundred (100) feet or less from the main business street of such business zone, no building of nonconforming use in such residence zone shall be built and no such existing building shall be altered so as to have its front or any entrance door or any part thereof used for a nonconforming use in such residence zone facing upon any other street than the main business street unless such entrance is at a distance greater than sixty (60) feet from the nearest residence zone.
(Code 1968, § 602.18.D)

Sec. 14-406. Garages.

No building in any zone shall be erected, altered or used as a garage for the storage of more than three (3) motor vehicles or for the business of repairing motor vehicles, if any part of either old or new building when completed would be closer than five (5) feet to any part of any church, public or private hospital or school; or if any part of either old or new building when completed would be less than fifteen (15) feet from the boundary line of any lot upon which any part of any church, public or private hospital or school is located. No existing garage used for the storage of more than three (3) motor vehicles or for the business of repairing motor vehicles shall be deemed to become a nonconforming use through the subsequent erection of such church, hospital or school closer than the aforesaid distance to such a garage.
(Code 1968, § 602.18.E)

Sec. 14-407. Temporary stands.

(a) No premises shall be used for business purposes consisting of temporary stands, booths, platforms or vehicles intended for the sale of merchandise or other mercantile purposes, if any part of such stand, booth, platform or vehicle is proposed to be located nearer than one hundred twenty-five (125) feet to any residence zone, except that stands for the sale of agricultural products shall be permitted as specified in division 2 of this article.

(b) A single produce stand shall be permitted on the premises of a community garden for the sale of flowers, vegetables, herbs or

fruit produced on the premises; provided that the stand is no more than one hundred (100) square feet in floor area or open table area and is located a minimum of five feet from any property line; and that sales are limited to two days per week between the hours of 9:00 a.m. and 6:30 p.m. during the growing season from May 25 through October 31 and that the stand has received all necessary permits. The use of produce stands shall be seasonal and temporary. Any properly permitted structure may remain on the premises year round. If the community garden is owned or operated by a non-profit organization, sales of flowers, vegetables, herbs or fruit produced in other gardens or farms in Maine owned or operated by said organization shall be permitted within the same limitations listed above. For purposes of this section, community garden means a parcel of open land used for the cultivation of flowers, vegetables, herbs, or fruit by a group of city residents either jointly as a single plot or through individual garden plots or beds.

(c) A single produce stand shall be permitted on the premises of a non-profit organization with the permission of the owner and and on the premise of public schools with the permission of the school department; provided that the stand is for the sale of local fruit, vegetables, flowers, seedlings and plants produced by the seller; that the stand is no more than one hundred (100) square feet in floor area or open table area and is located a minimum of five feet from any property line; that sales on the premises are limited to two days per week between the hours of 9:00 a.m. and 6:30 p.m. during the growing season from May 25 through October 31; and that the stand has received all necessary permits. The use of produce stands shall be seasonal and temporary. Any properly permitted structure may remain on the premises year round.

(d) For purposes of this Section, non-profit organization shall mean a non-profit organization incorporated pursuant to the laws of the State of Maine.

(Code 1968, § 602.18.F; Ord. No. 75-10/11, 11-15-10;Ord. No. 59-12/13, 9-19-12)

Sec. 14-408. Exceptions to performance standards.

The operation on public streets, airports and railroad rights-of-way of motor vehicles and other vehicles for the transportation of goods or persons shall be excepted from the limitations of the sections entitled “external effects.”

(Code 1968, § 602.18.G)

Sec. 14-409. Heliports.

Heliports shall meet the following minimum specifications, subject to regulations of the Civil Aeronautics Administration when such regulations are greater:

(a) *Roof heliport:*

1. Take-off area: Two hundred (200) feet by two hundred fifty (250) feet minimum.

2. Parking area: Thirty (30) feet by ninety (90) feet minimum.

(b) *Ground heliport:*

1. Take-off area: Three hundred (300) feet by seven hundred (700) feet minimum.

2. Parking area and station building shall be located out of flight area.

(c) *Maximum elevation of operational area above street:* One hundred (100) feet.

(d) *Minimum clearance from lateral obstruction*: One hundred (100) feet.

(e) *Minimum width of approach and departure path*: Five hundred (500) feet at landing area, tapering outward fifteen (15) degrees on each side to a width of one thousand (1,000) feet.

(f) *Slope:* With emergency landing areas: One (1) to eight (8): Without emergency landing areas: One (1) to twenty (20).

(g) *Curved approach:* Minimum radius to turn, six hundred fifty (650) feet.

(h) *Approach zone transition area:* Slope, one (1) in two (2).

(Code 1968, § 602.18.H)

Sec. 14-410. Home occupation.

Purpose. The purpose of home occupations is to allow the secondary and incidental use of a residence for the conduct of appropriate occupations whose external activity levels and impacts are so limited as to be compatible with the residential character of the neighborhood.

(a) In connection with the operation of a home occupation, within a dwelling unit, the following requirements shall be met:

1. A home occupation shall not occupy more than five hundred (500) square feet of floor area or more than twenty-five (25) percent of the total floor area of such a dwelling unit, whichever is less, or in the case of licensed family day care homes, or home babysitting services, to accommodate not more than six (6) children plus two (2) children after school and having no nonresidential employees;

2. There shall be no outside storage of goods and materials nor shall there be exterior displays, or display of goods visible from the outside;

3. Storage of materials related to the home occupation shall count as a part of the occupancy limitations in subsection (a)1 above, but shall not constitute a dominant part of such occupancy provided, however, storage of such materials or products in garages or other accessory structures is prohibited;

4. Exterior signs shall be limited to one (1) nonilluminated sign not exceeding a total area of two (2) square feet, affixed to the building and not projecting more than one (1) foot beyond the building;

5. Any exterior alterations to the residence shall be compatible with the architecture of the building and maintain the residential appearance by virtue of exterior materials, lighting, and signs;

6. ***Off-street parking:*** Off-street parking is required as provided in division 20 (off-street parking) of this article;

7. The home occupation shall not produce offensive noise, vibration, smoke, dust or other particulate matter, odorous matter, heat, humidity, glare or other objectionable effects;

8. There shall be no more than one (1) nonresident employed in the home occupation, provided, however, family day care or home babysitting services shall have no nonresident employees;

9. No traffic shall be generated by the home occupation in greater volumes than would normally be expected in a residential neighborhood;

10. No motor vehicle exceeding a gross vehicle weight of six thousand (6,000) pounds shall be stored on the property in connection with the home occupation.

(b) No residence shall be occupied, altered or used for any home occupation except the following:

1. Accountants and auditors;

2. Answering services (telephone);

3. Architects;

4. Artists and sculptors;

5. Authors and composers;

6. Computer programming;

7. Custodial services;

8. Custom furniture repair and upholstering;

9. Dentists, doctors, therapists, and health care practitioners;

10. Direct mail services;

11. Dressmakers, seamstresses and tailors;

12. Engineers;

13. Family planning services;

14. Hairdressers (limited to no more than two (2) hair dryers);

15. Home crafts, such as model making, rug weaving, lapidary work, cabinet making, weaving, ceramics;

16. Interior decorators;

17. Lawyers, justices of the peace and notary publics;

18. Licensed family day care home or babysitting services;

19. Musicians or music teachers, including group instruction not to exceed six (6) students at any time but not including performances or band rehearsals, which shall meet the following requirements in addition to those set forth in subsection (a) of this section:

    a. Electronic amplification is prohibited;

    b. The applicant shall demonstrate that noise attenuation is provided which minimizes perception of sound at property lines at all times during the use. Noise attenuation measures may include, but are not limited to, insulation, double-pane windows, air conditioners or any combination of these or similar noise attenuation measures;

    c. Hours of operation shall be limited to 8:30 a.m. to 9:30 p.m.

20. Office facility of a minister, rabbi, or priest;

21. Photographic studios;

22. Professional counseling and consulting services;

23. Professional research services;

24. Sales persons provided that no retail or wholesale transactions are made on the premises;

25. Small appliance repair;

26. Snow plowing provided that only one (1) snow plow vehicle is stored on or generated from the site;

27. Special tutoring or instruction (not to exceed three (3) pupils at any given time);

28. Stenographic and other clerical services.

(c) A home occupation that is not listed in paragraph (b) of this section but is similar to and no more objectionable than those home occupations listed in that paragraph, shall be permitted as a conditional use subject to the requirements of paragraph (a) of this section and section 14-474 (conditional use) of this article. This provision shall not include veterinarians, kennels, animal raising, funeral homes, retail uses including antique shops, restaurants, dancing studios, towing services, repair and painting of automobiles as home occupations.

(Code 1968, § 602.18.I; Ord. No. 277-77, 11-7-77; Ord. No. 548-85, § 1, 5-6-85; Ord. No. 76-85, § 1, 7-1-85; Ord. No. 66-87, § 2, 11-2-87; Ord. No. 329-90, 5-7-90; Ord. No. 240-09/10, 6-21-10)

Sec. 14-411. - Sec. 14-420. Reserved.

DIVISION 25. SPACE AND BULK REGULATIONS AND EXCEPTIONS

Sec. 14-421. Generally.

The requirements of this article shall be subject to the space and bulk regulations and exceptions of this division.

(Code 1968, § 602.19.A)

Sec. 14-422. Reduction of lot area prohibited.

No lot shall be so reduced that yards, lot width, lot

frontage, lot area, area per dwelling unit, and space for off-street parking and/or off-street loading shall be less than the minimum required under this article.
(Code 1968, § 602.19.A)

Sec. 14-423.Reserved.

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*__Editor's Note:__ Pursuant to Council Order No. 240-09/10, passed on June 21, 2010, Section 14-423 (Joint occupancy) was repealed in it's entirety.

Sec. 14-424. Required open space.

No part of a yard or other open space required about any building under this article shall be included as a part of a yard or other open space required for another building.
(Code 1968, § 602.19.C)

Sec. 14-425. Projections in required yard areas.

Any yard may be occupied by a one-story entrance porch not enclosed, with or without a roof, if the area of the porch does not exceed fifty (50) square feet nor the projection from the building exceed six (6) feet. A basement bulkhead of similar size, but not more than twenty four (24) inches in height, is also permitted. A cornice eave, sill, canopy, chimney, or other similar architectural feature, but not including a bay window, may project into any required yard a distance of not more than two (2) feet.
(Code 1968, § 602.19.D; Ord. No. 78-03/04, 10-20-03)

Sec. 14-426. Fences.

In residence zones no wall or fence along a street line or within twenty-five (25) feet of a street line shall be more than four (4) feet in height unless said fence is located in the side or rear yard and is reviewed by the public works authority and found not to be a traffic or public safety hazard, subject to the provisions of section 14-434.
(Code 1968, § 602.19.E; Ord. No. 247-97, 4-9-97)

Sec. 14-427. Enclosure of porches.

Any open porch existing with a roof over the same on June 5, 1957, and encroaching upon any yard required by this article may be enclosed if the major portion of the enclosure is of glass.

Sec. 14-428. Corner lots.

In case a dwelling house has its front yard upon the long side of a corner lot, the rear yard may be reduced to a depth not less than the width required for a side yard on the lot, provided the aggregate of the widths of both sides and depths of front and rear yards is not less than the similar aggregate of required dimensions of all yards required if the front yard were faced on the short side of the lot.
(Code 1968, § 602.19.G)

Sec. 14-429. Lot surrounded by streets or alleys.

Where a lot containing ten thousand (10,000) square feet or less is completely surrounded by streets or alleys, the building area may be increased twenty (20) percent.
(Code 1968, § 602.19.H)

Sec. 14-430. Height limits.

(a) ***Roof structure.*** Roof structures for the housing of elevators, stairways, tanks, fans, or other building operating equipment not intended for human occupancy, skylights, steeples, roof signs, flag poles, chimneys, smokestacks, radio or television masts, water tanks, or silos may be erected above the height limitation herein prescribed for buildings. Roof-mounted wind energy systems shall not be considered to be roof sturctures for the purposes of Article X, Alternative Energy.

(b) ***Public art.*** Except in residential zones, public art that has been individually accepted by the city council for inclusion within the public art collection, pursuant to Article XI, Public Art Program of the Land Use Code, (Section 14-852(c)), shall not be subject to the height limitations for buildings within the underlying zone.

(c) ***Temporary wind anemometer towers.*** Temporary wind anemometer towers may be erected above the height limitation for buildings within the underlying zone, subject to receiving Board of Appeals approval and FAA approval, if necessary.

(d) ***Wind energy systems.*** Wind energy systems may be erected above the height limitation for principal buildings

within the underlying zone, pursuant to Article X, Alternative Energy.
(Code 1968, § 602.19.I; Ord. No. 428-83, § 1, 4-25-83; Ord. No. 36-89, § 3, 6-28-89; Ord. No. 96-08/09, 11-17-08; Ord. No. 29-09/10, 8-3-09 emergency passage; Ord. No. 33-11/12, 1-18-12)

Sec. 14-431. Yards.

The height in stories or feet of that part of the principal building adjoining a yard shall be used in determining the required width or depth of that yard, but in no case shall any higher part of the building be closer to the property line than width or depth of yard required for that height. In case an addition is to be made to a building which existed on June 5, 1957, the side yard spaces of which complied with the ordinance in effect on that date, the aggregate side yards may be the same as required on that date, provided the yard on the side where the addition is intended would comply with the minimum width required by the present ordinance. Yards as prescribed for residential uses shall be required for an apartment house or hotel erected above the ground floor of a building where the ground floor is designed exclusively for business purposes.
(Code 1968, § 602.19.J)

Sec. 14-432. Swimming pools.

Outdoor swimming pools accessory to dwellings, apartment houses, hotels or motels shall be permitted on lots, provided the following conditions are met:

(a) No swimming pool shall be sited in the front yard.

(b) No part of any swimming pool shall be located closer than ten (10) feet from the principal structure, nor closer than ten (10) feet from the side or rear lot lines.

(Code 1968, § 602.19.K; Ord. No. 271-77, 5-16-77; Ord. No. 90-88, 7-19-88)

***Editor's note—**Ord. No. 90-88, adopted July 19, 1988, amended § 14-432 to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 90-88.

Sec. 14-433. Lots of record and accessory structure setbacks for existing buildings.

Any lot of record as of June 5, 1957, and held under separate

and distinct ownership from adjacent lots and having a street frontage of forty (40) feet, or to which a means of access has been previously approved by the city council as provided elsewhere in this article, may be considered a buildable lot in any residential zone except as provided below for island residential zones, with a minimum lot size of five thousand (5,000) square feet, except that a lot in the R-6 zone may have a minimum lot size of three thousand (3,000) square feet, provided that the applicable yard dimensions can be met.

A lot in the R-1, R-2, R-3, R-4, R-5, R-5A or R-6 zones that was described in a subdivision plat approved by the Planning Board after June 5, 1981, or a lot of record that conformed to the applicable lot size requirement, lot width and street frontage as of June 5, 1984, shall be considered a buildable lot, provided that the applicable yard dimensions can be met.

Where such a lot has a principal structure which existed as of July 19, 1988, an accessory structure or building addition may be located within the following side and rear yards, provided that the normal applicable yard requirements cannot be met provided, however, that less restrictive zoning requirements which meet the requirements contained within 14-139(b) for residential small lot development shall apply:

a. *R-1, R-2:*

Rear yard: Ten (10) feet.

Side yard: Five (5) feet.

b. *R-3, R-4, R-5, R-5A, R-6:*

Rear yard: Five (5) feet.

Side yard: Five (5) feet.

Any detached or accessory structure in the R-4 or R-6 zones, with a ground coverage exceeding two hundred fifty (250) square feet and which was in existence on January 1, 1940, may be converted to dwelling uses without meeting front, side or rear year set backs, provided there is no enlargement of any nonconforming portion of the existing building footprint and provided the conversion will conform to the minimum land area per dwelling unit.

Any lot of record as of July 15, 1985, and held under separate and distinct ownership from adjacent lots and meeting the applicable street frontage requirements of that time may be considered a buildable lot in the IR-1 and IR-2 zones, provided that the applicable yard dimensions can be met and provided further that a lot in the IR-1 zone shall have a minimum area of ten thousand (10,000) square feet and a lot of the IR-2 zone shall have a minimum area of six thousand five hundred (6,500) square feet unless it is served by both public sewer and public water, in which case it shall have a minimum area of five thousand (5,000) square feet.

A lot in the IR-1, IR-2 and I-B zones that was described in a subdivision plat approved by the Planning Board after July 15, 1982, shall be considered a buildable lot, provided that the applicable yard dimensions can be met.

(Code 1968, § 602.19.L; Ord. No. 539-84, 5-7-84; Ord. No. 32-85, § 1, 7-15-85; Ord. No. 91-88, 7-19-88; Ord. No. 310-89, 1-30-89; Ord. No. 166-89, 12-11-89)

***Editor's note—**Ord. No. 91-88, adopted July 19, 1988, amended § 14-433 to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 91-88. Subsequently, § 14-433 was amended by Ord. No. 310-89, adopted Jan. 30, 1989, to read as set out, which ordinance further provided that it be applicable to all pending proceedings and be enacted as an emergency.

Sec. 14-434. Corner clearance.

No obstruction higher than three and one-half (3 1/2) feet above the lowest elevation at the curbline shall be permitted on a corner lot within the area of a triangle formed by a line intersecting the street lines of the intersecting streets at points twenty-five (25) feet from the corner, unless said obstruction is located in the side or rear yard and is reviewed by the public works authority and found not to be a traffic or public safety hazard. For the purpose of this section, the word "obstruction" shall mean any shrub, wall, fence, temporary building, sign, a pile of material, but shall not include permanent buildings or structures where permitted elsewhere in this article.

(Code 1968, § 602.19.M; Ord. No. 247-97, 4-9-97; Ord. No. 56-08/09)

Sec. 14-435. Unsewered residential district.

Where a lot in a residence zone is not served by public sewers and septic tank disposal systems are required, the minimum lot area

required shall be determined from the following table, except that on the islands in Casco Bay, such variation as shall be approved by the health officer may be permitted in the minimum required lot areas:

Standard Percolation Test Rate of Percolation (minutes)	*Lot Area Required (square feet)*
2	7,800
3	8,400
4	8,800
5	9,100
10	10,500
15....	11,800
30	13,800
45	15,500

(Code 1968, § 602.19.N)

Sec. 14-436. Building extensions.

Existing non-residential and residential principal structures which are nonconforming as to any area and/or yard requirements may be enlarged within the existing footprint subject to the following provisions:

(a) *For principal structures lawfully nonconforming as to land area per dwelling unit as of July 19, 1988*: The floor area of the expansion shall be limited to no more than fifty (50) percent of the first floor footprint.

The additional floor area shall be created in the uppermost floor by the use of dormers, turrets or similar structures needed to provide the minimum height required for habitable space while preserving the existing roof configuration to the maximum extent possible.

(b) *For residential principal structures conforming as to land area per dwelling unit as of July 19, 1988, but lawfully nonconforming as to any yard setback or nonresidential principal structures that are lawfully nonconforming as to any yard setback*: The floor area of the expansion shall be limited to no more than eighty (80) percent of the first floor footprint. The additional floor area shall be created by raising the existing roof configuration the minimum amount required to create an additional story of habitable space, or by the use of dormers, turrets or similar structures.

Building expansions under this section may occur only once during the lifetime of an existing structure.
(Ord. No. 61-97, 8-18-97; Ord. No. 284-99, §3, 5-17-99, enacted as an emergency to take effect immediately pursuant to Article II, Sec. 8 of the Portland City Charter)

***Editor's note—**Ord. No. 61-97, adopted Aug. 18, 1997, repealed former § 14-436 and enacted similar new provisions as herein set out. Formerly, such section derived from § 602.19.O of the 1968 Code as amended by Ord. No. 92-88, adopted July 19, 1988.

Sec. 14-437. Setback reductions.

(a) *Authority.* The zoning administrator may grant setback reductions to the extent provided by this section.

(b) *Procedure.* Application for a setback reduction shall be submitted to the building inspections division. A payment of a nonrefundable application fee, as established from time to time by order of the city council to cover administrative costs, shall accompany each application. The application shall be in such form as prescribed by the zoning administrator and shall contain at least the following information and documentation:

1. The name and address of the applicant and his or her interest in the subject property;

2. The name and address of the owner, if different from the applicant;

3. The address or location and the city assessor's chart, block and lot number of the subject property;

4. The present use and zoning classification of the subject property;

5. Plot plan showing sufficient information to indicate the location of all structures existing and proposed in relation to the lot lines. Such a plan must be prepared by a state registered land surveyor. If, in the opinion of the surveyor, sufficient monumentation is not available, then a standard boundary survey will be necessary to meet the requirements of this section.

(c) *Purpose.* The purpose of setback reductions is to validate the sites of mislocated single-family, owner-occupied residential structures and those structures accessory thereto, which are not otherwise legally sited and which were in existence on November 15, 1993.

(d) Conditions for setback reductions. Setback reductions which may be granted by the zoning administrator are subject to the following conditions:

1. The sole use of the property is (and, if the application should be granted, will remain) as a single-family detached dwelling.

2. The property is located in R-1, R-2, R-3, R-4, R-5, R-6, IR-1, IR-2, IR-3 or RP zones.

3. The reduction sought cannot be reduced by more than the following:

IR-1, IR-2, IR-3, R-3, RP, R-1, R-2, R-4 and R-5 zones:

Front yard: Ten (10) feet

Rear yard: Ten (10) feet

Side yard: Five (5) feet

R-6 zone:

Front yard: Five (5) feet

Rear yard: Ten (10) feet

Side yard: Five (5) feet

4. No relief may be granted under this section in cases where the building authority determines that the setback violation was the result of a willful act by either the applicant or a prior owner.

5. This section shall only apply to the inadvertent misplacement of a structure.

6. Recording of setback reduction: The zoning administrator shall provide a signed instrument in recordable form, indicating any setback reduction granted under the terms of this section. The applicant for such reduction shall be responsible for recording this instrument in the Cumberland County Registry of Deeds.

(Ord. No. 138-93, 11-15-93)

Sec. 14-438. Setback reductions for porches and other similar uses.

(a) Porches, decks and sheds which are accessory to single-family dwellings built five (5) years prior to the date of application will be eligible for setback reductions as provided in this section. Such structures are not subject to the limitations in section 14-437, must be set back two (2) feet from the rear and side property lines, and must comply with the front yard setback required for the applicable zone. A reduced setback may be permitted only when the applicant can show that there will be no development within the setback required by the zoning ordinance on adjacent property which abuts the area for which a reduced setback is sought. The applicant will demonstrate compliance with the above requirement by providing an affidavit from the abutting property owner stating that the area in question will never be developed. Reduced setbacks will not be permitted when the area proposed for such setbacks abuts either city or state owned property. No setback reduction may be granted which would permit any structure on the lot which is the subject of the application to be within fifteen

(15) feet of any existing residential structure on an adjacent lot.

(b) Recording of setback reduction. The zoning administrator shall provide a signed instrument in recordable form, indicating any setback reduction granted under the terms of this section. The applicant for such reduction shall be responsible for recording this instrument in the Cumberland County Registry of Deeds. The abutter's affidavit will also be recorded.
(Ord. No. 139-93, 11-15-93)

Sec. 14-439. Setback reductions in the industrial zones.

Where a setback is required in an industrial zone the Planning Board may grant a reduction of such setback upon the submission of a site plan meeting the requirements of article V of this chapter and as set forth below if at least one (1) of the following conditions exists:

(a) The property is encumbered by an easement or right-of-way that substantially impedes or prohibits development;

(b) The yard for which the setback reduction is sought abuts an easement or right-of-way area that prohibits buildings within the area of such easement or right-of-way; or

(c) The yard for which the setback reduction is sought abuts an area whose natural features, such as slopes or drainage areas, prohibit development in such area.

The Planning Board may reduce the required setback to the extent necessary for development, but in no event shall any side or rear setback be reduced to less than ten (10) feet or any front setback be reduced to less than five (5) feet. The Planning Board may require increased buffering to mitigate the impacts of a setback reduction under this section. This section shall not apply to reductions of setbacks required by division 26 of this chapter.

The planning authority shall be responsible for providing to the applicant for setback reduction an instrument signed by the chair or vice-chair of the Planning Board, indicating any setback reduction granted under the terms of this section. The applicant for such setback reduction shall be responsible for recording this instrument in the Cumberland County Registry of Deeds within sixty (60) days of the Planning Board's grant of the reduction. Failure to record such instrument within the required time period shall

render the reduction null and void.
(Ord. No. 227-97, 3-17-97)

Sec. 14-440. Exterior egress.

Notwithstanding any other provision of this Code, the building authority may permit the installation of an exterior egress stair or an upgrade of an existing exterior fire escape for a conforming or lawfully nonconforming dwelling unit existing as of January 5, 1998, if such egress is required to meet current fire or other life safety codes, provided that the owner demonstrates to the building authority that:

(a) There is no practical and economically reasonable way to provide such egress within the interior of the building, as demonstrated by the submission of detailed floor plans showing the projected cost of and the impact on the existing dwelling from an interior stair;

(b) The stairway and associated landings and other building fixtures are designed and will be constructed to have a minimal visual impact upon the building, especially as viewed from any public way or public open space, as demonstrated by photographs of the front and any other affected facades of the building and plans or drawings of the proposed egress stairs;

(c) Reductions to setbacks granted under this section shall be the least amount required to meet life safety code requirements; and

(d) Exterior stairways on buildings subject to regulation under article IX of this chapter shall require review and approval under the provisions of that article.

(Ord. No. 181-98, 1-5-98)

Sec. 14-441. - Sec. 445. Reserved.

DIVISION 26. SHORELAND REGULATIONS

Sec. 14-446. Purposes.

The purposes of this division are to further the maintenance of safe and healthful conditions; prevent and control water pollution; protect fish spawning grounds, aquatic life, bird and

other wildlife habitat; protect buildings and lands from flooding and accelerated erosion; protect archaeological and historic resources; protect commercial fishing and maritime industries; protect freshwater and coastal wetlands; control building sites, placement of structures and land uses; conserve shore cover, visual as well as actual points of access to inland and coastal waters and natural beauty, as appropriate in an urbanized environment; and to anticipate and respond to the impact of development in shoreland areas.
(Code 1968, § 602.19A.A; Ord. No. 499-74, § 10, 8-19-74; Ord. No. 15-92, § 27, 6-15-92)

Sec. 14-447. Applicability.

This division applies to all land areas, uses, structures and land use activities within two hundred fifty (250) feet, horizontal distance, of the normal high water line of any river; within two hundred fifty (250) feet, horizontal distance, of the upland edge of a coastal wetland, including all areas affected by tidal actions within two hundred fifty (250) feet, horizontal distances, of the upland edge of a freshwater wetland; and within seventy-five (75) feet, horizontal distance, of the normal high water line of a stream. This division also applies to any structure built on, over or abutting a dock, wharf or pier, or other structure extending beyond the normal high water line of a water body or within a wetland.
(Code 1968, § 602.19A.B; Ord. No. 499-74, § 10, 8-19-74; Ord. No. 15-92, § 28, 6-15-92; Ord. No. 296-08/09, 6-15-09)

Sec. 14-448. Zoning districts and shoreland regulations.

The regulations and controls of this division apply to all land areas, uses, structures and land use activities cited in section 14-447, in all zones of the city.
(Code 1968, § 602.19A.C; Ord. No. 499-74, § 10, 8-19-74)

Sec. 14-449. Land use standards.

All land uses and land use activities subject to this division shall conform to the following standards and regulations, as applicable:

(a) *Principal and accessory structures:*

1. All principal and accessory structures shall be set back at least seventy-five (75) feet horizontal

distance, from the normal high water line of water bodies, the upland edge of a wetland or associated tributary streams within a shoreland zone, except that in the following zones the setback shall be as indicated below:

a. B-3, B-5, B-5b, I-L (south and east of I-295), and I-M (south and east of I-295): Twenty-five (25) feet.

b. W-C, W-PD, W-SU, I-B, EWP: No setback required. Pier edge setbacks apply in EWP (Sec. 14-303(c)(4), W-C (Sec. 14-310(d)(4), W-PD (Sec. 320.2(c)), and W-SU (Sec. 320.9(c)).

For the principle structures, setback measurements shall be taken from the top of a costal bluff that has been identified on Coastal Bluff maps as being "highly unstable" or "unstable" by the Maine Geological Survey pursuant "Classification of Coastal Bluffs", and published in the most recent Coastal Bluff Map as further referenced on the Zoning Map.

Notwithstanding this requirement, when a lot is a lot of record as defined in section 14-433 or cannot otherwise meet the setback requirement of this section due to physical limitations of the site, the Planning Board may approve a reduction of the setback requirement for a principal structure to the least amount necessary to achieve a building dimension of twenty-eight (28) feet, provided that the setback is not reduced to less than forty (40) feet. Structures in existence on June 15, 1992, may be expanded once during the lifetime of the structure up to twenty-five (25) feet toward a freshwater wetland, stream or tributary stream, provided that the setback is not reduced to less than forty (40) feet and the floor area or volume is not increased by more than thirty (30) percent. In no event shall the setback from a coastal wetland be reduced to less than seventy-five (75) feet, except in the B-3, B-5, B-5b, EWP, W-C, W-PD, W-SU,I-B, I-L and I-M zones, where setbacks shall be as set forth above in this subsection.

In all cases, accessory detached structures of less than one hundred (100) square feet of floor area shall be permitted with no setback, provided that such structures shall be used only for the storage of fish, bait, and related equipment. No setback shall be required for piers, docks, retaining walls, or any other structures which require direct access to the water as an operational necessity.

2. Development activities within the shoreland zone are reviewed by the Zoning Administrator for compliance with required setbacks of this Division. Submission of plans for such development activity shall be prepared by competent professionals, based upon a boundary survey.

3. The lowest floor elevation or openings of all buildings and structures including basements shall be elevated at least one (1) foot above the elevation of the one hundred (100) year flood, the flood of record, or in the absence of these, the flood as defined by soil types identified as recent flood plain soils.

4. Notwithstanding the requirements of this section, stairways or similar structures may be allowed with a permit from the building authority to provide shoreline access in areas of steep slopes or unstable soils, provided that:

   a. The structure is limited to a maximum of four (4) feet in width;

   b. The structure does not extend below or over the normal high water line of a water body or upland edge of a wetland, unless permitted by the department of environmental protection pursuant to 38 M.R.S.A. Section 480-C; and

   c. The applicant demonstrates that no reasonable access alternative exists on the property.

(b) ***Piers, docks, wharves, bridges and other structures and uses extending over or below the normal high water line***

of a water body or within a wetland:

1. Access from shore shall be developed on soils appropriate for such use and constructed so as to control erosion;

2. The location shall not interfere with existing developed or natural beach areas;

3. The facility shall be located so as to minimize adverse effects on fisheries;

4. The facility shall be no larger in dimension than necessary to carry on the activity and shall be consistent with surrounding character and uses;

5. New permanent structures, and expansions thereof, projecting into or over water bodies shall require a permit from the Department of Environmental Protection pursuant to the national Resources Protection Act, 38 M.R.S.A. § 480-C. Permits may also be required from the Army Corps of Engineers if located in navigable waters.

6. Except in the W-C, EWP, W-PD, W-SU, and I-B zones, no new structure shall be built on, over or abutting a pier, wharf, dock or other structure extending beyond the normal high water line of a water body or within a wetland unless the structure requires direct access to the water as an operational necessity;

7. No existing structures built on, over or abutting a pier, dock, wharf or other structure extending beyond the normal high water line of a water body or within a wetland shall be converted to residential dwelling units in any zone.

(c) *Clearing or removal of vegetation:*

1. In all shoreland areas in resource protection zones, the cutting or removal of vegetation shall be limited to that which is necessary for uses expressly authorized in that zone.

2. The clearing or removal of vegetation standards of this section shall not apply to the following zones: EWP, WCZ, WPD, WSU, B-3, B-5, B-5b, B-6, B-7, I-L (south and east of I-295) and I-M zones (south and east of I-295).

3. Other than cutting or removal of vegetation as provided for in this section, timber harvesting shall not be permitted. For purposes of this section, timber harvesting is defined as the cutting and removal of timber for the primary purpose of selling or processing forest products. The cutting or removal of trees in the shoreland zone on a lot that has less than (2) acres within the shoreland zone shall not be considered timber harvesting. Cutting or removal of such trees shall be regulated pursuant to this section.

4. For purposes of this section, vegetation is defined as all live trees, shrubs and other plants including without limitation, trees both over and under 4 inches in diameter, measured at 4 ½ feet above ground level.

   a. In all areas other than resource protection zones, a buffer strip of vegetation shall be preserved, except where clearance is required for development of permitted uses, within a strip of land extending seventy-five (75) feet, horizontal distance, from the normal high-water or upland edge of a coastal wetland, river, stream or tributary stream within a shoreland zone, in accordance with the following:

      i. There shall be no cleared opening greater than two hundred fifty (250) square feet in the forest canopy or other existing vegetation if a forested canopy is not presented as measured from the outer limits of the tree or shrub crown. Notwithstanding this limitation, a footpath not to exceed six (6) feet in width as measured between tree trunks and/or shrub stems is allowed provided

that a cleared line of sight to the water through the buffer strip is not created.

ii. Selective cutting of trees within the buffer strip is allowed provided that a well-distributed stand of trees and other vegetation is maintained. For the purposes of this section, a "well-distributed stand of trees" adjacent to a water body, tributary stream or wetland shall be defined as maintaining a minimum rating score of sixteen (16) or more in any twenty-five-foot by fifty-foot rectangle area as determined by the following rating system:

Diameter of tree at four and one-half (4 ½) feet above ground level

(Inches)	*Points*
2 ≤ 4	1
4 ≤ 8	2
8 — 12	4
12 in. or greater	8

The following shall govern in applying this point system:

a. The 25-foot by 50-foot rectangular plots must be established where the landowner or lessee proposes clearing within the required buffer;

b. Each successive plot must be adjacent to, but not overlap a previous plot;

c. Any plot not containing the required points must have no vegetation removed except as otherwise allowed

by this ordinance;

d. Any plot containing the required points may have vegetation removed down to the minimum points required or as otherwise allowed by this ordinance;

e. Where conditions permit, no more than 50% of the points on any 25-foot by 50-foot rectangular area may consist of trees greater than 12 inches in diameter.

For the purposes of this section, "other natural vegetation" is defined as retaining existing vegetation under three (3) feet in height and other ground cover and retaining at least five (5) saplings less than two (2) inches in diameter at four and one-half (4 ½) feet above ground level for each 25-foot by 50-foot rectangular area. If five samplings do not exist, no woody stems less than two (2) inches in diameter can be removed until 5 samplings have been recruited into the plot.

Notwithstanding the above provisions, no more than forty (40%) percent of the total volume of trees four (4) inches or more in diameter, measured at four and one-half (4 ½) feet above ground level may be removed in any ten-year period.

iii. In order to protect water quality and wildlife habitat, existing vegetation under three (3) feet in height and other groundcover, including leaf litter and the forest duff layer, shall not be cut, covered, or removed, except to provide a footpath or other permitted uses as described in this section.

iv. Pruning of tree branches on the bottom one-third of the tree is allowed.

v. In order to maintain a buffer strip of vegetation when the removal of storm-damaged, diseased, unsafe or dead trees results in the creation of cleared openings, these openings shall be replanted with native tree species unless existing new tree growth is present.

The provisions contained in subsection b. of this section shall not apply to those portions of public recreational facilities adjacent to public swimming areas. Cleared areas in these locations shall be limited to the minimum amount necessary.

2. Selective cutting of not more than forty (40%) percent of the volume of trees four (4) inches or more in diameter, measured four and one-half (4 1/2) feet above ground level, shall be allowed within any ten-year period at distances greater than seventy-five (75) feet, horizontal distance, from the normal high water line of any other water body, tributary stream, or the upland edge of a wetland, except to allow for the development of permitted uses. Tree removal in conjunction with the development of permitted uses shall be included in the forty (40) percent calculation. For the purposes of these standards, volume may be considered to be equivalent to basal area. In no event shall cleared openings for any purpose, including but not limited to, principal and accessory structures, driveways, lawns and sewage disposal areas, exceed in the aggregate twenty-five (25%) percent of the lot area within the shoreland zone, including land previously cleared.

3. Legally existing nonconforming cleared openings may be maintained but shall not be enlarged, except as allowed by this division.

4. Fields and other cleared openings which have reverted to primarily shrubs, trees, or other woody vegetation shall be regulated under the provisions of this section.

(d) *Erosion and sedimentation control:*

1. All activities which involve filling, grading, excavation or other similar activities which result in unstabilized soil conditions and which require a permit shall require a written soil erosion and sedimentation control plan in accordance with Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices, published by the Cumberland County Soil and Water Conservation District and the Maine Department of Environmental Protection and the City of Portland Technical Manual. The plan shall be submitted to the permitting authority for approval and shall include, where applicable, provisions for:

   a. Mulching and revegetation of disturbed soil.

   b. Temporary runoff control features such as hay bales, silt fencing or diversion ditches.

   c. Permanent stabilization structures such as retaining walls or riprap.

2. In order to create the least potential for erosion, development shall be designed to fit with the topography and soils of the site. Areas of steep slopes where high cuts and fills may be required shall be avoided wherever possible, and natural contours shall be followed as closely as possible.

3. Erosion and sedimentation control measures shall apply to all aspects of the proposed project involving land disturbance, and shall be in operation during all stages of the activity. The amount of exposed ground area at every phase of construction shall be minimized to reduce the potential for erosion.

4. Any exposed ground area shall be temporarily or permanently stabilized within one (1) week from the time it was last actively worked, by use of riprap, sod, seed, and mulch, or other effective measures. In all cases, permanent stabilization shall occur within nine (9) months of initial exposure. The following standards shall also be met:

a. Where mulch is used, it shall be applied at a rate of at least one (1) bale per five hundred (500) square feet and shall be maintained until a catch of vegetation is established.

b. Anchoring the mulch with netting, peg and twine or other suitable method may be required to maintain the mulch cover.

c. Additional measures shall be taken where necessary in order to avoid siltation into the water. Such measures may include the use of staked hay bales and/or silt fences.

5. Natural and man-made drainage ways and drainage outlets shall be protected from erosion from water flowing through them. Drainage ways shall be designed and constructed in accordance with the City of Portland Technical Manual.

(e) ***Soils:*** All land uses shall be located on soils in or upon which the proposed uses or structures can be established or maintained without causing adverse environmental impacts, including severe erosion, mass soil movement, improper drainage, and water pollution, either during or after construction. Proposed uses requiring subsurface wastewater disposal and commercial or industrial development or other similar intensive land uses shall require a soils report based on an on-site investigation and prepared by state-certified professionals. Certified persons may include Maine Certified Soil Scientists, Maine Registered Professional Engineers, Maine State Certified Geologists and other persons who have training and experience in the recognition and evaluation of soil properties. The report shall be based upon the analysis of the characteristics of the soil and surrounding land and water areas, maximum ground water elevation, presence of ledge, drainage conditions, and other pertinent data which the evaluator deems appropriate. The soils report shall include recommendations for a proposed use to counteract soil limitations where they exist.

(f) ***Water quality:*** No activity shall deposit on or into the ground or discharge to the waters of the state any

pollutant that by itself or in combination with other activities or substances will impair designated uses or the water classification of the water body, tributary stream or wetland.

(g) ***Archaeological sites:*** Any proposed land use activity involving structural development or soil disturbance on or adjacent to sites listed on, or eligible to be listed on, the National Register of Historic Places, as determined by the department of planning and urban development, shall be submitted by the applicant to the Maine Historic Preservation Commission for review and comment at least twenty (20) days prior to action being taken by the building authority. The building authority shall consider comments received from the commission prior to rendering a decision on the application. Such sites shall also comply with all applicable provisions of article IX of this chapter.

(h) ***Installation of public utility service:*** No public utility of any kind shall install services to any new structure located in the shoreland zone unless written authorization attesting to the validity and currency of all local permits required under this Code has been issued by the appropriate municipal authorities. Following installation of service, the public utility shall forward the written authorization to the appropriate municipal authorities, indicating that installation has been completed.

(i) ***Essential services:***

1. Where feasible, the installation of essential services shall be limited to existing public ways and existing service corridors.

2. The installation of essential services, other than road-side distribution lines and within existing service corridors, is not allowed in a Resource Protection or Stream Protection District, except where the applicant demonstrates that no reasonable alternative exists.

3. Damaged or destroyed public utility transmission and distribution lines, towers and related

equipment may be replaced or reconstructed without a permit.

(j) *Roads and driveways:*

1. Roads and driveways shall be setback a minimum of seventy-five (75) feet from the normal high-water or upland edge of a coastal wetland, freshwater wetland, river or tributary stream within a shoreland zone, except:

   a. In the EWP, WC, WPD, WSU, B-3, B-5, B-5b, I-L (south and east of I-295) and I-M (south and east of I-295) roads and driveways shall be setback as established for structures in those zones; as specified in Sec. 14-449(a)1.

   b. Where the planning board determines that no other reasonable alternative exists. If no other reasonable alternative exists, the planning board may reduce the road and/or driveway setback requirement to no less than fifty (50) feet, horizontal distance, upon clear showing by the applicant that appropriate techniques will be used to prevent sedimentation of the water body, tributary stream or wetland. Such techniques may include, but are not limited to, the installation of settling basins, and/or effective use of additional ditch relief culverts and turnouts place so as to avoid sedimentation of the water body, tributary stream or wetland.

2. Existing public roads may be expanded within the legal road right of way regardless of their setback from a waterbody, tributary stream or wetland.

3. New roads and driveways are prohibited in a Resource Protection Zone except that the planning board may grant a permit to construct a road or driveway to provide access to permitted uses within the district. A road or driveway may also be approved by the planning board in a Resource Protection Zone, upon a finding that no reasonable

alternative route or location is available outside the district. When a roadway or driveway is permitted in a Resource Protection District the road and/or driveway shall be setback as far as practicable from the normal high-water line of a water body, tributary stream, or upland edge of wetland.

4. Road and driveways banks shall be no steeper than slope of two (2) horizontal to one (1) vertical, and shall be graded and stabilized in accordance with the provisions for erosion and sedimentation control contained in sec. 14-449(d).

5. Road and driveway grades shall be no grater than ten (10%) percent except segments of less than two hundred (200) feet.

6. In order to prevent road and driveway surface drainage from directly entering water bodies, tributary streams or wetlands, roads and driveways shall be designed, constructed, and maintained to empty onto an unscarified buffer strip at least (50) feet plus two times the average slope, in width between the outflow point of the ditch or culver and the normal high-water line of a water body, tributary stream or upland edge of a wetland. Surface drainage which is directed to an unscarified buffer strip shall be diffused or spread out to promote infiltration of the runoff and to minimize channelized flow of the drainage through the buffer strip.

7. Ditch relief (cross drainage) culverts, drainage dips and water turnout shall be installed in a manner effective in directing drainage onto unscarified buffer strips before the flow gains sufficient volume or head to erode the road, driveway, or ditch. To accomplish this, the following shall apply:

   a. Ditch relief culverts, drainage dips and associated water turnouts shall be spaced along the road, or driveway at intervals no greater than indicated in the following

table:

Grade (percent)	Spacing (feet)
0-2	250
3-5	200-135
6-10	100-80
11-15	80-60
16-20	60-45
21+	40

b. Drainage dips may be used in place of ditch relief culverts only where the grade is ten (10%) percent or less.

c. On sections having slopes greater than ten (10%) percent, ditch relief culverts shall be placed at approximately a thirty (30) degree angle downslope from a line perpendicular to the centerline of the road or driveway.

d. Ditch relief culverts shall be sufficiently sized and properly installed in order to allow for effective functioning, and their inlet and outlet ends shall be stabilized with appropriate materials.

8. Ditches, culverts, bridges, dips, water turnouts and other storm water runoff control installations associated with roads and driveways shall be maintained on a regular basis to assure effective functioning.

(k) ***Parking areas:*** Parking areas shall be set back a minimum of seventy-five (75) feet from the normal high-water or upland edge of a coastal wetland, freshwater wetland, river or tributary stream within a shoreland zone except:

1. In the EWP, WC, WPD WSU, B-3, B-5, B-5b, I-L and I-M zones, parking setbacks shall be as established for structures in those zones; as specified in Sec. 14-449(a)1.

2. Parking setbacks in the S-P (stream protection)

zones are as established in Division 26.7.

3. Where the Planning Board finds that no other reasonable alternative exists further from the shoreline or tributary stream, the board may reduce the parking setback requirement to no less than fifty (50) feet in the R-OS, and I-B zones to the least amount necessary for construction, provided that the applicant proves by a preponderance of the evidence that appropriate techniques will be used to prevent sedimentation of the water body.

(l) *Septic waste disposal:*

All subsurface sewage disposal system shall be installed in conformance with the State of Maine Subsurface Wastewater Disposal Rules and the following:

a. Clearing or removal of woody vegetation necessary to site a new system and any associated fill extensions, shall not extend closer than seventy-five (75) feet, horizontal distance, from the normal high-water line of a water body or the upland edge of a wetland;

b. A holding tank is not allowed for a first-time residential use in the shoreland zone.

(m) *Stormwater runoff:*

1. All new construction and development shall be designed to be in compliance with the City of Portland Technical Manual to minimize stormwater runoff from the site in excess of the natural predevelopment conditions. Where possible, existing natural runoff control features, such as berms, swales, terraces and wooded areas shall be retained in order to reduce runoff and encourage infiltration of stormwater.

2. Stormwater runoff control systems shall be maintained as necessary to ensure proper functioning.

(n) *Agriculture:*

1. All spreading or disposal of manure shall be accomplished in conformance with the ***Manure Utilization Guidelines*** published by the Maine Department of Agriculture on November 1, 2001, and the Nutrient Management Law (7 M.R.S.A. §§ 4201-4209).

2. Manure shall not be stored or stockpiled within seventy-five (75) feet, horizontal distance, of water bodies, tributary streams, or wetlands. All manure storage areas within the shoreland zone must be constructed or modified such that the facility produces no discharge of effluent or contaminated stormwater.

3. Agricultural activities involving tillage of soil greater than forty thousand (40,000) square feet in surface area within the shoreland zone shall require a conservation plan to be filed with the building authority.

4. There shall be no new tilling of soil within seventy-five (75) feet, horizontal distance, from water bodies and coastal wetlands or within twenty-five (25) feet, horizontal distance, of tributary streams and freshwater wetlands when such new tilling, by itself or combined with all other contiguous tillage, shall exceed forty thousand (40,000) square feet in surface area. Operations in existence on the effective date of this section and not in conformance with these provisions may be maintained but shall not be expanded. When the new tilling, by itself or combined with all other contiguous tillage, shall total forty thousand (40,000) square feet or less, the tillage shall be set back a minimum of twenty-five (25) feet from all water bodies, tributary streams or wetlands.

5. Newly established livestock grazing areas shall not be permitted within seventy-five (75) feet, horizontal distance, of water bodies and coastal wetlands or within twenty-five (25) feet, horizontal distance, of tributary streams and wetlands. Livestock grazing associated with ongoing

farm activities and which are not in conformance with the above setback provisions may continue, provided such grazing is conducted in accordance with a soil and water conservation plan filed with the building authority.

(o) ***General site plan features:*** The Planning Board or planning authority shall approve a site plan located within a shoreland zone if it finds that the following standards, in addition to the standards set forth in section 14-526, are met:

1. The proposal will maintain safe and healthful conditions;

2. The proposal will not result in water pollution, erosion, or sedimentation to surface waters;

3. The proposal will adequately provide for the disposal of all wastewater;

4. The proposal will not have an adverse impact on spawning grounds, fish, aquatic life, bird or other wildlife habitat;

5. The proposal will conserve shore cover and visual, as well as actual, points of access to inland and coastal waters;

6. The proposal will protect archaeological and historic resources;

7. The proposal will not adversely affect existing commercial fishing or maritime activities;

8. The proposal will avoid problems associated with flood plain development and use; and

9. The proposal is in conformance with the standards set forth in this section.

(Code 1968, § 602.19A.D; Ord. No. 499-74, § 10, 8-19-74; Ord. No. 38-85, § 1, 7-15-85; Ord. No. 15-92, § 29, 6-15-92; Ord. No. 164-97, § 12, 1-6-97; Ord. No. 296-08/09, 6-15-09; Ord. No. 278-09/10, 7-19-10; Ord. No. 27-11/12, 8-15-11)

Sec. 14-450. Reserved.

DIVISION 26.5. FLOOD PLAIN MANAGEMENT REGULATIONS*

***Editor's note**—Ord. No. 660-86, adopted July 7, 1986, amended Ch. 14, Art. III, by the addition of Div. 26A, §§ 14-450.1—14-450.8, which provisions have been included herein as Div. 26.5 at the discretion of the editor in order to conform with the existing numbering of divisions contained in this article.

Sec. 14-450.1. Establishment.

The City of Portland, Maine, elects to comply with the 42 USC Section 4001 et seq. requirements of the National Flood Insurance Act of 1968, as amended from time to time. The National Flood Insurance Program, established in the aforesaid act, provides that areas of the city having a special flood hazard be identified by the Federal Emergency Management Agency and that flood plain management measures be applied in such flood hazard areas. This division establishes a flood hazard development permit system and review procedure for development activities in the designated flood hazard areas of the city.

(Ord. No. 660-86, 7-7-86; Ord. No. 579-87, 6-15-87; Ord. No. 156-98, 11-16-98)

Sec. 14-450.2. Purposes.

The purposes of this division are to reduce future flood risks and losses, protect against financial and human loss resulting from flood disasters, and to control the placement of structures, construction materials, and methods used to minimize potential property damage due to flooding.

(Ord. No. 660-86, 7-7-86; Ord. No. 579-87, 6-15-87; Ord. No. 156-98, 11-16-98)

Sec. 14-450.3. Applicability.

This division applies to all land areas, uses, structures, and land use activities lying in the special flood hazard areas as identified by the Federal Emergency Management Agency in a report entitled "Flood Insurance Study — City of Portland, Maine, County of Cumberland," with accompanying "flood insurance rate map" and "flood boundary and floodway map," dated July 17, 1986. This Flood Insurance Study with accompanying maps, and any subsequent amendments thereto, is hereby adopted by reference and declared to be a part of this Code.

(Ord. No. 660-86, 7-7-86; Ord. No. 579-87, 6-15-87; Ord. No. 135-97, 11-3-97; Ord. No. 156-98, 11-16-98)

Sec. 14-450.4. Zoning districts and flood plain management regulations.

The regulations and controls of this division apply to all land areas, uses, structures, and land use activities cited in section 14-450.3, in all zones of the city.
(Ord. No. 660-86, 7-7-86; Ord. No. 579-87, 6-15-87; Ord. No. 156-98, 11-16-98)

Sec. 14-450.5. Definitions.

For the purpose of this division, the following terms and words shall have the meanings given herein:

Area of special flood hazard: The land in the flood plain having a one (1) percent or greater chance of flooding in any given year as specifically identified in the Flood Insurance Study cited in section 14-450.3.

Base flood: The flood having a one (1) percent chance of being hereof or exceeded in any given year (i.e., a one-hundred-year storm).

Building authority: The division of inspection services within the department of planning and urban development.

Coastal high hazard area: The area subject to high velocity waters, including but not limited to, hurricane wave wash or tsunamis. The area is designated on the flood insurance rate map as zone V1-30.

Development: Any man-made change to improved or unimproved real estate, including but not limited to, the construction of, alteration or addition to, any buildings or other structures, mining, dredging, filling, grading, paving, excavation, drilling operations, or storage of equipment or materials.

Floodproofing: Any combination of structural or nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real estate, to water and sanitary facilities, structures and their contents.

Floodway: The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface

elevation more than one (1) foot as designated on the flood boundary and floodway map. When not designated on the flood boundary and floodway map, it is considered to be the channel of a river or other watercourse and the adjacent land areas to a distance of one-half (1/2) the width of the flood plain, as measured from the normal high water mark to the upland limit of the flood plain.

Flood boundary and floodway map: The official map issued by the Federal Emergency Management Agency (FEMA) on which the boundaries of the flood have been designated. (This may alternatively be referred to as a flood hazard boundary map.)

Flood insurance rate map: The official map (FIRM) on which the Federal Emergency Management Agency (FEMA) has delineated both the areas of special flood hazard and the risk premium zones applicable to the city.

Lowest floor: The lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of this division.

Manufactured home or housing: As defined in section 14-47 (definitions) of this Code.

Mean high tide: The mean height of tidal high waters at a particular point or station over a period of time to such length that increasing its length does not appreciably change this mean. For tidal waters, the cycle of change covers a period of nineteen (19) years, and mean high tide is defined as the average of the high waters over a nineteen-year period.

Mean sea level: For purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on the city's FIRM are referenced.

Structure: A walled and roofed building, including a gas or liquid storage tank, that is principally above ground, or manufactured housing. "Principally above ground," as used above, means either that at least two-thirds (2/3) of its floor-to-ceiling height is above the average adjoining ground level, or at least

fifty-one (51) percent of the actual cash value of the structure, less land value, is above ground.

Substantial improvement: Any repair, reconstruction, addition to or other improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure either before the improvement or repair is started or, if the structure has been damaged and is being restored, before the damage occurred. For purposes of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions or for any alteration of a structure listed on the National Register of Historic Places or a state inventory of historic places.

(Ord. No. 660-86, 7-7-86; Ord. No. 579-87, 6-15-87; Ord. No. 156-98, 11-16-98)

Sec. 14-450.6. Application for permit—Filing.

(a) *Permit required.* Before any development begins within any areas of special flood hazard, a flood hazard area development permit shall be obtained from the building authority. This permit shall be required prior to issuance of a building permit, if one is required, and shall be in addition to any other permits, and site plan and subdivision review, which may be required pursuant to the Codes and ordinances of the city.

(b) *Submission.* The application for a flood hazard area development permit shall be submitted in writing to the building authority and shall include the following:

1. A final site plan, where applicable, showing information as required in section 14-527 (final site plan) for either a level I, II or III site plan as defined in section 14-523 (required approvals and applicability);

2. A final subdivision plat, where applicable, providing information as required in section 14-496 (plat requirements);

3. For any development which does not meet the minimum threshold as a development requiring site plan review as

authorized by section 14-523 (required approvals and applicability), the following information shall be provided:

a. The name, address and phone number of the applicant, owner and contractor;

b. A map with address indicating the location of the development site;

c. A site plan showing the location of existing and proposed development, including but not limited to, specific dimensions of existing and proposed structure(s), wastewater disposal facilities, water supply facilities, areas to be developed and the dimensions of the lot;

d. A statement of the intended use of any structure and/or other development;

e. A statement of the cost of the development including all materials and labor; and

f. A statement of the type of wastewater disposal system proposed.

4. In addition to the foregoing, all applications for a permit shall include the following information:

a. The elevation in relation to the National Geodetic Vertical Datum (NGVD), (or to a locally established datum for Zone A only) of the:

i. Base flood at the proposed site of all new or substantially improved structures, which is determined:

a. In Zones A1-30, AE, AO, AH, V1-30, and VE from data contained in the "Flood Insurance Study — City of Portland, Maine," as described in section 14-450.3; or

b. In Zone A, to be the elevation of the ground at the intersection of the flood plain boundary and a line perpendicular to the

shoreline which passes along the ground through the site of the proposed building;

ii. Highest and lowest grades at the site adjacent to the walls of the proposed building;

iii. Lowest floor, including basement; and whether or not such structures contain a basement; and

iv. Level, in the case of nonresidential structures only, to which the structure will be floodproofed;

b. A description of an elevation reference point established on the site of all new or substantially improved structures;

c. Either an elevation certificate (FEMA Form 81-31, 03/97, as amended) completed by a professional land surveyor, registered professional engineer or architect; or, for nonresidential structures to be floodproofed, a floodproofing certificate (FEMA Form 81-65, 05/93, as amended) completed by a registered professional engineer or architect. These certificates verify that the elevations shown on the application are accurate;

d. Certifications by a registered professional engineer or architect that:

i. Nonresidential structures will meet the floodproofing criteria of section 14-450.6(a)4a.; section 14-450.8(g); and other applicable standards in section 14-450.8;

ii. Construction in coastal high hazard areas, Zones V1-30 and VE, will meet the criteria of section 14-450.8(p); and other applicable standards in section 14-450.8;

iii. Engineered hydraulic openings in foundation walls will meet the standards of section 14-450.8(l)2;

iv. Bridges will meet the standards of section 14-450.8(m);

v. Containment walls will meet the standards of section 14-450.8(n);

e. A description of the extent to which any watercourse will be altered or relocated as a result of the proposed development; and

f. A statement of construction plans describing in detail how each applicable development standard in section 14-450.8 will be met.

g. Cross section(s) of the site acceptable to the public works authority.

(Ord.No. 660-86, 7-7-86; Ord. No. 579-87, 6-15-87; Ord. No. 156-98, 11-16-98; Ord. No. 278-09/10, 7-19-10)

Sec. 14-450.7. Same—Review.

(a) Upon determination by the building authority that an application is complete, the building authority shall transmit the application to the planning authority for review for compliance with this division. The planning authority shall coordinate review of the application by the city. No permit shall be issued by the building authority until the planning authority, or the Planning Board in the case of an application requiring subdivision or site plan review by said board, finds that the development proposal is in compliance with the standards of this division. Compliance with the provisions of this division shall be required prior to beginning any development as defined herein.

(b) The planning authority, and Planning Board when applicable, shall, when reviewing subdivisions and other proposed developments that require review under federal law, state law or local ordinances or regulations and all projects on five (5) or more acres, or in the case of manufactured home parks divided into two (2) or more lots, assure that:

1. All such proposals are consistent with the need to minimize flood damage.

2. All public utilities and facilities, such as sewer, gas, electrical and water systems are located and constructed

to minimize or eliminate flood damages.

3. Adequate drainage is provided so as to reduce exposure to flood hazards.

4. All proposals include base flood elevations, flood boundaries and, in a ravine flood plain, floodway data. These determinations shall be based on engineering practices recognized by the Federal Emergency Management Agency.

5. Any proposed development plan must include a condition of plan approval requiring that structures on lots in the development be constructed in accordance with section 14-450.8 of this division. The condition shall clearly articulate that the municipality may enforce any violation of the construction requirement. The construction requirement shall also be clearly stated on any map, plat, or plan to be signed by the Planning Board or planning authority as part of the approval process.

(c) In the review of all flood hazard development permit applications for compliance with the standards herein:

1. The planning authority, or Planning Board as appropriate, shall utilize the base flood data contained in the Flood Insurance Study, Portland, Maine, Cumberland County, as described in section 14-450.3. In special flood hazard areas where base flood elevation data are not provided in the above-cited study, the planning authority, or Planning Board as appropriate, shall obtain, review and reasonably utilize any base flood elevation data available from federal, state or other reasonably reliable sources in order to administer this section;

2. The public works authority shall make interpretations of the location of boundaries of special flood hazard areas shown on the maps described in section 14-450.3 herein;

3. Prior to approval of issuance of the flood hazard area development permit, the planning authority, or Planning Board as appropriate, shall determine that all necessary permits have been obtained from those federal, state and local authorities, from which prior approval is required by federal or state law, including but not limited to

Section 404 of the Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1334 as may be amended from time to time); provided, however, that conditional approval may be granted pending proof of receipt of any required permits, but no flood hazard area development permit shall be finally issued until proof of issuance of all such other permits is received by the building authority; and

4. The building authority shall notify adjacent municipalities, the Maine Department of Environmental Protection and the Maine Flood Plain Management Program in the State Planning Office, prior to any alteration or relocation of a watercourse, and submit copies of such notifications to the Federal Emergency Management Agency.

5. The building authority shall maintain, as a permanent record, copies of all flood hazard development permit applications, corresponding permits issued, and data relevant thereto, including reports of the board of appeals on variances granted under the provisions of section 14-450.12 of this division, and copies of elevation certificates, floodproofing certificates, certificates of compliance and certifications of design standards required under the provisions of sections 14-450.6, 14-450.8, and 14-450.10.

(Ord.No. 660-86, 7-7-86; Ord. No. 579-87, 6-15-87; Ord. No. 156-98, 11-16-98; ORd. No. 278-09/10, 7-19-10)

Sec. 14-450.8. Standards.

When reviewing flood hazard area development permit applications hereunder, the planning authority or Planning Board, where applicable, shall approve the plans under this division only if the following standards are met:

(a) *All development:* All development shall:

1. Be designed or modified and adequately anchored to prevent flotation (excluding piers and docks), collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;

2. Use construction materials that are resistant to

flood damage;

3. Use construction methods and practices that will minimize flood damage; and

4. Use electrical, heating, ventilation, plumbing, and air conditioning equipment, and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during flooding conditions.

(b) ***Water supply:*** All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems.

(c) ***Sanitary sewage systems:*** All new and replacement sanitary sewage systems shall be designed and located to minimize or eliminate infiltration of flood waters into the system and discharges from the system into flood waters.

(d) ***On-site waste disposal systems:*** On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during floods.

(e) ***Watercourse carrying capacity:*** All development associated with altered or relocated portions of a watercourse shall be constructed and maintained in such a manner that no reduction occurs in the flood carrying capacity of the watercourse.

(f) ***Residential:*** New construction or substantial improvement of any residential structure located within:

1. Zones A1-30, AE, and AH shall have the lowest floor (including basement) elevated to at least two (2) feet above the base flood elevation.

2. Zones AO and AH shall have adequate drainage paths around structures on slopes, to guide flood water away from the proposed structures.

3. Zone AO shall have the lowest floor (including basement) elevated above the highest adjacent grade:

a. At least two (2) feet higher than the depth specified in feet on the community's Flood Insurance Rate Map; or

b. At least three (3) feet if no depth number is specified.

4. Zone A shall have the lowest floor (including basement) elevated to at least two (2) feet above the base flood elevation utilizing information obtained pursuant to section 14-450.6(b)4.a.ii.; section 14-450.7(b)4; or section 14-450.7(c)1.

5. Zones V1-30 and VE shall meet the requirements of section 14-450.8(p).

(f) ***Nonresidential:*** New construction or substantial improvement of any nonresidential structure located within:

1. Zones A1-30, AE, and AH shall have the lowest floor (including basement) elevated to at least two (2) feet above the base flood elevation, or together with attendant utility and sanitary facilities shall:

a. Be floodproofed to at least two (2) feet above the base flood elevation so that below that elevation the structure is watertight with walls substantially impermeable to the passage of water;

b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy; and

c. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this section. Such certification shall be provided with the application for a flood hazard development permit, as required by section 14-450.6(b)4d and shall include a

record of the elevation above mean sea level to which the structure is floodproofed.

2. Zones AO and AH shall have adequate drainage paths around structures on slopes, to guide flood water away from the proposed structures.

3. Zone AO shall have the lowest floor (including basement) elevated above the highest adjacent grade:

   a. At least two (2) feet higher than the depth specified in feet on the community's Flood Insurance Rate Map; or

   b. At least three (3) feet if no depth number is specified; or

   c. Together with attendant utility and sanitary facilities be floodproofed to meet the elevation requirements of this section and floodproofing standards of section 14-450.8(g).

4. Zone A shall have the lowest floor (including basement) elevated to at least two (2) feet above the base flood elevation utilizing information obtained pursuant to section 14-450.6(b)4.a.ii.; section 14-450.7(b)4; section 14-450.7(c)1; or

5. Zones V1-30 and VE shall meet the requirements of section 14-450.8(p).

(h) ***Manufactured homes:*** New or substantially improved manufactured homes located within:

1. Zones A1-30, AE, and AH shall:

   a. Be elevated on a permanent foundation such that the lowest floor is at least two (2) feet above the base flood elevation; and

   b. Be securely anchored to an adequately anchored foundation system to resist flotation, collapse, or lateral movement. Methods of

anchoring may include, but are not limited to:

i. Over-the-top ties anchored to the ground at the four (4) corners of the manufactured home, plus two (2) additional ties per side at intermediate points (manufactured homes less than fifty (50) feet long require one (1) additional tie per side); or by

ii. Frame ties at each corner of the home, plus five (5) additional ties along each side at intermediate points (manufactured homes less than fifty (50) feet long require four (4) additional ties per side).

iii. All components of the anchoring system described in section 14-450.8(h)1.b.i. and ii. Shall be capable of carrying a force of four thousand eight hundred (4,800) pounds.

2. Zones AO and AH shall have adequate drainage paths around structures on slopes, to guide flood water away from the proposed structures.

3. Zone AO shall have the lowest floor (including basement) elevated above the highest adjacent grade:

a. At least two (2) feet higher than the depth specified in feet on the community's Flood Insurance Rate Map; or

b. At least three (3) feet if no depth number is specified; and

c. Meet the requirements of section 14-450.8(h)1.b.

4. Zone A shall:

a. Be elevated on a permanent foundation such that the lowest floor is at least two (2) feet

above the base flood elevation utilizing information obtained pursuant to section 14-450.6(b)4.a.ii; section 14-450.7(b)4; section 14-450.7(c)1; and

b. Meet the requirements of section 14-450.7(2)b.

5. Zones V1-30 and VE shall meet the requirements of article VI.P.

(i) ***Recreational vehicles:*** Recreational vehicles located within:

1. Zones A1-30, AH and AE shall either:

a. Be on the site for fewer than one hundred eighty (180) consecutive days;

b. Be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only be quick disconnect type utilities and security devices, and has no permanently attached additions; or

c. Be permitted in accordance with the elevation and anchoring requirements for "manufactured homes" in section 14-450.8(h)1a and b.

2. Zones V1-30 and VE shall meet the requirements of either section 14-450.8(i)1.a. or b. or section 14-450.8(p).

(j) ***Accessory structures:*** Accessory structures located within Zones A1-30, AE, AO, AH and A, shall be exempt from the elevation criteria required in section 14-450.8(f) and (g) above, if all other requirements of section 14-450.8 and all the following requirements are met. Accessory structures shall:

1. Be five hundred (500) square feet or less and have a value less than three thousand dollars ($3,000.00);

2. Have unfinished interiors and not be used for human

habitation;

3. Have hydraulic openings, as specified in section 14-450.8(l), in at least two (2) different walls of the accessory structure;

4. Be located outside the floodway;

5. When possible be constructed and placed on the building site so as to offer the minimum resistance to the flow of flood waters and be placed further from the source of flooding than is the primary structure; and

6. Have only ground fault interrupt electrical outlets. The electric service disconnect shall be located above the base flood elevation and when possible outside the special flood hazard area.

(k) *Floodways:*

1. In Zones A1-30 and AE, encroachments, including fill, new construction, substantial improvement, and other development shall not be permitted in ravine areas, for which a regulatory floodway is designated on the community's Flood Insurance Rate Map or Flood Boundary and Floodway Map, unless a technical evaluation certified by a registered professional engineer is provided demonstrating that such encroachments will not result in any increase in flood levels within the community during the occurrence of the base flood discharge.

2. In Zones A1-30 and AE riverine areas, for which no regulatory floodway is designated, encroachments, including fill, new construction, substantial improvement, and other development shall not be permitted in the floodway as determined in section 14-450.8(11)3. unless a technical evaluation certified by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing development and anticipated development:

a. Will not increase the water surface elevation of the base flood more than one (1) foot at any point within the community; and

b. Is consistent with the technical criteria contained in chapter 5 entitled "Hydraulic Analyses," *Flood Insurance Study – Guidelines and Specifications for Study Contractors, (FEMA 37/January 1995, as amended).*

3. In Zones A1-30, AE, and A riverine areas for which no regulatory floodway is designated, the regulatory floodway is determined to be the channel of the river or other watercourse and the adjacent land areas to a distance of one-half (1/2) the width of the flood plain as measured from the normal high water mark to the upland limit of the flood plain. Encroachments, including fill, new construction, substantial improvement, and other development shall not be permitted unless a technical evaluation certified by a registered professional engineer is provided meeting the requirements of section 14-450.8(k)2.a. and b.

(l) *Enclosed areas below the lowest floor:* New construction or substantial improvement of any structure in Zones A1-30, AE, AO, AH and A that meets the development standards of article VI, including the elevation requirements of section 14-450.8, paragraphs (f), (g) or (h) and is elevated on posts, columns, piers, piles, "stilts," or crawl spaces may be enclosed below the base flood elevation requirements provided all the following criteria are met or exceeded:

1. Enclosed areas are not basements;

2. Enclosed areas shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood water. Designs for meeting this requirement must either:

a. Be engineered and certified by a registered professional engineer or architect; or

b. Meet or exceed the following minimum criteria:

(a) A minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of the enclosed area;

(b) The bottom of all openings shall be no higher than one (1) foot above the lowest grade; and

I Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the entry and exit of flood waters automatically without any external influence or control such as human intervention, including the use of electrical and other non-automatic mechanical means;

3. The enclosed area shall not be used for human habitation; and

4. The enclosed areas are usable solely for building access, parking vehicles, or storing of articles and equipment used for maintenance of the building.

(m) ***Bridges:*** New construction or substantial improvement of any bridge in Zones A1-30, AE, AO, AH, A, V1-30 and VE shall be designed such that:

1. When possible, the lowest horizontal member (excluding the pilings, or columns) is elevated to at least two (2) feet above the base flood elevation; and

2. A registered professional engineer shall certify that:

a. The structural design and methods of construction shall meet the elevation requirements of this section and the floodway standards of section 14-450.8(k); and

b. The foundation and superstructure attached

thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all structural components. Water loading values used shall be those associated with the base flood.

(n) ***Containment walls:*** New construction or substantial improvement of any containment wall located within:

1. Zones A1-30, AE, AH, V1-30 and VE shall:

   a. Have the containment wall elevated to at least two (2) feet above the base flood elevation;

   b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy; and

   c. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this section. Such certification shall be provided with the application for a flood hazard development permit, as required by section 14-450.6(b)d.4.

2. Zones AO and AH shall have adequate drainage paths around containment walls on slopes, to guide flood water away from the proposed walls.

3. Zone AO shall have the top of the containment wall elevated above the highest adjacent grade:

   a. At least two (2) feet higher than the depth specified in feet on the community's Flood Insurance Rate Map; or

   b. At least three (3) feet if no depth number is specified.

4. Zone A shall have the containment wall elevated to at least two (2) feet above the base flood elevation utilizing information obtained pursuant

to section 14-450.6(b)4.a.ii.; section 14-450.7(a)4; or section 14-450.7(c)1.

(o) ***Wharves, piers and docks:*** New construction or substantial improvement of wharves, piers, and docks are permitted in Zones A, A1-30, AE, AO, AH, V1-30, and VE, in and over water and seaward of the mean high tide if the following requirements are met:

1. Wharves, piers, and docks shall comply with all applicable local, state and federal regulations; and

2. Commercial wharves, piers, and docks involving fill shall adhere to the design and construction standards contained in the U.S. Army Corps of Engineers' ***Shore Protection Manual.***

(p) ***Coastal flood plains:***

1. All new construction located within Zones A1-30, AE, A, V1-30 and VE shall comply with all applicable local, state and federal regulations.

2. New construction or substantial improvement of any structure located within Zones V1-30 or VE shall:

   a. Be elevated on posts or columns such that:

      i. The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to two (2) feet above the base flood elevation;

      ii. The pile or column foundation and the elevated portion of the structure attached thereto is anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components; and

      iii. Water loading values used shall be those associated with the base flood. Wind

loading values used shall be those required by applicable state and local building standards.

b. Have the space below the lowest floor:

i. Free of obstructions; or

ii. Constructed with open wood lattice-work, or insect screening intended to collapse under wind and water without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting piles or columns; or

iii. Constructed with nonsupporting breakaway walls which have a design safe loading resistance of not less than ten (10) or more than twenty (20) pounds per square foot.

3. A registered professional engineer or architect shall:

a. Develop or review the structural design, specifications, and plans for the construction, which must meet or exceed the technical criteria contained in the ***Coastal Construction Manual, (FEMA-55/February, 1986);*** and

b. Certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the criteria of section 14-450.8(p)2.

4. The use of fill for structural support in Zones V1-30 and VE is prohibited.

5. Human alteration of sand dunes within Zones V1-30 and VE is prohibited unless it can be demonstrated that such alterations will not increase potential flood damage.

6. The enclosed areas may be used solely for parking vehicles, building access, and storage.

7. Lobster sheds and fishing sheds located seaward of mean high tide shall be exempt from the elevation requirement in section 14-450.8(g) only upon review and approval by the planning authority or Planning Board and if all the following requirements of section 14-450.8(a), (k) and (l) are met:

   a. The conditional use shall be limited to low value structures such as metal or wood sheds two hundred (200) square feet or less and shall not exceed more than one (1) story.

   b. The structure shall be securely anchored to the wharf or pier to resist flotation, collapse and lateral movement due to the effect of wind and water loads acting simultaneously on all building components.

   c. The structure will not adversely increase wave or debris impact forces affecting nearby buildings.

   d. The structure shall have unfinished interiors and shall not be used for human habitation.

   e. Any mechanical, utility equipment and fuel storage tanks must be anchored and either elevated or floodproofed to two (2) feet above the base flood elevation.

      All electrical outlets shall be ground fault interrupt type. The electrical service disconnect shall be located on shore above the base flood elevation and when possible outside the special flood hazard area.

      <u>If a flood hazard permit application is granted, the applicant shall be notified in writing that flood insurance is not available for structures located entirely over water or seaward of mean high tide.</u>

(Ord. No. 660-86, 7-7-86; Ord. No. 579-87, 6-15-87; Ord. No. 156-98, 11-16-98;

Sec. 14-450.9. Permit.

Upon determination that the development or substantial improvement plan is in compliance with this division, the building authority shall issue one (1) of the following Flood Hazard Area Development Permits based on the type of development:

(a) Issue a two-part flood hazard development permit for elevated structures. Part I shall authorize the applicant to build a structure to and including the first horizontal floor only above the base flood level. At that time the applicant shall provide the code enforcement officer with a second elevation certificate completed by a professional land surveyor, registered professional engineer or architect based on the Part I permit construction, "as built," for verifying compliance with the elevation requirements of section 14-450.8(f), (g), (h) or (p). Following review of the elevation certificate data, which shall take place within seventy-two (72) hours of receipt of the application, or as soon as practicable thereafter, the code enforcement officer shall issue Part II of the Flood Hazard Development Permit. Part II shall authorize the applicant to complete the construction project; or

(b) Issue a Flood Hazard Development Permit for Floodproofing of Nonresidential Structures that are new construction or substantially improved nonresidential structures that are not being elevated but that meet the floodproofing standards of section 14-450.8(g)1.a.—c. The application for this permit shall include a floodproofing certificate signed by a registered professional engineer or architect; or

(c) Issue a Flood Hazard Development Permit for all level I and level II site plans that are not new construction or a substantial improvement, such as repairs, maintenance, renovations, or additions, whose value is less than fifty (50) percent of the market value of the structure. Level I and level II site plans also include, but are not limited to: accessory structures as provided for in section 14-450.8(j), mining, dredging, filling, grading, paving, excavation, drilling operations, storage of

equipment or materials, deposition or extraction of materials, public or private sewage disposal systems or water supply facilities that do not involve structures; and nonstructural projects such as bridges, dams, towers, fencing, pipelines, wharves, and piers.

(Ord. No. 660-86, 7-7-86; Ord. No. 579-87, 6-15-87; Ord. No. 156-98, 11-16-98; Ord. No. 278-09/10, 7-19-10)

Sec. 14-450.10. Certificate of compliance.

No land in an area of special flood hazard shall be occupied or used in violation of this division, and no structure in such an area which is developed or substantially improved shall be occupied until a Certificate of Compliance is issued by the building authority. Said Certificate of Compliance shall be issued only after an applicant files the following certifications of the "as-built" development with the building authority:

(a) For new construction or substantial improvement of any structure the applicant shall submit to the building authority:

1. An elevation certificate completed by a professional land surveyor, registered professional engineer, or architect, for compliance with applicable provisions of section 14-450.8; and

2. For structures in Zones V1-30 and VE, certification by a registered professional engineer or architect that the design and methods of construction to be used are in compliance with applicable provisions of section 14-450.8(p)3.

(b) The applicant shall submit written notification to the building authority that the development is complete and complies with the provisions of this division.

(c) Within thirty (30) working days, the building authority shall:

1. Review the elevation certificate and the applicant's written notification; and

2. Upon determination that the development conforms with the provisions of this division, shall issue a

certificate of compliance.

(Ord. No. 660-86, 7-7-86; Ord. No. 579-87, 6-15-87; Ord. No. 156-98, 11-16-98)

Sec. 14-450.11. Fee.

A nonrefundable flood hazard area development permit fee of fifty dollars ($50.00) shall be paid to the building authority, and a copy of a receipt for the same shall accompany the application.

(Ord. No. 660-86, 7-7-86; Ord. No. 579-87, 6-15-87; Ord. No. 156-98, 11-16-98)

Sec. 14-450.12. Appeals and variance processes.

(a) The board of appeals shall hear and decide appeals from and review orders, decisions, determinations or interpretations or the failure to act of the building authority as authorized in section 14-472 (appeals).

(b) The board of appeals may authorize variances from the provisions of this division as authorized in section 14-473 (variances), except:

1. As otherwise expressly provided in section 14-473I(3); or

2. Variances shall not be granted within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result.

(c) Section 14-473 notwithstanding, variances from the requirements of this division shall be granted only upon:

1. A showing of good and sufficient cause; and

2. A determination that should a flood comparable to the base flood occur, the granting of a variance will not result in increased flood heights, additional threats to public safety, public expense, or create nuisances, cause fraud or victimization of the public or conflict with existing local laws or ordinances; and

3. A showing that the issuance of the variance will not conflict with other state, federal or local laws or ordinances; and

4. A determination that failure to grant the variance would result in "undue hardship," which in this subsection

means:

a. That the land in question cannot yield a reasonable return unless a variance is granted; and

b. That the need for a variance is due to the unique circumstances of the property and not to the general conditions in the neighborhood; and

c. That the granting of a variance will not alter the essential character of the locality; and

d. That the hardship is not the result of action taken by the applicant or a prior owner.

(d) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(e) Variances may be issued for the repair, reconstruction, rehabilitation, or restoration of historic structures upon the determination that:

1. The development meets the criteria of section 14-450.12(a) through (d); and

2. The proposed repair, reconstruction, rehabilitation, or restoration will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

(f) Variances may be issued for new construction, substantial improvements, or other development for the conduct of a functionally dependent use provided that:

1. The criteria of this section and section 14-450.8 are met; and

2. The structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

(g) Any applicant who meets the criteria of this section shall be notified by the board of appeals in writing over the

signature of the chairman of the board of appeals that:

1. The issuance of a variance to construct a structure below the base flood level will result in greatly increased premium rates for flood insurance up to amounts as high as twenty-five dollars ($25.00) per one hundred dollars ($100.00) of insurance coverage;

2. Such construction below the base flood level increases risks to life and property; and

3. The applicant agrees in writing that the applicant is fully aware of all the risks inherent in the use of land subject to flooding, assumes those risks and agrees to indemnify and defend the municipality against any claims filed against it that are related to the applicant's decision to use land located in a flood plain and that the applicant individually releases the municipality from any claims the applicant may have against the municipality that are related to the use of land located in a flood plain.

(h) The above paragraph(s) shall be included with or on all applications for a variance hereunder, as well as the following statements:

1. The applicant understands and is fully aware of all of the risks inherent in the use of land subject to flooding and understands and agrees that he/she is fully assuming any potential or actual liability resulting therefrom. Applicant agrees to indemnify and defend the municipality against any claims filed against it that are related to the applicant's decision to use the land located in a flood plain and that the applicant individually releases the municipality from any claims the applicant may have against the municipality that are related to the use of land located in a flood plain. Applicant further understands and agrees that the city has no responsibility therefore, and in the event a variance is granted to applicant, applicant agrees to inform any purchaser, assignee or other transferee of applicant of the existence of said variance and of this agreement.

2. Applicant shall signify in writing that he/she has read, understands and agrees to all of the stipulations in this

subsection and subsection (7) immediately above.

(i) The board of appeals shall submit to the building authority a report of all variance actions, including justification for the granting of the variance and an authorization for the building authority to issue a flood hazard development permit, which includes any conditions to be attached to said permit.

(Ord. No. 660-86, 7-7-86; Ord. No. 579-87, 6-15-87; Ord. No. 156-98, 11-16-98)

Sec. 14-450.13. Records; reports.

(a) The director of planning and urban development shall maintain, as a permanent record, copies of all flood hazard area development permits issued, certificates of compliance and data relevant thereto, including reports of the board of appeals on variances granted hereunder.

(b) The director of planning and urban development shall be responsible for filing such annual reports regarding participation in the National Flood Insurance Program as may be required by FEMA. Said annual reports shall include, but not be limited to, a report on implementation of this division and on any variances granted hereunder. A copy of such annual reports shall also be sent to the state planning office.

(Ord. No. 660-86, 7-7-86; Ord. No. 579-87, 6-15-87; Ord. No. 156-98, 11-16-98)

Sec. 14-450.14. Enforcement and penalties.

It shall be the duty of the building authority to enforce the provisions of this ordinance pursuant to Title 30-A M.R.S.A. § 4452. The penalties contained in Title 30-A M.R.S.A. § 4452 shall apply to any violation of this ordinance.

In addition to any other actions, the building authority, upon determination that a violation exists, shall submit a declaration to the Administrator of the Federal Insurance Administration requesting a denial of flood insurance. The valid declaration shall consist of:

(a) The name of the property owner and address or legal description of the property sufficient to confirm its identity and location;

(b) A declaration that the property is in violation of a cited state or local law, regulation, or ordinance;

(c) A clear statement that the public body making the declaration has authority to do so and a citation to that authority;

(d) Evidence that the property owner has been provided notice of the violation and the prospective denial of insurance; and

(e) A clear statement that the declaration is being submitted pursuant to Section 1316 of the National Flood Insurance Act of 1968, as amended.

(Ord. No. 156-98, 11-16-98)

Sec. 14-450.15. Conflict with other ordinances.

This division shall not repeal, annul or in any way impair or remove the necessity of compliance with any other rules, regulations, permits or provisions of law. Where one (1) section of this Code imposes a greater restriction upon the use of land, buildings or structures than another section, the provisions of the stricter section shall control.

(Ord. No. 660-86, 7-7-86; Ord. No. 579-87, 6-15-87; Ord. No. 156-98, 11-16-98)

Sec. 14-450.16. Validity and severability.

If any section or provision of this division is declared by the courts to be invalid, such decision shall not invalidate any other section or provision of this division.

(Ord. No. 156-98, 11-16-98)

Sec. 14-450.17.- 14-450.30. Reserved.

DIVISION 26.7. S-P STREAM PROTECTION ZONE

Sec. 14-451. Purposes.

The purposes of the S-P stream protection zone are to preserve and protect significant streams as defined in 38 M.R.S.A. Section 438-A(1) by providing a buffer from land development activities in order to conserve stream channel capacity and to minimize siltation and stream bank erosion.

(Ord. No. 15-92, § 30, 6-15-92)

Sec. 14-452. Applicability.

The S-P stream protection zone includes all land areas within seventy-five (75) feet, horizontal distance, of the normal high water line of a stream as shown on the City of Portland Zoning Map. The regulations set forth in this division shall not apply to a stream and its associated shoreland area when they are also located in an area designated as a shoreland zone. Streams located within shoreland zones shall be subject to the provisions of division 26.
(Ord. No. 15-92, § 30, 6-15-92)

Sec. 14-453. Development standards.

(a) *Minimum building setback from normal high water line of stream:* Seventy-five (75) feet. Notwithstanding this requirement, when a lot is a lot of record as defined in section 14-433 or cannot otherwise meet the setback requirement of this section due to physical limitations of the site, the Planning Board may approve a reduction of the setback requirement for a principal structure to the least amount necessary to achieve a building dimension of twenty-eight (28) feet, provided that the setback is not reduced to less than forty (40) feet. Structures in existence on June 15, 1992, may be expanded once during the lifetime of the structure up to twenty-five (25) feet toward a stream or tributary stream, provided that the setback is not reduced to less than forty (40) feet and the floor area or volume is not increased by more than thirty (30) percent.

(b) *Filling of material within a stream protection zone:* Filling of material within a stream protection zone shall require site plan review in accordance with article V of this chapter.

(c) *Minimum parking setback from normal high water line of stream:* Seventy-five (75) feet. Notwithstanding this requirement, the Planning Board may reduce the parking setback where the required setback cannot be met to the least extent necessary, provided that such setback shall not be less than the setback of the principal structure from the stream.
(Ord. No. 15-92, § 30, 6-15-92; Ord. No. 278-09/10, 7-19-10)

Sec. 14-454. - Sec. 14-460. Reserved.

DIVISION 27. ADMINISTRATION AND ENFORCEMENT*

***Cross reference(s)—**Administration, Ch.2.

Sec. 14-461. Building authority to enforce article.

It shall be the duty of the building authority to enforce the provisions of this article. No permit or certificate of occupancy shall be issued for the construction, alteration, enlargement, moving, use or change of use of any building, structure, or part thereof, or for the use or change of use of any premises, unless the plans and intended use indicate that the building, structure or premises is to conform in all respects with the provisions of this article.

(Code 1968, § 602.22.A)

Sec. 14-462. Change to nonconforming use.

The use of any part of any building or structure for a one-family dwelling house, two-family dwelling house, lodging house, hotel, tenement or apartment house, dormitory, educational use, club, church, farm use, hospital, sanitarium, institution, aviation facility, office or bank, place of amusement or assembly, retail business or service other than a filling station or garage, wholesale business, manufacturing or storage facility, warehouse, filling station, stable, minor garage for not more than one (1) commercial motor vehicle, minor garage for more than one (1) commercial motor vehicle, public garage, any use prohibited in an industrial zone, or for any other distinctive use shall not be changed to any other use in this list of uses or to any other distinctive use, whether alterations in the building or structure are involved or not, until a permit and certificate authorizing such change of use has first been secured from the building authority, unless the proposed use conforms with the requirements of this article for the zone in which the building or structure or part thereof is located. Failure to secure such a permit before such a change is made shall be a violation of this article.

(Code 1968, § 602.22.B)

Sec. 14-463. Certificate of occupancy required.

No building or part thereof shall be constructed, altered, enlarged or moved unless a permit for such action has been issued by the building authority. Applications for building permits and certificates of occupancy required by the building code shall also serve as applications for permits required by this article. After

the building, structure or part thereof has been completed, altered, enlarged or moved, a certificate of occupancy shall be obtained for the proposed use before the same may be occupied or used. A certificate of occupancy shall be required for any of the following:

(a) Any increase in the number of dwelling units in a building;

(b) Establishment of any home occupation;

(c) Change in the use of a nonconforming use, whether of land or buildings;

(d) Occupancy and use, or change of use, of vacant land, except for the raising of crops;

(e) Change in the use of an existing building, whether or not alterations are involved, from any use in the following list to any of the other uses on the list:

1. Manufacturing or processing;

2. Residential;

3. Retail;

4. Storage or warehouse;

5. Transportation;

6. Other industrial;

7. Institutional;

8. office;

9. Other commercial;

10. Water-dependent use;

11. Marine use.

(Code 1968, § 602.22.C; Ord. No. 293-84, § 1, 11-19-84; Ord. No. 168-93, § 4, 1-4-93)

Sec. 14-464. Plans to be submitted.

A site plan showing the dimensions of the lot and of all buildings, yards and parking spaces, existing or proposed, shall accompany each application to the building authority for a building permit or certificate of occupancy. Site plans of all off-street loading and off-street parking, whether or not such parking is located on the same lot with the building for which it is required or which it is to serve, shall be provided.
(Code 1968, § 602.22.D)

Sec. 14-465. Zoning Determination Fee.

Upon request of any person and payment of a $150.00 fee, the building authority shall issue a written decision, determination or interpretation regarding the zoning code. The fee shall not apply to any such decision, determination or interpretation made in regard to a single-family residence which is owned and occupied by the person making the request.
(Ord. No. 224-00, 5-15-00; Ord. No. 119-01/02, § 3, 12-3-01)

Sec. 14-466. - Sec. 14-470. Reserved.

DIVISION 28. JURISDICTION OF BOARD OF APPEALS*

***Cross reference(s)—**Administration, Ch. 2; boards generally, § 2-31 et seq.; board of appeals, § 14-541 et seq.

Sec. 14-471. Jurisdiction and authority.

The board of appeals shall have the following jurisdiction and authority:

(a) Subject to the provisions of section 14-472, to hear and decide appeals from, and review orders, decisions, determinations or interpretations made by the building authority;

(b) Subject to the provisions of section 14-473, to hear and grant or deny applications for variances from the terms of this article;

(c) Subject to the provisions of section 14-474, to hear and grant or deny applications for conditional uses, as

specified in this article;

(d) To initiate changes and amendments to this article.

(Code 1968, § 602.24.A; Ord. No. 437-74, 7-1-74; Ord. No. 354-85, § 5, 1-7-85)

Sec. 14-472. Appeals.

(a) ***Authority.*** The board of appeals shall hear and decide appeals from and review orders, decisions, determinations or interpretations or the failure to act of the building authority.

(b) ***Procedure:***

1. ***Notice of appeal.*** An appeal may be taken to the board of appeals by any person affected by a decision of the building authority. Such appeal shall be taken within thirty (30) days of the action complained of by filing with the building authority a notice of appeal specifying the grounds thereof. A payment of a nonrefundable filing fee, as established from time to time by the city council to cover administrative costs and costs of hearing, shall accompany notice of appeal. The building authority shall forthwith transmit to the board of appeals all of the papers constituting the record upon which the action appealed from was taken.

2. ***Public hearing.*** A public hearing shall be set, advertised and conducted by the board of appeals in accordance with article VI of this chapter.

3. ***Action by the board of appeals.*** Within thirty (30) days following the close of the public hearing, the board of appeals shall render a decision on the appeal in the manner and form specified in article VI of this chapter. The failure of the board to act within thirty (30) days shall be deemed an approval of the appeal unless mutually extended in writing by the appellant and the board. Within five (5) days of such decision or failure to act notice thereof shall be mailed by the secretary to each party.

4. ***Right to grant variance in deciding appeals.*** In any case where the notice is accompanied by an application for variance in accordance with section 14-473(b)(1), the board of appeals shall have the authority to grant, as

part of the relief, a variance, but only in strict compliance with each provision of section 14-473 hereof.

5. *Conditions and limitations on rights granted by appeal.* Any right granted by the board of appeals on appeal shall be subject to the same conditions and limitations as if secured without the necessity of an appeal.

(Code 1968, § 602.24.B; Ord. No. 437-74, 7-1-74)

Sec. 14-473. Variances.

(a) *Authority.* Except as otherwise expressly provided in subsection (c)(3) and (c)(4), the board of appeals may authorize variances from the provisions of this article as meet the requirements of this division including but not limited to use variance, dwelling unit conversion, space and bulk such as lot size, density and side yard, parking, loading and signs.

(b) *Procedure:*

1. *Application.* Application for a variance shall be submitted to the building authority. A payment of a nonrefundable application fee, as established from time to time by the city council to cover administrative costs and costs of a hearing, shall accompany each application. The application shall be in such form as prescribed by the building authority and contain at least the following information and documentation:

   a. The name and address of the applicant and his or her interest in the subject property;

   b. The name and address of the owner, if different from the applicant;

   c. The address or location of the subject property;

   d. The present use and zoning classification of the subject property;

   e. Where the site plan approval is required by article V of this chapter, a preliminary or final site plan as defined by article V of this chapter;

   f. The relief sought from the board of appeals.

2. ***Public hearing.*** A public hearing shall be set, advertised and conducted by the board of appeals in accordance with article VI of this chapter.

   A copy of each variance request pertaining to division 26 (shoreland regulations) including the application and all supporting information supplied by the applicant, shall be forwarded by the municipal officials to the Commission of the Department of Environmental Protection at least twenty (20) days prior to action by the board. Any comments received from the Commissioner prior to action by the board shall be made part of the record and shall be taken into consideration by the board.

3. ***Action by board of appeals.*** Within thirty (30) days following the close of the public hearing, the board of appeals shall render its decision granting or denying the variance, in the manner and form specified by article VI of this chapter. The failure of the board to act within thirty (30) days shall be deemed an approval of the variance unless mutually extended in writing by the applicant and the board. Within seven (7) days of such decision or the expiration of such period, the secretary shall mail notice of such decision or failure to act to the applicant.

(c) ***Conditions for variances:***

1. ***Undue hardship required; defined.*** Except as provided in subsection (2) below, a variance may be granted by the board only where strict application of the ordinance, or a provision thereof, to the petitioner and his property would cause undue hardship. The words "undue hardship" as used in this subsection mean:

   a. That the land in question cannot yield a reasonable return unless a variance is granted;

   b. That the need for a variance is due to the unique circumstances of the property and not to the general conditions in the neighborhood;

   c. That the granting of a variance will not alter the

essential character of the locality; and

d. That the hardship is not the result of action taken by the applicant or a prior owner.

2. *Disability variance:* Notwithstanding the provisions of subsection (c)(1) of this section, the board may grant a variance to an owner of a residential dwelling for the purpose of making that dwelling accessible to a person with a disability who resides in or regularly uses the dwelling. The board shall restrict any variance granted under this subsection solely to the installation of equipment or the construction of structures necessary for access to or egress from the dwelling by the person with the disability. The board may impose conditions on the variance, including limiting the variance to the duration of the disability or to the time that the person with the disability lives in the dwelling. The term "structures necessary for access to or egress from the dwelling" shall include railing, wall or roof systems necessary for the safety or effectiveness of the structure. For the purpose of this subsection, a disability has the same meaning as a physical or mental handicap under 5 M.R.S.A. Section 4553.

3. *Practical difficulty variance:*

a. Notwithstanding the provisions of subsections 14-473(c)(1) and (2) of this section, the board of appeals may grant a variance from the dimensional standards of this article when strict application of the provisions of the ordinance would create a practical difficulty, as defined herein, and when all the following conditions are found to exist:

1. The need for a variance is due to the unique circumstances of the property, and not to the general conditions in the neighborhood;

2. The granting of the variance will not produce an undesirable change in the character of the neighborhood and will not have an unreasonably detrimental effect on either the use or fair market value of abutting properties;

3. The practical difficulty is not the result of action taken by the applicant or a prior owner;

4. No other feasible alternative is available to the applicant, except a variance;

5. The granting of a variance will not have an unreasonably adverse effect on the natural environment; and

6. The property is not located, in whole or in part, within a shoreland area, as defined in 38 M.R.S.A. § 435, nor within a shoreland zone or flood hazard zone, as defined in this article.

b. The following words have the meanings set forth below:

1. ***Dimensional standards:*** Those provisions of this article which relate to lot area, lot coverage, frontage, and setback requirements.

2. ***Practical difficulty:*** A case where strict application of the dimensional standards of the ordinance to the property for which a variance is sought would both preclude a use of the property which is permitted in the zone in which it is located and also would result in significant economic injury to the applicant.

3. ***Significant economic injury:*** The value of the property if the variance were denied would be substantially lower than its value if the variance were granted. To satisfy this standard, the applicant need not prove that denial of the variance would mean the practical loss of all beneficial use of the land.

c. Except as modified above, the other provisions of section 14-473 will apply to practical difficulty

variances, including, but not limited to, the provisions of section 14-473(b)(2) (public hearing), and section 14-473(d) (specified variances prohibited).

d. A practical difficulty variance may not be used to grant relief from the provisions of section 14-449 (land use standards), to increase either volume or floor area, nor to permit the location of a structure, including, but not limited to, single-component manufactured homes, to be situated on a lot in a way which is contrary to the provisions of this article.

4. *Specified variances prohibited:*

a. No use permitted in medium- and high-density residential districts shall be permitted in low-density residential districts. No use permitted in business districts shall be permitted in any residential district. No use permitted in industrial districts shall be permitted in any business or residential district. No use permitted in residential districts shall be permitted in any industrial district. The general use categories are listed below:

1. Low-density residential: IR-1, IR-2, IR-3, R-1, R-2, R-3.

2. Medium- and high-density residential: R-4, R-5, R-6.

3. Business: R-P, B-1, B-2, B-3, A-B, B-4, B-5, I-B.

4. Industrial: I-L, I-Lb, I-M, I-Ma, I-Mb, I-H, I-Hb.

b. No variance shall be granted which would permit the creation of a lot or parcel that cannot be developed in compliance with the zoning, subdivision and other regulations applicable thereto.

c. No variance shall be granted which would result in a use or development of the lot or parcel in question which would not be in harmony with the general purpose and intent of this article or the land development plan of the city; which would be materially detrimental to the public welfare or materially injurious to the enjoyment, use or development of property or improvement permitted in the vicinity; or which would materially impair an adequate supply of light and air to properties and improvements in the vicinity, substantially increase congestion in the public streets, increase the danger of flood or fire, or endanger the public safety.

d. No variance shall be granted which would be greater than the minimum variance necessary to relieve the undue hardship or the hardship of the applicant.

e. Except for appeals concerning nonconforming dwelling units in existence and use prior to April 18, 1984, no variance shall be granted which would permit the alteration of a structure to accommodate any additional dwelling unit as a conditional use without meeting the requirements which would otherwise be a condition precedent to such conditional use treatment.

f. No variance shall be granted which would permit the alteration of an existing residential structure in an R-4 or an R-5 zone to accommodate more than three (3) dwelling units. No such variance shall be granted unless:

1. No additional unit shall have less than six hundred (600) square feet of floor area, exclusive of common hallways and storage in basement and attic;

2. No open outside stairways or fire escapes above the ground floor shall be or have been constructed in the immediately preceding five (5) years;

3. A lower level dwelling unit shall have a

minimum of one-half of its floor-to-ceiling height above the average adjoining ground level;

4. No existing dwelling unit shall be decreased to less than one thousand (1,000) square feet of floor area;

5. The building shall have been in existence prior to January 1, 1984;

6. A minimum of nine thousand (9,000) square feet of land area shall be required;

7. A minimum of four (4) on-site parking spaces shall be required;

8. A minimum of seventy-five (75) feet of street frontage shall be required; provided, further, before a building permit may be issued, site plan approval under article V of this chapter shall be required with the following additional review standards:

   (i) Any addition or exterior alterations such as facade materials, building form and roof pitch shall be designed to be compatible with the architectural style of the structure;

   (ii) The scale and surface area of parking, driveways, and paved areas shall be arranged and landscaped to be compatible in size and scale with neighboring properties in the area and to properly screen vehicles from adjacent properties and streets;

provided, further, that no variance shall be granted with respect to any of the preceding additional requirements.

g. No variance shall be granted from the minimum lot sizes set forth in section 14-433 for lots in the IR-1, IR-2 and I-B zones.

h. No variance shall be granted from the requirements in Section 14-403.

(d) ***Conditions on variances; variances less than requested.*** Reasonable conditions and safeguards relating to construction, character, location, landscaping, screening and other matters may be imposed upon the premises benefited by a variance as considered necessary to prevent injurious effects upon other property and improvements in the vicinity or upon public facilities and services. Such conditions shall be expressly set forth in the resolution granting the variance and in the notice informing the applicant thereof. Violation of such conditions and safeguards shall be a violation of this article. A variance less than or different from that requested may be granted when the record supports the applicant's right to some relief but not to the relief requested.

(e) ***Limitations on variances.*** No variance permitting the erection or alteration of a building shall be valid for a period longer than six (6) months, or such other time as may be fixed at the time granted not to exceed two (2) years, unless a building permit for such erection or alteration is issued and construction is actually begun within that period and is thereafter diligently pursued to completion. One (1) or more extensions of said expiration dates may be granted if the facts constituting the basis of the decision have not materially changed and the two-year period is not exceeded thereby. No variance relating to the establishment or maintenance of a use not involving a building or structure shall be valid for a period longer than six (6) months, or such other time as may be fixed at the time granted not to exceed two (2) years, unless an occupancy permit is issued and a use commenced within such period; provided, however, that one (1) or more extensions of said time may be granted if the facts constituting the basis of the decision have not materially changed, and the two-year period is not exceeded thereby.

(f) ***Recording of variances.*** No variance shall be valid unless, within thirty (30) days of final approval of the variance, a certificate describing the variance has been recorded by the applicant for the variance in the registry of deeds as required by 30 M.R.S.A. Section 4963.

(Code 1968, § 602.24.C; Ord. No. 437-74, 7-1-74; Ord. No. 467-83, § 1, 4-20-83; Ord. No. 563-84, 5-7-84; Ord. No. 357-84, § 1, 12-17-84; Ord. No. 354-85, § 6, 1-7-85; Ord. No. 40-85, § 1, 7-15-85; Ord. No. 67-87, § 5, 11-2-87; Ord. No.

93-88, 7-19-88; Ord. No. 167-89, 12-11-89; Ord. No. 324-92, 4-22-92; Ord. No. 164-97, § 13, 1-6-97; Ord. No. 208-98, §§ 1, 2, 2-2-98; Ord. No. 253-05/06, 7-17-06; Ord. No. 296-08/09, 6-15-09; Ord. No. 60-12/13, 11-19-12)

***Editor's note—**Ord. No. 93-88, adopted July 19, 1988, amended § 14-473 by adding subsection (f) to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 93-88.

Sec. 14-474. Conditional uses.

(a) *Authority.* The board of appeals may, subject to the procedures, standards and limitations set out in this section, approve the issuance of a conditional use permit authorizing development of conditional uses listed in this article.

(b) *Procedure:*

1. *Application.* Applications for conditional use permits shall be submitted to the building authority. A nonrefundable application fee, as established from time to time by the city council to cover administrative costs and costs of a hearing, shall accompany each application. The application shall be in such form and shall contain such information and documentation as shall be prescribed from time to time by the building authority but shall in all instances contain at least the following information and documentation:

    a. The applicant's name and address and his or her interest in the subject property;

    b. The owner's name and address if different than the applicant;

    c. The address, or chart, block and lot number as shown in the records of the office of the assessor of the subject property;

    d. The zoning classification and present use of the subject property;

    e. The particular provision of this article authorizing the proposed conditional use;

f. A general description of the proposed conditional use;

g. Where site plan approval is required by article V of this chapter, a preliminary or final site plan as defined by article V of this chapter.

2. ***Public hearing.*** A public hearing shall be set, advertised and conducted by the board of appeals in accordance with article VI of this chapter.

3. ***Action by the board of appeals.*** Within thirty (30) days following the close of the public hearing, the board of appeals shall render its decision, in a manner and form specified by article VI of this chapter, granting the application for a conditional use permit, granting it subject to conditions as specified in subsection (d), or denying it. The failure of the board to act within thirty (30) days shall be deemed an approval of the conditional use permit, unless such time period is mutually extended in writing by the applicant and the board. Within five (5) days of such decision or the expiration of such period, the secretary shall mail notice of such decision or failure to act to the applicant and, if a permit is authorized, shall issue such permit, listing therein any and all conditions imposed by the board of appeals.

(c) ***Conditions for conditional uses:***

1. ***Authorized uses.*** A conditional use permit may be issued for any use denominated as a conditional use in the regulations applicable to the zone in which it is proposed to be located.

2. ***Standards.*** Upon a showing that a proposed use is a conditional use under this article, a conditional use permit shall be granted unless the board determines that:

a. There are unique or distinctive characteristics or effects associated with the proposed conditional use;

b. There will be an adverse impact upon the health, safety, or welfare of the public or the surrounding area; and

c. Such impact differs substantially from the impact which would normally occur from such a use in that zone.

(d) ***Conditions on conditional use permits.*** The board of appeals may impose such reasonable conditions upon the premises benefited by a conditional use as may be necessary to prevent or minimize adverse effects therefrom upon other property in the neighborhood. Such conditions shall be expressly set forth in the resolution authorizing the conditional use permit and in the permit. Violation of such conditions shall be a violation of this article.

(e) ***Effect of issuance of a conditional use permit.*** The issuance of a conditional use permit shall not authorize the establishment or extension of any use nor the development, construction, reconstruction, alteration or moving of any building or structure, but shall merely authorize the preparation, filing and processing of applications for any permits or approvals which may be required by the codes and ordinances of the city, including but not limited to a building permit, a certificate of occupancy, subdivision approval and site plan approval.

(f) ***Limitations on conditional use permits.*** No conditional use permit shall be valid for a period longer than six (6) months from the date of issue, or such other time as may be fixed at the time granted not to exceed two (2) years, unless the conditional use has been commenced or is issued and construction is actually begun within that period and is thereafter diligently pursued to completion; provided, however, that one (1) or more extensions of said time may be granted if the facts constituting the basis of the decision have not materially changed, and the two-year period is not exceeded thereby. A conditional use permit shall be deemed to authorize only the particular use for which it was issued and such permit shall automatically expire and cease to be of any force or effect if such use shall for any reason be discontinued for a period of twelve (12) consecutive months or more.

(g) ***Appeals from board decisions.*** Appeals from any decision of the board of appeals or, where applicable, the Planning Board respecting a conditional use permit shall be to superior court.
(Code 1968, § 602.24.D; Ord. No. 437-74, 7-1-74; Ord. No. 407-83, 2-2-83; Ord. No. 467-83, § 2, 4-20-83; Ord. No. 237-83, 10-17-83)

Sec. 14-475. Reserved.

***Editor's note**—Section 7 of Ord. No. 354-85, adopted Jan. 7, 1985, repealed § 14-475, relative to nonconforming uses, which derived from Code 1968, § 602.24.E, and Ord. No. 437-74, adopted July 1, 1974.

Sec. 14-476. Successive applications.

Whenever any application, appeal or other request filed pursuant to this article has been finally denied on its merits, a second application, appeal or other request seeking essentially the same relief, whether or not in the same form or on the same theory, shall not be brought within one (1) year of such denial unless, in the opinion of the officer or board before which it is brought, substantial new evidence is available or a mistake of law or fact significantly affected the prior denial.

(Code 1968, § 602.24.F; Ord. No. 437-74, 7-1-74)

Sec. 14-477. Violations.

In addition to any other remedies available, the board of appeals after notice and hearing may revoke any variance or other relief granted under this article when the provisions of this article or the conditions under which the relief was granted have not been complied with.

(Code 1968, § 602.24.G; Ord. No. 437-74, 7-1-74)

Sec. 14-478. - 14-482. Reserved.

***Editor's Note**—Pursuant to Council Order 280-09/10 passed on 7/19/10 Division 29 (Preservation and Replacement of Housing Units) was repealed in its entirety and replaced with a new Division 29 (Housing Preservation and Replacement).

DIVISION 29. HOUSING PRESERVATION AND REPLACEMENT

Sec. 14-483. Housing preservation and replacement.

(a) *Purpose*. The purpose of these regulations is:

1. To promote and facilitate an adequate supply of housing, particularly affordable housing for all economic groups;

2. To limit the net loss of housing units in the city;

3. To preserve housing in zones where housing is permitted for in the city for all residents in order to promote the health, safety and welfare of its citizens.

(b) ***Definitions.***

Dwelling unit. A dwelling unit is one (1) or more rooms with private bath and kitchen facilities comprising an independent self-contained dwelling unit. For purposes of this section only it also includes single family, two-family and multi-family dwellings and any dwelling units in those dwellings, or dwelling units, or rooms that people rent or sleep in within lodging houses, dormitories, shelters and sheltered care group homes.

Loss of dwelling or dwelling unit for purposes of this section means the elimination or conversion to nonresidential use of a dwelling or dwelling units; elimination includes dwelling units lost due to demolition unless the demolition resulted from accidents outside of the owner's control, fire, natural disasters, or acts of war.

Original site means the location where the demolition or conversion to non-residential use of dwellings and dwelling units will take place.

(c) ***Applicability.*** Except as otherwise provided in this section, this section shall apply to the loss of three or more dwelling units in a five year period, provided that such dwelling units were a legally registered residential use as of July 1, 2002.

Except as otherwise provided in this section, this section shall also apply to proposals that (a) result in the loss of fewer than three (3) dwelling units which were legally registered residential use as of July 1, 2002, and (b) creates surface parking.

Determination of number of the dwelling units within a strtucture or structures and the number of units lost will be based

on records in the Department of Planning and Urban Development indicating the legal, registered use of the property since July 1, 2002 through the time of application. The actual use of the preopety for purposes of applicability of this section may be rebutted by the owner by proof of documentary evidence including but not limited to photographs, letters, and swron affidavits. The Planning Authority may conduct its own investigation of the actual use and shall determine the applicability of this section based on the totality of the evidence.

(d) *Exemptions.*

This section does not apply to:

1. Consolidation, elimination or reconfiguration of one (1) or more dwelling units within an existing structure, as long as all the resulting units remain as dwelling units after such consolidation, elimination or reconfiguration, except as provided by subsection 5 below. Conversion of a dwelling unit to a hotel or motel room shall not qualify for the exemption provided by the paragraph.

   The amendments to paragraph (d)(1) approved by the City Council on June 6, 2011 shall have an effective date of April 25, 2011 but not apply to any final determination regarding the applicability of this section made by the Planning Authority prior to April 25, 2011.

2. Proposals that result in a number of units equal to or greater than the number of units lost as determined by the Planning Authority; or

3. Grandfathered dwelling units existing in zones which no longer permit residential uses.

4. Property which has been ordered demolished by the City, pursuant to 17 M.R.S.A. §2851, et seq., as amended, except where it is determined by the Building Authority that the deterioration was caused by neglect or lack of maintenance.

5. Subparagraph 1, above notwithstanding, the conversion to a non-residential use of any dwelling units located on

the ground floor of a building within a business zone.

(e) ***Site plan administrative authorization or approval required.*** Notwithstanding any other provision of this section, a person who proposes to demolish or to convert to a nonresidential use three or more dwellings or dwelling units in the City, in a zone where such use is otherwise permitted, must first obtain administrative authorization or site plan approval from the City's Planning Authority or Planning Board pursuant to Sec. 14-521, et. seq.

In addition the requirements of 14-521, et. seq., where this section is applicable, the applicant must also submit a statement certifying the number of dwelling units to be demolished or converted to nonresidential use, as well as a description of the characteristics of each of those units.

(f) ***Tenant Notification Requirements.*** Prior to elimination as a result of demolition or conversion to non-residential use, the owner shall:

1. Provide the Planning Authority a list containing the name of each tenant currently residing in the dwelling units to be demolished or converted to non-residential use, as well as verification of compliance with tenant notice requirements of this section.

2. Deliver to each tenant who occupies such a dwelling unit a written notice to vacate the unit. The notice shall either be sent by certified mail, return receipt requested, or served in-hand. The notice will grant the tenant not less than ninety (90) days from the date of receipt of the notice to vacate the unit; and

3. File proof of service of the notice with the Planning Authority.

(g) ***Housing Replacement Requirements.*** In addition to the requirements of 14-521, et. seq, the Planning Authority shall require, as a condition of approval, that an owner shall replace any dwelling units that are demolished or converted to non residential use.

This section may be satisfied in any one of the following ways:

1. Construction of Units. The construction of housing units within a new structure or a new addition either on site or off-site;

2. Residential Conversion. The conversion of a nonresidential building to residential use; or

The applicant may use either of the two methods or a combination of the two to fulfill their replacement requirement.

(h) ***Replacement Unit Requirement.*** In addition to the foregoing, all replacement units built pursuant to sub-section (g)(1) or (2) above shall:

1. Be located within the City of Portland.

2. Not previously have been on the market as of the date of application.

3. Be situated within a development which has not been a candidate for site plan approval as of the date of the application.

4. Be comparable in size to the units replaced; for the purpose of this section, "comparable in size" means that the aggregate size of the replacement units will be no less than 80% of the size of the aggregate of the original units.

(i) ***Contribution to the Housing Trust Fund.***

1. The applicant may meet the requirements of this section by depositing $50,000 for each dwelling unit into the City's Housing Trust Fund in section 14-489.

2. Beginning on January 1, 2004 and annually thereafter, the amount of the contribution shall be adjusted by multiplying this amount originally deposited for each unit by a fraction, the denominator of which shall be the "Consumer Price Index for Urban Wage Earners and Clerical Workers ("CPI-W")," U.S. City Average, "All Items Index," as published by the United States Bureau of Labor Statistics ("the Index") for January 1, 2003 Year, and the numerator of which shall

be the Index for the same month in each subsequent year. In the event that the Index is not then in existence, the parties shall use such equivalent price index as is published by any successor governmental agency then in existence; or, if none, then by such nongovernmental agency as may then be publishing an equivalent price index, in lieu of and adjusted to the Index. If the Index shall cease to use 1982-84 equals 100 as the basis of calculation, or if a substantial change is made in the terms or number of items contained in the Index, the Base Index shall be adjusted to conform to such change, using such computation thereof, if available, as shall be employed by the United States Department of Labor in computing same. Notwithstanding anything herein to the contrary, contributions made after January 1, 2004 shall not be less than the amount originally required to be deposited pursuant to sub-section (i)(1) for each rooming or dwelling unit.

(j) ***Performance Guaranty/Letter of Credit.*** Owners or affiliates must post a performance guaranty in the form of a letter of credit, or other security acceptable to the city attorney in amount equivalent to the amount the applicant would have been required to contribute to the City's Housing Trust Fund if the applicant had chosen that option pursuant to sub-section g.

(k) ***Partial waiver of replacement requirements.*** Any owner who has applied for site plan review for elimination or conversion to non-residential use of dwelling units may apply to the Zoning Board of Appeals for a partial waiver from the housing replacement requirements of this section. Such waiver may be a downward adjustment of up to fifty percent (50%) of the owner's housing replacement obligation if the owner establishes to the board's satisfaction that:

1. The proposed development is consistent with the comprehensive plan;

2. The proposed development provides significant value and benefit to the immediate and surrounding neighborhood, including, but not limited to, community enhancement, social benefits or job creation;

3. The applicant demonstrates with objective evidence that

the imposition of the requirements of this section would impose such an economic burden upon the project relative to its scope that it renders the project impossible to develop; and

4. The requested relief does not constitute a grant of a special privilege inconsistent with the limitations upon similar properties.

The Zoning Board of Appeals must make positive findings on each of the four (4) criteria above in order for any such adjustment to be valid. An applicant aggrieved of a decision of the Zoning Board of Appeals may appeal a decision under this sub-section pursuant to Sec. 14-553 of the City Code.

(l) *Effect of Other City Ordinances*.

1. *Historic Preservation*. Nothing in this division shall permit the demolition or conversion to non-residential use, of dwelling units in residential property protected by the Historic Preservation Ordinance (Sections 14-601, et seq.), except as permitted by that ordinance.

2. *Conditional Zone*. A conditional zone may not be used to circumvent the application of this section. The terms of this section shall apply to any conditional zone which involves dwelling units affected by this section. Notwithstanding the foregoing, nothing herein shall be deemed to prevent the City and the applicant from agreeing to terms which exceed those imposed by this section by means of a conditional zone.

(m) *Appeals*. Any applicant aggrieved by a decision of the Planning Authority under this section may appeal to the Zoning Board of Appeals within 30 days of that decision.
(Ord. No. 27-02/03, 10-7-02; Ord. No. 280-09/10, 7-19-10; Ord. No. 241-10/11, 6-6-11)

DIVISION 30. INCENTIVES FOR AFFORDABLE HOUSING

Sec.14-484. Purpose.

The city believes that it is in the public interest to promote an adequate supply of affordable housing for its residents. The purpose of this division therefore is to offer

incentives to developers to include units of affordable housing within development projects, thereby mitigating the impact of market rate housing construction on the limited supply of available land for suitable housing, and helping to meet the housing needs of all economic groups within the city. The city believes that this division will assist in meeting the city's comprehensive goals for affordable housing, in the prevention of overcrowding and deterioration of the limited supply of affordable housing, and by doing so promote the health, safety and welfare of its citizens.
(Ord. No. 98-06/07, 12-4-06)

Sec. 14-485. Definitions.

Affordable housing unit for rent means a dwelling unit for which:

(a) The rent is affordable to a household earning 80% or less of the U.S. Department of Housing and Urban Development moderate-income figure for metropolitan Cumberland county Maine for a household of that size; and

(b) Annual rent increases for that unit are limited in perpetuity by deed restriction or other legally binding agreement to the percentage increase in the U.S. Department of Housing and Urban Development moderate-income figure for metropolitan Cumberland county Maine for a household of that size.

Affordable housing unit for sale means a dwelling unit for which:

(a) The sale price is affordable to a household earning 120% or less of the U.S. Department of Hou7sing and Urban Development moderate-income figure for metropolitan Cumberland county Maine for a household of that size; and

(b) The resale price is limited by deed restriction or other legally binding agreement for all future sales of the unit to an amount that is affordable to a household earning 120% of the U.S. Department of Housing and Urban Development moderate-income figure for metropolitan Cumberland county Maine for a

household of that size, as calculated for the year in which the sale takes place.

Development fees means:

(a) The following fees, as described in this chapter: site plan review and inspection fees; subdivision review and inspection fees; and administrative fees; and

(b) Construction and permit fees as described in chapter 6. "Development fees" does not include any fees charged for reviews conducted by a party other than the city.

Dwelling unit has the same meaning as that term is defined in section 14-47.

Eligible project means a development project:

(a) That is permissible under the provisions of this chapter in the zone in which it is proposed;

(b) That will be a multi-family dwelling ,as defined in section 14-47, and will not be located in an R-1 or R-2 zone;

(c) Reserve; and

(d) That creates new dwelling units, among which is at least one affordable housing unit for rent or sale, through new construction, substantial rehabilitation of existing structures, adaptive reuse or conversion of a non-residential use to residential use, or any combination of these elements. Affordable housing units for sale or rent may not differ in exterior design from other units within an eligible project.

(Ord. No. 98-06/07, 12-4-06; Ord. No. 84-08/09, 10-20-08)

Sec. 14-486. Reduction of fees.

Notwithstanding any other provision of this chapter or chapter 6 to the contrary, development fees shall be reduced by the city for an eligible project in the manner described in the following table:

Percentage of new units that	**Percentage discount of**

are affordable units	development fees
5% up to but not including 10%	5% reduction
10% up to but not including 15%	10% reduction
15% up to but not including 20%	15% reduction
20% up to but not including 25%	20% reduction
25% or more	25% reduction

(Ord. No. 98-06/07, 12-4-06)

Sec. 14-487. Priority review.

The planning division shall perform its review of an eligible project in as expedited a manner as is practical, without impairing the scope or thoroughness of the review. The planning division may adopt administrative procedures to prioritize review of eligible projects and facilitate this expedited review.

The planning board shall make its best efforts to give priority in scheduling workshops and public hearings related to any plans or applications required for an eligible project that are within the planning board's jurisdiction, without impairing the scope or thoroughness of its review. At the conclusion of these public meetings, the planning board shall promptly issue a decision on all such plans and applications before it for consideration.

(Ord. No. 98-06/07, 12-4-06)

Sec. 14-488. Density, parking and dimensional bonuses and reductions.

Notwithstanding any other provision of this chapter to the contrary:

(a) *Density bonuses.* The maximum number of units that would otherwise be allowed under this chapter shall be increased for an eligible project in the manner described in the following table:

Percentage of new units that are affordable units	Percentage increase in maximum number of units allowed

5% up to but not including 10%	5% increase
10% up to but not including 15%	10% increase
15% up to but not including 20%	15% increase
20% up to but not including 25%	20% increase
25% or more	25% increase

(b) Off-street p*arking.* Off-street parking is required as provided in Division 20 (off-street parking) of this article.

(c) *Building height bonus.* The maximum structure height for an eligible project building:

1. That is located in a B-2 or B-2b community business zone;

2. That contains five (5) or more dwelling units; and

3. Of which 20% or more of new dwelling units created are affordable units for rent or sale, is an additional ten feet above the maximum structure height that would otherwise apply to the building pursuant to this chapter.

The total height of the eligible project, including any bonus received pursuant to this subsection, may not exceed the maximum height recommended for the location of the project pursuant to a height study that has been adopted as part of the city's comprehensive plan.

(Ord. No. 98-06/07, 12-4-06; Ord No. 240-09/10, 6-21-10)

DIVISION 31. HOUSING TRUST FUND

Sec. 14-489. Housing trust fund.

(a) *Purpose.* The purpose of enacting this section is:

1. To establish a City of Portland housing trust fund for the promotion, retention and cration of an adequate

supply of housing, particularly affordable housing, for all economic groups and to limit the net loss of housing units in the City.

2. To serve as a vehicle for addressing very low, low, and median income housing needs through a combination of funds as set out in section 14-483 of this chapter.

(b) ***Definitions.***

Very low income household. A household having an income not exceeding fifty (50%) percent of median income for area of residence as set forth in regulations promulgaged from time to time by the United States Department of Housing and Urban Development pursuant to 42 U.S.C. section 1437 et seq.

Low income household. A household having an income not exceeding eighty (80%) percent of median income for area of residence as set forth in regulations promulgated from time to time by the United States Department of Housing and Urban Development pursuant to 42 U.S.C. sections 1437 et seq.

Moderate income household. A household having an income not exceeding one hundred twenty (120%) percent of median income for area of residence as set forth in regulations promulgated from time to time by the United Sates Department of Housing and Urban Development pursuant to 42 U.S.C. sections 1437 et seq.

(c) ***Establishment of the housing trust fund.*** The city council shall establish a special revenue account under the name "City of Portland Housing Trust Fund." Deposits into the fund shall include:

1. Contributions from the city's housing replacement ordinance under 14-483(i);

2. Funds appropriated to be deposited into the fund by vote of the city council;

3. Voluntary contributions of money or other liquid assets to the fund;

4. Any federal, state or private grant or loan funds provided to the fund:

5. Interest from fund deposits and investments; and

6. Repayments of loans made from the fund.

(d) ***Management of the trust fund.*** The city manager, or his or her designee, shall serve as the manager of the housing trust fund. The responsibilities of the manager, subject to the orders of the city council, shall include:

1. Maintaining the financial and other records of the housing trust fund;

2. Disbursing and collecting housing trust fund monies in accordance with the housing trust fund annual plan; and

3. Monitoring the use of monies distributed to successful applicants for housing trust fund support to assure on-going compliance with the purposes of the fund and the conditions under which these monies were granted or loaned.

(e) ***Housing trust fund annual plan.*** Each fiscal year, the city council shall adopt a housing trust fund annual plan. The city manager shall submit to the city council a recommended housing trust fund annual plan, utilizing the revenues of the housing trust fund as well as any other funds the manager may propose as appropriate. The housing committee of the city council or such other committee as the council shall designate shall conduct public hearings on the recommended plan and refer the matter to the council for action.

The housing trust fund annual plan shall include:

1. A description of all programs to be funded in part or in full by the housing trust fund;

2. A description of how funds from the housing trust fund will be distributed among very-low-income, low-income and moderate income households; and

3. The amount of funds budgeted for programs funded in part or in full from the housing trust fund.

Priority for the expenditure of funds collected pursuant to the housing replacement ordinance (see Sec. 14-483) shall be

given to the creation of new housing stock, through either new construction or conversion of non-residential buildings to residential use.

(f) *Distribution and use of the housing trust fund's assets.*

1. All distribution of principal, interest or other assets of the housing trust fund shall be made in furtherance of the public purposes set out in section 14-483.

2. During each year, the housing trust fund shall disburse as grants or loans so much of the housing trust fund's assets as the city council in its discretion has approved in the housing trust fund annual plan.

3. Funds shall not be used for city administrative expenses.

4. Funds shall not be used for property operating expenses or supporting services.

5. No grants or loans shall be awarded by the housing trust fund to corporations, partnerships or individuals who are delinquent, at the time of application in the payment of property taxes or other fees to the city of Portland, who Have been convicted of arson, who have been convicted of discrimination in the sale or lease of housing under the fair housing laws of the State of Maine, or who have pending violations of current city electrical, plumbing building or housing codes or zoning ordinances.

(g) *Term of affordability.*

1. Whenever funds from the housing trust fund are used for the acquisition, construction or substantial rehabilitation of an affordable rental or cooperative unit, the City of Portland shall impose enforceable requirements on the owner of the housing unit that the unit remain affordable for the remaining life of the housing unit, assuming good faith efforts by the owner to maintain the housing unit and rehabilitate it as

necessary. The remaining life of the housing unit shall be presumed to be a minimum of thirty (30) years.

2. Whenever funs from the housing trust fund are used for the acquisition, construction or substantial rehabilitation of ownership housing, the city of Portland shall impose enforceable resale restrictions on the owner to keep the housing unit affordable for the longest feasible time, while maintaining and equitable balance between the interests of the owner and the interests of the city of Portland.

3. The affordability restriction requirements described in this section shall run with the land and the city of Portland shall develop appropriate procedures and documentation to enforce these requirements and shall record such documentation in the Cumberland County Registry of Deeds.

(Ord. No. 281-09/10, 7-19-10)

Sec. 14-490. Reserved.

ARTICLE IV. SUBDIVISIONS*

***Cross reference(s)--**Ordinances dedicating or accepting any plat or subdivision in the city saved from repeal, § 1-4(h).

State law reference(s)--Land subdivisions, 30-A M.R.S.A. § 4403.

Sec. 14-491. Authority and purpose.

This article is adopted pursuant to the terms and provisions of 30-A M.R.S.A. Sections 3001 and 4403, as amended. The purpose of this article is to provide for the harmonious and economic development of the city; for the orderly subdivision of land and its development; for the orderly development of the general area surrounding such subdivision; for the coordination of streets within the general area; for adequate provisions for drainage, flood control, light, air and other public purposes; for the adequate and proper installation of streets, drainage, sanitary sewers, water and other utilities and facilities; for the dedication to the city of land for streets, alleys or other public

purposes or the transfer to the city of easements or other rights or privileges; for the reservation for the city of land to be acquired for public facilities; and to protect public safety.
(Code 1968, § 603.1; Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79; Ord. No. 155-89, § 1, 11-20-89)

Sec. 14-492. Jurisdiction.

This article shall govern each and every subdivision of land within the limits of the city unless specifically exempted in section 14-508. When application is made for the resubdividing of a previously recorded subdivision under the provisions of these regulations, it shall be treated as a new subdivision provided the applicant is the owner of rights in the recorded subdivision.
(Code 1968, § 603.3; Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79)

Sec. 14-493. Definitions.

The following words and phrases, when used in this article, shall have the meanings respectively ascribed to them:

Alley shall mean any way designed primarily for vehicular or utility access to the back or side of premises otherwise abutting on a street, except driveways unless officially designated otherwise.

Easement shall mean a right, privilege or liberty which one has in land owned by another for some special and definite purpose.

Engineer shall mean a registered professional engineer in good standing with the state board of registration for engineers.

Esplanade shall mean that portion of a street right-of-way which is located between the curbline and the edge of the sidewalk closest to the street.

Freshwater wetland shall mean freshwater swamps, marshes, bogs and similar areas which are:

(a) Inundated or saturated by surface or groundwater at a frequency and for a duration sufficient to support, and which under normal circumstances do support, a prevalence of wetland vegetation typically adapted for life in saturated soils; and

(b) Not considered part of a great pond, coastal wetland, river, stream or brook.

These areas may contain small stream channels or inclusions of land that do not conform to the criteria of this subsection.

Land development plan shall mean any part or element of the land development plan for the city as adopted by city council resolution No. 540 of 1974, as amended.

Lot shall mean a parcel or portion of land in a subdivision or plat of land, separated from other parcels or portions by description as on a subdivision of record or survey map or by metes and bounds, for the purpose of sale or lease to another.

Nonresidential subdivision shall mean a subdivision which is not intended for human habitation, such as a commercial or industrial subdivision.

Performance guarantee shall mean a letter of credit or escrow account in an amount and form meeting the requirements of section 14-501.

Planned unit development shall mean a residential subdivision consisting of attached dwellings or a series of attached dwellings intended for separate ownership, with open spaces, recreational areas, access ways and buildings which are designed, built and controlled in accordance with a unified development plan.

Recording plat shall mean the completed subdivision plat in form for approval and recording.

Roadway shall mean that portion of a street between the regularly established curblines, or that part of a street or alley devoted to vehicular traffic.

Sidewalk shall mean that portion of a street not included in the roadway, and devoted in whole or part to pedestrian traffic.

Sketch plan shall mean a very simple layout to show the location of the subdivision to gain informal comments of city staff.

Street shall mean a public way for vehicular and pedestrian traffic, whether designated as a street, highway, thoroughfare,

parkway, throughway, road, avenue, boulevard, land, place or however otherwise designated, excepting, however, an alley.

(a) ***Arterial street*** shall mean a heavily traveled street of considerable continuity used primarily as a traffic artery among large areas.

(b) ***Collector street*** shall mean a nonarterial street which carries traffic from a minor street to arterial streets, including the principal entrance to streets of a residential development and streets for circulation within such a development.

(c) ***Marginal access street*** shall mean a minor street which is adjacent to and substantially parallel with an arterial street and which provides access to abutting properties and protection from through traffic.

(d) ***Minor street*** shall mean a street which services one (1) or more minor streets used primarily for access to abutting properties.

(e) ***Cul-de-sac or dead-end street*** shall mean with only one (1) outlet.

Subdivider or applicant shall mean any individual, firm, association, syndicate, partnership, corporation, trust or any other legal entity commencing proceedings under these regulations to effect a subdivision of land hereunder for himself or for another.

Subdivision shall mean the division of a lot, tract or parcel of land into three (3) or more lots, including lots of forty (40) acres or more, within any five-year period whether accomplished by sale, lease, development, buildings or otherwise and as further defined in 30-A M.R.S.A. Section 4401. The term subdivision shall also include the division of a new structure or structures on a tract or parcel of land into three (3) or more dwelling units within a five-year period and the division of an existing structure or structures previously used for commercial or industrial use into three (3) or more dwelling units within a five-year period. The area included in the expansion of an existing structure is deemed to be a new structure for the purposes of this paragraph. A dwelling unit shall include any part of a structure which, through sale or lease, is intended for human habitation, including

single-family and multifamily housing condominiums, time-share units and apartments.

Subdivision plat shall mean a plan of the proposed subdivision for presentation to the Planning Board and the public.

Surveyor shall mean a qualified registered surveyor of good standing with the state board of registration.

Tract (or parcel) of land shall mean all contiguous land in the same ownership, provided that lands located on opposite sides of a public or private road shall be considered each a separate tract or parcel of land unless such road was established by the owner of land on both sides thereof.

Vicinity sketch shall mean a sketch of the proposed subdivision location, not necessarily drawn to scale, showing the proximity of the subdivision to surrounding streets and highways.
(Code 1968, § 603.5; Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79; Ord. No. 127-87, § 1, 2-18-87; Ord. No. 247-88, 11-28-88; Ord. No. 155-89, § 2, 11-20-89; Ord. No. 25-11/12, 8-15-11)

Cross reference(s)--Definitions and rules of construction generally, § 1-2.

Sec. 14-494. Guidance to subdivider.

The purpose of the preapplication procedure is to afford the subdivider an opportunity to avail himself of the advice and assistance of the Planning Board, and to consult early and informally with the board staff before preparation of the subdivision plat and before formal application for its approval, to insure the development of a subdivision plan with mutual benefits for the subdivider and the city.
(Code 1968, § 603.2; Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79)

Sec. 14-495. Procedure for approval of a subdivision.

(a) *Application for approval:*

1. To obtain approval of a proposed subdivision the subdivider or applicant shall prepare for the Planning Board a subdivision plat, a vicinity sketch, and a recording plat in accordance with the requirements and standards established by this article.

2. The sketch plan may be prepared for staff and Planning

Board review if desired by the applicant prior to formal submission of the subdivision plat.

3. The subdivider shall supply and submit five (5) copies of the complete subdivision plat and the vicinity sketch to the office of the planning authority at least fifteen (15) days prior to a regularly scheduled meeting of the Planning Board, to be in order for consideration by the board at the meeting.

4. The planning authority shall forward a copy of the subdivision plat and vicinity sketch to the public works authority, parks authority, fire department and building authority, all of which shall submit recommendations to the planning authority by the time of the initial hearing on the subdivision plat.

5. Prior to the date upon which the planning authority meets to consider the subdivision plat the applicant shall pay all costs incurred in providing public notice. The planning authority shall determine the amount of this fee based on the actual costs incurred in newspaper advertising and postage, and shall also be responsible for collecting and accounting for such fee. Public notice in the form of newspaper advertisement shall be provided as required under 14-32.

6. Notice shall be provided in accordance with section 14-32. Notice shall also be sent to the clerk and the reviewing authority of municipalities that abut or include any portion of a proposed subdivision.

7. The city council may from time to time establish by order reasonable application fees to defray the costs of reviewing subdivisions.

(b) ***Timing of subdivision review:*** A public hearing shall be commenced within thirty (30) days following the receipt of a complete subdivision application. The staff shall notify the applicant in writing either that the application is complete or, if it is determined to be incomplete, the specific additional materials needed to make it a complete application. The Planning Board shall render its decision on any application submitted to it within sixty (60) days following receipt of a complete application, or such other time as may be mutually agreed to by the Planning

Board and the applicant.

(c) ***Engineering requirements:***

1. The applicant shall furnish the public works authority with all engineering data and plans necessary for the completion of the required improvements, as enumerated in section 14-496(b). Such plans may be furnished apart from but at the same time as the subdivision plat and vicinity sketch and shall be certified by a registered professional engineer.

2. The public works authority shall review the plans submitted as required in subsection (c)(1) above and shall approve, approve conditionally, or disapprove same within ten (10) days of submission as to whether such plans are in conformance with the standards set forth in this article.

(d) ***Subdivision plat approval:*** The Planning Board shall approve, approve conditionally or disapprove such subdivision plat at a public meeting. If approved conditionally, the conditions and reasons shall be stated and given in writing to the subdivider and, if necessary, the Planning Board may require the subdivider to submit a revised subdivision plat. If the Planning Board should disapprove the subdivision plat, the reasons for such action shall be stated and given in writing to the subdivider, and the board may state the conditions under which the proposed subdivision would be approved. One (1) copy of the subdivision plat as acted upon by the Planning Board shall be retained in its office, one (1) copy forwarded to the public works authority and one (1) copy returned to the subdivider.

(e) ***Effect of subdivision plat approval:*** Receipt of the approved copy of the subdivision plat of the subdivider is not authorization that he may proceed with the construction of any improvements. No construction will proceed until the recording plat has been approved by the Planning Board and has been properly recorded as required hereinafter in subsection (g).

(f) ***Recording plat approval:***

1. The applicant shall submit the recording plat and five (5) copies thereof to the planning authority at least fifteen (15) days prior to the date of the meeting of the

Planning Board at which it is intended to be considered, which copies shall be distributed as hereinafter provided.

2. Consideration of the recording plat, however, shall not take place until approvals required in subsections (c) and (d) are obtained.

(g) ***Recording:***

1. When the recording plat is approved, the subdivider shall pay the actual cost of recording and reproducing five (5) copies of the plat, one (1) of which shall be on mylar for the public works authority records.

2. The recording plat shall be recorded in the office of the county registry of deeds by the subdivider.

3. The registry book and page numbers will then be recorded on the five (5) copies of the plan, of which one (1) shall be kept at the office of the Planning Board, one (1) sent to the building authority, one (1) copy on mylar sent to the public works authority, one (1) to the assessor's office and one (1) to the subdivider.

4. Unless the subdivider shall record his or her approved recording plat within three (3) years after the Planning Board has approved the subdivision plat, the recording plat approval shall become null and void. The preceding sentence notwithstanding, if the Planning Board's initial approval of a subdivision is based in part upon the granting of a variance from any of the applicable subdivision approval standards, no such variance shall be valid unless that fact shall be expressly noted on the face of the recording plat and shall be noted in a certificate, each of which shall conform to 30-A M.R.S.A. Section 4406, and such recording plat or such certificate or both of them are recorded in the Cumberland County Registry of Deeds within ninety (90) days of final subdivision approval.

(h) ***Sectional recordings:*** Following subdivision plat approval, the Planning Board may permit the subdivision to be divided into two (2) or more sections for recording purposes subject to any conditions that the board deems necessary in order

to insure the orderly development of the plan. The applicant may seek approval of and record a sectional recording plat with the county registry of deeds only if the section constitutes at least twenty (20) percent of the total number of lots contained in the approval plat and, in addition, shows the entire tract or parcel. In these circumstances, if the first section of the plat has been recorded within three (3) years after Planning Board approval, subdivision plat approval of the remaining sections of the plat shall remain in effect for five (5) years after Planning Board approval.

(Code 1968, § 603.6; Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79; Ord. No. 692-81, 5-18-81; Ord. No. 123-85, 10-7-85; Ord. No. 127-87, §§ 2--4, 2-18-87; Ord. No. 94-88, 7-19-88; Ord. No. 155-89, §§ 3, 4, 11-20-89; Ord. No. 227-01, 4-2-01)

***Editor's note--**Ord. No. 94-88, adopted July 19, 1988, amended § 14-495(g)(4) to read as herein set out. See also the editors note to Art. III of this chapter for additional provisions relative to Ord. No. 94-88.

Sec. 14-496. Plat requirements.

Each and every modification of the information required to be shown on the plat in this section shall be applied for in writing by the subdivider. The decision of the Planning Board on such request shall be final.

(a) *Information on subdivision plat.* The following information shall be shown on one (1) subdivision plat unless otherwise indicated:

1. Date, north point, title and graphic scale. Scale shall not be more than sixty (60) feet to the inch unless lots are more than an acre, but in no event more than one hundred (100) feet to the inch;

2. Based on a recent survey by the subdivider, existing contours at two (2) feet intervals or as otherwise required by the public works authority. Existing structures which are to remain will be delineated;

3. Names of proposed streets, width of rights-of-way, and typical cross section reservation, and depth of construction materials;

4. Locations, widths and purposes of other rights-of-way or easements to be recorded;

5. All appropriate street curve information, including point of curvature, point of tangency, tangent distance, radii and interior angle, in standard engineering format;

6. Location of those utilities existing on or adjacent to the tract to be subdivided, including size and elevation of buried or underground utilities (may be shown on separate plan);

7. Tract boundary lines and property lines of lots, with accurate dimensions and either bearings or deflection angles. All lots shall be numbered;

8. Names of adjacent property owners with parcels over twenty-five thousand (25,000) square feet or names of adjacent subdivision;

9. Designation of flood hazard areas, as defined by the National Flood Insurance Program and shown on the city flood hazard boundary map, as well as any other areas in the subdivision subject to inundation by storm water or storm sewer overflow;

10. Existing historic sites and structures which either appear on the National Register or are nominated to the National Register by the state historic preservation officer;

11. Proposed private and public utility system including water, gas, telephone, fire hydrants, and any other services which shall supply the area (may be shown on separate plan);

12. Sanitary sewer and storm drain plans and profiles showing size, kind and slope of pipe, proposed manhole rim and invert elevations and catch basin locations and drains (may be shown on separate plan);

13. Lighting plan showing the location, design, height

and spacing from each other of the support poles, in accordance with standards and specifications established by the public works authority (may be shown on separate plan);

14. Tree plan showing groups of existing, sizeable trees which the subdivider intends to preserve (may be shown on separate plan);

15. A detailed plan of the entire subdivision and the immediate vicinity showing all existing and proposed drainage both on and off-site including drainage swales, ditches, etc., with directional flow arrows and approximate slope grades, and showing proposed finished "spot elevations" around the perimeter of the subdivision. Proposed drainage shall be shown as it may affect or restrict development on individual lots and with reference to improvements for which a performance guarantee is required under this article. Where deemed feasible by the public works authority, proposed finished contours at intervals of two (2) feet shall be provided on the drainage plan upon request (may be shown on separate plat):

16. Location and designation of any zoning district boundaries affecting the subdivision:;

17. All future phases and sections of the subdivision proposed by the subdivider (may be shown on separate plat);

18. Proposed parks and school sites, or other public open space that the developer proposes to convey to the city;

19. Names and addresses of registered professional engineer, subdivider and owner:

20. At the option of the subdivider, any other information that may be necessary for the full and proper consideration of the subdivision shall be submitted in writing;

21. Streets and right-of-way monuments and property

line markers;

22. Vicinity sketch, as defined in section 14-493 (may be shown on separate plan);

23. Total site data, including total area of the subdivision, total area in streets, total area in recreation or open space and number of house lots;

24. Additional submission items if required by the Planning Board and insofar as feasible (may be shown on separate sheets or by other appropriate method):

    a. When private sewage systems are used, the results and supporting data of a soil test of each lot in the subdivision conducted by a soil evaluator licensed in the state;

    b. When the adequacy of the subdivision's load bearing capacity is in question, the results and supporting data of test borings conducted by a professional engineer registered in the state;

    c. When conditions warrant, a program which shall be implemented by the subdivider to control dust, erosion and sedimentation and/or vehicular traffic during construction;

    d. Evidence of the applicant's financial capability to carry out all phases of the proposed development;

    e. Evidence of state and federal approvals, licenses or permits required by law, or the status of applications therefor;

    f. Price range of houses that will be built in the subdivision;

    g. Traffic impact analysis;

    h. High intensity soil survey, if required by the planning authority;

i. Evidence of technical capacity to undertake the development;

j. Types and estimated quantities of solid waste to be generated by the development;

k. Construction plan outlining the anticipated sequence of construction of the major features of the project including without limitation roads, retention basins, sewer lines, seeding and other erosion and sedimentation control measures, and pollution abatement measures and also setting forth the approximate dates for commencement and completion of the project;

l. A narrative and a plan showing all proposed buffer strips, their dimensions, and maintenance plans and responsibilities; and

m. A description of any wetlands, wildlife and fisheries habitats, archaeological sites or unusual natural areas located on or near the project site and a description of the methods that will be used to protect such areas.

n. Where submission drawings are available in electronic form, the applicant shall submit any available electronic CADD.DXF files with final plans.

(b) ***Recording plat.*** The recording plat shall be an original ink drawing on linen or mylar, or as necessary to be acceptable to the registry of deeds, and shall be tied to an accepted street or to a proposed street under construction and bonded to insure construction. This plat also shall show the following:

1. Title, date, graphic scale, north arrow, name, signature and registration number or seal of a registered land surveyor licensed in the state, name and address of developer and owner;

2. Tract boundary lines and property lines of lots, with accurate dimensions and either bearings or

deflection angles. All lots shall be numbered;

3. All appropriate street curve information, including point of tangency, tangent distance, radii and interior angles, in standard engineering form;

4. Street names, width of street rights-of-way and typical cross section showing only surface dimensions of roadway pavement, esplanade and sidewalk reservation;

5. Street and right-of way monuments and property markers. Iron pipes shall be designated by a small circle at the point of installation;

6. Locations, dimensions and purposes of any easement or right-of-way;

7. Purpose for which sites, other than residential lots, are dedicated or reserved; it being understood that any reservations of areas shall be subject to the proper zoning thereof;

8. Reference to recorded subdivision plats of adjoining platted land by book and page number;

9. Space for the signatures of the Planning Board and date of approval;

10. Where required by 30-A M.R.S.A. Section 4406, the fact that initial approval or subsequent amendment of a subdivision is based in part upon the granting of a variance from any of the applicable subdivision approval standards.

(c) ***Alterations to an approved plot.*** The planning authority may approve alterations to an approved recording plat when all of the following conditions are met; otherwise, a new subdivision plat must be submitted to the Planning Board:

1. The rearrangement of lot lines does not increase the number of lots within a block or other subdivision unit or area;

2. The alteration will not affect any street, alley, utility easement or drainage easement;

3. The alteration meets all of the minimum requirements of this article, article III of this chapter on zoning and other applicable state and local codes:

4. The alteration is approved by the public works authority and the fire department.

Such approved alterations shall be properly recorded in the registry within thirty (30) days thereof or they shall be null and void. Recording of approved alterations also shall be in accordance with the requirements of 30-A M.R.S.A. Section 4406.

(d) ***Vacation of plats.*** Any such plat recorded, or any portion thereof, may be vacated with the consent of the city council as follows:

1. At any time before the sale of any lot therein, by written instrument, signed by the city and the owners of such subdivision, declaring the same to be vacated and describing therein the part or portion to be so vacated.

2. At any time after the sale of any lot therein and by written instrument, signed by the city and all owners of record of lots shown on the plat, declaring the same to be vacated and describing therein the part or portion to be so vacated.

Any instrument so executed vacating all or a portion of any plat shall be duly filed and recorded in the county registry of deeds. The execution and recording of the instrument described in subsection (d)2 above shall vest fee simple title to the centerline of the street, alley or easement for public passage so vacated in the owners of abutting properties. Title to property located within the vacated streets, alleys or easements for public passage shall pass to abutting property owners free and clear of any rights of the public or other owners of lots shown in the plan, but subject to the rights of the owners of any public utility installations which have

been previously erected therein.

(Code 1968, § 603.7; Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79; Ord. No. 127-87, §§ 5, [12], 2-18-87; Ord. No. 95-88, §§ 1, 2, 7-19-88; Ord. No. 155-89, § 5, 11-20-89; Ord. No. 177-93, §§ 1, 2, 1-4-93; Ord. No. 165-97, 1-6-97)

***Editor's note--**Ord. No. 95-88, adopted July 19, 1988, amended subsections (b) and (c) of this section to read as herein set out. See also the editor's note to Art. III of this chapter for additional provisions relative to Ord. No. 95-88.

Sec. 14-497. General requirements.

(a) ***Review criteria.*** When reviewing any subdivision for approval, the Planning Board shall consider, among others, the following review criteria and before granting approval shall determine that the proposed subdivision:

1. Will not result in undue water or air pollution. In making this determination it shall at least consider the elevation of land above sea level and its relation to the flood plains, the nature of soils and subsoils and their ability to adequately support waste disposal; the slope of the land and its effect on effluents; the availability of streams for disposal of effluents; the conformity to the applicable state and local health and water resources regulations;

2. Has sufficient water available for the reasonably foreseeable needs of the subdivision;

3. Will not cause unreasonable burden on an existing water supply;

4. Will not cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result;

5. Will not cause unreasonable highway or public road congestion or unsafe conditions with respect to use of the highway or public roads existing or proposed;

6. Will provide for adequate sanitary waste and storm water disposal and will not cause an unreasonable burden on municipal services if they are utilized;

7. Will not cause an unreasonable burden on the ability of the city to dispose of solid waste and sewage if municipal services are to be utilized;

8. Will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, significant wildlife habitat identified by the department of inland fisheries and wildlife or by the city, or rare and irreplaceable natural areas or any public rights for physical or visual access to the shoreline. For subdivisions within historic districts designated pursuant to article IX of this chapter, the Planning Board shall apply the standards of section 14-651(c) of article IX. The Planning Board may request that the historic preservation committee prepare an evaluation of the proposed subdivision based upon the standards of section 14-651(c);

9. Is in conformance with the land development plan or its successor;

10. The subdivider has adequate financial and technical capacity to meet the standards of this section;

11. Whenever situated, in whole or in part, within the watershed of any pond or lake or within two hundred fifty (250) feet of any wetland, great pond or river as defined in Title 38, chapter 3, subchapter I, article 2-B, will not adversely affect the quality of such body of water or unreasonably affect the shoreline of such body of water;

12. Will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of groundwater;

13. Is or is not in a flood-prone area, based on the Federal Emergency Management Agency's Flood Boundary and Floodway Maps and Flood Insurance Rate Maps, and information presented by the applicant. If the subdivision, or any part of it, is in such an area, the subdivider shall determine the 100-year flood elevation and flood hazard boundaries within the subdivision. The proposed subdivision plan must include a condition of plan approval requiring that principal structures in the subdivision will be constructed with their lowest floor,

including the basement, at least one (1) foot above the 100-year flood elevation;

14. All potential wetlands within the proposed subdivision shall be identified on any maps submitted as part of the application, regardless of the size of those wetlands. Any mapping of wetlands may be done with the help of the local soil and water conservation district; and

15. Any river, stream or brook within or abutting the proposed subdivision shall be identified on any maps submitted as part of the application. For purposes of this section, "river, stream or brook" has the same meaning as in Title 38 M.R.S.A. Section 480-B, subsection 9.

(b) ***Burden of proof.*** In all instances the burden of proof shall rest upon the person proposing the subdivision.

(c) ***Conformity with Code.*** Any proposed subdivision shall be in conformity with all relevant provisions of this Code.

(d) ***Reserved.***

(e) ***Construction records and inspection.***

1. The project engineer and city engineer shall have the right to enter and inspect the construction site during all phases of the project to ensure compliance with this article.

2. After approval of the subdivision plat and prior to the construction of any of the subdivision's public improvements, the subdivider shall supply the city engineer with a complete set of engineering drawings on mylar or linen showing all streets, sanitary sewers and surface water drains and all appurtenant work within the subdivision.

3. The subdivider shall provide the project engineer with a complete and accurate list of any changes from the engineering drawings as approved by the Planning Board prior to the release of the performance bond.

(Code 1968, § 603.8; Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79; Ord. No. 127-87, §§ 6, [13], 2-18-87; Ord. No. 155-89, § 6, 11-20-89; Ord. No. 15-92,

Sec. 14-497.5. Adjustment of dimensional requirements for subdivisions in the R-3 zone.

Notwithstanding section 14-90 and any other section of this chapter, up to twenty-five (25) percent of the lots in a subdivision located in the R-3 zone may have reduced street frontage and/or lot widths, provided that the Planning Board finds as part of subdivision approval that the following standards are met:

(a) The subdivision is approved for the first time on or after December 1, 1997;

(b) The subdivision has a minimum land area of three (3) acres;

(c) The fire department determines that the reduced street frontage is adequate to provide access required to provide emergency services to each lot; and

(d) A lot with reduced lot width shall meet all required setbacks.

(Ord. No. 165-97, § 6, 12-1-97)

Sec. 14-498. Technical and design standards.

(a) *Adoption and amendment of standards:* The public services authority and the planning authority may promulgate technical and design standards for subdivisions and site plans. Such technical and design standards or any amendments thereto shall become effective only upon approval of the Planning Board following a public hearing before the Planning Board. In approving the technical and design standards, the Planning Board may direct staff to make changes with respect to format and text but, to the extent that standards are based upon sound engineering practice, shall not direct changes in the standards themselves. Such standards shall be additional to and consistent with the provisions of this article and shall be necessary and reasonable and shall be in accord with sound engineering practice. The public services authority and planning authority shall maintain for public inspection current copies of the effective standards.

(b) *Street plan:*

1. All streets shall be platted along contour elevations which result in minimum grades and greatest visibility whenever practicable, with consideration given for anticipated use of the land.

2. The proposed street layout shall be coordinated with the street system of the surrounding areas. All streets must provide for the continuation or appropriate projection of streets in surrounding areas and provide means of ingress and egress for surrounding acreage tracts.

   When connecting streets within residential neighborhoods, new streets shall contribute to a neighborhood street system characterized by a network of interconnected streets, which minimizes through-traffic in residential neighborhoods. The layout of subdivision lots, streets, and pedestrian ways shall promote multiple paths of travel to get to destinations within and between neighborhoods by foot and bicycle, as well as auto.

   The interconnection of new and existing streets is further subject to the following provisions to minimize and mitigate through-traffic in residential neighborhoods:

   a. Where a determination is made that a proposed street connection will result in substantial increases in traffic volume and speed on the effected public streets, the planning board may require appropriate traffic calming solutions as set forth in the traffic calming ordinance. (Section 28-250) The department of public services (DPS) may by regulation and amendment to the ***Technical Manual*** establish standards for determining what is a "substantial increase in traffic volume and speed"; and

   b. In any circumstances where a street connection is allowed, the planning board may condition subdivision approval to require the developer to monitor future traffic patterns to determine whether, using existing traffic calming standards, new or additional traffic calming measures should be employed. The extent and design of traffic

calming shall be determined by the DPW to mitigate the post development impact of connecting new and existing streets.

In cases where post development monitoring shows that increased traffic volume and speed is such that further traffic calming would be insufficient to mitigate traffic negative impacts of through-traffic, the DPW may require that the connection be modified to exclude regular vehicular traffic, while retaining bicycle, pedestrian, and where needed, emergency vehicle connections. The DPW shall develop typical standards and specifications for bicycle, pedestrian, and emergency vehicle connections and/or turnarounds.

c. Where a determination is made by the DPW that a proposed street connection will result in substantial increases in traffic volume and speed on the affected public streets, the planning board may disallow a proposed street connection for vehicular purposes in favor of a connection for non-vehicular purposes in situations where a proposed residential street connection meets all of the following criteria:

   i. the new street would result in the connection of two arterials; and

   ii. the street would be located in a neighborhood where there is no existing public through-street network connecting the same arterials; and

   iii. there is no likelihood that other public street connections will be developed in the future that would connect the arterials, whether because of topography limitations, existing development patterns, or other similar reason.

In circumstances where vehicular connections are disallowed per section (c) above, the planning board shall require that adequate right-of-way is reserved to permit the extension of the street for

pedestrian, bicycle, emergency use, and potential vehicle connections as may develop in the future.

3. Reserve strips or spite strips for unspecified or unacceptable purposes are prohibited.

4. Street right-of-way widths shall not be less than:

   a. Fifty (50) feet for marginal access street;

   b. Fifty (50) feet for minor street;

   c. Sixty (60) feet for collector street.

Proposed subdivisions along existing, or dedicated, or platted streets where rights-of-way are inadequate shall provide additional land to meet the minimum standards.

5. Streets shall not occupy more land than needed to provide access nor create unnecessary fragmentation of the subdivision into small blocks. Streets will be designed to discourage outside traffic from traversing the development.

6. All dead-end streets shall provide for a cul-de-sac or, in the case of a dead-end street which will be extended, a temporary turn-around at the end of the street, subject to the approval of the public works authority.

7. The minimum roadway width including esplanades and sidewalks shall be:

   a. Fifty (50) foot right-of-way, street pavement width, curbing, sidewalk width and esplanade width to conform to the requirements contained within the City of Portland Technical Manual.

   b. Sixty (60) foot right-of-way, street pavement width, curbing, sidewalk width and esplanade width to conform to the requirements contained within the City of Portland technical and design standards and guidelines manual.

   c. Street right-of-way on the islands in Casco Bay shall comply with article III of chapter 25.

8. Sidewalks and curbs:

   a. Sidewalks shall be constructed on each side of each street in accordance with article III of chapter 25. Sidewalks to be used by pedestrians are to be so located as to minimize contacts with normal automotive traffic, with preference given to interior walks away from streets in common open space in block interiors.

   b. Curbs shall be constructed on each side of each street. The curbing shall be constructed as provided in article VI of chapter 25.

(c) *Street design:*

1. Profiles of each street or way in the subdivision shall be shown on the subdivision plat. They shall be drawn to a longitudinal scale of forty (40) feet to one (1) foot and a vertical scale of four (4) feet to one (1) inch. Such profiles shall include separate profiles of each side line and center line of the street or way. Any buildings abutting on the street shall be shown in standard engineering format as requested by the public works authority.

2. Street grades in all proposed subdivisions shall be subject to the approval of the public works authority.

3. The public works authority shall establish the sequence in which work is to be accomplished. Where it is determined by the public works authority that work has been completed prior to the receipt of all approvals required by this article or which is out of sequence or is not in compliance with the standards of this section and of chapter 25, the director of parks and public works or an inspector from the public works authority may issue a stop work order. Work shall recommence only after the stop work order has been lifted by the director of parks and public works or an inspector from the public works authority. Violation of the stop work order shall be considered an offense.

(d) *Street and subdivision names:*

1. Street names for all subdivisions shall appear on the subdivision plat and be subject to approval by the Planning Board.

2. Subdivision names for plats shall be subject to approval by the Planning Board and not duplicate the name of any plat already recorded.

(e) ***Exception for private streets within PRUD's and manufactured housing parks.*** Private streets within PRUD's and manufactured housing parks shall be exempt from the street right-of-way and roadway width requirements set forth above, provided that no such street shall be accepted by the city unless it is first improved to the standards set forth above at the expense of those persons requesting the street acceptance. Private streets within a PRUD or a manufactured housing park shall meet specifications established by the public works department. All private streets shall be designed by a professional engineer and shall be built according to accepted engineering standards.

(f) ***Sewers and storm drains:***

1. The design of all sewers and storm drains shall be subject to approval by the public works authority.

2. All subdivisions shall be provided with adequate storm drain systems within the subdivision separate from any sanitary sewer system required in article III of chapter 25.

3. Any natural or manmade areas, systems or facilities designated for stormwater control purposes and intended for city maintenance shall, except for detention or retention ponds or basins and regularly free-flowing watercourses, be structurally enclosed in accordance with the standards of the public works authority, and shall be dedicated with sufficient land for maintenance purposes. Warranty deeds to such areas shall be submitted for acceptance by the city council at the same time as the acceptance of streets. All such areas as are not intended for city maintenance shall be permanently protected and maintained by private agreement, deed covenant or restriction, as appropriate, in form approved by the corporation counsel.

4. The approval of the plumbing inspector is required for all subdivisions involving the use of septic tanks and drainage fields for sewage disposal.

5. The subdivider shall be responsible for the construction of all sewers and storm drains including manholes, catch basins and any other appurtenances as may be deemed necessary by the public works authority. All work shall be in accordance with public works specifications.

6. The public works authority shall establish the sequence in which work is to be accomplished. Where it is determined by the public works authority that work has been completed prior to the receipt of all approvals required by this article or which is out of sequence or is not in compliance with the standards of this section and of chapter 24, the director of parks and public works or an inspector from the public works authority may issue a stop work order. Work shall recommence only after the stop work order has been lifted by the director of parks and public works or an inspector from the public works authority. Violation of the stop work order shall be considered an offense.

(g) *Blocks:*

1. A maximum block length of eight hundred (800) feet, measured from the nearest street lines of intersecting streets, shall be observed except where, in the opinion of the Planning Board, conditions justify a departure from this standard. In general, block size should be the maximum consistent with the use and shape of the site and the convenience and safety of the occupants.

2. In blocks exceeding eight hundred (800) feet in length, measured from the nearest street lines of intersecting streets, the Planning Board may require where feasible the reservation of a twenty (20) foot wide easement to the city through the block to provide for the crossing of underground utilities and pedestrian traffic where needed or desirable and may further specify, at its discretion, that a four (4) foot wide paved foot path be included.

3. The length, width and shape of blocks shall be determined

on the basis of:

a. Provision of adequate building sites suitable to the special needs of the type of use contemplated;

b. Zoning requirements as to lot sizes, setbacks and dimensions;

c. Needs for convenient access, circulation, control and safety of street traffic;

d. Limitations and opportunities of topography.

4. Blocks with lots having double frontage on streets shall be avoided.

5. The foregoing dimensions may be adjusted by the Planning Board where type of use or topography requires such modification.

(h) *Lots:*

1. Lot sizes shall conform to the zoning ordinance in article III of this chapter and the city health code.

2. Where easements for public utilities, storm or sanitary sewers are contemplated, the lot lines shall be located in such a manner as to facilitate construction of such facilities and the maintenance thereof.

3. Lots which are reserved or laid out for business, commercial or industrial purposes shall have sufficient width and depth to accommodate the off-street parking and loading facilities required for the type of use and development contemplated, as established in article III of this chapter.

4. Where feasible, side lot lines shall be at right angles to street lines (or radial to curving street lines).

(i) *Public open space:*

1. In all subdivisions open space may be provided for parks, recreational and other public areas. Where no public open space or recreational areas exist in close proximity to

the subdivision, or where a lack of such areas in the subdivision would require its disapproval under section 14-497(a), general requirements, the Planning Board may require provision of land for park or recreational purposes. Such lands may be designated for public or private ownership in accordance with the conditions stated in this section, subject to the approval of the Planning Board.

2. If a tract or parcel is intended for public ownership and is so designated on the subdivision plat, the acceptance of such land shall be first recommended by the various departments and the Planning Board and sent to the city council for final determination.

3. If a tract or parcel is designed or intended to be owned and used in common for recreational or other public or semipublic purposes and such intent is so designated on the subdivision plat, appropriate documents in form approved by the corporation counsel shall be submitted to the Planning Board. Such documents shall clearly:

   a. Set forth the nature of the permanent organization under which common ownership is to be established, including its purpose; how it shall be governed and administered; the provisions made for permanent care and maintenance of the common property for its share of the cost of administering and maintaining such common property;

   b. Set forth the extent of common interest held by the owner of each individual parcel in the tract held in common with others.

(j) *Access to shoreline:*

1. In all subdivisions having shore frontage on the island of Casco Bay, existing legal rights of public access to the shoreline shall be preserved. The proposed street layout and circulation plan shall be suitably integrated with such existing public access in a manner that reasonably promotes the public use of such access. The proposed street layout and circulation plan shall also be designed to preserve any legal rights to any significant water views and scenic vistas from such rights-of-way.

2. In all subdivisions having any lots within the shoreland zone, legal rights of private access to waters shall, to the extent reasonably feasible, be established for the benefit of all lots within the subdivision not otherwise having such access.

(Code 1968, 603.9; Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79: Ord. No. 41-84, § 1, 6-18-84; Ord. No. 98-85, § 1, 7-15-85; Ord. No. 127-87, §§ 7, 8, 2-18-87; Ord. No. 104-87, 10-19-87; Ord. No. 66-88, 7-18-88; Ord. No. 201-89, § 1, 12-18-89; Ord. No. 218-04/05, 5-2-05; Ord. No. 86-05/06, 10-17-05; Ord. No. 278-09/10, 7-19-10)

***Editor's note--**Ord. No. 66-88, adopted July 18, 1988, amended § 14-498 by adding subsections (c)(3) and (f)(6). The ordinance further provided as follows:

Be it further ordained and determined by the city council that the above amendments are necessary in order to prevent further work being done which is not in accordance with City technical standards. Therefore, this enactment shall take effect immediately as an emergency pursuant to Article II, Section 8 of the Charter and shall further apply to all pending proceedings, applications, petitions and to all projects which have work that remains to be completed at the date of enactment of these amendments.

Sec. 14-499. Required improvements.

Prior to the release of the approved recording plat the subdivider shall file a guarantee as hereinafter provided, and prior to release of such guarantee the subdivider shall have completed all improvements as follows:

(a) All streets shall be graded in conformity with the requirements set out in section 14-498 and in accordance with article III of chapter 25.

(b) On all streets, side streets, and alleys, a suitable hard surfaced permanent pavement shall be installed meeting the requirements set forth in article III of chapter 25.

(c) Water, gas and sanitary sewer mains and storm drains shall be constructed prior to the installation of paving with all mains being extended from all lots having sufficient stub outs to avoid subsequent breaking of pavement.

(d) Sidewalks and curbs shall be constructed as required in section 14-498.

(e) Adequate storm drains shall be constructed subject to the provisions of section 14-496 and in accordance with the department of public works specifications.

(f) A total of two (2) trees per lot, which shall be street trees, shall be planted near the street line in full public view on private property, as directed by the city arborist pursuant to "Standards for Landscaping and Landscape Preservation" contained in the City of Portland Technical Manual. Existing healthy trees may be credited toward this requirement, subject to the approval of the city arborist.

(g) Permanent markers will be set as prescribed by the public works authority.

(h) All utility lines shall be placed underground unless otherwise approved by the Planning Board.

(i) Street lighting shall be installed in accordance with the standards of the public works authority.

(j) A public water supply shall be installed subject to the approval of the Portland Water District.

(k) Erosion control measures shall be taken both during and after construction in accordance with the standards of the public works authority.

(Code 1968, § 603.10; Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79; Ord. No. 127-87, § 9, 2-18-87; Ord. No. 105-87, § 1, 10-19-87; Ord. No. 278-09/10, 7-19-10)

Sec. 14-499.5. Additional requirements for manufactured housing parks.

All manufactured housing parks and subdivisions as defined in section 14-47 shall meet the requirements for residential subdivisions established by this article, the site plan and the zoning ordinance, in addition to the following requirements for manufactured housing parks:

(a) The entire development shall be properly screened from abutting neighborhoods and uses. Such screen shall consist of plantings, or a combination of earth berm and

plantings, not less than three (3) feet in width and six (6) feet in height at the time of initial occupancy of such development, and shall be set back on corner lots so as to comply with section 14-434. Individual shrubs or trees, as approved by the city arborist, shall be planted so as to establish a dense visual screen year round. At least fifty (50) percent of the plantings shall consist of evergreens. Such screen shall thereafter be permanently maintained in a condition meeting the specifications and intent of this subsection. In cases where such screen areas are to be separately owned, the deed of conveyance shall contain a requirement that the grantee shall likewise maintain the screen area. Such requirement shall be in a form acceptable to the corporation counsel. Any area intended to be owned and used in common shall thereafter be maintained by a permanent organization as set forth in section 14-498(i)(3). Existing vegetation may substitute for new plantings if it forms an acceptable dense visual screen consistent with the intent of this subsection.

(b) All manufactured housing units and any accessory structure within such development shall be located at least fifty (50) feet from any external property boundary of the development where the proposed park density is two (2) or more times greater than the density of residential development on adjacent parcels or the maximum permitted density of adjacent vacant parcels.

(c) All units within such development shall be set back from any existing collector or arterial street, as defined in section 14-493, in accordance with the setback provisions for the underlying zone.

(d) All fuel oil supply systems shall be constructed and installed within the foundation wall or underground in accordance with all applicable codes and regulations.

(e) All trash containers, bottled gas tanks, storage sheds, utility meters, or other similar items or accessory structures except parking garages, shall be located and suitably screened by plantings or fencing so as not to be clearly visible from the street or abutting properties.

(f) All manufactured housing units shall be placed either on

a foundation which forms a complete enclosure under exterior walls, or on suitable blocks on a foundation pad, in which case the unit shall be boxed or skirted with suitable material designed for such use.

(g) All manufactured housing units shall be properly installed, blocked and leveled or affixed to a foundation wall, so as to rest on the wheels used to transport the unit. Any hitch or tow bar shall be removed from the unit after it is placed on its foundation.

(h) Notwithstanding the provisions of sections 14-498 and 14-499, private roads within a manufactured housing park shall be a minimum of twenty-three (23) feet wide, with a minimum pavement width of twenty (20) feet.

(Ord. No. 611-82, § 1, 7-7-82; Ord. No. 358-84, § 1, 12-17-84; Ord. No. 201-89, § 2, 12-18-89)

Sec. 14-500. Additional requirements for nonresidential subdivisions.

All nonresidential subdivisions must meet the requirements for residential subdivisions established by this article, the site plan in article V of this chapter and the zoning ordinance in article III of this chapter, in addition to the following considerations, except as waived by the Planning Board due to the commercial or industrial nature of the development:

(a) Proposed industrial parcels shall be suitable in area and dimensions to the commercial or industrial development anticipated.

(b) Street rights-of-way and pavement shall be adequate to accommodate the type, weight and volume of traffic anticipated to be generated.

(c) The design and installation of public utilities including water, sewers and storm water drainage, shall be adequate to accommodate the anticipated usage.;

(d) Streets carrying truck traffic shall not normally be extended to the boundaries of adjacent existing or potential residential areas.

(Code 1968, § 603.11; Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79)

Sec. 14-501. Performance and defect guarantees; engineering review, inspection fees and administrative fees.

(a) The performance guarantee shall be a letter of credit or escrow account with a responsible financial institution or the deposit, with the finance department of the city, of a sum required for the guarantee. (The city shall hold such funds in a noninterest bearing account until the completion of all of the improvements.) The performance guarantee shall be in the name of the city and shall be approved by the finance director as to financial sufficiency and the corporation counsel as to proper form and legal sufficiency.

(b) Performance guarantees shall be required to ensure the fulfillment of all improvements as required by section 14-499, as well as the requirement in article III of chapter 25 that the subdivider shall give to the city, prior to the release of the performance guarantee a warranty deed (with metes and bounds description) to the property within each street within the subdivision, as well as delivery to the city of the warranty deeds to all other improvements intended for city maintenance. Such guarantee shall specify the completion date of the improvements required in the subdivision and the delivery date to the city of such deed or deeds prior to the expiration of the performance guarantee. The performance guarantee shall be for a term not less than one (1) year. Furthermore, the performance guarantee shall be released only upon the completion, to the satisfaction of the city, of the public improvements and the tendering of a defect guarantee as required in subsections (e) and (f).

(c) The guarantee shall be equal in value to one hundred (100) percent of the estimated cost of the improvements as determined by the public works authority and the planning authority. The guarantor shall not be released from the guarantee except by a release in writing from the public works authority and the planning authority.

(d) Performance guarantees may be reduced periodically by the public works authority and the planning authority in the manner provided herein. Upon request, but in no event more than three (3) times in any calendar year, the developer shall be eligible to receive reductions in the performance guarantee equal to the estimated cost of the completed improvements. In no case, however, shall any performance guarantee be reduced (1) by less than one hundred thousand dollars ($100,000.00) or fifty (50) percent of the

initial amount of the performance guarantee, whichever is less, at any one (1) time; or (2) in any line item where improvements remain to be completed: or (3) to a value which is less than the estimated cost of completing all remaining prescribed improvements for which a performance guarantee is required by section 14-530 as determined by the public services authority. Notwithstanding any other provision of this section, no performance guarantee shall be reduced to less than the amount of the defect guarantee to be posted upon completion of the improvements.

(e) Upon the satisfactory completion of the subdivision's prescribed improvements, excepting tree planting and other landscaping if in the opinion of the city arborist the installation of such plantings is not feasible due to weather conditions, and following the city's receipt of the warranty deeds referred to in (b) above, the subdivider shall file a defect guarantee with the city. The defect guarantee shall ensure the workmanship and the durability of all materials used in the construction of the roadways, curbing, esplanades, sidewalks, sanitary sewerage systems (including manholes and house drain laterals), storm drainage systems (including manholes, catch basins and catch basin drains), street lighting, tree planting, other appropriate landscaping and all other public improvements which may become defective within one (1) year period, all as determined by the public works authority. The defect guarantee shall also ensure the proper installation of any required tree plantings or landscaping which were not installed prior to the filing of the defect guarantee during the next appropriate planting season, as determined by the city arborist. The defect guarantee shall be filed prior to the release of the performance guarantee and it shall not expire between October 30 and April 15 of the following year.

(f) The defect guarantee shall be a letter of credit or escrow account with a responsible financial institution or the deposit, with the finance department of the city, of a sum required for the guarantee (the city shall hold such funds in a noninterest bearing account until the completion of all of the improvements), equal in value to ten (10) percent of the estimated cost of public improvements. It shall be in the name of the city and shall be approved by the finance director as to financial sufficiency and the corporation counsel as to proper form and legal sufficiency. A guarantee which contains appropriate terms and conditions to cover both the performance and defect guarantee provisions as specified in subsections (a)--(e) above is an acceptable form of guarantee.

(g) A performance guarantee and defect guarantee shall also be required to ensure the completion of all improvements as required by section 14-499.5, as well as all improvements for the circulation, recreation, landscaping, light, air, drainage and service needs of a planned unit development which are not subject to section 14-501(b). For purposes of this subsection, sections 14-501(c) and (d) shall also apply. The planning authority may waive all or any portion of this requirement if it determines that the developer has a proven record of satisfactory performance and sufficient financial capability.

(h) At the same time that the developer posts a performance guarantee, the developer shall also pay to the city the subdivision inspection fee equal to two (2) percent of the estimated costs of improvements required by this article, with actual inspection costs in excess of two (2) percent invoiced by the city at the completion of the project or as deemed necessary by the city. If a performance guarantee is extended beyond its original expiration date, then an additional inspection fee in an amount to be determined by the city shall be required.

(i) The developer shall also pay a fee to cover the engineering review costs and administrative costs to be incurred by the city. The fee shall be based upon the actual hours of review time and prevailing hourly rate for reimbursement of city costs, and shall be invoiced periodically by the city.

No land use permits or applications of any kind shall be processed, reviewed or issued, no signed subdivision plats shall released or recorded, and no building permits of any kind shall be issued, for any project whose permit fee is governed by this ordinance unless all charges due under this ordinance have been paid and the developer is otherwise in compliance with the city code. No performance guarantee shall be released until all fees generated by the project are paid to the city, including but not limited to engineering, inspection and administrative fees as provided in section 14-530.

(Code 1968, § 603.12;.Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79; Ord. No. 611-82, §§ 2, 3, 7-7-82; Ord. No. 127-87, § 10, 2-18-87; Ord. No. 524-87, §§ 1, 2, 5-18-87; Ord. No. 122-91, § 1, 9-16-91; Ord. No. 262-96, §§ 1, 2, 5-20-96; Ord. No. 227-00, §2, 5-15-00; Ord. No. 278-09/10, 7-19-10)

Sec. 14-502. Extension of the guarantee period.

When the subdivider constructs improvements for which a

performance guarantee is required and the public works authority has reasonable doubt concerning the stability or proper construction of such improvements, the subdivider shall be required to do such further work on the improvements as the public works authority shall order before the improvements will be accepted by the city. If the subdivider's current performance guarantee shall expire before the extent or necessity for such further work can be determined, the subdivider shall be required to extend his or her guarantee covering such improvements, or secure a new guarantee, for such further period and in such amount as the public works authority shall deem necessary.

(Code 1968, § 603.13; Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79; Ord. No. 127-87, § 11, 2-18-87)

Sec. 14-503. Sale of partially completed subdivisions.

The purchasing party or other succeeding owner of a subdivision for which a recording plat has received prior approval shall assume full responsibility for completion of the subdivision's improvements until acceptance of such improvements by the city. The purchaser or other succeeding owner of an unaccepted subdivision shall be required to comply with all the provisions of this article as if he were the original subdivider, and shall become responsible for completing such improvements in the same manner as the original subdivider.

(Code 1968, § 603.14; Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79)

Sec. 14-504. Enforcement, conveyance, markers and recording.

(a) No person may sell, lease, develop or build upon or convey for consideration, offer or agree to sell, lease, develop or build upon or convey for consideration any land in a subdivision unless the subdivision has been approved by the Planning Board, and unless a recording plat showing permanent marker locations at all lot corners has been recorded in the county registry of deeds.

(b) The term permanent marker is limited to the following: A granite monument for street monumentation and an iron pin or drill hole in ledge for property delineation, or as otherwise approved by the public works authority. No subdivision plan shall be recorded by the registry of deeds which has not been approved as required by this article. Approval for the purpose of recording shall appear in writing on the recording plat. No public utility, water district, sanitary district or any utility company of any kind shall install services to any lot in a subdivision which has not received

(c) Any person who sells, leases, develops or builds upon or conveys for consideration any land in a subdivision which has not been approved as required by this article shall be punished by a fine of not more than five hundred dollars ($500.00) for each such occurrence. The city may institute proceedings to enjoin any violation of this section.

(d) Notwithstanding the foregoing, alterations may be made to a site with a pending subdivision application if:

(1) At minimum, a performance guarantee for the proposed site alterations has been posted and final site plans have been submitted to the planning authority; and

(2) Written permission has been received from the director of planning and urban development or his designee that such site alterations may proceed pending subdivision approval. Such permission is solely within the discretion of the director of planning and urban development and shall be granted only after submission of a written request setting forth the work proposed to be done on the site. All such work shall be done in compliance with information provided with the subdivision application. An erosion control plan shall also be submitted when deemed necessary by the planning authority. Such written permission shall not be required when the only work proposed is the digging of test pits.

(Code 1968, § 603.15; Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79; Ord. No. 95-01/02, 11-5-01)

Sec. 14-505. Appeals.

An appeal from any final decision of the Planning Board regarding subdivision approval may be taken by the applicant or his authorized agent to superior court in accordance with Rule 80B of the Maine Rules of Civil Procedure.

(Code 1968, § 603.16; Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79)

Sec. 14-506. Modifications.

(a) Except for the requirements set forth in sections 14-498 and 14-499 pertaining to the provision and construction of curbs and sidewalks, the Planning Board if it finds that extraordinary

conditions exist or that undue hardship may result from strict compliance with these regulations may vary the regulations so that substantial justice may be done and the public interest secured; provided that such variation will not have the effect of nullifying the intent and purpose of the land development plan and the regulations of this article.

(b) Where the Planning Board or planning authority finds that, for each of the requirements listed below, two or more of the conditions exist with respect to compliance with the requirements set forth in sections 14-498 and 14-499 pertaining to the provision and construction of curbs and/or sidewalks, it may waive, in whole or in part, the regulations so that substantial justice may be done and the public interest secured:

Sidewalks-

1. There is no reasonable expectation for pedestrian usage coming from, going to and traversing the site.

2. There is no sidewalk in existence or expected within 1000 feet and the construction of sidewalks does not contribute to the development of a pedestrian oriented infrastructure.

3. A safe alternative-walking route is reasonably and safely available, for example, by way of a sidewalk on the other side of the street that is lightly traveled.

4. The reconstruction of the street is specifically identified and approved in the first or second year of the current Capital Improvement Program or has been funded through an earlier CIP or through other sources.

5. The street has been constructed or reconstructed without sidewalks within the last 24 months.

6. Strict adherence to the sidewalk requirement would result in the loss of significant site features related to landscaping or topography that are deemed to be of a greater public value.

Curbing-

1. The cost to construct the curbing, including any

applicable street opening fees, is in excess of 5% of the overall project cost.

2. The reconstruction of the street is specifically identified and approved in the first or second year of the current Capital Improvement Program or has been funded through an earlier CIP or through other sources.

3. The street has been rehabilitated without curbing in the last 60 months.

4. Strict adherence to the curb requirement would result in the loss of significant site features related to landscaping or topography that are deemed to be of a greater public value.

5. Runoff from the development site or within the street does not require curbing for stormwater management.

In no event shall the waiver have the effect of creating potentially hazardous vehicle and pedestrian conflict or nullifying the intent and purpose and policies of the land development plan relating to transportation and pedestrian infrastructure and the regulations of this article.

At its discretion, the planning authority may refer any petition for a waiver from the curb and sidewalk requirement to the Planning Board for decision.

(c) The standards and requirements of this article may be modified by the Planning Board in the case of a plan and program for a planned unit development which in the judgment of the Planning Board provides adequate public spaces and improvements for the circulation, recreation, light, air and service needs of the tract when fully developed and populated, and which also provides such covenants or other legal provisions as will assure conformity to and achievement of the land development plan.

(d) If at any time before or during the construction of the required improvements the subdivider demonstrates to the satisfaction of the project engineer and the public works authority that unforeseen conditions make it necessary or preferable to modify the design of the required improvements, the public works authority may authorize modifications provided that the modifications do not amount to a waiver or substantial alteration

of the function of any improvements required by the Planning Board.
(Code 1968, § 603.17; Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79; Ord. No. 41-84, §§ 2, 3, 6-18-84; Ord. No. 204-02/03, 5-29-03)

Sec. 14-507. Conditions.

In granting variances and modifications, the Planning Board and city council may require such conditions as will, in their judgment, secure substantially the objectives of the standards or requirement so varied or modified.
(Code 1968, § 603.18; Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79)

Sec. 14-508. Exemptions.

(a) This article does not apply to subdivisions approved prior to June 6, 1979, nor to subdivisions in existence prior to June 6, 1979, nor to subdivisions which have been legally recorded in the registry of deeds prior to June 6, 1979.

(b) A division accomplished by devise, condemnation, order of court, gift to a person related to the donor by blood, marriage or adoption, unless the intent of such gift is to avoid the objectives of this article, or by transfer of any interest in land to the owner abutting thereon shall not be considered to create a lot or lots for purposes of this article.
(Code 1968, § 603.19; Ord. No. 158-68, § 10, 5-6-68; Ord. No. 149-79, 6-6-79)

Sec. 14-509. – Sec. 14-520. Reserved.

ARTICLE V. SITE PLAN*

***Editor's note--**Ord. No. 355-89, adopted July 17, 1989, amended Art. V, site plan, in its entirety, in effect repealing former §§ 14-521--14-530 and enacting similar new provisions in lieu thereof as §§ 14-521--14-528. The ordinance was enacted as an emergency in order for the Planning Board to have the necessary tools to protect the health, safety and welfare of the citizens and further provided that such amendments would be applicable to any alterations, modifications, revisions, amendments or filed changes to any previously approved site plan as provided in the article but would not be construed to invalidate any prior approval. Formerly, Art. V derived from §§ 604.1--604.6, 604.7.B, 604.8 and 604.9 of the city's 1968 Code, as amended by the following:

Ord. No.	Section	Date	Ord. No.	Section	Date

348-74		5-20-74	316-87	1	3- 4-87
442-78		8- 7-78	524-87	3—5	5-18-87
691-81		5-19-81	365-88		5- 4-88
88-84	2--6	7-16-84	301-88		5-31-88
292-84	1	11-19-84	67-88		7-18-88
294-84	1	11-19-84	96-88	2	7-19-88
359-84	1	12-17-84	97-88		7-19-88
370-85	1--3	1-21-85	98-88		7-19-88
128-87	1	2-18-87			

***Editor's Note—**Pursuant to Council Order 277-09/10, passed on 7-19-10 Article V, Site Plan was repealed in its entirety and replaced with a new Article V, Site Plan.

Sec. 14-521. Purposes.

Pursuant to Portland's Comprehensive Plan, the Site Plan Ordinance advances the vision for a sustainable City with shared goals for the environment, community and economy. The Site Plan Ordinance complements the regulations of the Zoning Ordinance in Article III of this chapter and the Subdivision Ordinance in Article IV of this chapter.

(Ord. No. 277-09/10, 7-19-10)

Sec. 14-522. Definitions.

For the purposes of this article all terms and words shall have their ordinary meanings, except as defined herein.

Approval by any board or department under this article shall include any approval with conditions.

Building addition: Any attached structure which increases the

total floor area of the structure.

Building Authority: The Director of the Department of Planning and Urban Development or his/her designee.

Change of use: Any change in use of an existing building, whether or not alterations are involved, from any use in the following list to any other uses on the list:

1. Manufacturing or processing, storage and warehouse, and other industrial;

2. Residential

3. Transportation

4. Institutional

5. Retail and Commercial

6. Water-dependent use and marine use

7. Office

Development: Any construction, site alteration or change of use which is identified in Section 14-523, Required Approvals and Applicability.

Dwelling, two-family: A single building containing two dwelling units used exclusively for occupancy by two (2) families living independently of each other.

Final Plan: A site plan meeting the requirements of Section 14-527.

Master development plan: A Master Development Plan is a regulatory option for sites with one acre or more in cumulative lot area that's designed as a cohesive and integral development program consisting of multiple buildings and associated site improvements built in phases over an extended timeframe. This option shall not apply in residential zones except for institutional uses.

Multiple-family development; The construction or creation of three (3) or more dwelling units on any parcel of land or the addition of two (2) or more dwelling units cumulatively within a

three-year period.

Owner: Any person that has any interest, legal or beneficial, in any parcel proposed for development.

Planning Authority: The Director of the Department of Planning and Urban Development or his/her designee.

Preliminary Plan: A site plan that provides an existing site inventory and analysis along with the potential design layout for a proposed development that meets the criteria of Section 15-527.

Public Services Authority: The Director of the Department of Public Services or his/her designee.

Site: *A*ll contiguous land under the same ownership or control, whether proposed for development or not, except where development is limited to a lot or lots within a subdivision.

Temporary parking: The parking of vehicles permitted by a temporary certificate of occupancy for a limited period of time not to exceed one (1) year in anticipation of future development.
(Ord. No. 277-09/10, 7-19-10; Ord. No. 176-12/13, 4-22-13)

Sec. 14-523. Required Approvals and Applicability.

(a) ***Required Approval.*** An application for site plan approval shall be reviewed by the Planning Board or Planning Authority as specified below. The Planning Board or Planning Authority shall approve, approve with conditions or deny an application pursuant to the standards, procedures, technical criteria and design criteria contained in this article, as demonstrated by the applicant.

1. The Planning Authority shall administratively authorize developments that meet all of the requirements of Section 14 – 523 (c).

2. Level I Site Plan Review shall require the approval of the Planning Authority.

3. Level II Site Plan Review shall require the approval of the Planning Authority only, except as otherwise expressly provided by this article.

4. Level III Site Plan Review shall require the approval of the Planning Board, except as otherwise expressly provided by this article.

5. Master Development Plan Review shall require the Master Development Plan approval of the Planning Board as provided in Section 14-524(d)(9).

(b) ***Applicability.*** No person shall undertake development identified in Section 14-523 without obtaining a site plan improvement permit under this article.

(c) ***Administrative Authorization.*** Administrative Authorization means the Planning Authority may grant administrative authorization to exempt a development proposal from complete or partial site plan review that meet the standards below, as demonstrated by the applicant.

1. The proposed development will be located within existing structures, and there will be no new buildings, external demolitions, or building additions other than those permitted by subsection 2 of this subsection;

2. Any building addition shall have a new building footprint expansion of less than five hundred (50**0)** square feet;

3. The proposed site plan does not add any new curb cuts, driveways, or parking areas; the existing site has no more than one (1) curb cut and will not disrupt the circulation flows and parking on-site; and there will be no drive-through services provided;

4. The curbs and sidewalks adjacent to the lot are complete and in sound condition, as determined by the Public Services Authority, with granite curb with at least four-inch reveal, and sidewalks are in good repair with uniform material and level surface and meet accessibility requirements of the Americans with Disabilities Act;

5. The use does not require additional or reduce existing parking, either on or off the site, and the project does not significantly increase traffic generation;

6. There are no known stormwater impacts from the proposed use or any existing deficient conditions of stormwater management on the site;

7. There are no evident deficiencies in existing screening from adjoining properties;

8. Existing utility connections are adequate to serve the proposed development and there will be no disturbance to or improvements within the proposed right-of-way;

9. There are no current zoning violations;

10. Any emergency generators are to be located to minimize noise impacts to adjoining properties and documentation that routine testing of the generators occur on weekdays between the hours of 9 a.m. to 5 p.m. Documentation pertaining to the noise impacts of the emergency generator shall be submitted; and

11. There are no anticipated noise, vibration, glare, fumes or other foreseeable impacts associated with the project.

(d) ***Level I Site Plan Review.*** Minor residential development and site alterations meeting the criteria below will undergo Level 1 Site Plan Review as follows.

1. Level I: Minor Residential Development:

   a. With respect to development of a single-family or a two-family building, excluding building additions, decks, or accessory structures, such development shall be deemed minor residential development for purposes of this article regardless of its size.

   b. The addition of one or two dwelling units to a two-family dwelling or multifamily structure shall be deemed a Level I minor residential development for purposes of this article, if the additional dwelling unit or units does not require subdivision review under Maine State Statutes and Portland's Subdivision Ordinance.

2. Level I: Site Alteration:

a. Alteration of a watercourse or wetland as defined in Section 14-47 of the City Code.

b. Alteration of a site. The disturbance of land areas of less than one (1) acre that are stripped, graded, grubbed, filled or excavated. The Planning Authority shall exempt from review the loam and seeding of lawns and the cumulative placement of less than fifteen (15) cubic yards of fill on any lot provided such loaming or placement does not alter a drainage course, swale, wetland or redirect water onto adjoining property and does not violate any other provision of the Portland City Code or state or federal law. "Disturbed area" does not include routine maintenance, but does include re-development and new impervious areas.

c. The construction of any temporary or permanent parking area, paving of existing unpaved surface parking areas between 1,000 and 7,500 square feet, or creation of other impervious surface areas between 1,000 and 7,500 square feet.

d. The rehabilitation or reconstruction, but not new construction, of piers, docks, wharves, bridges, retaining walls, and other structures located within the shoreland zone.

e. A site alteration in which vehicle access is proposed from more than one (1) street;

(e) ***Level II Site Plan Review.*** Development meeting the criteria listed below will undergo Level II Site Plan Review as follows:

1. The construction of any new structures having a total floor area of less than ten thousand (10,000) square feet in all zones except in the Industrial zones. In any Industrial zone, the construction of new structures having a total floor area of less than twenty thousand (20,000) square feet;

2. The construction of any new temporary or permanent parking area, paving of existing unpaved surface parking areas in excess of 7,500 square feet and serving less than 75 vehicles, or creation of other impervious surface area greater than 7,500 square feet;

3. The construction of any building addition(s) having a total floor area of less than ten thousand (10,000) square feet cumulatively within a three-year period in all zones except in the Industrial zones. In any Industrial Zone, the construction of building addition(s) having a total floor area of less than twenty thousand (20,000) square feet.

4. Park improvements consisting of new structures or buildings of less than 10,000 square feet and/or facilities encompassing an area of greater than 7,500 square feet and less than 20,000 square, excluding the rehabilitation or replacement in kind of existing facilities.

5. The new construction of piers, docks, wharves, bridges, retaining walls, and other structures located within the shoreland zone.

6. The disturbance of land areas of between one and three acres that are stripped, graded, grubbed, filled or excavated.

7. A change in the use of a total floor area of between ten thousand (10,000) and twenty thousand (20,000) square feet in any existing building cumulatively within any three-year period in all zones.

8. Lodging houses and bed and breakfast facilities;

9. Emergency shelters

10. Special needs independent living units;

11. Construction or installation of any signage for which approval is sought pursuant to section 14-526(d)8.a.(iv).

12. The construction of any new major or minor auto

service station with a structure of less than ten thousand (10,000) square feet of building area in any permitted zone other than the B-2, or B-5 zones;

13. The creation of day care facilities or home babysitting services in a residential zone not permitted as a home occupation under section 14-410 in any principal structure that has not been used as a residence in whole or in part within the five (5) years immediately preceding the application for a day care or home babysitting use, where such facilities serve more than twelve (12) children;

14. Any drive-through facility that is not otherwise reviewed as a conditional use under Article III.

(f) ***Level III Site Plan Review.*** Development meeting the criteria listed below will undergo Level III Site Plan Review as follows:

1. The construction of any new structures having a total floor area of ten thousand (10,000) square feet or more in all zones except the Industrial zones. In any Industrial zone, the construction of new structures having a total floor area of twenty thousand (20,000) square feet or more;

2. The construction of any new temporary or permanent surface parking area(s) or paving of existing unpaved surface areas for more than seventy-five (75) vehicles except in the case of temporary parking;

3. The construction of any building addition(s), cumulatively having either a total floor area of ten thousand (10,000) square feet or more within any three-year period in all zones except in the Industrial zones for the construction of building addition(s) having a total floor area of twenty thousand (20,000) square feet or more;

4. A change in the use of a total floor area of twenty thousand (20,000) square feet or more in any existing building cumulatively within any three-year period in all zones,

5. Multiple-family development;

6. The addition of one or two dwelling units to a building, if the additional dwelling unit or units requires subdivision review under Maine State Statutes and Portland's Subdivision Ordinance;

7. The construction of any new major or minor auto business in the B-2 or B-5 zone, or the construction of any new major or minor auto business with a structure greater than ten thousand (10,000) square feet of building area in any other permitted zone; or

8. Correctional prerelease facilities.

9. Park improvements consisting of new structures greater than 10,000 square feet and/or facilities encompassing an area of 20,000 square feet or greater, excluding the rehabilitation or replacement of existing facilities. Any park improvements including the provision of new nighttime outdoor lighting or sports, athletic or recreation facilities not previously illuminated.

10. The disturbance of land areas of three (3) acres or more that are stripped, graded, grubbed, filled or excavated.

(g) *Master development plan:* A Master Development Plan meeting the criteria listed below will undergo a master development plan review as follows:

1. A Master Development Plan for a site with one acre or larger in a cumulative lot area that is designed as a cohesive and integral development program consisting of multiple buildings and associated site improvements proposed to be built in phases.

2. The Master Development Plan option shall not apply in residential zones, except for institutional uses.

(Ord. No. 277-09/10, 7-19-10; Ord. No. 25-11/12, 8-15-11; Ord. No. 176-12/13, 4-22-13)

Sec. 14-524. Site plan review processes.

(a) The site plan review process for reach applicable development review type is listed below.

1. *Administrative Authorization*:

a. ***Filing the Application.*** An applicant seeking an administrative authorization under this subsection shall submit an administrative authorization application for review, detailing the site plan with dimensions of proposed improvements and distances from all property lines, and stating that the proposal meets all of the provisions in standards a-k of Section 14-423 (b)1.

b. ***Review.*** Upon receipt of such a complete application, the Planning Authority will process it and render a written decision of approval, approval with conditions or denial, with all associated findings.

c. ***Decision.*** If a full administrative authorization is granted, the application shall be approved without further review under this article, and no performance guarantee shall be required. In the event that the Planning Authority determines that standards 1 and 2 of section 14-523 (c) and at least four (4) of the remaining standards have been met, the Planning Authority shall review the site plan according to all applicable review standards of Section 14-526 that are affected by the standards in this subsection that have not been met. If an exemption or partial exemption from site plan review is not granted, the applicant must submit a site plan application that will undergo a full review by the Planning Board or Planning Authority according to the standards of section 14-526.

2. ***Level I site plan review:***

a. ***Filing the application.***

(i) Every application submitted to the building authority or planning authority for a level I minor residential development or site alteration shall include a digital set of the plans and documents that shall be uploaded to the City's designated web site for an electronic review of the material.

b. *Public notices.*

(i) When an application for a level I: minor residential development is submitted, all public notices will be sent according to the section 14-525.b of the site plan ordinance.

(ii) When an application for a level I: site alteration is submitted, all public notices will be sent according to the section 14-525.b of the site plan ordinance.

c. *Review.*

(i) The planning authority shall approve, approve with conditions or deny the level I: minor residential development plan and shall advise the building authority in writing of its action. Such decision shall be made part of the building authority's review.

(ii) The planning authority shall approve, approve with conditions or deny the level I: site alteration plan with all associated findings and shall advise the applicant in writing of its action.

d. *Standards of review.*

(i) Level I: Minor residential site plans shall only be subject to the following site plan standards, as applicable, as contained in Section 14-526:

(a) Transportation Standards
- 2.a. Site Access and Circulation: (i) and (ii)
- 2.c. Sidewalks: if site plan is a two-family or multi-family building only.
- 4.a. Location and rquried number of vehicle parking spaces:(i)and (iv)

(b) Environmental Quality Standards

- 1. Preservation of significant natural features.
- 2.a. Landscaping and landscape preservation.
- 2.b. Site landscaping: (iii) Street trees.
- 3. Water quality, stormwater management and erosion control: a.,d. e. and f.

(c) Public Infrastructure and Community Safety Standards

- 1. Consistency with city master plans.
- 2. Public safety and fire prevention.
- 3. Availability and adequate capacity of public utilities: a.,c.,d., and e.

(d) Site Design Standards

- 5. Historic resources and 9. Zoning related design standards.

Except as provided in article III, or to conditions imposed under section 14-526(e) only, or to those submission requirements set forth in section 14-527 as relate solely thereto.

(ii) Level I: Site alteration plans shall only be subject to the following site plan standards, as applicable, as contained in section 14-526:

(a) Transportation standards

- 1. Impact on surrounding street systems, 2. Access and circulation, and 4 Parking.

(b) Environmental quality standards

- 1. Preservation of significant natural features, 2. Landscaping and landscape preservation, and 3. Water quality, stormwater management and erosion control.

(c) Public infrastructure and community safety standards.

- 1. Consistency with city master plans.

(d) Site design standards

- 5. Historic resources, 6. Exterior lightning, 8. Signage and wayfinding and 9. Zoning related design standards.

Except as provided in article III, or to conditions imposed under section 14-526(e) only, or to those submission requirements set forth in section 14-527 as relate solely thereto.

e. *Decisions.*

(i) The planning authority shall approve, approve with conditions or deny a level I site plan application based upon the applicable review standards. All improvements are subject to the applicable standards of the Technical Manual and the Design Manual, incorporated herein by reference. In apply said standards, the planning authority, as applicable, may vary or modify them as provided in section 14-506.

f. *Performance Guarantees.*

(i) Performance Guarantees for Level I: Site Alteration plans work shall be required subject to the provisions of Section 14-530 (b)4.d.

(ii) Level 1: Minor residential development shall be subject to an inspection fee, but shall be exempt from the performance guarantee provisions set forth in section 14-525, except as provided by section 14-403 and 14-530 (c)4 as provided herein, such development shall otherwise be fully subject to the provisions of this article.

3. *Level II and level III site plan review:*

a. *Pre-application Conference.*

(i) Applicants for site plan review for a Level II, Level III, or Master Development Plan applications are encouraged to schedule a pre-application conference with the Planning Authority or designated staff to introduce the development concept. The purpose of this meeting is to familiarize the applicant with the review procedures, application submission requirements and applicable review standards. A pre-application conference shall not cause the plan to be a pending application or proceeding under Title 1 MRSA 302. No decisions relative to the plan shall be made. Nor shall any advice or information provided by the city be construed as a decision.

b. *Preliminary Plan.*

(i) ***Application Process***: Applicants for Level II or Level III site plan reviews may submit an application for preliminary plan review prior to the submission of a final site plan. A preliminary plan must contain a preliminary site assessment for potential development.

(ii) ***Filing the Application***: Every application submitted to the Planning Authority for preliminary site plan review shall include a digital set of the plans and documents that shall be uploaded to the City's designated web site for an electronic review of the material. Any proposed revisions to that site plan and

any amended statement(s) shall be filed in the same way as the original submission.

(iii) ***Public Notices***: All public notices will be sent according to the Section 14-525 of the Site Plan Ordinance.

(iv) ***Complete Application***: The Planning Authority shall determine whether the application contains all of the items required in (Sec 14-527) and the Zoning Administrator will conduct a preliminary zoning review for compliance with article III of this chapter. If the application is deemed incomplete or not in compliance with Chapter III, the applicant will be contacted in writing of the finding and the additional material required to complete the submission. A review of the application will not be conducted until the application is complete. These steps shall be repeated until the application is found to be complete.

(v**)** ***Staff Review***: When the application meets the submittal requirements, the preliminary plan will be distributed to the City departments for review and comments.

(vi) ***Written review***: Written comments from the reviewers shall be provided to the applicant, which will include a planning staff recommendation to submit a revised preliminary plan or to submit an application for a final site plan.

c. *Master Development Plan Review.*

(i) ***Application process:*** Applicants for Level III site plan reviews may submit a Master Development Plan for a large, multi-phase development program consisting of multiple buildings and associated site improvements on a site of one (1) acre or more of total land area, which is designed as a cohesive and

integral development program. The purpose of a Master Development Plan is to provide for a mix of land development responsive to the assets of a site. A Master Development Plan is a well-integrated development in terms of land uses, functional activities, and major design elements such as buildings, roads, utilities, drainage systems and open space. The Master Development Plan is deemed appropriate to large scale mixed use projects that are intended to be developed in phases. The Master Development Plan shall be reviewed by the Planning Board and may be reviewed independently or concurrently with review as a site plan for a phased development. A Master Development Plan must address the submission requirements of Section 14-527.

(ii) The site plan review process for a Master Development Plan shall proceed in the same manner as a Preliminary Site Plan, as detailed in Sec. 14-524 (3)(b) (ii)-(vi).

(iii) ***Standards of Review.*** A Master Development Plan shall adhere to the following general requirements and features, and shall meet the Master Development Plan Site Plan Standards of 14-526 (d) (9):

a. A designated tract of land consisting of a parcel or parcels of contiguous land or land on both sides of a public street, totaling one (1) acre or more;

b. Developed in a comprehensive, design-integrated manner, according to an overall master development plan;

c. Consistent with the objectives of this ordinance;

d. Consistent with the City's Comprehensive Plan and consistent with City Council approved master plans and facility plans for off-premise infrastructure, including

but not limited to, trails, pedestrian and bicycle network, view corridors, environmental management, sewer and stormwater, streets, or other facilities (see Section 15 of the Technical Manual);

e. Developed so as to locate buildings and improvements in a manner that provides usable open space, preserves significant natural features, as defined by the site plan ordinance standards, and preserves existing trees to the maximum extent possible;

f. Developed so as to be in conformance with Portland's Historic Preservation Ordinance standards for designated landmarks or for properties within designated historic districts or designated historic landscapes,if applicable. When proposed adjacent to or within one hundred (100) feet of designated landmarks, historic districts or historic landscapes, the Master Plan shall be developed so as to be generally compatible with the major character-defining elements of the landmark or portion of the district in the immediate vicinity of the proposed development;

g. An efficient use of land which properly considers topography and protects significant natural features including, but not limited to, waterways, wetlands, floodplains and wildlife;

h. An efficient use of land demonstrating full coordination of its own site development and surrounding context including, but not limited to, the land uses and functions contemplated, architecture, open space and pedestrian networks, vehicular access and circulation, and all other infrastructure;

i. Linked and coordinated with surrounding land uses, infrastructure and off-site public facilities, including but not limited to the public school system, where appropriate, in a manner that is safe, efficient, non-injurious to the public, and an improvement or benefit to the public where possible;

j. Designed with sizing of street and other infrastructure systems to accommodate the overall service demand of the Master Plan;

k. Designed to create a street grid pattern that reflects average city block sizes of the neighborhood for street connectivity;

l. Designed as to create a cohesive identity through building scale, massing, and articulation; use of quality exterior materials, architectural detailing at pedestrian scale; consistency of design and materials for streetscape and pedestrian amenities; framing of outdoor open space and linkages; a clear conveyance of the function and significance of various buildings, entrances, and features; and to generally comply with design and development standards of the zone in which it is located;

m. Inclusive of provisions for the ownership and maintenance of usable open space as appropriate; and

n. For areas proposed as future development phase(s), the proposed interim conditions shall be managed and maintained to ensure stable, safe and attractive site conditions.

(iv) ***Phasing.*** One or more phases of the Master

Development Plan may be reviewed as a final level III site plan concurrently with the review and approval of the Master Development Plan.

d. *Neighborhood Meetings for Level III Site Plans and Master Development Plan Applications.*

(i) *Neighborhood Meeting for Level III Site Plans*:

Timing and location of meeting. An applicant for a subdivision of five or more units or lots and all other Level III site plan review categories shall conduct at least one neighborhood meeting within thirty (30) calendar days of filing a preliminary site plan, if applicable, or within twenty-one calendar days of filing a final site plan and the neighborhood meeting will be held on a date no less than seven (7) calendar days before a public hearing, if no preliminary plan is submitted. The meeting shall be held at a convenient location within the City of Portland neighborhood surrounding the proposed site. All costs associated with the neighborhood meeting shall be borne by the applicant.

(ii) *Neighborhood Meeting Required for Master Development Plan:* An applicant for a Master Development Plan shall conduct at least one (1) neighborhood meeting within thirty (30) calendar days of filing a Master Development Plan application. The meeting(s) will be held on a date no less than seven (7) calendar days from a public workshop or public hearing. The neighborhood meeting for a Master Development Plan shall not be combined with any required neighborhood meeting for the Level III applications associated with the overall phased development. The meeting shall be held at a convenient location within the City of Portland neighborhood surrounding the proposed site. All costs associated with the neighborhood meeting shall be borne by the

applicant. The workshop shall meet all other provisions of section 14-524 (d)(i).

(iii) ***Procedures for the meeting.*** The following procedures shall be followed in noticing and conducting the neighborhood meeting. At least ten (10) calendar days prior to the neighborhood meeting, the applicant shall do the following:

a. ***Mail notice.*** Mailed notice of said meeting to all property owners within five hundred (500) feet of the subject property lines, except that the notice range for subdivisions within industrial zones shall be one thousand (1000) feet, and to all others, including neighborhood organizations, as may be required by the Planning Authority.

b. ***Digital Copy.*** Provide the Planning Authority with a digital copy of the neighborhood notice, which the City shall forward by e-mail to the City's list of interested citizens.

c. ***Notice Description.*** Such notice shall contain a brief description of the application and the date, time and place of the neighborhood meeting.

d. ***Attendance Sheet.*** At the neighborhood meeting the applicant shall circulate a sign-in sheet for those in attendance who choose to sign. Such sheet shall be submitted to the Planning Authority and shall become part of the Planning Authority report submitted to the Planning Board.

e. ***Minutes.*** The applicant shall keep minutes of the meeting to be submitted to the Planning Authority and shall become part of the Planning Authority

report submitted to the Planning Board. Any other individual or entity also may submit comments on the neighborhood meeting to the Planning Authority and said comments shall become part of the Planning Authority report submitted to the Planning Board.

f. ***Presentation***. At the neighborhood meeting the applicant shall explain the pending proposal and provide an opportunity for public questions and comment.

e. *Planning Board Workshops.*

(i) ***Request a Workshop***: The applicant may request a workshop(s) with the Planning Board for a Level III site plan. The workshop will be scheduled on a date that follows the scheduled date of the neighborhood meeting, if applicable. The proposal will be scheduled for the next available Planning Board meeting that meets all public noticing requirements contained in Section 14-525.

(ii) ***Required Workshop for Master Development Plan:*** A workshop with the Planning Board is required for a Master Development Plan application. The workshop will be scheduled on a date that follows the scheduled date of the required neighborhood meeting. The proposal will be scheduled for the next available Planning Board meeting that meets all public noticing requirements contained in section 14-524.

(iii) ***Workshop Procedures***: The Planning Board workshop shall be informational and shall not result in any formal approval or disapproval of the project. The Board shall review the submission to determine if the information provides a clear understanding of the site and identifies opportunities and constraints of the site and proposed development, air public comments questions and issues, and provide

direction to the applicant regarding issues to be addressed during the final review process.

f. *Planning Board Master Development Plan Decisions.*

(i) ***Review and approval:*** An applicant proposing a Master Development Plan is seeking approval for an overall concept of development that may be brought for Final Plan approval in two or more phases and in a phase sequence that extends beyond the timeframes allowed above for Final Plan expiration of approvals. Master Development Plan approval may be sought separately or currently with the Phase I Final Level III site plan approval, and shall have an initial approval period of six (6) years, with potential extension periods as provided for in section 14-532(d).

(ii) ***Review process.*** The site plan review process for a Master Development Plan shall proceed in the same manner as a Preliminary Site Plan as detailed above, Sec. 14-524 (3)(b)(i)-(vi) and as a Master Development Plan as detailed above, Sec. 14-524 (3)(c)(i)-(iii).

(iii) ***Public hearing.*** The Planning Board shall consider a Master Development Plan at a public hearing that meets all public noticing requirements contained in Section 14-32 and the Site Plan ordinance.

(iv) ***Decisions.*** The Planning Board shall approve, approve with conditions, or deny a Master Development Plan application based upon the applicable review standards. The Planning Board may waive site plan or technical standards related to the Master Development Plan application based upon the applicable review standards. An approval, including an approval of waivers, establishes the general parameters to be adhered to for the development, including the supporting documentation for floor area ratio and/or residential density, general types of uses,

building coverage, generalized open space plans and infrastructure systems.

A Master Development Plan approval shall not be construed as final authorization of the development. Approval shall confer pending proceeding status upon the development with the effect of maintaining the applicability of regulations in effect at the time of approval for as long as the master Development Plan approval remains valid, including permissible extensions if granted.

All Level III site plans for each phase shall be in general conformance with the Master Development Plan.

g. *Final Plan*.

(i) ***Application Process***: All applications for Level II or Level III site plans shall submit a final plan for review by the Planning Authority or the Planning Board.

(ii) ***Filing Application***: Every application submitted to the Planning Authority for site plan approval shall be submitted as required under Section 14-**527**. Any proposed revisions to that site plan and any amended statement(s) shall be filed in the same way as any original submission.

(iii) Phased Development: A phased development plan may be proposed for a Level III site plan. The Planning Board may permit the Level III site plan to be divided into up to three (3) sections for phased development purposes and subject to any conditions that the board deems necessary in order to insure the orderly development of the plan. The applicant may seek approval of a phased development only if the section constitutes at least twenty (20) percent of the total development and in addition, shows the entire tract or parcel. Each phase of such project shall conform to

all standards of this article in the event that subsequent phases do not go forward. The Planning Board may extend the site plan approval for all phases up to three years from the date of approval.

(iv) Public Notices: All public notices will be sent according to the Section 14-525 of the Site Plan Ordinance.

(v) Development Review Process for Final Plan:

(a) ***Complete Application.*** The Planning Authority shall determine whether the application contains all of the items required in (Sec 527) and the Zoning Administrator will conduct a zoning review for compliance with article III of this chapter. If the application is deemed incomplete or not in compliance with Chapter III, the applicant will be contacted in writing of the finding and the additional material required to complete the submission. A review of the application will not be conducted until the application is complete. These steps shall be repeated until the application is found to be complete.

(b) ***Plan Distribution.*** When the application is complete, the final plan will be distributed to the departments for review and comments.

(c) ***Review.*** Written comments from the reviewers shall be provided to the applicant, which will include a planning staff recommendation to submit a revised final plan or to proceed to a public hearing with the Planning Board if it is a Level III site plan. The applicant may request that the Level III final site plan be submitted for a public hearing rather than submit a revised set of plans.

(d) ***One Revised Plan Set.*** Only one set of revised plans may be submitted for review at the final plan stage. The revised plans undergo the same review steps as the original submittal.

(e) ***Staff Recommendation.*** At the completion of the staff review of the final plans, the planning staff will make a recommendation to the Planning Authority or the Planning Board to approve, approve with conditions or deny the final site plan.

(f) ***Referral of plans to Planning Board.*** If at any time before approval or disapproval of a site plan for Level II development by the Planning Authority, the applicant may request a referral to the Planning Board review and a decision. The application will be scheduled for the next available planning board meeting where all public noticing requirements contained in Section 14-32 and the site plan ordinance can be met.

(g) ***Public Hearing.*** When a final site plan for a Level III development is ready to proceed to a Planning Board public hearing, it will be scheduled for the next available Planning Board meeting that meets all public noticing requirements contained in Section 14-32

and site plan ordinance.

(h) ***Decisions.*** The Planning Authority or the Planning Board shall approve, approve with conditions or deny a final site plan application based upon the applicable review standards. All improvements are subject to applicable standards of the Technical Manual and Design Manual, incorporated herein by reference. In applying said standards, the Planning Board or authority, as applicable, may vary or modify them as provided in section 14-506.

1. ***Level II Site Plan.*** The Planning Authority shall not approve a Level II Site Plan until at least ten (10) days after the required public notice has been mailed. The Planning Authority shall render a written decision to approve, approve with conditions, or deny, with all associated findings, after receipt and review of a complete final site plan and accompanying statements for Level II development.

2. ***Level III Site Plan***: When a site plan requires approval by the Planning Board, a public hearing shall be scheduled. The Planning Board shall notify the applicant in writing of its approval or disapproval of the project with all associated findings after the board's final vote to approve or disapprove the project.

4. *Expiration of Application:*

A site plan application must be diligently pursued from the date of submission. Notwithstanding the submission of a complete application, any applicant

shall delineate on the plan or supply such other information, studies or reports from qualified professionals when determined by the Planning Board or the Planning Authority to be reasonably necessary to make any of the determinations required by this article. Failure to submit required information within one hundred twenty (120) days of the date upon which the written request was made shall cause the application to expire and be deemed null and void.

(Ord. No. 277-09/10, 7-19-10; Ord. No. 25-11/12, 8-15-11; Ord. No. 176-12/13, 4-22-13)

Sec. 14-525. Public notices.

(a) *Administrative authorization.* Administrative authorization applications are exempt from noticing requirements for section 14-525.

(b) *Level I site plan: minor residential development:*

1. *Receipt of Application.* When an application for Level I: Minor Residential Site Plan is submitted for review, the Planning Authority shall notify by mail the owners of all property abutting the proposed site and any property owners directly across the street from the site.

2. *Site Plans:* Level I Site Alteration, Level II, Level III and Master Development Plan.

   a. *Receipt of Application.* When an application for Level I Site Alteration Level II or Level III development is submitted for site plan review, the Planning Authority shall notify, by mail the following, where applicable:

      (i) *Notice for Level I*: Site Alteration and Level II Site Plans shall be sent to all property owners within five hundred (500)feet of the subject property lines and to all others, including neighborhood organizations, as may be required by the Planning Authority.

      (ii) Notice for Level III Site Plans and Master Development Plan applications shall be sent to

all property owners within five hundred (500) feet of the subject property lines or within one thousand (1,000) feet if it is a subdivision within an industrial zone, unless the Planning Authority, in its discretion, chooses to notice a larger area and incur the additional expense for the expanded notification and notices shall be sent to all others, including neighborhood organizations, as may be required by the Planning Authority.

b. *Planning Board Workshop or Public Hearing.*

(i) In the case of workshops and public hearings, notice as described above shall be given to the general public by publication in a newspaper of general circulation in the City of Portland at least two (2) times, the date of the first publication to be at least seven (7) days prior to the hearing. The legal notice shall appear on the City's web site.

(ii) In the case of workshops and public hearings, notice shall be sent by regular United States mail to the applicant, to the owner(s) of the subject property and to all owners of property located within five hundred (500) feet of the subject property lines or within one thousand (1,000) feet if it is a subdivision within an industrial zone unless the Planning Authority, in its discretion, chooses to notice a larger area and incur the additional expense for the expanded notification and notices shall be sent to all others, including neighborhood organizations, as may be required by the Planning Authority.

c. *Content of the Public Notice*

(i) The public notice shall contain a brief description of the proposed development the address or location of the property involved, and contact information for the City where additional information may be obtained. The cost of said notice shall be charged to the

applicant.

(Ord. No. 277-09/10, 7-19-10; Ord. No. 25, 11-12, 8-15-11; Ord. No. 176-12/13, 4-22-13)

Sec. 14-526. Site plan standards.

Requirements for approval. The Planning Board or Planning Authority shall not approve a site plan application unless the development proposal meets the following criteria:

(a) *Transportation Standards*

1. *Impact on Surrounding Street Systems:*

The provisions for vehicular loading and unloading and parking and for vehicular and pedestrian circulation on the site and onto adjacent public streets and ways; and the incremental volume of traffic will not create or aggravate any significant hazard to safety at or to and including intersections in any direction where traffic could be expected to be impacted; and will not cause traffic congestion on any street which reduces the level of service below Level "D" as described in the 1985 Highway Capacity Manual published by the Transportation Research Board of the National Research Council, a copy of which manual is on file with the public works authority, or substantially increase congestion on any street which is already at a level of service below Level "D";

2. *Access and Circulation*:

a. Site Access and Circulation.

(i) The development shall provide safe and reasonable access and internal circulation for the entire site for all users of the site and shall comply with the standards set forth in Sections 1 of the Technical Manual.

(ii) Points of access and egress shall be located to avoid conflicts with existing turning movements and traffic flows.

(iii) Where drive up features such as gasoline pumps, vacuum cleaners and menu/order boards are permitted, they shall not extend nearer than twenty five (25) feet to the street line. The site must have stacking capacity for vehicles waiting to use these service features without impeding on-site vehicular circulation or creating hazards to vehicular circulation on adjoining streets.

b. Loading and Servicing.

(i) All developments served by delivery or other service vehicles shall provide a clear route and travel way geometric design that permits safe turning and backing for the maximum vehicle length that would service the development and does not impede site access, vehicle circulation, pedestrian movements or parking.

c. Sidewalks.

(i) All proposed developments shall provide sidewalks along all frontages in accordance with Sections 14-498 and 14-499 of the City Code, installed to City specifications as described in Section 1 of the Technical Manual. An applicant may request a waiver from curb and sidewalk installation requirements if they meet applicable waiver criteria listed in Section 14-506 (b) of the City Code.

(ii) Where sidewalks already exist but are in substandard condition, they shall be repaired or replaced in conformance with Chapter 25 of the City Code and Section 1 of the Technical Manual.

(iii) Continuous internal walkways shall be provided between existing or planned

public sidewalks adjacent to the site, transit stops and street crossings and primary building entrances on the site.

3. *Public Transit Access:*

a. For any residential development consisting of twenty (20) or more dwelling units or commercial or institutional development of at least 20,000 square feet gross floor area, a transit facility shall be constructed where the following criteria are met:

(i) The development is proposed along an existing public transit route on a local principal or minor arterial roadway, as shown in the Federal Street Classification Map provided in Section 1 of the Technical Manual.

(ii) The nearest existing transit shelter and/or bus pullout on the route is ¼ mile(1,320 feet) or more away from the closest primary building on the site, 1measured along rights-of-way.

b. Transit facilities shall consist of a transit shelter and a transit pullout bay.

c. Transit facilities shall be connected to the public sidewalk system.

d. Waiver: All or some of this standard may be waived if the Reviewing Authority determines one or more of the following:

(i) That some or all of the required improvements cannot reasonably be made due to site constraints and/or insufficient right of way width; or

(ii) That the development is not anticipated to generate public transit usage due to particular characteristics or proposed use of the development.

4. *Parking:*

a. Location and Required Number of Vehicle Parking Spaces:

(i) Off-street parking shall meet the applicable zoning requirements, except the Planning Board shall determine the parking requirement, based upon the applicant's parking study and a recommendation from the City Transportation Engineer, for new structures, building additions and changes of use with a total floor area of 50,000 sf or more and for projects, regardless of size, in the B-6, B-7 and USM Overlay zone.

(ii) Where a parking study is required, the City encourages Transportation Demand Management (TDM) strategies to be employed.

(iii) Developments proposing to exceed minimum parking requirements by 10% or more must demonstrate through a parking analysis that the amount of parking is appropriate for the proposed use of the site.

(iv) Parking spaces and aisles shall meet applicable dimensional standards as detailed in Section 1 of the Technical Manual.

(v) Parking lots, except for temporary lots to be used for less than one year, shall be constructed of a permanent and durable hard surface that is not subject to ponding or erosion.

b. Location and Required Number of Bicycle Parking Spaces:

(i) The site plan shall provide secure

bicycle parking in conformance with Section 1 of the Technical Manual and shall meet the following requirements:

(a) ***Residential structures.*** Two (2) bicycle parking spaces for every five (5) dwelling units shall be required.

(b) ***Non-residential structures.*** Two (2) bicycle parking spaces for every ten (10) vehicle parking spaces for the first one hundred (100) required vehicle parking spaces, plus one (1) bicycle parking space for every twenty (20) required motor vehicle parking space over one hundred (100) required vehicle parking spaces.

(c) Development with zero (0) to ten (10) required vehicle parking spaces shall provide at least two (2) bicycle parking spaces.

(ii) ***Waiver:*** The reviewing authority may reduce the required number of bicycle parking spaces if it is determined, based on evidence submitted by the applicant, that the proposed development is expected to generate reduced demand for bicycle parking due to characteristics or uses such as elderly or disabled persons housing or industrial uses located in outlying areas.

c. *Motorcycle and Scooter Parking.*

(i) The site plan shall accommodate access and parking for two-wheeled motorized vehicles such as motorcycles and scooters.

d. *Snow Storage.*

(i) The site plan shall include areas for snow storage or shall include an acceptable snow removal plan.

(ii) Snow storage areas may not encroach on areas designated to meet minimum parking requirements or on pedestrian walkways and shall not be located where they would adversely impact the functionality of bioretention or other stormwater management systems. Landscaping in designated snow storage areas shall be such that it can withstand the snow pile.

5. *Transportation Demand Management (TDM):*

a. The following types of development shall design and implement a Transportation Demand Management (TDM) plan:

(i) All Level III development in the B7 zone;

(ii) All commercial or institutional uses of 50,000 sf or more total floor area;

(iii) All commercial or institutional uses designed to accommodate 100 or more employees and, for educational institutions, 100 or more students.

b. The TDM Plan shall establish trip reduction targets and shall employ a combination of the following elements to achieve these targets:

(i) Public transit incentives;

(ii) Parking cash-out;

(iii) Car sharing;

(iv) Car and van pooling incentives;

(v) Guaranteed ride home programs;

(vi) Other such strategies that reduce single

occupancy vehicle trips to and from the development.

c. The development shall comply with the City of Portland TDM standards as described in Section 1 of the Technical Manual.

(b) *Environmental Quality Standards*

1. *Preservation of Significant Natural Features:*

a. The site plan shall preserve and protect significant natural features by incorporating them into site design. Significant natural features shall be defined as:

(i) Populations of trees and plants listed on the Official List of Endangered and Threatened Plants in Maine, published by the Maine Natural Areas Program.

(ii) Habitat for species appearing on the official state of federal list of endangered or threatened animal species;

(iii) High and moderate value waterfowl and wading bird habitat including nesting and feeding areas, as defined by the Department of Inland Fisheries and Wildlife;

(iv) Aquifers on islands in Casco Bay, as identified in the City of Portland Island Groundwater Management Study and/or by the Maine Geological Survey;

(v) Waterbodies including wetlands, watercourses, significant vernal pools and floodplains. These features may also be regulated by Division 26, Shoreland Regulations, Division 26.5, Flood Plain Management Regulations and Division 26.7, Stream Protection Ordinance of the City Code, along with Sections 5 and 8 of the Technical Manual or other State

regulations.

b. Where areas set aside for preservation are part of a larger existing habitat block extending beyond the boundaries of the site, the contiguity of these features shall be preserved, where possible.

c. Waiver: Where complete preservation of significant natural features substantially compromises development of the site otherwise permitted by zoning, the Reviewing Authority may reduce the requirement to accommodate development provided that the applicant demonstrates compliance with applicable state and federal regulations and implements preservation measures to the extent practicable.

2. *Landscaping and Landscape Preservation:*

a. *Landscape Preservation.*

(i) Site development shall be designed to incorporate, and limit disturbance to or removal of existing trees, as specified below. Preserved trees may be counted towards site landscaping requirements.

(ii) All development subject to zoning setbacks shall preserve a minimum of 30% of existing trees ten (10) inches DBH or greater within the required setback area unless trees are non-native invasive species, as identified in Section 4 of the Technical Manual, or are deemed unsalvageable by the Portland City Arborist or their designee.

(iii) Protection during Construction: The site plan shall include adequate measures to protect vegetation to be preserved from construction impacts, in accordance with the tree preservation standards listed in Section 4 of the Technical Manual.

(iv) Waiver: Where the applicant can demonstrate that preservation of existing vegetation would compromise development of the site, the Reviewing Authority may permit the substitution of replacement landscaping in other areas of the site, and/or a financial contribution to the City of Portland Tree Fund for an amount proportionate to the cost of trees removed, as described below:

(a) For each tree required to be preserved that is removed and is greater than 16" in caliper DBH, two (2) replacement trees of a species identified on the City of Portland Recommended Tree List shall be planted on the site as detailed in Section 4 of the Technical Manual).

(b) For each tree required to be preserved that is removed and is between ten (10) and sixteen (16) inch DBH, one (1) replacement tree of a species identified on the City of Portland Recommended Tree List shall be planted on the site as detailed in Section 4 of the Technical Manual).

(c) Where the planting of replacement trees on the site is not feasible, the applicant shall contribute an amount proportionate to the cost of required replacement trees to the City of Portland Tree Fund, as detailed in Section 4 of the Technical Manual.

(v) In addition to the provisions of this section, all development within the Shoreland Zone shall meet the requirements of Division 26, Shoreland

Regulations.

b. *Site Landscaping.*

(i) Landscaped Buffers:

(a) ***Screening.*** Loading and servicing areas, dumpsters, storage areas and utility structures, except for renewable energy systems, shall be screened from view from public sidewalks, streets and adjacent properties by dense evergreen landscaping, fencing, masonry wall building walls, or a combination thereof.

(b) ***Understory Plantings.*** All development subject to required zoning setbacks shall include a minimum of six (6) shrubs per forty five (45) linear feet of all frontages as measured along the property line. A shrub shall be defined as one shrub, one ornamental grass, and/or 3 perennials. Required shrubs may be installed anywhere on the site, including a green roof, if proposed, and may be planted in any arrangement. Existing vegetation to be preserved on the site may be counted towards this requirement as detailed in Section 4 of the Technical Manual.

(c) ***Industrial and Commercial Zones.*** For non-residential development proposed in an industrial or commercial zone subject to required zoning setbacks and abutting a residential zone, an evergreen, densely landscaped buffer of not less than ten (10) ft wide and six (6) ft tall is required along the side abutting the

residential zone. Where site constraints prevent such a buffer from being established, the width of the landscaped buffer may be reduced but shall include architectural quality fencing of not less than six (6) ft tall and a mix of evergreen and deciduous trees spaced no further than twenty (20) ft apart along the abutting the residential zone.

(d) *Buffer from Surrounding Development.* All residential development shall provide and/or preserve evergreen vegetated buffers where necessary to buffer the development from detrimental impacts of existing surrounding development.

(ii) *Parking Lot Landscaping:*

(a) Developments with five (5) or more parking spaces shall include at least two (2) trees (or one (1) tree and three (3) shrubs) per five (5) parking spaces planted in landscaped islands to screen shade and break up parking. Trees and shrubs in parking lots may be in informal groups, straight rows, or concentrated in clusters as detailed in Section 4 of the Technical Manual.

(b) Landscaped islands shall be distributed so that uninterrupted pavement does not exceed forty (40) parking spaces.

(c) Landscaped islands shall be curbed and a minimum of eight (8) feet in width, not including curbing. The incorporation of bioretention into landscaped islands is strongly

encouraged.

(d) Vehicle display lots shall be subject to the parking lot landscaping standards of **this section.**

(e) Waiver: Where site constraints prevent implementation of all or a portion of required parking lot landscaping, as determined by the Reviewing Authority, the requirements may be all or partially waived and the applicant shall contribute an amount proportionate to the cost of required parking lot trees to the City of Portland Tree Fund.

(iii) *Street Trees:*

(a) All development shall include street trees in numbers and locations as specified in Section 4 of the Technical Manual. Street trees shall be planted in the right of way, as specified in Section 4 of the Technical Manual. Street trees shall be of a species identified on the City of Portland Recommended Tree List, unless otherwise approved by the Portland City Arborist or his/her designee.

(b) Waiver. Where the applicant can demonstrate that site constraints prevent the planting of required street trees in the City right of way, the Reviewing Authority may permit the planting of street trees in the front yard, within ten feet of the property line. Existing preserved healthy trees that are six (6) inches or more in caliper and are on the site within ten (10) feet

of the property line may be counted towards this requirement. If planting street trees is neither feasible in the City right of way nor within the site, the applicant shall contribute to the City of Portland Tree Fund an amount proportionate to the cost of required street trees.

3. *Water Quality, Stormwater Management and Erosion Control:*

a. All development must demonstrate that the proposed site improvements are designed to minimize the amount of stormwater leaving the site. This must include consideration of the design and location of improvements to minimize the total area of impervious surface on the site and stormwater management techniques to minimize both the volume and rate of runoff from the lot. The stormwater management plan must demonstrate the following:

(i) Any stormwater draining onto or across the lot in its pre-improvement state will not be impeded or re-directed so as to create ponding on, or flooding of, adjacent lots;

(ii) Any increase in volume or rate of stormwater draining from the lot onto an adjacent lot following the improvement can be handled on the adjacent lot without creating ponding, flooding or other drainage problems and that the owner of the lot being improved has the legal right to increase the flow of stormwater onto the adjacent lot;

(iii) Any increase in volume or rate of stormwater draining from the lot onto City property following the improvement can be handled without creating ponding,

flooding or other drainage problems and that the owner of the lot being improved has the legal right to increase the flow of stormwater onto the City's property; and

(iv) Any increase in volume or rate of stormwater draining from the lot into the City's separate storm sewer system can be accommodated in the system without creating downstream problems or exceeding the capacity of the storm sewer system.

b. All development, except Level I minor residential development, shall comply with the standards of Section 5 of the Technical Manual including basic, general and flooding standards, as applicable, to prevent and control the release of pollutants to waterbodies, watercourses, wetlands and groundwater, and reduce adverse impacts associated with increases or changes in flow, soil erosion and sedimentation.

c. All development, except Level I minor residential development, that are located within the watershed of an Urban Impaired Stream shall comply with the Urban Impaired Stream standards pursuant to Maine DEP Chapter 500 Stormwater Management Rules, as described in Section 5 of the Technical Manual.

d. Level I: minor residential development shall comply with basic erosion control standards, as described in Section 6 of the City of Portland Technical Manual.

e. Development shall not pose a risk of groundwater contamination either during or post-construction, as described in Sections 5 and 9 of the Technical Manual.

f. Development shall provide for adequate and sanitary disposal of sewage as described in Section 2 of the Technical Manual.

(c) *Public Infrastructure and Community Safety Standards.*

1. *Consistency with City Master Plans:*

a. All developments shall be designed so as to be consistent with City Council approved master plans and facilities plans and with off-premises infrastructure, including but not limited to sewer and stormwater, streets, trails, pedestrian and bicycle network, environmental management or other public facilities (see Section 15 of the Technical Manual).

b. The site plan shall include suitable easements, rights and improvements to connect or continue off-premises public infrastructure as may be required by the reviewing authority.

2. *Public Safety and Fire Prevention:*

a. The development shall incorporate the following public safety principles for Crime Prevention through Environmental Design (CPTED) into site design to enhance the security of public and private spaces and to reduce the potential for crime:

(i) Natural surveillance that promotes visibility of public spaces and areas.

(ii) Access control that promotes authorized and/or appropriate access to the site.

(iii) Territorial reinforcement that promotes a sense of ownership and responsibility through environmental design.

b. Provide adequate emergency vehicle access to the site in accordance with City standards for

street widths and turning radii, as described in Section 1 of the Technical Manual.

c. Be consistent with City public safety standards, Section 3 of the City of Portland Technical Manual, including but not limited to availability and adequacy of water supply and proximity of fire hydrants to structures.

3. *Availability and Adequate Capacity of Public Utilities:*

a. The development shall not overburden sanitary sewers and storm drains, water lines, or other public infrastructure and utilities. Development shall provide adequate utility capacity and distribution network on-site and in connection to surrounding locations and facilities.

b. Electrical service shall be underground unless otherwise specified for industrial uses, or if it is determined to be unfeasible due to extreme cost, the need to retrofit properties not owned by the applicant or complexity of revising existing overhead facilities.

c. Installation of new or upgrades to existing sanitary sewers, storm drains, water lines or other utilities shall meet the provisions outlined in Section 2 and Section 9 of the Technical Manual.

d. All development within 200 feet of a public sanitary collection and treatment system shall connect sanitary sewer lines into the nearest available public sewer. If a public sanitary collection and treatment system is not available, a private wastewater system may be used according to the requirements of Chapter 24 of the City Code and Section 2 of the Technical Manual.

e. All sanitary sewer and stormwater utilities proposed as part of the development shall be

designed to City standards as specified in Section 2 and Section 4, Chapter 500 Stormwater Management Standards, of the Technical Manual.

f. All residential development of 20 units or more, commercial development and industrial development shall provide for the temporary storage and timely removal of all trash and recyclable materials including, at a minimum, paper, corrugated cardboard, plastics and metals. Storage containers for recyclable materials shall be separated from trash containers. All exterior storage of trash and recyclables shall be screened from view from public sidewalks, streets and adjacent properties.

4. Reserved.

(d) *Site Design Standards*

1. *Massing, Ventilation and Wind Impact:*

a. The bulk, location or height of proposed buildings and structures shall not result in health or safety problems from a reduction in ventilation to abutting structures or changes to the existing wind climate that would result in unsafe wind conditions for users of the site and/or adjacent public spaces.

b. The bulk, location or height of proposed buildings and structure shall minimize, to the extent feasible, any substantial diminution in the value or utility to neighboring structures under different ownership and not subject to a legal servitude in favor of the site being developed.

c. Development shall locate all HVAC venting mechanisms to direct exhaust away from public spaces and residential properties directly adjacent to the site.

2. *Shadows:*

a. All development outside the B3, B5, B6 and B7 zones shall be designed to avoid and/or mitigate the adverse impacts of shadows cast by new structures or building additions from falling on publicly accessible open space where such shadowing would adversely affects the viability of its use and/or the viability of existing vegetation. Examples of publicly accessible open spaces that may require direct sunlight for a portion of the day to maintain the viability of existing vegetation and/or use(s) include but shall not be limited to sitting or sunning areas, community gardens, grass sports fields, landscaped areas, children's play areas). For submittal requirements and additional information, please refer to Section 11 of the Technical Manual.

3. *Snow and Ice Loading:*

a. The development shall be designed to prevent significant amounts of accumulated snow and ice from loading or falling onto adjacent properties or public ways.

4. *View corridors:*

a. The massing, location and height of development shall not substantially obstruct public views corridors identified in the Downtown Vision View Corridor Protection Plan, as provided in the City of Portland Design Manual, Appendix 1.

5. *Historic Resources:*

a. Developments affecting designated landmarks or within designated historic districts or historic landscape districts: Any proposed development required to obtain a certificate of appropriateness under article IX (historic

preservation) of the land use code shall be exempt from the following design standards, as described in the Design Manual:

(i) Section (b) of the Design Manual (development in B-3 zone), except for (b) (1) e.2. (increasing setback beyond street build-to line), (b) (1)f. (shadow impact on open space), (b)(1)h. (wind impacts), and (b)(1)g. (setbacks from existing structures);

(ii) Section (c) of the Design Manual (development in B-5 and B-5b zones), except for (c)a. (shared infrastructure) and (c)d. (parking lot location);

(iii) Section (k) of the Design Manual (small residential lot development in R-6 zone);

(iv) Section (e) of the Design Manual (University of Southern Maine);

(v) Section (f) of the Design Manual (development in B-7 zone), except for (f)(1)a. (transportation demand management);

(vi) Section (g) of the Design Manual (development in Eastern Waterfront zone).

b. Development adjacent to designated landmarks, historic districts or historic landscape districts: when any part of a proposed development is within one hundred (100) feet of any designated landmark, historic district or historic landscape district, such development shall be generally compatible with the major character-defining elements of the landmark or portion of the district in the immediate vicinity of the proposed development. Character-defining elements of landmarks and historic districts are identified in the historic resources inventory and respective historic district designation reports For the purposes of this provision,

"compatible" design shall be defined as design which respects the established building patterns and visual characteristics that exist in a given setting and, at the same time, is a distinct product of its own time. To aid the planning board in its deliberations, historic preservation staff shall provide a written analysis of the proposed development's immediate context, identifying the major character-defining elements and any established building patterns that characterize the context.

c. Preservation and/or Documentation of Archaeological Resources. Where a state or local archaeological resource is known to exist or is discovered on the site, the developer shall inform the City and State and shall protect and/or document such resources.

(i) Protection shall include leaving archaeological resources untouched beneath a new development through adaptation of foundation design or architectural layout.

(ii) Where the applicant can demonstrate that complete protection is not feasible, the applicant shall excavate and document archeological resources. Such measures shall be conducted in consultation with the City Historic Preservation Program and Maine Historic Preservation Commission. For resources of state significance, excavation and documentation shall be conducted by a qualified professional, in coordination with Maine Historic Preservation Commission. Local archeological resources may or may not be recognized by the Maine Historic Preservation Commission as significant and shall include the following:

(a) Original seawall structure located

landward of Commercial Street.

(b) Inactive historic family cemetery plots.

(c) Historic railroad beds including but not limited to the Portland-Lewiston interurban railroad.

(d) Original structure and/or landforms associated with the Cumberland and Oxford Canal.

(e) Buried portions of colonial and post-colonial period structures or built features located on the Portland Peninsula predating the Great Fire of 1866.

(f) Pre-colonial occupation sites identified by shell middens or other evidence.

(g) Sites listed or eligible for listing on the National Register of Historic Places.

(iii) Waiver Criteria: In order to preserve archeological resources, the Planning Authority may wave standards listed in the City of Portland Technical Manual where necessary if it is determined that such a waiver would not jeopardize the health, safety or welfare of the development's occupants, the public, or the natural environment.

6. *Exterior Lighting:*

a. *Site Lighting.*

(i) All exterior site lighting, including lighting of building entrances, shall be full cutoff with no light emitted above the horizontal plane or spilled onto adjacent properties and streets.

Illumination levels shall be adequate but not excessive for the safety, comfort and convenience of occupants and users of the site, and shall confirm to applicable standards of Section 12 of the Technical Manual.

(ii) For major or minor site plans within or abutting a residential use or zone where light from the proposed development may adversely impact adjacent residential properties, exterior lighting shall employ house-side shielding.

b. *Architectural and Specialty Lighting.*

(i) Architectural and specialty lighting, but not up-lighting, of such features as architectural details, monuments, public art or other site features shall be designed to illuminate specific details or attributes only and shall meet the standards of Section 12 of the Technical Manual.

(ii) Up-lighting by any method is prohibited except for public buildings and parklands, clock towers and steeples, landscape features, designated historic landmarks, flags of state, federal or national jurisdictions, and public art. Such light fixtures, brackets, conduits and all other components shall be designed by a lighting professional and shall be scaled and placed to minimize their visibility and installed in accordance with the standards contained in Section 12 of the Technical Manual.

c. *Street Lighting.*

(i) Municipal street lighting shall be adequate for the safety and comfort of pedestrians and motorists and, where applicable, shall conform to specific

lighting district requirements, as specified in Section 10 of the Technical Manual.

7. *Noise and Vibration:*

Projected noise levels for all developments shall meet applicable zoning requirements.

a. *HVAC and Mechanical Equipment.*

(i) All heating, ventilation and air conditioning equipment (HVAC), air handling units (AHU), emergency generators, and similar equipment shall meet applicable state and federal emissions requirements and shall comply with the following:

(a) Be located to the interior of the site, away from abutting residential properties;

(b) Be screened from view from any public street and from adjacent sites by structure walls, evergreen landscaping, fencing, masonry wall or a combination thereof.

(ii) In addition to the requirements listed above, emergency generators shall not be activated for more than one hour per week for routine maintenance and testing. Noise levels shall not exceed City standards except in designated emergencies or for emergency generator testing. Emergency generator testing is permitted only between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday.

8. *Signage and Wayfinding:*

a. All signage shall meet applicable requirements

of Division 22 of the City Code, in addition to provisions listed below:

(i) Historic Preservation: Any new sign or change in appearance of an existing sign located on a designated Historic Landmark or in a Historic District or Historic Landscape District shall be subject to the standards of Article IX and shall require a Certificate of Appropriateness. If there is a conflict between the standards of Article IX and of Division 22 or other provisions of the City Code, the stricter standards shall apply.

(ii) Commercial Signage and Directional Traffic Signage: The size, scale, proportions, design, materials, placement and source and intensity of illumination of all permanent or freestanding building signs shall be designed to complement the subject building and its immediate context, as follows:

(a) Signage shall not conceal architectural features such as window sills, lintels or cornices from view.

(b) Signs shall be designed and sized to fit the scale and proportions of the building and the feature or area of the building to which it is affixed.

(c) Freestanding signs shall not adversely affect visibility at intersections or access drives.

(d) Sign lighting shall be downwardly directed, internally illuminated and/or shielded to avoid glare and light spillover towards the sky.

(e) Signs shall not be affixed to rooftop mechanicals, mechanical

penthouses or other rooftop appurtenances unless those appurtenances have been screened and integrated into the architecture of the development.

(iii) On-site directional traffic signage may be provided to enable users to safely and easily navigate into, around and out of the site. Directional signage shall not adversely affect visibility at intersections on or off the site.

(iv) Waiver Criteria: An applicant for site plan review that was either denied for failure to comply with the requirements of or is seeking a waiver as part of their site plan application from Section 14-369.5 shall meet the following standards for approval:

(a) Signs shall meet the requirements of Section 14-526 (e) 2. - Signage and Wayfinding;

(b) The size, scale, proportions, design, materials, placement, quantity and source and intensity of illumination of any approved signage shall be designed to complement and enhance the architectural attributes of the building(s) to which they are attached or to which they are visually related. In addition, such signs shall be appropriate to the scale and character of the neighborhood in which it is located and shall be designed to suit the conditions from which it will be viewed, especially in relation to the distance, travel speed, and mode of travel of the viewing public;

(c) The signage shall either be of special design merit or shall

respond to unique circumstances or characteristics associated with the subject property;

(d) The provisions of this subsection shall be limited to commercial uses in business or industrial zones, industrial uses or institutional uses.

9. *Zoning Related Design Standards:*

a. Development of certain types and/or proposed in certain zones, as specified below, are subject to design standards in addition to the provisions of Section 14-526 (a) in order to ensure designs that contribute to and enhance the goals and policies for specific districts of the City. The City of Portland Design Standards is listed in the City of Portland Design Manual, which is included by reference. If the development is located in a historic district or associated with a historic landmark, City of Portland Historic Preservation standards shall supersede:

(i) B3, B5, B5-b, B7 Zones, and B6 and EWPZ Waterfront Zones: Development in the B3, B5, B5-b, B7 business zones and in the EWPZ waterfront zone shall be designed to support the development of dense, mixed-use neighborhoods with attractive, safe and convenient street level pedestrian environments as demonstrated by compliance with all applicable design standards listed in the Design Manual.

(ii) RP Zone: Development in the RP Residential Professional zone where there is a discernable architectural style or character to existing structures in the immediate vicinity in which the development is proposed shall not be incongruous to that established style or character as demonstrated by compliance

with all applicable design standards listed in the Design Manual.

(iii) B1, B1-b, B2, B2-b Zones: Development in the B1, B1-b, B2 and B2-b business zones shall provide an established street wall with entrances and public portions of the building oriented to and directly accessible from the public sidewalk and shall be designed and scaled to be compatible with surrounding residential and commercial development as demonstrated by compliance with all applicable design standards listed in the Design Manual.

(iv) USM Overlay Zone: Development in the University of Southern Maine (USM) Overlay Zone shall be designed to support a cohesive campus environment while integrating with and respecting the residential character of surrounding neighborhoods as demonstrated by compliance with all applicable design standards listed in the Design Manual.

(v) Residential Developments: Residential developments, as listed below, shall integrate with and respect the character of surrounding residential development in terms of architectural form, landscaping and open space, façade materials, roof pitch, massing and height as demonstrated by compliance with all applicable design standards as listed in the Design Manual.

(vi) Residential Development in the following districts:

(a) Planned Residential Unit Developments (PRUDS) in the R3, R5 and R5a residential zones;

(b) Multiple family and multiplex developments in the R5 zone;

(c) Small residential lot development of single family homes in the R5 zone;

(d) Multiple family and multiplex development in the R6 zone on lots of 10,000 square feet or less.

(vii) Residential Development of the following types:

(a) Manufactured housing parks;

(b) Two-family and multiple family housing not already specified in (a) above;

(c) Special needs independent living units;

(d) Lodging houses;

(e) Bed and breakfasts;

(f) Emergency shelters.

(viii) ***B-7 Design Standards for Additional Height in District A:*** In the B-7 zone, the Planning Board, when conducting review of a Master Development Plan or a Level III Site Plan, as applicable, may modify the stepback provisions of Section 14-296(a)(5)(b), relating to buildings allowed as a conditional use to exceed one hundred and twenty-five (125) feet up to one hundred and sixty-five (165) feet in height, provided the following conditions are met:

(a) Each building exceeding one-hundred and twenty-five (125) feet shall contain at least 20 dwelling units per building.

(b) Building wall stepback requirements

along public street frontage:

i. Building with frontage on one street: minimum ten (10) foot stepback between third and fifth stories and a minimum ten (10) foot stepback between the one hundred twenty-five (125) and one hundred forty-five (145) foot level.

ii. ***Building with frontage on multiple streets:*** Above paragraph (i) requirement along longest building façade street wall, and of the remaining street walls the same requirement as paragraph (i) or a 15 foot wide streetscape improvements area containing a public sidewalk, landscaping and other streetscape improvements within the abutting street right-of-way and/or private property along the remaining street frontage. A building with frontage on four streets shall meet the above requirement except that two of the streets shall have the stepback requirement.

iii. The Planning Board shall have the authority to waive one or more of the required stepbacks provided the following is met:

1. The depth of the building lot precludes a building having an average minimum lot depth dimension of one hundred seventy (170) feet; or

2. The proposed building has an architecturally significant design that is articulated to avoid a monolithic appearance

and emphasizes slender, vertically-oriented proportions while employing a variety of scales, materials, fenestration, and massing to assure a rich visually interesting experience as viewed within the context of the downtown skyline and provide visual interest and human scale at the pedestrian level;

3. In the event such a waiver is granted the Planning Board may require the applicant to mitigate the impacts of the waiver by requiring the following:

   a. Along all public street frontages and public open spaces, all buildings (regardless of height) shall meet the B-7 Design Standard E-4 Articulation to maintain a pedestrian scale through the use of building elements at the street level as listed in this standard along no less than 60% of the building's horizontal length.

   b. Along all public street frontages and public open space for the building(s) over one hundred twenty-five (125) feet, a canopy, awning or similar permanent architectural feature to provide pedestrian protection and wind mitigation shall be provided within the first thirty-five

(35) feet of height.

c. In order to preserve view corridors and to maintain a varied skyline, all buildings above one hundred twenty-five (125) feet within a single development site should be separated to avoid the appearance of a tall, solid block massing. In accordance with this policy, development sites of 500 feet or greater as measured parallel to Marginal Way, the aggregate building façade widths above 85 feet shall not exceed fifty percent (50% of the total development site distance parallel to Marginal Way. Buildings over one hundred twenty-five (125) feet in height that are being reviewed as separate phases of a Master Development Plan shall be entitled to meet the fifty percent (50%) building requirement in aggregate for all such buildings over one hundred twenty-five (125) feet in height in the Master Development Plan, provided that view corridors are retained as each phase is built.

d. The applicant shall demonstrate building design elements and location will reasonably mitigate downdraft effects of the proposed building or buildings.

b. ***Master Development Plan Design Standards***: A Master Plan shall comply with the design and development standards of the zone in which it is located, and shall achieve a cohesive land development consistent with the assets of the site, land uses, functional activities, and major design elements, such as buildings, roads, utilities, drainage systems and open space as well as with the Master Development Plan Standards of Review contained in Section 14-524.

10. ***Reserved.***

(e) ***Conditions***

1. Notwithstanding the provisions of subsections (a)through (d) of this section, the Planning Authority or Planning Board may impose any condition upon its approval of any site plan: (1) to minimize or abate any adverse impact of the proposed development on the value or utility of other private property, or on public property or facilities, to the extent feasible; or (2) to bring the development into compliance with the requirements of subsections (a) through (d); or (3) to minimize any other adverse environmental effects of the proposed development. Such conditions may include, but are not limited to, enclosing of equipment or operations, imposing limitations upon the hours of operation, or requiring the employment of specific design technologies, modes of operation, or traffic patterns, and may also include the construction of, or financial contribution to the construction of, on- or off-premises public facilities including, without limitation, streets and sewers impacted by the development. All such conditions shall be consistent with the purposes set forth in section 14-521.

(f) ***General Waiver***

1. Except for the requirements set forth in Section

14-526 (a)-(d) for which individual waiver criteria are provided, the Reviewing Authority if it finds that extraordinary conditions exist or that undue hardship may result from strict compliance with these regulations may vary the regulations so that substainal justice may be done and the public interest secured; provided that such variation will not have the effect of nullifying the intent and purpose of the land development plan and the regulations of this article.

(Ord. No. 277-09/10, 7-19-10; Ord. No. 175-12/13, 4-22-13; Ord. No. 176-12/13, 4-22-13)

Sec. 14-527. Content of site plan applications.

(a) ***Level I General Submissions.*** The applicant shall submit for review a packet of materials and submissions in a form and content as specified by the Department of Planning and Urban Development. Such submissions shall contain, at a minimum, the following elements:

1. Application Form;

2. Applicable Fees;

3. Project Description;

4. Evidence of Right, Title and Interest;

5. Evidence of State and/or Federal Approvals, if applicable;

6. Written assessment of project compliance with applicable zoning requirements;

7. Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site;

8. Written requests for waivers from the City's Site Plan or Technical Standards, if applicable;

9. Boundary survey stamped by a professional surveyor licensed to practice in the State of Maine, drawn to

scale and tied into the State Plane Coordinates, NAD 1983, Maine West Zone, as specified in Section 13 of the Technical Manual.

(b) ***Level I Site Plan Submissions.*** Site plans submitted as part of a Level I site plan application for a minor residential or site alteration proposal shall include a site plan based upon the boundary survey showing the following information:

1. Existing and proposed structures, as applicable, and distance from property lines;

2. Existing and proposed paved areas, if applicable;

3. For minor residential only, proposed ground floor area and finish floor or sill elevation;

4. For minor residential only, exterior building elevation drawings (all sides);

5. Location of proposed utilities;

6. Identification and proposed protection measures for any significant natural features, as defined in Section 14-526 (b);

7. Identification and proposed protection for alterations of watercourses, if applicable;

8. Identification and, if applicable, proposed impacts and protection measures for wetlands;

9. For Level I minor residential projects only, soil type;

10. Existing and proposed grades and contours;

11. Location, dimensions and ownership of easements, public or private rights of way, both existing and proposed;

12. Proposed stormwater management control;

13. Soil erosion control plan;

14. Existing vegetation to be preserved, proposed site landscaping, screening and proposed street trees, if

applicable;

15. Existing and proposed curb and sidewalk;

16. Location, area, and limits of the proposed site disturbance or alteration;

17. Proposed Pier, Dock, Wharf, Pier, or Slope Stabilization reconstruction in the Shoreland Zone, if applicable.

(c) ***Level II, III, and Master Development Plan General Submissions.*** The applicant shall submit for review a packet of materials and submissions in a form and content as specified by the department of planning and urban development. Such submissions shall contain, at a minimum, the following elements.

1. Application form;

2. Applicable fees;

3. Project description;

4. Evidence of right, title and interest;

5. Evidence of state and/or federal approvals, if applicable;

6. Written assessment of project compliance with applicable zoning requirements;

7. Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site;

8. Written requests for waivers from the city's site plan or technical standards, if applicable;

9. Evidence of financial and technical capacity;

10. Boundary survey stamped by a professional survey or licensed to practice in the State of Maine, drawn to scale and tied into the State Plane Coordinates, NAD 1983, Maine West Zone, as specified in section 13 of the Technical Manual. A boundary survey of the site, may be waived by the Planning Authority for a review of Master

Development Plan, where an existing conditions plan is available. The Boundary Survey requirement shall be met for each phase of development.

(d) ***Level II and Level III Preliminary Site Plan Submissions.*** A preliminary site plan is an optional submittal as part of the Level II and III site plan application review process. If the applicant elects to submit a preliminary site plan for review, it shall include the following information:

1. Proposed grading and contours;

2. Existing structures with distances from property lines;

3. Proposed site layout and dimensions for all proposed structures, paved areas, and pedestrian and vehicle access ways;

4. Preliminary design of proposed stormwater management system in accordance with Section 5 of the Technical Manual;

5. Preliminary infrastructure improvements;

6. Preliminary Landscape Plan in accordance with Section 4 of the Technical Manual;

7. Location of significant natural features located on the site as defined in Section 14-526 (b)(1);

8. Proposed buffers and preservation measures for significant natural features, as defined in Section 14-526(b)(1);

9. Location, dimensions and ownership of easements, public or private rights of way, both existing and proposed.

10. Exterior building elevations.

(e) ***Master Development Plan.*** A Master Development Plan is an optional submittal as part of the Level III site plan application review process. If the applicant elects to submit a Master Development Plan for review, it shall include the following information in addition to the general submission requirements of Sec. 14-527 (c)(d):

1. A neighborhood context map, at a scale not less than one (1) inch equals one hundred (100) feet, providing a graphic description of the neighborhood in which the tract lies, including roads, utilities and other public facilities, major existing buildings and structures. There shall also be a statement and/or plan as to the general impact of the proposed Master Development Plan upon the area, indicating how the Master Development Plan relates to surrounding properties and what measures will be taken to create appropriate transitions and access from the subject property to abutting public properties (i.e. parks, waterfront, etc.) or other neighboring tracts (if applicable).

2. A conceptual site plan drawn to a scale of not less than one (1) inch equaling fifty (50) feet, or series of drawings at the same scale, and any necessary supporting information, showing:

   (i) The approximate boundary lines of existing and proposed lots within and immediately adjacent to the Master Development Plan, with approximate areas and dimensions. With respect to residential areas, the proposed density, lot configuration, circulation and a typical plot plan shall be included in the application.

   (ii) An analysis of the natural features of the site, including existing and/or adjacent natural waterways, wetlands, floodplains, topography, soil conditions and other natural features requested or required by the Planning Authority.

   (iii) An analysis of the designated view corridors, historic resources, and archeological resource associated with the site.

   (iv) Existing/proposed buildings and other significant structures, building groupings, exterior building elevations and entrances, parking areas, and other significant physical features of the site.

   (v) Context drawings, perspective renderings, photographic montages, or computer generated

graphics depicting the proposed development within the surrounding building and environmental context. Building elevation drawings shall include the following:

a. Illustrations of all sides of the structures;

b. Views of major entries or prominent building features;

c. Illustration of building articulation and elements;

d. Building finish composition; and

e. Pedestrian and streetscape elements of the Master Development Plan.

The submission shall include a digital three-dimensional model tied to a specific location that is submitted as a KML, KMZ, DXF, or DWG file on a CD or DVD or such format as approved by the Planning Authority. It is the applicant's responsibility that the model is complete and represents the proposed development accurately using best practice modeling techniques and layering standards.

(vi) Major circulation patterns surrounding and serving the site, the existing and proposed lines of streets (including the street width), ways, easements and any public areas within or next to the site.

(vii) Major landscaping elements, features, open space, and plans for preservation of natural features.

(viii) An analysis of the public safety services needed to support the master plan.

(ix) An analysis of the anticipated impacts on the public school system to support the Master Development Plan.

(x) A generalized drainage plan for the site, indicating drainage ways, flow, points of outfall, and indicating impacts of development on affected drainage basins. The plan shall include contour information at not less than two-foot (2') contour intervals and document anticipated quantities of run-off characteristics. General statements concerning storm water management techniques shall also be submitted with the application.

(xi) The plan shall clearly show Master Development Plan boundaries, north arrow, date, scale, legend, the title "Master Development Plan Concept Site Plan" followed by the formal project name, and the name(s) of applicant(s), engineer(s), designer(s) and/or agent(s).

(xii) A traffic analysis and recommendations prepared by a registered professional engineer qualified to conduct such studies, including current traffic counts for streets surrounding the project, analysis of the existing capacity of those streets, projections of the amount of traffic that will be generated by the proposed development, and the ability of the street system to absorb the increased traffic without decreasing the level of service below an acceptable level – said level to be determined by the Planning Authority in concert with the Department of Public Services. In cases where the Master Development Plan is subject to a Traffic Movement Permit (TMP) for all phases, the TMP submissions and review shall supersede these requirements.

(xiii) A utilities analysis and recommendations prepared by a registred professional engineer qualified to conduct such studies. Said analysis shall contain an inventory of existing utilities including, but not limited to, storm sewers and drains, sanitary sewers, electrical lines, fire alarm boxes and lines, gas lines/mains, water mains, lighting, curb and gutter, etc. Said inventory shall

illustrate utility locations, sizes, diameters, carrying capacity and present load on the system. The engineer's report shall state if the current system is capable of adequately serving the proposed development. If the current utility system is found to be inadequate for the proposed development, the report shall confirm the deficiencies and make recommendation(s) as to the infrastructure improvements necessary to properly service the proposed development and maintain the existing service. The report shall also present a formal plan for infrastructure improvements, documenting timing, funding mechanisms and coordination with the City; and

(xiv) Any other supportive information the applicant feels may be beneficial in the evaluation of the request.

(xv) The Planning Authority or Planning Board may reduce the level of information required at the Master Development Plan review stage, provided more detailed supportive documentation is provided at final Level III Site Plan Review of the Master Development Plan or phases thereof.

(f) ***Level II and III Final Site Plans.*** A final site plan for a Level II or III site plan application shall be based upon a standard stamped boundary survey meeting City of Portland standards, be stamped by a professional engineer licensed to practice in the State of Maine, shall be submitted with all required written submittals and shall include the following information:

1. Existing and proposed structures, as applicable, and distance from property lines;

2. Approximate location of structures on parcels abutting the site;

3. All streets and intersections adjacent to the site and any proposed geometric modifications to those streets or intersections;

4. Location, dimensions and materials of all existing and proposed driveways, vehicle and pedestrian access ways, and bicycle access ways, with corresponding curb lines;

5. Engineered construction specifications and cross-sectional drawings for all proposed driveways, paved areas, sidewalks;

6. Location and dimensions of all proposed loading areas including turning templates for applicable design delivery vehicles;

7. Existing and proposed public transit infrastructure with applicable dimensions and engineering specifications;

8. Location of existing and proposed vehicle and bicycle parking spaces with applicable dimensional and engineering information;

9. Location of all snow storage areas and/or a snow removal plan;

10. A traffic control plan as detailed in Section 1 of the Technical Manual;

11. Proposed buffers and preservation measures for significant natural features, where applicable, as defined in Section 14-526(b)(1);

12. Location and proposed alteration to any watercourse;

13. A delineation of wetlands boundaries prepared by a qualified professional as detailed in Section 8 of the Technical Manual;

14. Proposed buffers and preservation measures for wetlands;

15. Existing soil conditions and location of test pits and test borings;

16. Existing vegetation to be preserved, proposed site landscaping, screening and proposed street trees, as applicable;

17. A stormwater management and drainage plan, in accordance with Section 5 of the Technical Manual;

18. Grading plan;

19. Ground water protection measures;

20. Existing and proposed sewer mains and connections;

21. Location of all existing and proposed fire hydrants and a life safety plan in accordance with Section 3 of the Technical Manual;

22. Location, sizing, and directional flows of all existing and proposed utilities within the project site and on all abutting streets;

23. Location and dimensions of off-premises public or publicly accessible infrastructure immediately adjacent to the site;

24. Location and size of all on-site solid waste receptacles, including on-site storage containers for recyclable materials for any commercial or industrial property;

25. Plans showing the location, ground floor area, floor plans and grade elevations for all buildings;

26. A shadow analysis as described in Section 11 of the Technical Manual, if applicable;

27. A note on the plan identifying the Historic Preservation designation and a copy of the Application for Certificate of Appropriateness, if applicable, as specified in Section Article IX, the Historic Preservation Ordinance;

28. Location and dimensions of all existing and proposed HVAC and mechanical equipment and all proposed screening, where applicable;

29. An exterior lighting plan in accordance with Section 12 of the Technical Manual;

30. Signage: A signage plan showing the location, dimensions, height and setback of all existing and

proposed signs;

31. Location, dimensions and ownership of easements, public or private rights of way, both existing and proposed.

(g) *Level II and III Final Written Materials*

1. Construction Management Plan;

2. A traffic study and other applicable transportation plans in accordance with Section 1 of the Technical Manual, where applicable;

3. A narrative describing any significant natural features, wildlife and fisheries habitats or archaeological sites subject to the provisions of Section 14-526(a) that are located on or near the project site and a description of the methods that will be used to protect such areas or sites during and post construction;

4. A narrative describing site layout, on and off-site watershed hydrology, new and existing buildings and facilities, total impervious area, disturbed area and developed area created by the project;

5. Stormwater runoff calculations as described in Section 5 of the Technical Manual;

6. A narrative describing the development's consistency with applicable City Master Plans;

7. Evidence of Utility Capacity to Serve;

8. Estimated types and quantities of solid waste to be generated by the development. For new commercial and industrial development, a description of the estimated amount and type of recyclable material to be generated;

9. A code summary referencing NFPA 1 and all Fire Department technical standards;

10. Where applicable, an assessment of the development's consistency with any applicable design standards contained in Section 14-526(a) and/or in the City of Portland Design Manual;

11. Manufacturer's verification that all proposed HVAC and manufacturing equipment meets applicable state and federal emissions requirements.

(Ord. No. 277-09/10, 7-19-10; Ord. No. 25-11/12, 8-15-11; Ord. No. 176-12/13, 4-22-13)

Sec. 14-528. Reserved.

Sec. 14-529. Appeals.

(a) When the planning authority has approved, approved with conditions, or denied a site plan, or has approved a request to extend the expiration date of a Master Development Plan, any person aggrieved may appeal the decision to the planning board within thirty (30) calendar days of the date of the written decision of the planning authority. Upon the taking of such an appeal, the application or request for an extension shall be reviewed as a new application or request.

(b) When the planning board has finally approved, approved with conditions, or disapproved a site plan, any person aggrieved or the City may appeal the decision to the superior court, pursuant to Rule 80B of the Maine Rules of Civil Procedure within thirty (30) days of the vote on the original decision by the planning board.

(Ord. No. 277-09/10, 7-19-10; Ord. No. 25-11/12, 8-15-11; Ord. No. 176-12/13, 4-22-13)

Sec. 14-530. Development review fees and post approval requirements.

(a) *Development Review Fees.*

1. Payment of fees and costs: Prior to the issuance of permits of any kind or the release of a signed subdivision plat for recording for any project whose permit fee is governed by this ordinance, all current charges due under this ordinance shall be paid and the developer must otherwise be in compliance with the provisions of the City Code.

2. Development Review and administrative fees:

a. Review Fees. The developer shall pay the

development review fees to cover the third-party review costs for engineers or other professional reviews and administrative costs for all Levels of review unless otherwise noted below, including but not limited to staff review, legal ads, plan duplication, and mailed public notices, incurred by the City. The fee shall be based upon the hours of review time and prevailing hourly rate for reimbursement of City costs. The City shall periodically invoice the developer for the development review and administrative costs incurred by the City, which invoice shall be paid promptly by the developer. Prior to the issuance of permits of any kind or the release of a signed subdivision plat for recording for any project whose permit fee is governed by this ordinance, all current charges due under this ordinance shall be paid The balance of any remaining engineering and administrative costs invoiced or incurred after a permit has been issued shall be paid promptly in full by the developer prior to the issuance of any temporary or permanent certificate of occupancy.

3. The City Council, shall, from time to time, establish by order, reasonable application and administrative fees to defray the costs of administering this article.

4. *Site Plan Review Expenses.*

a.	Level I: Minor Residential	$300(flat fee)
b.	Level I: Site Alteration	$200
c.	Level II: Site Plan	$400
d.	Level III: Site Plan	
	i. Under 50,000 sf	$500
	ii. 50,000-100,000 sf	$1,000
	iii. 100,000-200,00 sf	$2,000
	iv. 200,000-300,000 sf	$3,000

v. Over 300,000 sf $5,000

vi. Parking lots over 100 spaces $1,000

e. Master Development Plan $1,000

f. After the Fact Review $1,000 plus application fee

g. Amendment to Site Plans

i. Planning Board Review $500

ii. Administrative Review $250

h. Other Site Plan Reviews

i. Administrative Authorization $50

ii. Special Exception Sign Review $75

iii. Section 14-403 Street Extensions $400 plus $25 per lot

i. Fee for Development Review Services

i. Planning fee per hour $40

ii. Legal fee per hour $75

iii. Third-party Review Fees assessed by the Third Party Professional

j. State Delegated Review Fees

i. Site Location of Development $3,000, except for residential projects which will be $200 per lot.

ii. Traffic Movement Permit $1,000

iii. Stormwater Quality Permit $250

k. Performance Guarantee

1. As required in Section 14-530 (b)(4).

l. Inspection Fees, as required in Section 14-530 (b)(5)

i. Level I: Site Alteration, Level II and Level III: 2% of the performance guarantee or as assessed by Planning or Public Works Engineer at $45 an hours with minimum inspection fee of $300 Level I: Minor Residential Inspection Fee $100 (flat fee).

m. Street vacation $2,000

(b) *Post-approval submissions.*

1. ***Final Plans.*** Following final site plan approval and prior to issuance of any building permit, the developer shall submit final plans meeting all the conditions of the site plan approval, including without limitation all streets, sewers, drainage structures and landscaping. Thereafter, limited and minor departures from the approved site plan shall be approved by the Public Services Authority as field changes pursuant to Section 14-532 below. Amendments or revisions to the approved site plan shall be reviewed by the Planning Authority pursuant to 14-532.

2. ***As-built plans.*** Upon completion of a Level II or Level III development, the applicant shall submit the as-built plans as specified in the Technical Manual.

3. *Performance Guarantee and Defect Guarantee*:

a. ***Performance Guarantee Required.*** Following approval of Level I, II and III site plan applications and prior to the issuance of a building permit, the developer shall post with the City a performance guarantee in the form and amount specified in section 14-501 specifying the completion of the required site plan improvements within two (2) years from the origination date of such guarantee. In no case shall the term of such guarantee be for a period of less than one (1) year, nor shall any

performance guarantee expire between October 30 and April 15 of the following year.

b. ***Required site improvements.*** Development improvements include, but are not limited to, sanitary sewers, storm drains, drainage systems, erosion control, catch basins, manholes, other improvements constructed chiefly below grade, slope stabilization, curbing, paving, sidewalks, lighting, landscaping and buffers.

c. ***Phased Project.*** A project may be reviewed and approved for up to thee (3) phases. A performance guarantee shall be posted for each phase. Each phase of such project shall be independent of subsequent phases and shall conform to all standards of this article in the event that subsequent phases do not go forward.

d. ***Exemptions.***

i. Level I minor residential development is exempt from performance guarantee requirements except for those projects that complete construction in the winter and the site work is incomplete due to weather conditions. A performance guarantee will be required that is sufficient to complete the remaining site work as approved on the site plan. The performance guarantee must be reviewed and approved by the Planning Authority prior to the release of a temporary certificate.

e. ***Abandoned site.*** In the event that a development is abandoned or the site improvements do not meet City standards as approved in the site plan, the performance guarantee may be utilized to stabilize, secure, complete and/or restore the site as may be necessary, including, but not limited to, revegetation of areas, grading and fencing.

f. ***Performance Guarantee Reductions.*** The developer shall be eligible to receive up to three reductions in the performance guarantee in a calendar year equal to the estimated cost of the completed

improvements. The developer shall submit a written request for a reduction that reports what work has been done and what is left to complete along with the associated costs to complete that work. In no case, however, shall any performance guarantee be reduced:

i. In any line item where improvements remain to be completed; or

ii. To a value which is less than the estimated cost of completing all remaining prescribed improvements for which a performance guarantee is required by section 14-530(b)4.b.

g. Notwithstanding any other provision of this section, no performance guarantee shall be reduced to less than the amount of the defect guarantee to be posted upon completion of the improvements.

h. ***Required One Year Defect Guarantee.*** Prior to the release of the performance guarantee, the developer shall provide an one-year defect guarantee, which shall not expire between October 30 and the following April 15. The amount of the defect guarantee shall be ten (10) percent of the initial amount of the performance guarantee.

4. *Inspection fee*:

a. ***Inspection fees and costs.*** At the same time that the developer posts a performance guarantee, the developer shall also initially pay to the City a site plan improvement inspection fee equal to two (2) percent of the estimated costs of required site improvements for which a performance guarantee is to be posted. At the conclusion of the project, and before a temporary or permanent certificate of occupancy is issued, the developer shall pay to the City the balance of any inspection fees actually incurred by the City in its review of the project.

b. The required inspection fee for all Level I Minor

Residential Development plans minimum—shall be one hundred dollars ($100.00) and for all other development the minimum inspection fee shall be three hundred dollars ($300.00).

5. *Certificates of Occupancy:*

a. *Temporary Certificates of Occupancy.*

i. Notwithstanding sections 14-463, 14-524(b) or any other provision of this Code, a certificate of occupancy may be issued for a development or portion of a development which has otherwise been completed in accordance with final site plan approval and all applicable provisions of this Code where the applicant submits a written request therefore to the Planning Authority stating those improvements which remain to be completed, the reasons why such improvements have not been completed, and the cost and time to complete the remaining work. In no event shall any temporary or permanent certificate of occupancy be issued where:

(a) Conditions exist which would justify denial of a certificate of occupancy under chapter 6; or

(b) Required improvements to the City right-of-way remain to be completed by the developer; or

(c) All access roads and any other roads and driveways required for the building or building(s) for which the certificate(s) are requested have not been improved to a passable condition; or

(d) A remaining balance for fees incurred by the City exists; or

(e) The developer otherwise is in violation of the City Code.

ii. Where a temporary certificate of occupancy is sought for a portion of any development prior to the completion of the entire development, the following standards shall be met, in addition to all applicable requirements set forth above, prior to the issuance of any certificate of occupancy:

(a) Those parking areas required for the portion of the development for which a certificate of occupancy is sought shall be available for use. Alternative arrangements must be made on-site for parking for any periods during which such parking areas will not be available for use.

(b) All foundation plantings and other landscaping required for the portion of a development for which a certificate of occupancy is sought shall be installed prior to the issuance of a certificate of occupancy. This requirement may only be waived where, in the opinion of the public works authority, landscaping improvements cannot practically be completed due to seasonal weather conditions.

(c) A performance guarantee shall be in place and in an amount sufficient to cover all remaining required improvements and not less than 10% of the initial performance guarantee amount.

iii. No temporary or permanent certificate of occupancy shall be issued to any portion of development where, in the opinion of the reviewing authority, the site conditions or work required to complete the development will endanger the health or safety of persons visiting or inhabiting the completed portion.

b. *Final Certificate of Occupancy.*

i. *Final Certificate.*

(a) All improvements which are not completed prior to the issuance of any temporary certificate of occupancy must be completed prior to the completion date specified in the performance guarantee required by section 14-525(j) or by the temporary certificate of occupancy, whichever occurs first, in order for a final certificate of occupancy to be issued by the City.

c. *Non-compliance.*

i. Non-compliance with temporary certificate of occupancy. Where any person accepts a temporary certificate of occupancy and does not complete the improvements as specified in the certificate, the City is authorized to enter upon such property itself or through its agents or contractors to complete such improvements with no liability therefore and may recover the costs thereof through the mechanic's lien procedure for the improvement of real property to the extent that the performance guarantee may be inadequate.

(Ord. No. 277-09/10, 7-19-10; Ord. No. 25-11/12, 8-15-11; Ord. No. 176-12/13, 4-22-13)

Sec. 14-531. Reserved.

Sec. 14-532. General requirements and enforcement.

(a) *Approved site plans and required permits.*

1. An approved site plan is a prerequisite to issuance of building, street opening or certificate of occupancy permits for development subject to the provisions of this ordinance, except the Planning Authority may grant written authorization for the release of a demolition or

interior building permit upon written request of the applicant describing the extent of proposed work. Any exterior demolition requires a performance guarantee for site stabilization.

2. Neither the acceptance of any application nor any determination or approval hereunder shall authorize the issuance of a permit under Chapter 6 (Building Code) for any use which would violate the provisions of Article III of this chapter.

3. No building permit, certificate of occupancy or street opening permit shall be issued until a final site plan, or applicable components thereof, has been approved under this article and such permit is determined to be consistent with the plan and any conditions of approval. In the event of any inconsistency between the approved site plan and any permit issued, the approved site plan shall control; provided, however, site plan approval shall not excuse failure to meet any independent requirement of any other law or ordinance.

4. The site shall be developed and maintained as depicted in the site plan and the written submission of the applicant. Modification of any approved site plan or alteration of a parcel which was the subject of site plan approval after May 20, 1974, shall require the prior approval of a revised site plan by the Planning Board or the Planning Authority pursuant to the terms of this article. Any such parcel lawfully altered prior to the enactment date of these revisions shall not be further altered without approval as provided herein. Modification or alteration shall mean and include any deviations from the approved site plan including, but not limited to, topography, vegetation and impervious surfaces shown on the site plan.

(b) *Revisions and amendments to Master Plans and approved site plans.*

1. *Amendments to a Master Development Plan.*

a. *Minor amendments.* A minor amendment to a Master Development Plan shall be defined as a change which is generally consistent with the approved

Master Developmetn Plan layout of buildings, circulation infrastructure, and open spaces, and:

(i) Does not propose any new general type of use beyond those approved initially;

(ii) Does not increase the building ground coverage, floor area ratio or residential density of the Master Development Plan;

(iii) Does not decrease any specified area regulations or enumerated parking ratios; and

(iv) Does not substantially change access, circulation, or infrastructure on or adjacent to the site.

The Planning Authority shall be authorized to approve such minor amendments to a Master Development Plan upon written application and explanation of the change(s) by the owner (or its agent) of the property. No further public hearings shall be required.

2. ***Approved site plan:*** If at any time before or during development the applicant requests minor amendments to an approved plan for Level III development, the Planning Authority may approve such minor amendments under the procedures for minor development, provided that they do not amount to a waiver or substantial alteration of the site plan, and do not affect any condition or requirement of the Planning Board. The applicant shall supply an application and written statement of the proposed amendment(s) and proposed amended plans to the Planning Authority, whose decision as to whether the amendment is minor shall be final. The Planning Authority shall determine if a notice of amendment shall be required and the extent of such notice based on the extent and nature of the proposed amendment to plan and the demonstrated public interest related thereto.

3. ***Limited In-Field Changes***: approved by the Public Services Authority must be in writing and submitted to the Planning Authority and are specifically limited to minor

variation necessary to deal with unforeseen difficulties that arise during the course of construction involving such technical detail as utility location and substitution of equivalent plantings and shall not include any substantial alteration of the approved plan or change any condition imposed by the Planning Board or Planning Authority.

(c) *Expiration of site plan approval.*

1. A site plan approved under this article shall expire twelve (12) months from the date of approval unless:

   a. Development has been undertaken in accordance with the approved plan and site work or building construction is ongoing. Any lapse in construction for a period in excess of twelve (12) months shall result in an expiration of the site plan; or

   b. Prior to the expiration of the site plan, such other time period is agreed upon, in writing, by the Planning Authority and the applicant, not to exceed three (3) years from the date of approval;

   Provided that such extensions may not be granted if changes to the City's zoning ordinance would render the development nonconforming in any respect or if changes in the subdivision or site plan ordinance or in the Public Services Technical Standards Manual or Planning and Development Design Standards would otherwise significantly impact the approved site plan as determined by the Director of Planning and Urban Development.

2. Where the approval or any related land use approval granted to the same applicant by any agency of the City with respect to the same development is appealed to any court by an opponent of the development, the applicant shall be granted further extensions, beyond the expiration of said period, where the applicant has exercised due diligence with respect to defending such appeal, which extensions shall not last beyond one (1) year from entry of final judgment.

(d) *Expiration of Master Development Plan:*

1. A Master Development Plan approved under this article shall expire six (6) years from the date of approval unless:

   a. Prior to the expiration nof the Master Development Plan, an applicant may submit a written request to the Planning Authority for an extension of a Master Development Plan approval and associated waivers. Only two (2) such extensions may be granted by the Planning Authority, and each such extension shall be limited to two (2) years from the date of expiration of the Master Development Plan. Provided there have not been substantial changes to the underlying zoning or site plan standards since the date of the Master Development Plan approval that would have a substantial impact on the Master Development approval, the Planning Authority may grant an extension. The Planning Authority may condition the extension on an amendment of the Master Development Plan to comply with such applicable ordinance or site plan standard changes provided that the Planning Authority may not require changes in the uses approved on the Master Development Plan or changes that would reduce the gross floor area of the buildings described or shown on the approved Master Development Plan. For the purposes of this provision, gross floor area includes the sum of the gross horizontal areas of each floor of each building or structure from the exterior face of exterior walls, or from the centerline of a wall separating two buildings, but excluding any space where the floor to ceiling height is less than six (6) feet. Any decision by the Planning Authority regarding the granting of an extension may be appealed to the Planning Board as provided for in Section 14-529;

   b. Approved major or minor amendments to a Master Development Plan do not alter the expiration date for the Master Plan that is based upon the original date of approval.

(e) *Enforcement.*

1. All construction or alterations to the site performed under authorization of building permits or certificates of occupancy issued for development within the scope of the article shall be in conformance with the approved final site plan or an amendment thereto under section 14-532. The Department of Planning and Urban Development shall institute or cause to be instituted any and all actions, legal or equitable, that may be appropriate or necessary for the enforcement of this article. Where work is required pursuant to the terms of chapters 24 or 25 as part of an approval granted under this article, such work shall be accomplished in the sequence established by the Public Services Authority. Where the Public Services Authority determines that work has been completed prior to the receipt of all approvals required by this article or which is out of sequence or is not in compliance with the standards of chapters 24 and 25, the Public Services Authority or an inspector from the Department of Planning and Urban Development may issue a stop work order. Work shall recommence only after such order has been lifted by the Department of Public Services or the Building Authority on the basis of an approved mitigation plan or action by the developer.

2. No alterations shall be made to a site with a pending or approved site plan application until:

   a. The performance guarantee has been posted and final site plans have been submitted to the Planning Authority.

   b. Written permission has been received from the Director of Planning and Urban Development or his/her designee. Such permission shall be granted only after submission of a written request describing the proposed scope of work to be conducted on the site and the planning authority concludes that the request is reasonable, time is imperative and the work will not compromise any aspect of the ensuing review process. All such work shall be done in compliance with information provided with the site plan application including, but not limited to, an erosion control plan. Such written permission shall not be required if the only work

proposed is the digging of test pits.

3. Where construction, alteration or modification to a site is performed without a valid site plan improvement permit, an after-the-fact permit shall be obtained from the Planning Board or Planning Authority, as applicable. The cost of an after-the-fact permit shall be as provided in section 6-18 of this code, plus the cost of engineering and administrative costs associated with the review and processing of the after-the-fact permit.

(Ord. No. 277-09/10, 7-19-10; Ord. No. 176-12/13, 4-22-13)

Sec. 14-533. Reserved.
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Sec. 14-540. Evaluation of article V.

Within five years from adoption of the site plan ordinance, the planning board will evaluate the effectiveness of the ordinance in advancing Portland's vision for a sustainable City and report their findings to the City Council along with any recommendations for site plan ordinance amendments.

(Ord. No. 277-09/10, 7-19-10)

ARTICLE VI. BOARD OF APPEALS*

***Cross reference(s)--**Administration, Ch. 2; boards generally, § 2-31 et seq.; jurisdiction of board of appeals for zoning, § 14-471 et seq.

Sec. 14-541. Creation; composition.

There shall be a board of appeals of seven (7) members. Members of the board shall be residents of the city and shall not be officers or employees of the city or any of its agencies or departments.

(Code 1968, § 605.1; Ord. No. 438-74, 7-1-74; Ord. No. 107-76, § 1, 3-1-76; Ord. No. 545-76, § 1, 10-6-76; Ord. No. 147-79, § 1, 8-6-79)

Sec. 14-542. Appointment; terms.

The members of the board of appeals shall be appointed by the city council for terms of three (3) years. Terms shall be staggered so that the terms of no more than three (3) members shall expire in any calendar year. Such members shall serve until their successors are duly elected and qualified provided, however, that such service shall not extend to over one hundred twenty (120) days after expiration of their term.
(Code 1968, § 605.1; Ord. No. 438-74, 7-1-74; Ord. No. 107-76, § 1, 3-1-76; Ord. No. 545-76, § 1, 10-6-76; Ord. No. 148-79, § 1, , 8-6-79; Ord. No. 278-83, 11-7-83; Ord. No. 122-85, 8-19-85)

Sec. 14-543. Compensation.

Members of the board of appeals shall serve without compensation.
(Code 1968, § 605.1; Ord. No. 438-74, 7-1-74; Ord. No. 107-76, § 1, 3-1-76; Ord. No. 545-76, § 1, 10-6-76; Ord. No. 148-79, § 1, 8-6-79)

Sec. 14-544. Vacancies.

Permanent vacancies on the board of appeals shall be filled by the city council, in the same manner as other appointments under this article, for the unexpired term of a former member whose place has become vacant.
(Code 1968, § 605.1; Ord. No. 438-74, 7-1-74; Ord. No. 107-76, § 1, 3-1-76; Ord. No. 545-76, § 1, 10-6-76; Ord. No. 148-79, § 1, 8-6-79)

Sec. 14-545. Removal of members.

Any member of the board of appeals may be removed for cause by the city council at any time; provided, however, that before any such removal, such member shall be given an opportunity to be heard in his own defense at a public hearing.
(Code 1968, § 605.1; Ord. No. 438-74, 7-1-74; Ord. No. 107-76, § 1, 3-1-76; Ord. No. 545-76, § 1, 10-6-76; Ord. No. 148-79, § 1, 8-6-79)

Sec. 14-546. Chair.

The members of the board of appeals shall annually elect one (1) of their number as chair to preside at all meetings and hearings and to fulfill the customary functions of that office. In the absence of the chair, the secretary shall act as chair and shall have all the powers of the chair.
(Code 1968, § 605.2)

Sec. 14-547. Secretary.

The members of the board of appeals shall annually elect one (1) of their number as secretary. The secretary shall act as chair in the absence of the chair and shall fulfill the duties provided by statute and this article and have such other duties as may from time to time be provided by the rules of the board.
(Code 1968, § 605.3)

Sec. 14-548. Quorum and necessary vote.

No business shall be transacted by the board of appeals without a quorum, consisting of four (4) members, being present. The concurring vote of at least four (4) members of the board shall be necessary to grant any request or application or to sustain any appeal. Any matter that receives fewer than four (4) votes shall be deemed to have been denied.
(Code 1968, § 605.4; Ord. No. 545-76, § 2, 10-6-76; Ord. No. 106-07/08, 12-17-07)

Sec. 14-549. Meetings, hearing, and procedures.

(a) Regular meetings of the board of appeals shall be held at the call of the chair or as provided by the rules of the board. Special meetings shall be called by the chair at the request of any two (2) members of the board or at the request of the city council. All meetings and hearings of the board shall be open to the public.

(b) The board of appeals shall adopt its own rules of procedure for the conduct of its business not inconsistent with the statutes of the state and this article. Such rules shall be filed with the secretary and with the city clerk. Any rule so adopted which relates solely to the conduct of hearings, and which is not required by the statutes of the state or by this article, may be waived by the board upon good cause being shown.
(Code 1968, § 605.5)

Sec. 14-550. Public hearings.

(a) *Setting hearing.* For all matters properly brought before the board of appeals, the board shall select a reasonable time and place for a public hearing following the submission of the subject application.

(b) *Notice.* The secretary shall give notice of such public hearings in the form and manner and to the persons herein

specified. The notice shall include the time and place of such hearing, a description of the contents of the matter to be heard and the address or location of the property involved. Where notice by mail is required, it shall be mailed at least seven (7) days in advance of the hearing date by regular United States mail. Notices shall be given to each of the following as specified:

1. In all cases, to all residents of the city by publication in a newspaper of general circulation in the city at least once, not more than thirty (30) nor less than five (5) days before the date of the hearing, and by mail to each of the following persons, each of whom shall be made a party of record in each case: The applicant, the city council and the Planning Board;

2. In the case of hearings related to a use variance, nonconforming use, or a conditional use involving a particular parcel or tract of land, by mail to the owners of all the property within five hundred (500) feet of such parcel or tract;

3. In the case of hearings related to variances or appeals other than use variances, by mail to the owners of property directly abutting, and directly across a street or alley from the subject property;

4. For purpose of this section, the owners of property shall be considered to be the parties listed by the assessor's department as those against whom taxes are assessed. Failure of any property owner to receive a notice of public hearing shall not necessitate another hearing and shall not invalidate any action of the board.

(c) ***Conduct of hearings:***

1. ***Rights of all persons.*** Any person may appear and testify at a public hearing, either in person or by a duly authorized agent or attorney, and may submit documentary evidence, provided, however, that the board shall exclude irrelevant, immaterial and unduly repetitious evidence.

2. ***Rights of parties.*** The applicant and any interested party shall in addition have the following rights:

   a. To present witnesses on their own behalf and offer

rebuttal evidence;

b. To cross-examine all witnesses testifying in opposition to their position through the chair; and

c. To examine and introduce any documents produced at the hearing.

3. *Board rules to govern.* All other matters pertaining to the conduct of hearings shall be governed by the provisions of the relevant state statutes, this article, and the rules promulgated by the board of appeals.

(Code 1968, § 605.6; Ord. No. 349-78, 6-26-78)

Sec. 14-551. Records and decisions.

(a) The transcript of testimony, if any, together with the minutes of the secretary and all exhibits, papers, applications and requests filed in any proceeding before the board of appeals and the decision of the board shall constitute the record.

(b) Every decision of the board of appeals shall include findings of the fact, shall refer to the evidence in the record and the exhibits, plans or specifications upon which such decision is based, shall specify the reason or reasons for such decision, and shall contain a conclusion or statement separate from the findings of fact setting forth the specific relief granted or denying relief.

(c) The secretary shall cause notice of any decision of the board to be delivered or mailed to the applicant, city council and Planning Board within five (5) days of such decision.

(Code 1968, § 605.7)

Sec. 14-552. Conflicts.

No member of the board of appeals shall participate in the hearing or disposition of any matter in which he has an interest. Any question of whether a member has a conflict of interest sufficient to disqualify him shall be decided by a majority vote of the members, except the member who is being challenged; where such a vote results in a tie, the challenged member shall be deemed disqualified.

(Code 1968, § 605.8)

Sec. 14-553. Appeals.

An appeal from any final decision of the board of appeals may be taken by any aggrieved party to the superior court in accordance with Rule 80B of the Maine Rules of Civil Procedure.
(Code 1968, § 605.9)

Sec. 14-554. Reserved.
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ARTICLE VII. CONDOMINIUM CONVERSION

Sec. 14-565. Purpose.

The purpose of this article is to regulate the conversion of rental housing to condominiums; to minimize the potential adverse impacts of such conversion on tenants; to ensure that converted such housing is safe and decent; and to maintain a reasonable balance of housing alternatives within the city for persons of all incomes. To these ends, this article shall be liberally construed.
(Ord. No. 213-81, § 608.1, 11-16-81)

Sec. 14-566. Applicability.

This article shall apply to the conversion of any rental unit to a condominium unit.
(Ord. No. 213-81, § 608.2, 11-16-81)

Sec. 14-567. Definitions.

For the purpose of this article, the following terms shall be defined as follows, unless otherwise clearly implied:

Condominium means any interest in real estate created pursuant to the Unit Ownership Act, 33 M.R.S.A. § 560 et seq., or its equivalent, as it may from time to time be amended.

Developer means and includes any person or other legal entity, but not including an established lending institution unless it is an active participant in a common promotional scheme, who, whether acting as principal or agent, records a declaration of condominium that includes real estate, any portion of which was previously a rental unit.

Tenant means and includes any occupant in lawful possession of a rental unit, whether by lease, sublease, or otherwise.

Unit means any building, or portion thereof, used or intended to be used primarily as a separate dwelling.
(Ord. No. 213-81, § 608.3, 11-16-81)

Cross reference(s)--Definitions and rules of construction generally, § 1-2.

Sec. 14-568. Protection of tenants.

(a) *Notice of intent to convert.* A developer shall give to each tenant written notice of intent to convert at least one hundred twenty (120) days before the tenant is required by the developer to vacate. If a tenant has been in possession of any unit within the same building for more than four (4) consecutive years, the notice period shall be increased by thirty (30) additional days for each additional year, or fraction thereof, to a maximum of two hundred forty (240) additional days. The notice shall set forth specifically the rights of tenants under subsections (a) and (b) of this section and section 14-569, and shall contain the following statement:

If you do not buy your apartment, the developer of this project is required by law to assist you in finding another place to live and in determining your eligibility for relocation payments. If you have questions about your rights under the law, or complaints about the way you have been treated by the developer, you may contact the Building Inspection Division, Department of Planning and Urban Development, City of Portland, 389 Congress Street, Portland, Maine 04101 (telephone: 874-8703).

If the notice specifies a date by which the tenant is required to vacate, the notice may also serve as a notice of termination under the applicable law of forcible entry and detainer, if it meets the requirements thereof. The notice shall be hand-delivered to the tenant or mailed, by certified mail, return receipt

requested, postage prepaid, to the tenant at the address of the unit or such other address as the tenant may provide. The notice shall be effective when actually received. No tenant may be required by a developer to vacate without having been given notice as required herein, except for the reasons specified in the applicable law of forcible entry and detainer, and in accordance with the procedures thereof. The terms of a tenancy, including rent, may not be altered during the notice period, except as expressly provided in a preexisting written lease. If, within one hundred twenty (120) days after a tenant is required by a developer to vacate, the developer records a declaration of condominium without having given notice as required herein, the developer shall be presumed to have converted in violation of this article.

(b) ***Option to purchase.*** For a sixty-day period following the giving of notice as required in subsection (a), the developer shall grant to the tenant an exclusive and irrevocable option to purchase the unit of which the tenant is then possessed, which option may not be assigned. If the tenant does not purchase or contract to purchase the unit during the sixty-day period, the developer may not convey or offer to convey the unit to any other person during the following one hundred eighty (180) days at a price or on terms more favorable than the price or terms previously offered to the tenant, unless the more favorable price or terms are first offered exclusively and irrevocably to the tenant for an additional sixty-day period. This subsection shall not apply to any rental unit that, when converted, will be restricted exclusively to nonresidential use. If, within two (2) years after a developer records a declaration of condominium, the use of any such unit is changed such that but for the preceding sentence, this subsection would have applied, the developer shall be presumed to have converted in violation of this article.

(Ord. No. 213-81, § 608.4, 11-16-81)

Sec. 14-569. Relocation payments.

If the tenant does not purchase the unit, the developer shall, before the tenant is required by the developer to vacate, make a cash payment to the tenant in an amount equal to the amount of rent paid by the tenant for the immediately preceding two (2) months; provided that this requirement shall not apply to any tenant whose gross income exceeds eighty (80) percent of the median income of the Portland SMSA, adjusted for family size, as determined by the U.S. Department of Housing and Urban Development at the time notice is given as required in section 14-568(a). Additionally, the

developer shall, upon demand, provide assistance to the tenant in the form of referrals to other reasonable accommodations and in determining the tenant's eligibility for relocation payments as provided herein.
(Ord. No. 213-81, § 608.5, 11-16-81)

Sec. 14-570. Conversion permit.

Before conveying or offering to convey a converted unit, the developer shall obtain a conversion permit from the building inspection division of the department of planning and urban development. The permit shall issue only upon receipt of a completed application therefor in a form to be devised for that purpose, payment of a fee of one hundred and fifty dollars ($150.00) per unit, and a finding, upon inspection, that each unit, together with any common areas and facilities appurtenant thereto, is in full compliance with all applicable provisions of article II of chapter 6 (building code), article III of chapter 6 (electrical installations), article V of chapter 6 (minimum standards for dwellings) and article II of chapter 10 (fire prevention code) of this Code, and the Life Safety Code as adopted by the state. The developer shall post a copy of the permit in a conspicuous place in each unit, and shall make copies available to prospective purchasers upon request.
(Ord. No. 213-81, § 608.6, 11-16-81)

Sec. 14-571. Variation by agreement.

No provision of, or right conferred by, this article may be waived by a tenant, by agreement or otherwise, and any such waiver shall be void. Any attempt to require, encourage, or induce a tenant to waive any provision hereof, or right conferred hereby, shall be a violation of this article. Nothing herein shall be construed to void any term of a lease which offers greater rights than those conferred hereby.
(Ord. No. 213-81, § 608.7, 11-16-81)

Sec. 14-572. – 14-582. Reserved.

ARTICLE VIII. REGULATION OF EXPLOSIVES*

***Editor's note--**Ord. No. 125-98, adopted Oct. 19, 1998, repealed Art. VIII, §§ 14-583--14-585, relative to moratorium on residential developments.

Formerly, such provisions derived from Ord. No. 152-81, §§ 607.1--607.3, adopted Aug. 17, 1981, and Ord. No. 180-87, adopted Nov. 2, 1987. The new Article VIII, regarding regulation of explosives, was passed on March 17, 2003.

Sec. 14-583. Purpose.

The purpose of this ordinance is to protect the public's health, safety and general welfare by regulating and controlling blasting operations within the City.
(Ord. No. 177-02/03, 3-17-03)

Sec. 14-584. Applicability.

This ordinance shall apply to all blasting operations related to construction and development of real estate within the City. The City of Portland Technical Manual is incorporated into this section by reference. Standards listed in the Technical Manual shall be additional to the provisions of this article.
(Ord. No. 177-02/03, 3-17-03; Ord. No. 74-10/11, 11-15-10)

Sec. 14-585. Definitions.

For the purposes of this Article, the following words and phrases shall have the respective meanings ascribed to them:

Blasting plan means the detailed plan for conduct of any blasting operations, and any amendments thereto where over three hundred (300) cubic yards of material shall be removed, which plan has been reviewed by the Planning and Urban Development Department in accordance with the provisions of this ordinance.

Blasting operations means the use of explosives for purposes of breaking up and removing soil, rock and ledge, related to construction and development of real estate within the City.

Blasting permit means a permit issued by the City Fire Department in accordance with the provisions of this ordinance to allow blasting operations within the City.

Blasting submittal means the plan for conduct of any blasting operation where between fifty (50) and three hundred (300) cubic yards of material shall be removed, which plan has been submitted to the Planningand Urban Development Department in accordance with

the provisions of this ordinance.

Explosives means any material or container containing a chemical compound or mixture that is commonly used or intended for the purpose of producing an explosion and that contains any oxidizing and combustible materials or other ingredients in such proportions, quantities, or packaging that an ignition by fire, by friction, by compound or mixture may cause such a sudden generation of highly heated gasses that the resultant gaseous pressures are capable of producing destructive effects on contiguous objects, but shall not mean the components for handloading rifle, pistol and shotgun ammunition, or fireworks.

(Ord. No. 177-02/03, 3-17-03; Ord. No. 74-10/11, 11-15-10)

Sec. 14-586. Administration.

(a) This ordinance shall be administered by thePlanning and Urban Development Department and the Fire Department, which departments shall have the ability to promulgate amendments to the standards listed in the City of Portalnd Technical Manual that implement this ordinance.

(b) City Council shall enact the initial Rules required for implementing this Article.

(c) The procedure for amendment of rules shall be as follows:

1. Department staff shall draft proposed rule amendments to the technical standards for presentation to the Planning Board.

2. The Planning Board shall hold a public hearing on the proposed rule amendments and provide interested parties an opportunity for comment, both written and oral, on the proposed rule amendments.

3. The department shall review comments made by the Planning Board and interested parties and make changes to the proposed rule amendments at its discretion. The amendments to the rules shall go into effect within thirty (30) days of the public hearing held by the Planning Board.

(Ord. No. 177-02/03, 3-17-03; Ord. No. 74-10/11, 11-15-10)

Sec. 14-587. Permit Required.

No person may conduct blasting operations within the City without first obtaining a permit from the Fire Department, as required by the National Fire Protection Association 1 Fire Prevention Code, as adopted and amended in section 10-16 et seq. Of this Code. Fees for this permit shall be as established by Order of the City Council.
(Ord. No. 177-02/03, 3-17-03)

Sec. 14-588. Application Requirements.

Prior to the issuance of a permit pursuant to section 14-587 the following information shall be submitted to the City:

(a) A blasting plan shall be submitted by the applicant to the Planning and Urban Development Department for all projects where more than three hundred (300) cubic yards of material shall be removed. The blasting plan shall conform to the provisions of this section and of Section 3 of the City of Portland Technical Manual.

(b) A blasting submittal shall be submitted to the Planning and Urban Development Department where between fifty (50) and three hundred (300) cubic yards of material shall be removed. The blasting submittal shall conform to the provisions of this section and of Section 3 of the City of Portland Technical Mannual.

(c) A blasting application shall be submitted to the Planning and Urban Development Department where less than fifty (50) cubic yards of material shall be removed, or where utility trench work in the accepted public right of way, including City or Portland Water District infrastructure is proposed. Small blasts where less than fifty (50) cubic yards of material shall be removed, are not required to submit either a blasting plan or blasting submittal. Such projects must conform to the National Fire Protection Association Fire Prevention Code and applicants shall submit a monitoring report upon request. Information provided in the blasting application shall confirm that the proposed small blast conforms to all applicable provisions of this ordinance and of Section 3 of the City of Portland Technical Manual.

(d) A blasting plan or blasting submittal may be required for

any blasting operation at the discretion of the Planning and Urban Development Department when it determines that conditions at or near the site of the blasting operations warrant the provision of a plan.

(Ord. No. 177-02/03, 3-17-03; Ord. No. 74-10/11, 11-15-10)

Sec. 14-589. Storage and handling.

All explosives shall be stored and handled in accordance with the provisions of this code, the laws of the State of Maine and the National Fire Protection Association 1 Fire Prevention Code.

(Ord. No. 177-02/03, 3-17-03)

Sec. 14-590. Enforcement.

(a) This ordinance shall be enforced by the Planning and Urban Development Department and the Fire Department. Either department shall have the authority to issue a written stop work order in the event of a violation of this ordinance or a failure to follow the approved blasting plan.

(b) The issuance of a stop work order may be appealed to the Director of Planning and Urban Development within two (2) business days of its issuance. The decision of the Director of Planning and Urban Development on the appeal shall be final.

(Ord. No. 177-02/03, 3-17-03; Ord. No. 74-10/11, 11-15-10)

Sec. 14-591. Penalties.

(a) In addition to the stop work order which may be issued pursuant to section 14-590, the Permittee shall be subject to the following penalties:

1st offence	$500.00
2nd offence	$1,000.00
Subsequent offences	$1,000.00.

(b) In the event that there are more than three documented violations of the blasting plan, blasting submittal, or blasting permit, the Planning and Urban Development Department and/or Fire Department shall have the right to issue a stop work order on all construction or development related to the permitted operation. The Permittee shall then be required to submit a revised blasting plan to the Planning and Urban Development Department for review and approval. Work shall not be allowed to continue until the revised

blasting plan is approved.
(Ord. No. 177-02/03, 3-17-03; Ord. No. 74-10/11, 11-15-10)

Sec. 14-592. Notice requirements.

(a) At least ten (10) days prior to the start of any blasting operation, notice shall be published in a newspaper of local publication and shall be mailed by first class mail to all property owners within the distance specified below of the perimeter of the blasting site:

> ***Small blast*** (trench blast or under fifty (50) cubic yards of rock removed): All property owners within two hundred and fifty (250) feet of the perimeter of the blasting site.
>
> ***Medium blast*** (removal of 50-300 cubic yards of rock material): All property owners within five hundred (500) feet of the perimeter of the blasting site.
>
> ***Large blast*** (removal of over 300 cubic yards of rock material): All property owners within six hundred (600) feet of the perimeter of the blasting site.

(b) Notice shall conform to the model notice contained in Section 3 of the City of Portalnd Technical Manual and shall include a description of the proposed blasting operations, estimated schedule and duration of blasting operations, description of the blasting signals to be used during operations, the complaint protocol and the complete address, telephone numbers and email contact for the blasting contractor, Planning andUrban Development Departmetn and Fire Departmetn where neighbors and property owners may request further information and notification.

(c) For medium blasts where 50-300 cubic yards of rock material is to be removed, and large blasts where over 300 cubic yards of rock material is to be removed, additional notification requirements shall apply during construction, as detailed in Section 3 of the City of Portland Technical Manual.

(d) If blasting operations are to occur within two hundred and fifty (250) feet of any structure, additional notification requriemetns shall apply, as detailed in Section 3 of the City of Portland Technical Manual, in order to prevent adverse public health and safety impacts due to blasting-related carbon monoxide

migration.
(Ord. No. 74-10/11, 11-15-10)

Sec. 14-593. Hours of blasting.

Blasting shall occur Monday through Friday, between the hours of 9am and 4pm, unless otherwise approved by the Planning and Urban Development Department. Requests for extension of hoursof blasting must be submitted by the applicant in writing.
(Ord. No. 74-10/11, 11-15-10)

Sec. 14-594. Waiver provision.

Upon written request by the applicant, the Planning and Urban Development Department, based on a positive recommendation by the Fire Department, may waive all or a portion of the blasting provisions of Section 3 of the City of Portland Technical Manual, provided thall all waivers are consistent with the purposes set forth in Section 14-583.
(Ord. No. 74-10/11, 11-15-10)

Sec. 14-595. Suspension of blasting operations.

If it is determined that blasting operations pose any risk to public health, safety or general welfare, the Director of Planning and Urban Development or the Fire Chief or their designee shall have the authority to suspend the blasting permit at any time until theydeem it safe for blasting operations to continue.
(Ord. No. 74-10/11, 11-15-10)

Sec. 14-596. – Sec. 14-600. Reserved.

ARTICLE IX. HISTORIC PRESERVATION

DIVISION 1. GENERALLY

Sec. 14-601. Purpose.

The purpose of this article is to promote the educational, cultural, economic and general welfare of the City of Portland by:

(a) Creating a mechanism to identify, preserve and enhance distinctive areas, sites, structures and objects that have historic, cultural, architectural and archeological

significance;

(b) Providing a resource of information and expertise to help those interested in rehabilitation or new construction in a district or restoring a landmark;

(c) Applying design standards in a reasonable and flexible manner to prevent the unnecessary loss of the community's historical features and to ensure compatible new construction and rehabilitation in historic districts while not stifling change and development or forcing modern recreations of historic styles;

(d) Fostering civic pride in the city's history and development patterns as represented in such distinctive areas, sites, structures and objects;

(e) Protecting and enhancing neighborhood character;

(f) Stabilizing and improving the values of designated properties and areas;

(g) Protecting and enhancing the attractiveness of the city to its home buyers, home owners, residents, tourists, visitors, businesses and shoppers;

(h) Fostering and encouraging preservation, restoration and rehabilitation that respects the historic, cultural, architectural and archeological significance of distinctive areas, sites, structures and objects.

(Ord. No. 235-90, 2-26-90; Ord. No. 165-08/09, 3-16-09)

Sec. 14-602. Definitions.

Alteration: Any act or process requiring a building permit and any other act or process not requiring a building permit but specifically listed in this article as a reviewable action, including without limitation the repair, reconstruction, demolition or relocation of any structure or object, or any part of a structure or object.

Applicant: A person who submits an application for issuance of a certificate of appropriateness.

Application: A form submitted for approval of alteration,

construction, demolition or removal that requires issuance of a certificate of appropriateness.

Business day: A day on which the department is open for business.

Certificate of appropriateness: A certificate issued by the department evidencing approval of specific plans for alteration of a structure or new construction on a site in accordance with this article.

Certificate of economic hardship: A certificate issued by the department evidencing a hardship variance approved by the board of appeals in accordance with division 8 of this article.

Certificate of non-applicability: A certificate issued by the department evidencing a determination that specific plans for alteration of a structure or new construction on a site do not require approval under this article.

Contributing: A classification applied to a site, structure or object within a historic district signifying that it contributes generally to the qualities that give the historic district cultural, historic, architectural or archeological significance as embodied in the criteria for designating an historic district, but without being itself a landmark.

Council: The city council.

Demolition: Any act or process that partially or totally destroys a structure or object.

Department: The department of planning and urban development.

Design guideline: Any design standard specified for alteration or new construction which is unique to a particular landmark, historic district or historic landscape district.

Design manual: The historic resources design manual described in section 14-675.

District: An historic district or historic landscape district.

Historic district: An area designated as an "historic district" by the council.

Historic landscape district: An area designated as an "historic landscape district" by the council.

Landmark: A property, site, structure or object designated as a "landmark" by the council as having a high degree of historical, cultural and/or architectural significance.

Level I site plan: As defined in article V of this chapter.

Level II site plan: As defined in article V of this chapter.

Level III site plan: As defined in article V of this chapter.

New construction: The adding to a structure by an addition; the erection or placement of any new structure on a lot or property; or the comprehensive redesign/renovation of an existing structure.

Noncontributing: A classification applied to a site, structure, object, or portion thereof, within a historic district signifying that 1) it does not contribute generally to the qualities that give the historic district cultural, historic, architectural or archaeological significance as embodied in the criteria for designating a historic district; 2) was built within 50 years of the date of district designation unless otherwise designated in the historic resources inventory; or 3) where the location, design, setting, materials, workmanship and association have been so altered or have so deteriorated that the overall integrity of the site, structure or object has been irretrievably lost. A portion of an otherwise contributing or landmark structure may be determined by the historic preservation board to be non-contributing if it meets one or more of the above conditions.

Object: Anything constructed, fabricated or created, the use of which does not require permanent or semi-permanent location on or in the ground.

Open space: Any park and any other area outside of a building open to the public.

Ordinary maintenance: Acts of maintenance or repair which do not include a change in the design, material or outer appearance of a structure, including without limitation repainting, replacement of materials or windows of the same scale, texture and color, and

landscaping other than within an historic landscape district.

Owner: The person or persons holding record title to the building, site or property; provided, however, the last previous tax roll in the records of the city assessor's office may be relied upon as showing record ownership in the absence of substantial evidence to the contrary.

Property: Land and improvements identified as a separate lot for purposes of subdivision, site plan, or zoning regulation.

Relocation: Any removal or relocation of a structure on its site or to another site.

Restoration: Any act which returns a structure or a feature of a structure to a prior state of historic significance.

Sign: As defined in section 14-47.

Site: The location of an event, activity, structure or object.

Street: The entire width between boundary lines of every way publicly owned and maintained or which way is open to the use of the public for purposes of vehicular or pedestrian traffic.

Structure: Anything constructed or erected, having a permanent or semi-permanent location on another structure or in the ground, including without limitation buildings, garages, fences, gazebos, advertising signs, billboards, antennas, satellite sending or receiving dishes, and swimming pools.
(Ord. No. 235-90, 2-26-90; Ord. No. 220-93, § 1, 5-17-93; Ord. No. 165-08/09, 3-16-09; Ord. No. 278-09/10, 7-19-10)

DIVISION 2. HISTORIC PRESERVATION BOARD

Sec. 14-603. Composition.

The historic preservation board shall consist of seven (7) voting members who shall serve without compensation. Members shall have demonstrated interest, knowledge, ability, experience or expertise in restoration, rehabilitation, or neighborhood conservation or revitalization and shall be residents of the city.
(Ord. No. 235-90, 2-26-90)

Sec. 14-604. Appointment and terms.

(a) Members shall be appointed by the council for terms of three (3) years. Appointments shall be staggered so that the terms of not more than three (3) members expire in any calendar year.

(b) Vacancies on the historic preservation board shall be filled within sixty(60) days. However, every member shall continue in office after expiration of the term until a successor has been appointed. Vacancies on the historic preservation board shall be filled for the unexpired term of the former member.
(Ord. No. 235-90, 2-26-90; Ord. No. 197-03/04, 9-8-04)

Sec. 14-605. Removal of historic preservation board member.

Members may be removed for cause by the council. Cause shall include, but is not limited to, the failure to attend meetings without good cause. Any member proposed to be removed shall be given written notice and an opportunity to be heard prior to final action.
(Ord. No. 235-90, 2-26-90)

Sec. 14-606. Officers.

(a) Officers of the historic preservation board shall consist of a chair and vice-chair.

(b) Officers shall be elected by the historic preservation board and shall serve a term of one (1) year and shall be eligible for re-election. No person shall serve as chair for more than two (2) consecutive years.

(c) The chair shall preside at all meetings and hearings and fulfill the customary functions of that office.

(d) In the absence of the chair, the vice-chair shall act as chair and shall have all the powers of the chair. The vice-chair shall have such other powers and duties as may from time to time be provided by the rules of the historic preservation board.

(e) The director of the department or his or her designated representative shall serve as staff secretary to the historic preservation board and shall attend all its meetings. The secretary shall provide for the keeping of tape recordings or minutes of the proceedings of the historic preservation board, showing the vote of

each member on every question or his or her absence or failure to vote, and shall maintain the records and decisions of all meetings, hearings and proceedings and all correspondence of the historic preservation board. Copies of permanent records shall be filed with the city clerk. The secretary shall publish and distribute copies of the minutes, reports and decisions of the historic preservation board to historic preservation board members and to others upon approval of the historic preservation board. The department shall assign necessary staff to assist the historic preservation board and the planning board in carrying out their responsibilities under this article.
(Ord. No. 235-90, 2-26-90)

Sec. 14-607. Meetings, hearing, procedures and decisions.

(a) Regular meetings of the historic preservation board shall be held no less frequently than monthly. Special meetings may be called by the chair or any four (4) members or at the request of the chair of the planning board.

(b) The historic preservation board may adopt procedural rules for the conduct of its business not inconsistent with this article, including the creation of a subcommittee structure to enhance efficiency in consideration of historic preservation board business. Such rules shall be filed with the secretary and with the city clerk. All such rules shall be subject to veto, in whole or in part, by the council within forty-five (45) days of such filing. The initial rules shall take effect when filed, subject to veto as provided above. Amendments to the rules shall take effect upon expiration of said veto period. Any rule may be waived by the chair upon good cause being shown.

(c) No final action shall be taken by the historic preservation board which could in any manner deprive or restrict the owner of a property in its use, alteration, maintenance, disposition or demolition, until such owner either has knowledge of the proceeding or is sent notice offering opportunity to be heard. This paragraph shall not affect the interim protection provisions of division 5.

(d) Every recommendation or recommended decision shall include written findings of fact and shall specify the reason or reasons for such action.

(e) The secretary shall mail notice of any final action of

the historic preservation board to the applicant and any designated interested parties and send a copy thereof to the planning board within five (5) business days following such action.
(Ord. No. 235-90, 2-26-90)

Sec. 14-608. Conflicts of interest.

No member of the historic preservation board shall participate in the hearing or disposition of any matter in which he or she has a pecuniary interest.
(Ord. No. 235-90, 2-26-90)

Sec. 14-609. Responsibilities.

The historic preservation board shall have the following responsibilities:

(a) To conduct or administer an ongoing survey to identify historically, culturally, architecturally and archaeologically significant areas, sites, structures and objects.

(b) To review all areas, sites, structures and objects listed in the National Register of Historic Places, including the boundaries of areas so listed, and make recommendations to the planning board and council for the adoption of ordinances designating those areas, sites, structures and objects as landmarks or districts.

(c) To investigate and recommend to the planning board the adoption of ordinances designating areas, sites, structures and objects not listed in the National Register of Historic Places as landmarks and districts and to make recommendations to the planning board concerning sites, structures and objects that have contributing significance or are intrusions within nominated or designated districts.

(d) To keep a register of all areas, sites, structures and objects that have been designated as landmarks or districts, including all information required as part of each designation.

(e) To create an appropriate system of plaques for identification of individual landmarks and make

recommendations for the design and implementation of specific marking of streets and routes leading from one (1) landmark or district to another.

(f) Upon request, to advise and assist owners of landmarks and property, sites, structures or objects within districts on physical and financial aspects of preservation, renovation, rehabilitation and reuse and for procedures for inclusion on other registers of significant areas, sites, structures and objects, including the National Register of Historic Places.

(g) To recommend to the planning board the nomination of areas, sites, structures and objects to the National Register of Historic Places or to any State of Maine Register of Historic Places that may be established.

(h) At the direction of the council, to prepare application for, and participate in, the "certified local government" program of the National Historic Preservation Act Amendments of 1980 and the Main Historic Preservation Commission; and carry out any responsibilities delegated to it under that program, including review and comment on any National Register nominations submitted to the historic preservation board; upon request of the council, participate in any review of federal actions or undertakings pursuant to Section 106 of the National Historic Preservation Act; attend informational and educational programs sponsored by the Maine Historic Preservation Commission; and prepare an annual report of the activities of the historic preservation board.

(i) To inform and educate the citizens of Portland concerning the cultural, historic, architectural and archeological heritage of the city by publishing appropriate maps, newsletters, brochures and pamphlets and by sponsoring programs and seminars.

(j) To hold meetings and public hearings to review applications for certificates of appropriateness affecting proposed or designated landmarks and districts; to recommend approval or disapproval of certificates of appropriateness.

(k) To provide testimony to the board of appeals in

connection with any application for a certificate of economic hardship.

(l) To develop design guidelines affecting landmarks or districts for review and approval by the planning board.

(m) To advise the planning board as to recommendations on any preservation or conservation easements that the City of Portland may have or be offered as a gift or otherwise.

(n) To advise the planning board as to the administration of such gifts, grants and money as may be appropriated for the purposes of this article upon authorization and approval by the council.

(o) To provide comment, as appropriate, to the planning board and/or city council on matters pertaining to historic preservation in Portland.

(p) To confer recognition upon the owners of landmarks or properties, sites, structures or objects within districts by means of certificates, plaques or markers.

(q) To assist the planning board in the development of a preservation component in the comprehensive plan of the City of Portland.

(r) To periodically review this Code and to make recommendations to the planning board concerning any amendments appropriate for the protection and continued use of landmarks or properties, sites, structures or objects within districts.

(s) To annually report to the council with respect to the following matters:

1. Survey work in progress or completed;

2. The number of projects reviewed (by type);

3. How many certificates of each type were issued.

(Ord. No. 235-90, 2-26-90; Ord. No. 165-08/09, 3-16-09)

DIVISION 3. CATEGORIES AND CRITERIA FOR DESIGNATION

Sec. 14-610. Minimum criteria for designation.

(a) The historic preservation board shall limit its consideration to the following criteria in making a determination on a proposed nomination of an area, site, structure or object for designation by ordinance as a landmark or district:

1. Its value as a significant example of the cultural, historic, architectural, archeological or related aspect of the heritage of the City of Portland, State of Maine, New England region, or the United States;

2. Its location as a site of a significant historic or prehistoric event or activity which may have taken place within or which involved the use of any existing structure on the property;

3. Its identification with a person or persons who significantly contributed to the cultural, historic, architectural, archeological or related aspect of the development of the City of Portland, State of Maine, New England region, or the United States;

4. Its exemplification of a significant architectural type, style or design distinguished by innovation, rarity, uniqueness or overall quality of design, detail, materials or craftsmanship;

5. Its identification as the work of an architect, designer, engineer or builder whose individual work is significant in the history or development of the City of Portland, the State of Maine, the New England region, or the United States; or

6. Its representation of a significant cultural, historic, architectural, archeological or related theme expressed through distinctive areas, sites, structures or objects that may or may not be contiguous.

(b) In the case of a nominated historic district, the historic preservation board shall also determine whether a substantial number of the properties, sites, structures or objects have a high degree of cultural, historic, architectural or archeological significance and integrity, many of which may qualify

as landmarks, and which may also have within its boundaries other properties, sites, structures or objects which, while not of such cultural, historic, architectural or archeological significance to qualify as landmarks, nevertheless contribute to the overall visual characteristics of the significant properties, sites, structures or objects located within it.

(c) In the case of a nominated historic landscape district, the historic preservation board shall also consider its significance as a geologic, natural or man-made landscape feature associated with the development, heritage or culture of the City of Portland, State of Maine, New England region, or the United States.

(d) The planning board and council shall apply the criteria of subsections (a), (b) and (c) but shall also consider the effect of such designation on other aspects of the comprehensive plan of the city.
(Ord. No. 235-90, 2-26-90)

Sec. 14-611. Integrity of landmarks and historic districts.

Any area, structure or object that meets the criteria in section 14-610 must also have sufficient integrity of location, design, condition, materials and workmanship to make it worthy of preservation or restoration.
(Ord. No. 235-90, 2-26-90)

Sec. 14-612. Designation of historic landscape districts.

An historic landscape district may be nominated and considered for designation only if the entire area of the district is owned by a unit of federal, state or local government, or any combination of such ownership.
(Ord. No. 235-90, 2-26-90; Ord. No. 220-93, § 2, 5-17-93)

Sec. 14-613. Reserved.

DIVISION 4. NOMINATION, CONSIDERATION AND DESIGNATION

Sec. 14-614. Procedure.

The provisions of this division shall govern the nomination, consideration and designation of landmarks and districts.
(Ord. No. 235-90, 2-26-90)

Sec. 14-615. Initiation of nomination.

(a) Nomination of an area, site, structure or object for consideration of designation as a landmark, historic district or historic landscape district shall be submitted to the department, on a form provided by the department, by the following:

1. Any two (2) members of the historic preservation board on their own initiative, by written notice to the department; or

2. By written petition of any owner, in the case of a landmark; or

3. By written petition of one (1) or more owners of affected property in the case of a district; provided two (2) members of the historic preservation board must sponsor the petition.

(b) A nomination shall be completed and filed with the department with all required signatures and any fees specified therefor for the nomination to be pending.

(c) Upon nomination, the department shall notify the owner or owners of the nomination and shall transmit the nomination to the historic preservation board for its consideration at its next scheduled meeting, which in no event shall be held later than thirty (30) days following nomination.

(d) At any time after a complete nomination is filed for an historic district, the owner of a structure who seeks a permit for demolition may apply to the historic preservation board for a determination that the structure to be demolished is noncontributing and eligible for a demolition permit. The determination of the historic preservation board that the structure is eligible for a permit shall be conclusive.
(Ord. No. 235-90, 2-26-90; Ord. No. 165-08/09, 3-16-09)

Sec. 14-616. Notification of nomination and public hearing.

(a) A public hearing on the nomination shall be held by the historic preservation board within thirty (30) days following the first scheduled meeting referred to in section 14-615(c), but in no event later than sixty (60) days following receipt of the completed

nomination form by the department. Notice of the nomination and of the public hearing shall be in accordance with the procedures for public hearings before the planning board for site plan approval.

(b) The hearing shall be conducted in accordance with procedures adopted by the historic preservation board. The historic preservation board shall consider all testimony or evidence relating to the designation criteria in division 3 from any person who makes written submissions or appears at the public hearing. Historic preservation board members may also present testimony or make submissions. The owner of a nominated landmark or of property within a nominated district shall be allowed reasonable opportunity to present testimony or evidence concerning the applicability of the designation criteria in division 3.
(Ord. No. 235-90, 2-26-90)

Sec. 14-617. Recommendation by historic preservation board.

Within thirty (30) days following the close of the public hearing, the historic preservation board shall make recommendation to the council in the case of a landmark, or to the planning board in the case of a district, upon the evidence as to whether the nominated landmark or district meets the criteria for designation in division 3. Such recommendation shall be approved by at least four (4) members of the historic preservation board and shall be accompanied by a report to the council or planning board containing the following information:

(a) Explanation of the significance or lack of significance of the nominated landmark or district as it relates to the criteria for designation.

(b) Explanation of the integrity or lack of integrity of a nominated landmark or historic district.

(c) Proposed design guidelines for review of alteration or construction. The specific design guidelines may provide explanation by text and/or schematic examples of visual compatibility for purposes of division 7.

(d) Relationship of the nominated landmark or district to the ongoing effort by the committee to identify and nominate all potential areas, sites, structures and objects that meet the criteria for designation.

(e) A map showing the location of the nominated landmark and the boundaries of the nominated district.

(f) A list, including the address, of every site, structure and object in each nominated historic district indicating their degree of cultural, historic, architectural or archeological significance by classification as of a landmark or contributing significance.

Where a motion either in favor of a recommendation or in opposition to a recommendation results in a vote of fewer than four (4) members, the item shall automatically be tabled to the next regularly scheduled meeting.
(Ord. No. 235-90, 2-26-90; Ord. No. 220-93, § 3, 5-17-93)

Sec. 14-618. Reserved.

Sec. 14-619. Notification of historic preservation board recommendation.

(a) The recommendation of the historic preservation board, including a copy of the report, shall be transmitted to the city council in the case of a landmark and to the planning board in the case of a district. Notice of the recommendation shall be sent by mail to the owner of a nominated landmark and to all owners within a nominated district within ten (10) business days following adoption of the recommendation and report.

(b) If the recommendation of the historic preservation board is that the property or district not be designated, the nomination process shall terminate and no new nomination shall be submitted for the identical property or area for a period of one (1) year from the date of termination, except upon a showing of substantial and material newly discovered information.
(Ord. No. 235-90, 2-26-90)

Sec. 14-620. Determination by planning board.

(a) The planning board, upon receipt of a recommendation and a report from the historic preservation board concerning nomination of a district, may hold a workshop meeting pursuant to the provisions of section 14-26. After review of the historic preservation board recommendation and report, the planning board shall hold a public hearing.

(b) All meetings, hearings and deliberations of the planning board to consider the recommendation and report of the historic preservation board shall be held in conformity with sections 14-24 through 14-28.

(c) The planning board may request the chair of the historic preservation board, or a member designated by the chair, to appear at any meeting, hearing or deliberation to explain any recommendation or report.

(d) The planning board shall make its final determination including written findings as to whether the nominated district meets the criteria for designation in division 3 within forty-five (45) days following receipt of the recommendation and report from the historic preservation board. A copy of the determination of the planning board shall be sent by regular mail to all owners within a nominated district within ten (10) business days following the determination.
(Ord. No. 235-90, 2-26-90)

Sec. 14-621. Planning board recommendation to city council.

The recommendation of the planning board regarding a nominated district shall be filed with the city clerk within ten (10) business days. It shall be accompanied by a copy of the report and recommendation of the historic preservation board and, in the case of a recommendation that the council designate a draft of a proposed designation ordinance, including any proposed design guidelines for review of alteration, construction, removal or demolition. The recommendation of the planning board may include proposed changes in other city ordinances, policies, infrastructure, or recommendations with respect to the comprehensive plan of the city relating to the proposed designation.
(Ord. No. 235-90, 2-26-90)

Sec. 14-622. Action by city council.

(a) Within sixty (60) days after the filing of a recommendation on the nomination with the city clerk pursuant to section 14-620, the council shall designate the landmark or district or reject designation. Any designation ordinance may include design guidelines for the designated landmark or district.

(b) Designation of a district shall be accompanied by a list,

including the address, of every site, structure and object in the district which is determined to be a landmark or considered to be contributing or noncontributing, indicating their degree of cultural, historic, architectural or archeological significance. This list may be amended thereafter by the council upon recommendation from the planning board under the same procedures as set forth above. Where there are no express findings by the council in the designation ordinance, there shall be a presumption that the council found that all requirements of sections 14-610 and 14-611 were met.

(c) Notice of the proposed action of the council shall be provided by mail to the nominator and the owner of the nominated landmark and/or of all properties adjacent thereto prior to council action. The notice shall include a copy of the resolution or designation ordinance and design guidelines.

(d) Notice of council action to the same persons shall be sent within ten business days following the council action. A copy of each designation ordinance and design guidelines shall be sent to the planning board, the historic preservation board and the department. A complete schedule of all landmarks and districts, including design guidelines and a listing of landmark and contributing structures, shall be maintained by the department as part of the design manual and shall be available for public inspection and copying during ordinary business hours.
(Ord. No. 235-90, 2-26-90; Ord. No. 165-08/09, 3-16-09)

Sec. 14-623. Amendment and rescission of designation.

Amendment and rescission of any designation shall be upon the request of a person or persons authorized to nominate the property or properties affected, or upon request of the council, and shall follow the procedure set forth in division 4 for designation. The council may rescind or amend a designation only after all of these procedures have been followed. The standards for rescission or amendment applied by the committee, planning board and council shall be limited to those provided in section 14-610(a) and section 14-611. Amendments may include refinement or correction of design guidelines, maps, and other parts of any designation ordinance.
(Ord. No. 235-90, 2-26-90)

Sec. 14-624.- Sec. 14-627. Reserved.

***Editor's note –** Order No. 197-03/04 adopted 9/8/04, repealed §14-625 Projects of Special Merit in its entirety.

Sec. 14-628. Time limits.

(a) Any time limit specified for any step in the process for nomination or designation of a landmark may be extended with the consent of the property owner.

(b) Any time limit specified for any step in the process for nomination or designation of a district may be extended where at least ten (10) percent of the owners of property within the boundaries of the proposed district have given written consent to the extension.

(c) Failure to comply with any time limit in the nomination and designation process as provided in divisions 3 or 4 shall not affect the validity of any designation nor the interim protection provided by division 5.

(Ord. No. 235-90, 2-26-90)

Sec. 14-629. Reserved.

DIVISION 5. INTERIM PROTECTION FOR NOMINATIONS

Sec. 14-630. Nominated landmarks and districts.

(a) From the time of nomination until the historic preservation board acts upon such nomination, a site, structure, object or area nominated but not yet designated as a landmark or district shall be subject to all of the provisions of divisions 8 and 10 governing demolition and minimum maintenance, to the same extent as if designated. Upon final action of the historic preservation board recommending designation, the site, structure, object or area nominated shall be subject to all of the protection of this article until a final decision on designation by the council becomes effective. If the council rejects designation or fails to designate a property, that property shall no longer be subject to the provisions of divisions 8 and 10 of this article.

(b) Alteration or new construction commenced pursuant to a building permit issued prior to nomination shall not require a certificate of appropriateness, unless such permit has expired,

been canceled or revoked. No project for which any application is pending, and which has received substantive review by the planning board prior to nomination, shall be affected by nomination. Substantive review, as used in this paragraph, shall include workshop review of any completed application under articles IV or V of this chapter.

(Ord. No. 235-90, 2-26-90; Ord. No. 220-93, § 4, 5-17-93; Ord. No. 165-08/09, 3-16-09)

Sec. 14-631. National Register of Historic Places.

(a) Every property, landmark or district listed in the National Register of Historic Places prior to adoption of this article, as shown in the design manual, is hereby designated as a landmark or district and shall be subject to all of the protection of this article, until such time as such designation is amended or rescinded as provided by section 14-623. Listed properties which would qualify for designation as historic landscape districts shall be subject to the applicable provisions of this article. If there is any inconsistency between the boundaries of any landmark or district as shown in the designation ordinance, if any, the design manual and/or the National Register, such inconsistency shall be resolved in favor of such ordinance and the design manual in that order. A certificate of appropriateness shall be obtained for every alteration or new construction affecting said listed properties and districts.

(b) Upon notice to the city that a property or area has been listed in the National Register after the adoption of this article, a nomination shall be deemed submitted to the historic preservation board for designation of such property or area as a landmark, historic district or historic landscape district under this article, and the procedures of this division shall be applicable thereto.

(Ord. No. 235-90, 2-26-90; Ord. No. 165-08/09, 3-16-09)

Sec. 14-632. Properties eligible for listing on National Register or for local designation.

A certificate of economic hardship shall be obtained prior to demolition of any structure which has not been designated in accordance with this article but which is eligible for listing on the National Register of Historic Places under the criteria established by 16 U.S.C. Section 470(a) or its successor statute and/or regulations made thereunder or which is eligible for local

listing under the criteria for designation of this article. The determination of eligibility for listing shall be made by the department, which may refer such a determination to the historic preservation board, and by the board of appeals if an appeal is taken. Upon determination of eligibility, the structure so determined shall also be subject to the provisions of division 10 until a final decision by the council on designation becomes effective. If the council rejects designation or fails to designate a structure which has been determined to be eligible under the terms of this section, that structure shall no longer be subject to the provisions of divisions 8 and 10 of this article.
(Ord. No. 235-90, 2-26-90; Ord. No. 220-93, § 5, 5-17-93)

Sec. 14-633. Reserved.

DIVISION 6. CERTIFICATES OF APPROPRIATENESS AND NONAPPLICABILITY

Sec. 14-634. Certificate of appropriateness required.

(a) Except as provided in sections 14-635 and 14-636, a certificate of appropriateness shall be required before the following actions affecting any landmark, contributing or noncontributing structures, objects, sites or property in a district may be undertaken and shall be a condition precedent to the issuance of any permit authorizing such work:

1. Any exterior alteration or new construction requiring a building permit from the City of Portland, including, but not limited to the following:

   a. Removal and replacement of architectural detailing including, but not limited to, porch spindles and columns, railings, window moldings and cornices;

   b. Moving of structures or objects on the same site or to another site;

   c. Construction of rooftop additions or decks;

   d. Alteration of accessory structures such as garages;

   e. Porch replacement or new construction of porches;

   f. Installation of exterior access stairs;

g. Window or door replacement requiring enlargement of openings;

h. Installation of antennas and satellite receiving dishes;

i. Installation of solar collectors.

2. Any exterior alteration that does not require a building permit but which involves any one (1) of the following activities:

a. Installation or replacement of either roofing or gutters where the roofing or gutters are a significant and integral feature of the structure including, but not limited to, mansard roofs, cupola roofs, ornamental slate roof features, and built-in gutter systems and the installation or replacement of siding;

b. Window and door replacement whether or not it requires enlargement of openings;

c. Masonry work including, without limitation, tuckpointing, sandblasting, chemical cleaning;

d. Site features other than vegetation including, without limitation, fencing, walls, paving and grading. However, required review for alterations to cemeteries designated under this article shall not include review of alterations to headstones made for the purpose of recognition of additional decedents or installation of grave markers and/or tombs;

e. Landscaping within an historic landscape district;

f. Exterior lighting where proposed in conjunction with commercial and institutional signage or awnings, where placed on street-fronting facades of designated structures;

g. Exterior utilities including mechanical, plumbing and electrical, where placed on street-fronting

facades.

3. Installation or alteration of any exterior sign.

4. Any relocation of a landmark or contributing structure within a district.

(b) There shall be a rebuttable presumption that any structure within a district shall be noncontributing unless the design manual expressly identifies it as such. Where the department or the owner believes that the identification is erroneous, the historic preservation board shall determine whether the structure is noncontributing.

(Ord. No. 235-90, 2-26-90; Ord. No. 220-93, § 6, 5-17-93; Ord. No. 62-93, 8-2-93; Ord. No. 165-08/09, 3-16-09)

Sec. 14-635. Exceptions to requirement of certificate of appropriateness.

A certificate of appropriateness is not required:

(a) Where a certificate of non-applicability has been issued within the previous twelve (12) months;

(b) Where the work consists solely of ordinary maintenance and/or restoration, provided that there is no substitution of materials or alteration of architectural details;

(c) Where the work consists solely of emergency repair of a temporary nature;

(d) Where a certificate of economic hardship has been issued and remains valid;

(e) In the case of either alteration of a structure (other than a landmark) or of new construction within a district, a certificate of appropriateness shall not be required where the department determines that the proposed exterior changes to a structure are not readily visible at pedestrian heights, when viewed at any height between four (4) and six (6) feet from any open space or street. Where a certificate of appropriateness is required for such changes, it shall be limited to those portions of the structure or structures so visible.

(Ord. No. 235-90, 2-26-90; Ord. No. 197-03/04, 9-8-04; Ord. No. 165-08/09, 3-16-09)

Sec. 14-636. Exterior work within historic landscape districts.

A certificate of appropriateness shall be obtained before any alteration or new construction within an historic landscape district may be undertaken, except where a certificate of non-applicability has been issued or where construction or alteration is pursuant to a master plan approved by a prior certificate of appropriateness within five (5) years of commencement.
(Ord. No. 235-90, 2-26-90; Ord. No. 165-08/09, 3-16-09)

Sec. 14-637. Applications for certificate of appropriateness.

(a) Application for a certificate of appropriateness shall be made on a form prepared by the city and shall be submitted to the department along with the applicable fee. Upon receipt of a complete application, the item shall be scheduled for the next available historic preservation board meeting, provided that the notice requirements of this article can be met prior to that meeting. The department shall transmit a copy of the complete application to the Planning Board and the historic preservation board, as applicable, at least four (4) days prior to their next scheduled meeting. The department shall not issue or act upon the application until the historic preservation board and the planning board, as applicable, have completed their review and approval process.

(b) An application for a certificate of appropriateness shall be treated as an application for a certificate of economic hardship under division 8, whenever the historic preservation board or the Planning Board, as applicable, determines that the proposed alteration includes any demolition which would:

1. Have the effect of causing the structure to no longer meet the criteria for designation of division 3; or

2. Materially impair the significance and integrity of the structure.

(c) Where a determination under paragraph (b) is made by the historic preservation board, the planning board shall review that decision as a preliminary matter, whether the historic preservation board has taken final action with respect to the application or

not. Upon any final determination that an application for a certificate of appropriateness is required to be treated as an application for a certificate of economic hardship, no further action shall be taken with respect to the application until that certificate is applied for and is granted.

(d) Where the applicant has done work or caused work to be done on a structure or a property for which a certificate of appropriateness is sought and such work is either not done in compliance with an approval received under this article or was performed without the approvals required under this article, no application for such structure or property shall be considered by the department or by the historic preservation board until such work is brought into compliance with the requirements of this article. The historic preservation board may waive this requirement if the historic preservation board determines that the work does not alter the essential character of the structure or district and one (1) or more of the following standards are also met:

1. The work was needed to bring a building into conformance with any building or safety code;

2. The applicant can demonstrate a good faith belief that necessary approvals had been received for the work at issue prior to the commencement of the work; or

3. The applicant can demonstrate a good faith belief that the work done was not subject to review under this article.

Review of any application by the department or by the historic preservation board shall not constitute waiver of any future claims by the city concerning violations and shall not stop the city from prosecuting any violation.

(e) Once a completed application has been submitted, it shall be diligently pursued. Failure of an applicant to attend two (2) or more historic preservation board meetings at which an application is scheduled for review shall cause the application to expire and to be deemed null and void, unless the department determines that good cause is shown for the failure to attend. Where good cause is shown for a failure to attend, the historic preservation board shall table an application to a date mutually agreed upon in writing.

(Ord. No. 235-90, 2-26-90; Ord. No. 220-93, § 7, 5-17-93)

Sec. 14-638. Review process for certificate of appropriateness, except as provided elsewhere in this division.

(a) The process for review of an application for a certificate of appropriateness shall be as follows, except to the extent specifically provided elsewhere in this division:

1. The department shall review the application and make a recommendation to the historic preservation board based upon the standards in division 7, except as provided in subsection (b) for historic plaques or markers. The recommendation of the department shall be made within (30) days of receipt of a complete application.

2. Whenever the recommendation of the department is that the application shall be approved, the application shall be placed upon the next consent agenda of the historic preservation board, except as provided in subsection (b). Any member of the historic preservation board may remove an application from the consent agenda for the purpose of giving it a public hearing.

3. Whenever the recommendation of the department is that the application not be approved or there is no timely recommendation, the application shall be scheduled for a public hearing at the next meeting of the historic preservation board which allows for adequate notice.

4. The historic preservation board shall either conduct a public hearing or make a decision on the application within thirty (30) days following receipt of the application from the department. The historic preservation board shall review the application and any negative recommendation of the department. If an item is scheduled for historic preservation board review, the historic preservation board shall cause notice of the application to be given to all property owners within one hundred (100) feet of the property at least seven (7) days prior to the date of the hearing.

5. The historic preservation board shall enter findings of fact concerning the relationship between the application and the applicable standards of division 7 immediately following a denial or conditional approval of any

certificate of appropriateness.

6. Written notice of the determination of the historic preservation board on the application, including a copy of the findings of fact, shall be sent by regular mail to the applicant and to the planning board within ten (10) business days following its determination.

7. The applicant and any owner of abutting property or of property located within the same district aggrieved by the decision may object to the proposed decision by filing a notice of objection with the department within thirty (30) days following the mailing of the notice of determination of the historic preservation board; provided, however, only the applicant may object where no building permit or site plan review is required for the work which requires the issuance of the certificate of appropriateness, and a proposed decision approving any such application shall be deemed final upon being reduced to writing and provided to the applicant. In the absence of filing of such objection, upon expiration of said thirty (30) days the proposed decision shall become final. If a timely objection is received, the application shall be placed on the planning board agenda and shall be disposed of in accordance with section 14-639. The planning board shall deny the appeal unless it finds that the action of the historic preservation board was arbitrary or capricious or was not based on substantial evidence. Review by the planning board under this section is intended to be appellate in nature. Except where the planning board determines that injustice would result, the planning board shall determine the appeal without considering any facts or arguments which were not presented to the historic preservation board. Where the planning board finds it necessary to consider such new evidence in order to do substantial justice, it shall remand the matter to the historic preservation board for further consideration, unless it determines that the resulting delay is likely to result in undue hardship to the applicant.

(Ord. No. 235-90, 2-26-90; Ord. No. 371-91, § 2, 6-5-91; Ord. No. 220-93, § 8, 5-17-93; Ord. No. 197-03/04, 9-8-04)

Sec. 14-639. Review process involving level III site plans.

The process for review of an application for alteration or new construction that is also a level III site plan as defined in Article V of this chapter shall be as follows:

(a) Site plan review by the planning board and historic preservation review by the historic preservation board shall, to the extent feasible, proceed concurrently. Any proposed level III site plan required to obtain a certificate of appropriateness under this article shall be exempt from the design standards included in article V as provided for in Sec. 14-526 (d)5a. of the site plan ordinance.

(b) Upon receipt of the application for a certificate of appropriateness, the department shall review the application and schedule a workshop for preliminary review by the historic preservation board. The historic preservation board shall conduct a workshop on the application within thirty (30) days following receipt of the application from the department. The department shall prepare an analysis of the application based upon the standards in division 7 for consideration at the workshop. The historic preservation board shall cause notice of the workshop to be given to all property owners within five hundred (500) feet of the property at least seven (7) days prior to the date of the meeting.

Additional workshops may be scheduled by the historic preservation board with the consent of the applicant.

(c) Following preliminary workshop(s) and upon determination by the historic preservation board that the application is complete, the historic preservation board shall conduct a public hearing and make a final decision on the application. The historic preservation board shall cause notice of the public hearing to be given consistent with the procedures outlined in (b) above.

(d) If the historic preservation board finds that the application meets the applicable standards of division 7, it shall issue a certificate of appropriateness, with or without conditions. If the action by the historic preservation board is a denial or conditional approval, the historic preservation board shall make findings of fact concerning the relationship between the application

and the applicable standards of division 7.

(e) Written notice of the determination of the historic preservation board on the application, including a copy of the findings of fact, if any, shall be sent by regular mail to the applicant within ten (10) business days following its determination.

(f) The applicant and any owner of abutting property or of property located within the same district aggrieved by the decision may object to the proposed decision as provided in Section 14-638(7).

(Ord. No. 235-90, 2-26-90: Ord. No. 63-97, 8-18-97; Ord. No. 197-03/04, 9-8-04; Ord. No. 165-08/09, 3-16-09; Ord. No. 278-09/10, 7-19-10)

Sec. 14-640. Review process involving installation or alteration of any exterior sign; minor alterations; and temporary alterations, construction or improvements.

(a) An application for a certificate of appropriateness for installation or alteration of any exterior sign; minor alterations; and temporary alterations, construction or improvements shall be reviewed by the department for compliance with the standards of division 7 and the design manual. Where the department determines that such an application meets these requirements, the certificate of appropriateness shall be issued by the department without presentation to the historic preservation board for approval. The department shall provide the historic preservation board with written notice of such action at the next historic preservation board meeting.

(b) If the department approves an application with conditions, the applicant may request review by the historic preservation board. The application shall then be subject to review by the historic preservation board pursuant to section 14-638.

(c) If the department determines that the application does not meet the requirements of division 7 and the design manual, the application shall be scheduled for review by the historic preservation board pursuant to section 14-638, unless the applicant withdraws the application.

(d) For purposes of this section only, temporary is defined as either a one-time occurrence that does not exceed fourteen (14) days or as an annual occurrence that does not exceed one (1)

fourteen-day period each year. Minor alterations are defined as incidental changes or additions to a building, site features or exterior utilities which require building permits but will neither result in substantial changes to any significant historic features nor obscure such features. In no event shall any change be deemed minor when, in the opinion of the department, such change shall alter the historic character of the building or site.
(Ord. No. 220-93, § 9, 5-17-93)

Sec. 14-641. Action by planning board.

Upon any appeal from the historic preservation board determination pursuant to section 14-638, the planning board shall review the appeal and the decision of the historic preservation board and shall take final action appeal within sixty (60) days following receipt of appeal; provided, however, whenever the planning board also is considering a site plan for development of the site, it shall proceed in accordance with the time frames applicable to site plan review. The planning board shall notify the applicant by regular mail within ten (10) business days following its decision on appeal.
(Ord. No. 235-90, 2-26-90; Ord. No. 197-03/04, 9-8-04)

Sec. 14-642. Issuance of certificate of appropriateness.

(a) The department shall issue the certificate of appropriateness within ten (10) business days following a proposed affirmative decision by the historic preservation board becoming final.

(b) Unless work authorized by a certificate of appropriateness shall be commenced within six (6) months of the date of issuance of the certificate of appropriateness, the certificate of appropriateness shall expire and shall become null and void. The department may approve additional extensions of this six-month period, not to exceed a total of two (2) years, provided that a written request for extension is received prior to the expiration date of the certificate of appropriateness. In the event of litigation arising out of the granting of a certificate of appropriateness, the certificate shall remain valid until one (1) year after the entry of final judgment in the litigation or until the end of the two-year period, whichever is later.
(Ord. No. 235-90, 2-26-90; Ord. No. 220-93, § 10, 5-17-93;Ord. No. 197-03/04, 9-8-04)

Sec. 14-643. Certificate of non-applicability.

(a) The department shall issue a certificate of non-applicability as to property subject to this article when requested to do so when:

1. The department determines that none of the proposed work requires a certificate of appropriateness;

2. The department determines that all of the proposed work is ordinary maintenance, restoration, or a combination thereof;

3. In the case of the alteration of a structure other than a landmark or of new construction within a district, where the department determines that the proposed exterior changes to a structure are not readily visible at pedestrian heights from any open space or street when viewed from any height between four (4) and six (6) feet above such space or street. Where a certificate of appropriateness is required for such changes, a certificate of non-applicability shall be issued upon request for those portions of the structure or structures not visible at such heights; provided, however, this paragraph shall not apply to alteration of a landmark or to any demolition; or

4. After any appeal where the historic preservation board, planning board or any court determines that paragraphs (1), (2) or (3) of this subsection are applicable.

(b) The department shall act upon any application for a certificate of non-applicability within five (5) business days of receiving a complete written description of all work to be undertaken.

(Ord. No. 235-90, 2-26-90)

Sec. 14-644. Amendments to approved certificates of appropriateness.

If at any time before or during work approved under the procedures set forth in this division the applicant requests minor amendments to approved work, the department may approve such minor amendments under the procedures set forth in section 14-638(b), provided that such amendments will not result in a waiver or

substantial alteration of the approval or any condition attached to the approval. The applicant shall supply a written statement of the proposed amendment and amended plans or drawings to the department. The decision of the department as to whether an amendment may be reviewed under this section shall be final.
(Ord. No. 220-93, § 11, 5-17-93)

Sec. 14-645. Review process for demolition of landmarks or structures within a district.

(a) Any applicant seeking demolition of a landmark or contributing structure must apply for a certificate of economic hardship to the board of appeals in accordance with division 8 of this article. Said application must be approved by the board of appeals before a demolition permit can be issued.

(b) Any applicant seeking demolition of a noncontributing building as defined in this article may apply directly for a demolition permit without receiving approval from the historic preservation board or a certificate of economic hardship from the board of appeals.

(c) Any applicant seeking demolition of a portion of a contributing or landmark structure may request that the historic preservation board make a determination as to whether such portion of the structure is non-contributing based on the definition of that classification contained in Sec. 14-602 of the ordinance. IF the board determines the portion to be noncontributing, the applicant may apply directly for a demolition permit.
(Ord. No. 165-08/09, 3-16-09)

Sec. 14-646. - Sec. 14-649. Reserved.

DIVISION 7. STANDARDS FOR REVIEW OF APPLICATION FOR CERTIFICATE OF APPROPRIATENESS

Sec. 14-650. Standards for review of alteration.

In considering an application for a certificate of appropriateness involving alteration, the historic preservation board and the Planning Board shall apply the following general standards, as further described in the design manual and any design guidelines in the ordinance designating the landmark or district:

(a) Every reasonable effort shall be made to provide a compatible use for a property which requires minimal alteration to the character-defining features of the structure, object or site and its environment or to use a property for its originally intended purpose.

(b) The distinguishing original qualities or character of a structure, object or site and its environment shall not be destroyed. The removal or alteration of any historic material or distinctive architectural features should be avoided when possible.

(c) All sites, structures and objects shall be recognized as products of their own time, place and use. Alterations that have no historical basis or create a false sense of historical development, such as adding conjectural features or elements from other properties, shall be discouraged.

(d) Changes which may have taken place in the course of time are evidence of the history and development of a structure, object or site and its environment. Changes that have acquired significance in their own right shall not be destroyed.

(e) Distinctive features, finishes and construction techniques or examples of skilled craftsmanship which characterize a structure, object or site shall be treated with sensitivity.

(f) Deteriorated historic features shall be repaired rather than replaced wherever feasible. Where the severity of deterioration requires replacement of a distinctive feature, the new feature should match the feature being replaced in composition, design, texture and other visual qualities and, where possible, materials. Repair or replacement of missing historic features should be based on accurate duplications of features, substantiated by documentary, physical or pictorial evidence rather than on conjectural designs or the availability of different architectural elements from other structures or objects.

(g) The surface cleaning of structures and objects, if appropriate, shall be undertaken with the gentlest means possible. Chemical or physical treatments, such as

sandblasting, that cause damage to historic materials shall not be undertaken.

(h) Every reasonable effort shall be made to protect and preserve significant archeological resources affected by or adjacent to any project. If resources must be disturbed, mitigation measures shall be undertaken.

(i) Contemporary design for alterations and additions to existing properties shall not be discouraged when such alterations and additions do not destroy significant cultural, historical, architectural or archeological materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the size, scale, color, material and character of the property, neighborhood or environment.

(j) Wherever possible, new additions or alterations to structures and objects shall be undertaken in such a manner that, if such additions or alterations were to be removed in the future, the essential form and integrity of the historic property would be unimpaired.

(Ord. No. 235-90, 2-26-90; Ord. No. 220-93, § 12, 5-17-93)

Sec. 14-651. Standards for review of new construction.

In considering an application for a certificate of appropriateness involving new construction, the historic preservation board and the planning board shall apply the following general standards as may be applicable to the context of the proposed construction. The intent and application of the following standards are further described in the historic resources design manual and shall guide the board in its review.

(a) *Scale and form:*

1. ***Height.*** In addition to the applicable requirements of articles III, IV and V of this chapter, the proposed height shall be visibly compatible with surrounding structures when viewed from any street or open space and in compliance with any design guidelines.

2. ***Width.*** The width of a building shall be visually compatible with surrounding structures when viewed

from any street or open space and in compliance with any design guidelines.

3. ***Proportion of principal facades.*** The relationship of the width to the height of the principal elevations shall be visually compatible with structures, public ways and open spaces to which it is visually related.

4. ***Roof shapes.*** The roof shape of a structure shall be visually compatible with the structures to which it is visually related.

5. ***Scale of a structure.*** The size and mass of structures in relation to open spaces, windows, door openings, porches and balconies shall be visually compatible with the structures, public ways and places to which they are visually related.

6. ***Applicability to Congress Street historic district.*** In the Congress Street historic district, for new construction within the B3 zone, the historic preservation board shall not impose conditions more restrictive than the dimensional requirements (Sec 14-220) of the B3 zone.

(b) ***Composition of principal facades:***

1. ***Proportion of openings.*** The relationship of the width to height of windows and doors shall be visually compatible with structures, public ways and places to which the building is visually related.

2. ***Rhythm of solids to voids in facades.*** The relationship of solids to voids in the facade of a structure shall be visually compatible with structures, public ways and places to which it is visually related.

3. ***Rhythm of entrance porch and other projections.*** The relationship of entrances and other projections to sidewalks shall be visually compatible with the structures, public ways and places to which they are visually related.

4. ***Relationship of materials.*** The relationship of the color and texture of materials (other than paint color) of the facade shall be visually compatible with the predominant materials used in the structures to which they are visually related.

5. ***Signs.*** Any new sign, and any change in the appearance of an existing sign located on a landmark within an historic district or within an historic landscape district, which is readily visible from any street or open space shall not be incongruous to the historic character of the landmark or district and shall comply with the criteria and guidelines specified in the design manual.

(c) ***Relationship to street:***

1. ***Walls of continuity.*** Facades and site structures, such as masonry walls, fences and landscape masses, shall, when it is a characteristic of the area, form cohesive walls of enclosure along a street to ensure visual compatibility with the structures, public ways and places to which such elements are visually related.

2. ***Rhythm of spacing and structures on streets.*** The relationship of a structure or object to the open space between it and adjoining structures or objects shall be visually compatible with the structures, objects, public ways and places to which it is visually related.

3. ***Directional expression of principal elevation.*** A structure shall be visually compatible with the structures, public ways and places to which it is visually related in its directional character, whether this be vertical character, horizontal character or nondirectional character.

4. ***Streetscape, pedestrian improvements.*** Streetscape and pedestrian improvements and any change in the appearance thereof located adjacent to, or on a landmark, within an historic district or within an

historic landscape district which is readily visible from any street or open space shall not be incongruous to the historic character of the landmark or district and shall comply with the criteria and guidelines specified in the design manual.

(d) *Other standards:*

1. ***Compatible uses.*** Every reasonable effort shall be made to provide a compatible use for a property which requires minimal alteration to the character-defining features of the structure, object or site and its environment or to use a property for its originally intended purpose.

2. ***Distinguishing original character.*** The distinguishing original qualities or character of a structure, object or site and its environment shall not be destroyed. The alteration of any historic material or distinctive architectural features should be avoided when possible.

3. ***Archeological resources.*** Every reasonable effort shall be made to protect and preserve significant archeological resources affected by or adjacent to any project. If resources must be disturbed, mitigation measures shall be undertaken.

4. ***Contemporary design.*** Contemporary design for additions to existing properties shall not be discouraged when such alterations and additions do not destroy significant cultural, historical, architectural or archeological materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the size, scale, material and character of the property, neighborhood and environment.

5. ***Additions.*** Wherever possible, new additions to structures and objects shall be undertaken in such a manner that, if such additions were to be removed in the future, the essential form and integrity of the structure would be unimpaired.

(Ord. No. 235-90, 2-26-90; Ord. No. 220-93, § 13, 5-17-93; Ord. No. 165-08/09, 3-

Sec. 14-651.5. Standards for review of alternations to or redesign of noncontributing structures.

(a) In considering an application for a certificate of appropriateness involving alteration(s) to a noncontributing structure the standards for review of alterations set forth in section 14-650 shall apply as applicable. The intent of the review shall be to ensure no further erosion of any existing architectural character of the subject structure determined to be significant by the historic preservation board and, where practicable, to guide projects toward a more compatible relationship with the surrounding context.

(b) In considering an application for a certificate of appropriateness involving comprehensive redesign of a noncontributing structure, the standards for review of construction set forth in section 14-651 shall apply.
(Ord. No. 165-08/09, 3-16-09)

Sec. 14-652. Standards for review of relocation.

In acting upon an application for a certificate of appropriateness involving relocation, the historic preservation board and the planning board shall apply the following general standards and any design guidelines in the ordinance designating the landmark or district:

(a) Whether the historic or urban design character and aesthetic interest of the structure or object contribute to its present setting.

(b) If located within a district, whether there are definite plans for the area to be vacated and what the effect of those plans is on the character of the surrounding area. In such cases, consideration of additional design guidelines for construction to be imposed as a condition of approval is appropriate.

(c) Whether the relocation of the structure or object can be accomplished without significant damage to its physical integrity.

(d) Whether the proposed relocation area is compatible with

the cultural, historical or architectural character of the structure or object.

(Ord. No. 235-90, 2-26-90)

Sec. 14-652.5. Standards for review of signage.

In considering an application for a certificate of appropriateness involving the installation or modification of sign(s), including awning(s) which incorporate signage, the following standard shall apply:

(a) Signs shall be compatible with the subject building and its surrounding context as detailed in the signage design guidelines included in the historic resources design manual. If there is a conflict between this standard and the requirements of Article III, Division 22. Signs, the stricter standard shall apply.

(Ord. No. 165-08/09, 3-16-09)

Sec. 14-653. Qualification of applicant.

Prior to issuance of any certificate of appropriateness, any applicant shall demonstrate sufficient right, title or interest in the property, technical capacity and financial capacity to complete any change proposed to be undertaken under the certificate of appropriateness, upon reasonable request of the department. If the department determines that the applicant has failed or refused to demonstrate an ability to complete the proposed activity, it shall refer the issuance to the Planning Board, which shall make a final determination as to whether the applicant has demonstrated a sufficient capability to complete the proposed activity. Notwithstanding any other provision of this article, the historic preservation board or Planning Board may include reasonable conditions, including the provision of adequate financial security, to ensure that actions taken under a certificate of appropriateness will be successfully prosecuted to completion, as approved, in a timely and workmanlike manner.

(Ord. No. 235-90, 2-26-90)

Sec. 14-654. - Sec. 14-659. Reserved.

DIVISION 8. CERTIFICATE OF ECONOMIC HARDSHIP

Sec. 14-660. Applicability.

(a) Any applicant denied a certificate of appropriateness by the planning board within thirty (30) days thereafter and any applicant seeking demolition of a landmark or a contributing structure within a district may make application for a certificate of economic hardship from the board of appeals. The application shall be submitted to the department, together with the applicable fee.

(b) The department shall transmit a copy of the application to the board of appeals, with copies to the Planning Board and the historic preservation board, within ten (10) business days following receipt of a properly completed application.
(Ord. No. 235-90, 2-26-90)

Sec. 14-661. Standard to be applied.

(a) The board of appeals shall approve an application for a certificate of economic hardship only upon a determination that the denial of approval of the proposed activity or of the proposed demolition will result in the loss of all reasonable use of the structure as required by sections 14-664 and 14-666.

(b) In applying this standard, the board of appeals shall consider among other things any evidence presented concerning the following:

1. Any opinions from a licensed engineer or architect with experience in renovation, restoration or rehabilitation as to the structural soundness of the structure and its suitability for continued use, renovation, restoration or rehabilitation.

2. Any estimates of the cost of the proposed alteration, construction, demolition or removal and an estimate of any additional cost that would be incurred to comply with the recommendations of the planning board for changes necessary for it to be approved.

3. Any estimates of the market value of the property in its current condition; after completion of the proposed alteration, construction, demolition or removal; after any expenditures necessary to comply with the recommendations of the planning board for changes

necessary for it to approve a certificate of appropriateness; and in the case of a proposed demolition, after renovation of the existing structure for continued use.

4. In the case of a proposed demolition, any estimates from architects, developers, real estate consultants, appraisers or other real estate professionals experienced in rehabilitation as to the economic feasibility of restoration, renovation or rehabilitation of any existing structures or objects.

(Ord. No. 235-90, 2-26-90)

Sec. 14-662. Information to be supplied by applicant.

(a) The applicant shall submit by affidavit the following information for an application to be considered to be complete:

1. The assessed value of the property and/or the structure in the case of a demolition for the two (2) most recent assessments.

2. Real property taxes paid for the previous two (2) years.

3. The amount paid for the property by the owner, the date of purchase and the party from whom purchased, including a description of the relationship, if any, between the owner and the person from whom the property was purchased.

4. The current balance of any mortgages or any other financing secured by the property and the annual debt service, if any, for the previous two (2) years.

5. All appraisals obtained within the previous two (2) years by the owner or applicant in connection with purchase, offerings for sale, financing or ownership of the property, or state that none were obtained.

6. All listings of the property for sale or rent, price asked and offers received, if any, within the previous four (4) years, or state that none were obtained.

7. All studies commissioned by the owner as to profitable renovation, rehabilitation or utilization of any

structures or objects on the property for alternative use, or a statement that none were obtained.

8. For income-producing property, itemized income and expense statements from the property for the previous two (2) years.

9. Estimate of the cost of the proposed alteration, construction, demolition or removal and an estimate of any additional cost that would be incurred to comply with the recommendations of the planning board for changes necessary for it to approve a certificate of appropriateness.

10. Form of ownership or operation of the property, whether sole proprietorship, for-profit or not-for-profit corporation, limited partnership, joint venture or other.

(b) In the event that the information required to be submitted by the applicant is not reasonably available, the applicant shall file with the affidavit a statement of the information that cannot be obtained and shall describe the reasons why such information is unavailable.

(c) Notwithstanding the submission of the above information, the board of appeals may require additional evidence as provided in section 14-680.

(Ord. No. 235-90, 2-26-90)

Sec. 14-663. Public hearing.

(a) The board of appeals shall hold a public hearing on the application within thirty (30) days following receipt of the completed application form. Where the application requests the demolition of a landmark or a contributing structure within a district, the public hearing shall not be held less than ninety (90) days following receipt of the completed application, unless the applicant makes a clear showing that the delay will result in undue hardship of a unique or exceptional character which could not reasonably be or have been avoided. Upon such a showing, the department may waive all or any part of the ninety-day period and schedule the hearing before the board. Undue hardship shall not include mere inconvenience or incidental financial loss. No such waiver shall be granted without the department giving best practical notice to all persons entitled to notice of the hearing.

(b) Notice of the application and of the public hearing, and conduct of the hearing, shall be in accordance with the provisions of section 14-550. Where the application requests the demolition of a landmark or a contributing structure within a district, the department shall promptly notify any persons interested in historic preservation, who have registered in writing with him or her, give notice by mail to all owners of property within five hundred (500) feet of the structure, and shall require that the applicant immediately place a notice, to be supplied by the building official, in a prominent place on the structure and to maintain it there at all times during the pendency of the demolition application. The notice shall be substantially in the following form:

"This structure has been proposed to be demolished by its owner. For further information, contact Inspection Services of the City of Portland. 874-8300"

(c) The failure to give any notice required hereunder shall not affect the validity of any action taken by the department or the board of appeals.

(d) The Planning Board may provide a report or any other information, documentation or evidence or request the historic preservation board to assist the board of appeals in considering the extent of variance necessary, an appropriate incentive plan, or reasonable condition to be imposed.

(e) The board of appeals may continue a proceeding for such additional time as it reasonably takes an applicant, any other interested person, the historic preservation board or the planning board to comply with a request for additional information or evidence. The applicant shall be afforded the right to present rebuttal evidence.
(Ord. No. 235-90, 2-26-90)

Sec. 14-664. Determination by the board of appeals.

(a) The determination by the board of appeals shall be made within forty-five (45) days following close of the public hearing and submission of all information, documentation or evidence requested by the board. The determination shall be accompanied by findings of fact.

(b) The board of appeals shall not grant approval of an application involving demolition, unless the board determines, upon clear and convincing evidence, that one (1) or more of the following circumstances apply:

1. The structure is not subject to this article; or

2. Denial of a demolition permit would result in a hardship to the property owner so great that it would effectively deprive the owner of all reasonable use of the structure. The extent of any demolition permitted shall be limited to the amount necessary to allow reasonable use of the structure. Where the condition of the structure is claimed to prevent any reasonable use, the applicant shall establish that such condition is not the result of the acts or neglect of the owner or his predecessors in title occurring in whole or in part after August 1, 1988.

(Ord. No. 235-90, 2-26-90)

Sec. 14-665. Disapproval by board of appeals.

If the determination of the board of appeals is to disapprove the application for a certificate of economic hardship, the applicant shall be notified within five (5) business days. The notice shall include a copy of the findings of fact and report.
(Ord. No. 235-90, 2-26-90)

Sec. 14-666. Determination of no reasonable use.

(a) If the determination of the board of appeals is that the denial of the certificate of appropriateness has resulted in the denial of all reasonable use of the structure, or the entire property in the case of new construction, then the certificate of economic hardship shall be issued by the department ninety (90) days following the determination unless during that time the council approves an incentive plan pursuant to section 14-667.

(b) A copy of the determination of the board of appeals, together with the findings of fact, shall be mailed to the applicant and filed with the city clerk, the planning board and the historic preservation board within five (5) business days following the determination of economic hardship.
(Ord. No. 235-90, 2-26-90; Ord. No. 165-08/09, 3-16-09)

Sec. 14-667. Incentive plan.

The purpose of an incentive plan is to provide a mechanism to allow a reasonable use without the demolition of the complete structure or important architectural elements. The Planning Board, in cooperation with the historic preservation board and the owner, may prepare a report and recommend to the board of appeals an incentive plan to assure reasonable use of the structure. This incentive plan may include, but is not limited to, loans or grants from the City of Portland or other public or private sources, acquisition by purchase or eminent domain, building and safety code modifications to reduce cost of maintenance, restoration, rehabilitation or renovation, changes in applicable zoning regulations, including a transfer of development rights, or relaxation of the provisions of this article sufficient to allow reasonable use of the structure.
(Ord. No. 235-90, 2-26-90)

Sec. 14-668. City council consideration of incentive plan.

(a) Upon receipt of a report from the board of appeals recommending an incentive plan to assure reasonable use of the property, the council shall give prompt consideration to the determination of economic hardship and the report of the board, including the recommended incentive plan. The council shall approve or disapprove the incentive plan determined by the board of appeals to allow reasonable use of the structure within ninety (90) days following the determination by the board of appeals.

(b) A copy of the ordinance enacted by the council, together with the incentive plan, if any, shall be mailed to the applicant and transmitted to the board of appeals, the planning board and the historic preservation board within five (5) business days following the enactment of the ordinance.
(Ord. No. 235-90, 2-26-90)

Sec. 14-669. Issuance of certificate of economic hardship.

(a) Upon receipt by the board of appeals of a copy of council action disapproving an incentive plan, or upon failure of the council to act to either approve or disapprove an incentive plan within the time specified, the board of appeals shall approve a certificate of economic hardship to the applicant within thirty (30) days. The certificate may be subject to conditions including design guidelines for subsequent new construction not inconsistent with the standards set forth in this article and the design manual.

The certificate of economic hardship shall be valid for a period of one hundred twenty (120) days from approval by the board of appeals, except as provided in section 14-666 where an incentive plan has been proposed. Certificates of economic hardship shall not be transferable from the applicant to another subsequent owner of the same property.

(b) Upon presentation by the applicant of a valid certificate of economic hardship to the department, the certificate of appropriateness shall be issued to the applicant within five (5) business days.
(Ord. No. 235-90, 2-26-90; Ord. No. 165-08/09, 3-16-09)

Sec. 14-670. - Sec. 14-674 Reserved.

DIVISION 9. ADMINISTRATION

Sec. 14-675. Historic resources design manual.

(a) The historic preservation board may provide further guidance on how to meet the standards of this article in the historic resources design manual, which shall supplement this article, which may include but need not be limited to maps and descriptions of landmarks and districts, a listing of properties which have been determined to be eligible for listing on the National Register or for local designation, a glossary of terms and architectural styles, descriptions, and illustrations of how the standards of this article will be interpreted, and all designation ordinances, reports and design guidelines. All provisions of the design manual shall be consistent with the standards of this article and any designation ordinance adopted hereunder.

(b) Amendments to the design manual shall be forwarded to the council as a communication and shall become effective forty-five (45) days from the date on which said amendments are sent to the council, unless the council takes official action disapproving the amendments, in whole or in part, prior to the expiration of the 45-day period.

(c) The design manual shall be maintained by the department and available for inspection and copying during regular business hours.
(Ord. No. 235-90, 2-26-90; Ord. No. 220-93, § 14, 5-17-93; Ord. No. 165-08/09, 3-16-09)

Sec. 14-676. Reserved.

Sec. 14-677. Costs.

Any project may be subject to one or more of the following fees:

(a) Project Review.

1. Administrative review, $50.00.

2. Historic Preservation board review: $100.00

3. Historic preservation board review for projects involving new construction or building additions exceeding 1000 square feet or comprehensive rehabilitation or redesign of existing structures: $750.00

4. After-the-fact review $1,000.00 plus applicable application fee.

5. Historic preservation sign review $75.00

6. Applicant shall also pay a fee to cover the professional and administrative costs for review and analysis associated with project review, including but not limited to planning, legal, or other services. The fee shall be based on the hours of review and processing time and prevailing hourly rate for reimbursement of city costs. The city shall periodically invoice the applicant for such costs incrred by the city, which invoice shall be paid promptly by the applicant. No certificate of appropriateness, building, demolition, or other permit shall issue until all current charges due under this ordinance have been paid. The balance of any remaining review and administrative costs invoiced or incurred after a permit has been issued shall be paid in full by the developer prior the issuance of any temporary or permanent certificate of occupancy.

(b) Advertising expenses.

Every applicant shall bear the entire expense of giving notice by mail and publication in accordance with this article.

(Ord. No. 235-90, 2-26-90; Ord. No. 220-93, § 15, 5-17-93; Ord. No. 119-01/02, § 5, 12-3-01; Ord. No. 165-08/09, 3-16-09; Ord. No. 223-09/10, 5-17-10)

Sec. 14-678. Notices and public comment.

(a) Except as provided in sections 14-638 and 14-639, notice of proceedings upon any application for a certificate of appropriateness shall be given only when the proposed activity otherwise constitutes level III site plan. Notice of such proceedings also shall be furnished to any persons interested in historic preservation who have registered with the department, and to the historic preservation board and/or the planning board when the proceeding is pending before a different body. The failure to give any notice required by this article shall not affect the validity of any action taken.

(b) The historic preservation board, the planning board, the board of appeals and the council shall each invite public comment at a public meeting in accordance with their respective rules, prior to any final action being taken under this article.

(c) The department shall advise the historic preservation board and the planning board of any demolition permit application received by the department as to structures or objects that are noncontributing within nominated or designated districts, but there shall be no historic preservation board review of such permit applications.
(Ord. No. 235-90, 2-26-90; Ord. No. 278-09/10, 7-19-10)

Sec. 14-679. Expiration of approval.

An approval shall expire and become null and void upon the expiration of the authorization for the work, or for the development, under the applicable provisions of chapter 6 or of articles IV or V of this chapter.
(Ord. No. 235-90, 2-26-90)

Sec. 14-680. Applicant to supply necessary evidence.

In determining the existence of the circumstances specified in this article, the historic preservation board, planning board or board of appeals may require such additional documentation or evidence as they may respectively determine to be necessary, including plans, drawings and elevations, and notwithstanding any time limit for action or decision specified in this article, it may

continue a proceeding for such additional time as it reasonably takes an applicant or any other party to comply with the request for additional relevant documentation or evidence and may draw a negative inference with regard to the content of any material evidence not produced upon reasonable request.
(Ord. No. 235-90, 2-26-90)

Sec. 14-681. Appeals.

(a) The applicant, or any person who has participated in opposition to the application and demonstrates a particularized harm caused by the approval of the application, may appeal to superior court in accordance with Rule 80B of the Maine Rules of Civil Procedure from:

1. Any final action of the planning board, provided, however, only the applicant may appeal where no building permit or site plan review is required for the work which requires the issuance of the certificate of appropriateness; or

2. Any final decision of the board of appeals. If the decision of the board of appeals is subject to an incentive plan, the decision shall not be considered final until final action on the incentive plan by the council becomes final.

(Ord. No. 235-90, 2-26-90; Ord. No. 197-03/04, 9-8-04)

Sec. 14-682. Reserved.
Sec. 14-683. Reserved.
Sec. 14-684. Reserved.
Sec. 14-685. Reserved.
Sec. 14-686. Reserved.
Sec. 14-687. Reserved.
Sec. 14-688. Reserved.
Sec. 14-689. Reserved.

DIVISION 10. MAINTENANCE

Sec. 14-690. Preservation of protected structures.

(a) Minimum maintenance requirement. All landmarks, and all contributing structures located in an historic district, shall be preserved against decay and deterioration by being kept free from the following structural defects by the owner and any

other person or persons who may have legal custody and control thereof:

1. Deteriorated or inadequate foundation which jeopardizes its structural integrity;

2. Defective or deteriorated floor supports or any structural members of insufficient size to carry imposed loads with safety which jeopardize its structural integrity;

3. Members of walls, partitions or other vertical supports that split, lean, list or buckle due to defective material or deterioration which jeopardize its structural integrity;

4. Structural members of ceilings and roofs, or other horizontal structural members, which sag, split or buckle due to defective materials or deterioration or are of insufficient size to carry imposed loads with safety which jeopardize its structural integrity;

5. Fireplaces or chimneys which list, bulge or settle due to defective material or deterioration or are of insufficient size or strength to carry imposed loads with safety which jeopardize its structural integrity;

6. Lack of weather protection which jeopardizes the structural integrity of the walls, roofs or foundation.

(b) The owner or such other person shall repair such building, object or structure within a specified period of receipt of a written order to correct defects or repairs to any structure as provided by subsection (a) above, so that such structure shall be preserved and protected in accordance with the purposes of this article.

(c) Any such order shall be in writing, shall state the actions to be taken with reasonable particularity and shall specify dates for compliance, which may be extended by the department for reasonable periods to allow the owner to secure financing, labor or materials. Any such order may be appealed to the board of appeals within thirty (30) days. The board shall reverse such an order only if it finds that the department had no substantial justification for requiring action to be taken, that the measures required or

time periods specified were not reasonable under all of the circumstances. The taking of an appeal to the board or to court shall not operate to stay any order requiring structures to be secured or requiring temporary support, unless the board or court expressly stays such order. The court of competent jurisdiction to enforce any order.
(Ord. No. 235-90, 2-26-90)

Sec. 14-691. Reserved.
Sec. 14-692. Reserved.
Sec. 14-693. Reserved.
Sec. 14-694. Reserved.

DIVISION 11. PENALTIES, ETC.

Sec. 14-695. Fines for violation.

Failure to perform any act required by this article or performance of any act prohibited by this article or of any conditions or any certificate issued hereunder shall constitute a violation and be subject to a fine as provided in 30-A M.R.S.A. Section 4452. Each day on which there is failure to perform a required act or on which a violation exists shall constitute a separate violation for purposes of this section.
(Ord. No. 235-90, 2-26-90)

Sec. 14-696. Additional penalties for willful violation or gross negligence.

(a) In addition to the penalties authorized by section 14-695, a violation which is intentional, or occurs through gross negligence, shall be subject to the following provisions:

1. No permit shall be issued under chapter 6 of this Code for any alteration or new construction affecting such property for a period of five (5) years following the last date of the violation, other than permits necessary to correct the violation. However, upon presentation of evidence satisfactory to the planning board that the violation has been corrected, any remaining portion of the five-year prohibition on issuance of a permit may be waived.

2. For a period of twenty-five (25) years, any alteration or new construction on the property shall be subject to this

article, whether or not any remaining structure or object on the property continues to have the cultural, historical, architectural or archeological character and integrity that caused it to be nominated or designated as a landmark or part of a district.

3. As a condition for any new land use approval, the owner may be required to rebuild, reconstruct, restore or replicate the structure or object on the property.

(b) Paragraphs (1) and (2) of subsection (a) shall not apply to violations which are limited to noncontributing structures.
(Ord. No. 235-90, 2-26-90; Ord. No. 165-08/09, 3-16-09)

Sec. 14-697. Other remedies.

Notwithstanding the provisions of sections 14-695 and 14-696, the city may institute appropriate proceedings in law and equity to prevent or remedy any violation of this article.
(Ord. No. 235-90, 2-26-90)

Sec. 14-698. Liberal construction of article.

This article shall be liberally applied and construed to effectuate the purpose of preservation set forth in section 14-601.
(Ord. No. 235-90, 2-26-90)

Sec. 14-699. Exception for dangerous buildings.

This article shall not apply to any structure which has been ordered demolished by the municipal officers or a court, in accordance with 17 M.R.S.A. Section 2851 et seq., its equivalent, as it may be amended from time to time, or to any structure which has been partially destroyed and is determined by the department to represent an immediate hazard to the public health or safety, which hazard cannot be abated by reasonable measures specified by the department, including without limitation securing apertures and/or erecting fencing.
(Ord. No. 235-90, 2-26-90)

Sec. 14-700. Severability; effective date.

The provisions of section 1-14 shall apply to this chapter.

The provisions of this article shall be effective August 1,

1990.
(Ord. No. 235-90, 2-26-90)

DIVISION 12. LANDMARKS

Sec. 14-701. Structures designated as landmarks.

In addition to those structures designated as landmarks pursuant to section 14-631, the structures which are depicted as landmark buildings on the Map of Historic Districts with landmarks and historic landscape districts as adopted by the council and as amended from time to time shall be so designated.
(Ord. No. 42-91, 9-4-91; Ord. No. 165-08/09, 3-16-09)

Sec. 14-702. Historic landscape districts.

In addition to those areas designated as historic landscape districts pursuant to section 14-631, the areas which are depicted as historic landscape districts on the Map of Historic Districts with landmarks and historic landscape districts as adopted by the council and as amended from time to time shall be so designated.
(Ord. No. 61-93, 8-2-93; Ord. No. 165-08/09, 3-16-09)

Sec. 14-703. Historic districts.

In addition to those areas designated as historic districts pursuant to section 14-631, the following areas are depicted as historic districts on the Map of Historic Districts with landmarks and historic landscape districts as adopted by the council and as amended from time to time shall be so designated.
(Ord. No. 59-93, 8-2-93; Ord. No. 165-08/09, 3-16-09)

Sec. 14-704. Historic landmark sites.

In addition to those areas designated as historic landmark sites pursuant to section 14-631, the areas which are depicted as historic landmark sites on the Map of Historic Districts with landmarks and historic landscape districts as adopted by the council and as amended from time to time shall be so designated.
(Ord. No. 60-93, 8-2-93; Ord. No. 165-08/09, 3-16-09)

Sec. 14-705. Reserved.
Sec. 14-706. Reserved.
Sec. 14-707. Reserved.
Sec. 14-708. Reserved.
Sec. 14-709. Reserved.
Sec. 14-710. Reserved.

Sec. 14-711. Reserved.
Sec. 14-712. Reserved.
Sec. 14-713. Reserved.
Sec. 14-714. Reserved.
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Sec. 14-717. Reserved.
Sec. 14-718. Reserved.
Sec. 14-719. Reserved.
Sec. 14-720. Reserved.
Sec. 14-721. Reserved.
Sec. 14-722. Reserved.
Sec. 14-723. Reserved.
Sec. 14-724. Reserved.
Sec. 14-725. Reserved.
Sec. 14-726. Reserved.
Sec. 14-727. Reserved.
Sec. 14-728. Reserved.
Sec. 14-729. Reserved.
Sec. 14-730. Reserved.
Sec. 14-731. Reserved.
Sec. 14-732. Reserved.
Sec. 14-733. Reserved.
Sec. 14-734. Reserved.
Sec. 14-735. Reserved.
Sec. 14-736. Reserved.
Sec. 14-737. Reserved.
Sec. 14-738. Reserved.
Sec. 14-739. Reserved.
Sec. 14-740. Reserved.
Sec. 14-741. Reserved.
Sec. 14-742. Reserved.
Sec. 14-743. Reserved.
Sec. 14-744. Reserved.
Sec. 14-745. Reserved.
Sec. 14-746. Reserved.
Sec. 14-747. Reserved.
Sec. 14-748. Reserved.
Sec. 14-749. Reserved.
Sec. 14-750. Reserved.

ARTICLE X. ALTERNATIVE ENERGY.

Sec. 14-751. Purpose.

The intent of this article is to allow the reasonable use of locally generated alternative sources of energy supply that help reduce greenhouse gas emissions consistent with the Sustainable Portland Report which was adopted on June 7, 2010. Alternative energy systems include but are not limited to wind, solar and geothermal energy generation.
(Ord. No. 33-11/12, 1-18-12)

Sec. 14-752. Reserved.

DIVISION 1. WIND ENERGY GENERATION.

Sec. 14-753. Purpose.

The purpose of this division is to allow for the construction and operation of public or private wind energy generation systems to produce energy for use on site or off site, by establishing appropriate locations and standards to ensure safe, effective and efficient use of wind energy systems compatible with surrounding uses.
(Ord. No. 33-11/12, 1-18-12)

Sec. 14-754. Applicability.

(a) No wind energy system, expansion of any existing wind energy system, or installation of any associated facilities, shall be installed unless it has been approved under this ordinance and has obtained a building permit and any other necessary state or local approvals prior to its installation. Wind energy generation systems determined to be permitted uses shall be reviewed and approved by the Zoning Administrator; wind energy systems determined to be conditional uses shall be reviewed and approved by the Zoning Board of Appeals (ZBA).

(b) Any physical modification to an existing and permitted wind energy system which alters the total rated capacity, the size or type of the system or its associated equipment shall require approval under this ordinance. Like-kind replacements or non-structural maintenance and repair shall not require approval under this ordinance but shall require a building permit.
(Ord. No. 33-11/12, 1-18-12)

Sec. 14-755. Definitions.

For the purposes of this division, the following words and phrases shall have the following meanings:

Abandonment: The date at which a wind energy system has been out

of service for a continuous period of 6 months.

DEP certification: Certification issued by the Maine Department of Environmental Protection (Maine DEP) pursuant to Title 35-A M.R.S.A. § 3456 for a wind energy development.

Horizontal wind energy system: A wind energy system that utilizes a generator shaft that is parallel to the ground and usually mounted on a tower.

Lattice tower: A tower constructed of vertical metal struts and cross braces forming a square or triangular structure in horizontal cross-section, which may or may not be supported by external guy wires and anchors.

Monitoring and maintenance plan: For permitted systems this would constitute the owner's manual requirements. For systems that may be allowed as a conditional use, this would constitute a more detailed and customized document.

Monopole tower: A tower constructed of a single, self-supporting metal tube, anchored to the foundation without guy wires.

Public industrial or utility facility: A facility operated by the City of Portland or Portland Water District that contains a major industrial or utility operation, such as a treatment plant, solid waste facility, materials storage yard or similar operation.

Residential building: A residence, nursing home/assisted living facility, or other building that is in use as an overnight residence but excluding hotels.

Total height of wind energy system: The vertical distance as measured from the average elevation of the finished grade adjacent to the fixed base of the support structure, to the tip of the wind generator blade or any other part of the system at its highest point. Where located on roof tops, the height shall be the total of the building and the wind energy system taken together.

Total rated capacity: The maximum rated output of electric power generation by the system in kilowatts (kW) ad identified by the manufacturer.

Useful life of the wind energy system: The period for which the system has been designed by the manufacturer to operate in a safe manner, including the period during which new parts and refurbishment

allow it to continue operating safely.

Vertical wind energy system: A wind energy system that utilizes a generator shaft that is positioned perpendicular to the ground.

Wind energy system: A wind energy generator and all associated facilities.

Wind energy system associated facilities: All elements of a wind energy system, other than its generating facilities, that are necessary for the proper operation and maintenance of the system, including but not limited to guy wires, remote electronic enclosures and fixtures, transformers, inverter, batteries, substations and similar equipment.

Wind energy generator: The device that converts kinetic wind energy into rotational energy that generates electricity, which may include components such as a base, blade, nacelle, rotor, tower, turbine, or vane.
(Ord. No. 33-11/12, 1-18-12)

Sec. 14-756. Reserved.

Sec. 14-757. Permitted uses.

(a) Freestanding wind energy systems that are accessory to the lawful principal use of the lot, primarily for the generation of energy for on-site consumption, and at or below 25 feet in total height, may be allowed as permitted uses in all residential, B1, I-B and residence-professional zones subject to the standards listed below in Section 14-761 (General Standards), 14-763 (Maintenance and Removal), and 14-765 (Submittal Requirements).

(b) Freestanding wind energy systems that are accessory to the lawful principal use of the lot, primarily for the generation of energy for on-site consumption, and meet the applicable height standards of the zone in which they are located and are no higher than 45 feet, may be allowed as permitted uses in all business zones except B1 and I-B, and in the office park, industrial zones, airport business zone, subject to the standards listed below in section 14-761 (General Standards), 14-763 (Maintenance and Removal), and 14-765 (Submittal Requirements).

(c) Roof mounted wind energy systems that are accessory to the lawful principal use of the lot, primarily for the generation of energy for on-site consumption, meet the applicable height standards of the zone in which they are located and are less than 10 feet above the highest part of the roof, may be allowed as permitted uses

in all zones except stream protection zone and recreation open space zone, subject to the standards listed below in section 14-761 (General Standards), 14-763 (Maintenance and Removal), and 14-765 (Submittal Requirements).
(Ord. No.33-11/12, 1-18-12)

Sec. 14-758. Conditional uses.

(a) Wind energy systems that do not meet the requirements for a permitted system may be allowed as conditional uses in all zones (including overlay zones but excluding stream protection and resource protection zones), subject to the provisions of section 14-430 (height and bulk exceptions/use exceptions); section 14-474 (conditional uses); and to the requirements and performance standards listed below in section 14-761(general standards), 14-763 (maintenance and removal), and 14-765 (submittal requirements). For the purposes of this provision, wind energy may be an accessory use in all zones or a principal use in all zones except residential zones, B1 zone, I-B zone, residence-professional zone and resource protection zone.

(b) Wind energy systems within recreation open space zones (including the island transfer station overlay zone) are allowed as a conditional use where they are co-located with public industrial or utility facilities as defined in section 14-755.
(Ord. No. 33-11/12, 1-18-12)

Sec. 14-759. Prohibited uses.

(a) Wind energy systems of any kind are prohibited in the stream protection and historic landscape districts [excepting the sewage treatment plan corner of Eastern Prom] and historic cemeteries.

(b) Wind energy systems are prohibited where they exceed the height limitations set out in Table 1 (below) and described in provision 14-761(c)(3).

Table 1: Summary Table of Permitting

Type and scale of wind energy system	***Stream Protection, Historic Landscape Districts & Historic Cemeteries***	***Resource Protection Zone***	***All Residential Zones, and Residential Professional Zone; B1 Zone; I-B Zone***	***Historic Districts*, and within 1000 ft of specified landmarks (see**)***	***Water-front Zones and B6***	***Business Zones B2 & B5 Indus-trial Zones I-L, I-Lb and I-Ma***	***Business Zones B3 and B7***	***B4 Zone, Office -Park Zone***	***Recreation Open Space (ROS) Zone where Co-located with public industrial or utility facilities as per 14-758(b)***	***Industrial Zones I-M, I-Mb, I-H; Airport Bus. (w/FAA approval)***
Roof mounted, accessory, <10 ft above roof) & below permitted height of zone	X	P	P	P	P	P	P	P	C	P
Freestanding; accessory; up to 25 ft	X	X	P	P	P	P	P	P	C	P
Freestanding or roof mounted: accessory; at or below permitted height of zone AND no higher than 45 ft	X	X	X if<.5 acre except C if .5 acre or larger	P	P	P	P	P	C	P
Freestanding or roof mounted; at or above permitted height of zone AND no higher than 45 ft	X	X	X Except C only where accessory & on institutional sites over 5 acres	C	C	C	C	C	C	C
Roof mounted or free-standing; at or below permitted height for that zone AND no higher than 65 ft	X	X	X Except C only in USM Overlay Area & for college, university or trade schools in the R5 zone	X Except C in B3 part Congress St. Historic District	C	C	C	C	C	C
Roof mounted or free-standing; above permitted height for that zone AND no higher than 65 ft	X	X	X	X Except C in B3 part Congress St. Historic District	C	C	C	C	C	C
Roof mounted; at or below permitted height for that zone AND no higher than 85 ft	X	X	X	X Except C in B3 part Congress St. Historic District	X	X	C	C	C	C
Freestanding;at or below permitted height for that zone AND no higher than 85ft	X	X	X	X Except C in B3 part Congress St. Historic District	X	X	X	C	C	C
Freestanding; above permitted height for that zone AND no higher than 85 ft	X	X	X	X	X	X	X	X	C	C
Roof mounted or freestanding; above 85 ft and no higher than 160 ft	X	X	X	X	X	X	X	X	C with increased setbacks (see 14-761(d)(6))	C with increased setbacks (see 14-761(d)(6))+

P= Permitted Use; needs Zoning Administrator approval plus building permit; if within 100 feet of a designated landmark, historic district or historic landscape district, also needs planning authority (HP) approval;

C=Conditional Use; needs ZBA approval plus building permit; if within 100 feet of a designated landmark, historic district or historic landscape district, also needs planning authority (HP) approval;
X=Prohibited

*Historic districts only (wind systems are prohibited in historic landscape districts and historic cemeteries); in historic districts if the maximum allowed height in this section is different from the allowable height associated with the underlying zone, the lower of the two height limits would apply regarding wind energy systems. Within the B3 part of the Congress Street Historic District, the height limits in this ordinance for the B3 zone shall apply.
**Specified landmarks are: Portland Observatory; Cathedral of Immaculate Conception; St Dominic's Cathedral; St Luke's Cathedral; State Street Church; and City Hall

Sec. 14-760. Reserved.

Sec. 14-761. General standards.

(a) *General*

1. *Application requirements:* All applications for approval under this ordinance shall address the submittal requirements set out in section 14-765 submittal requirements.

2. *Approvals:* All applicable state and local approvals shall be obtained prior to installation of any wind energy system, including FAA approval and MDEP certification for all systems 100kW and above in total rated capacity.

3. *Conditions:* The zoning administrator or zoning board of appeals (ZBA) may impose conditions to ensure compliance with the standards and purposes set out in this ordinance, including but not limited to post-construction certification of compliance by a licensed professional engineer or authorized factory representative.

(b) *Historic Resource*

1. Where any part of the proposed wind energy system (including associated facilities) is within an historic district, such development shall be reviewed and approved by the planning authority (historic preservation) in accordance with article IX historic preservation prior to a review under this ordinance by the zoning board of appeals.

2. Where any part of the proposed wind energy system (including tower base and associated facilities) is within one hundred (100) feet of any designated

landmark, historic district or historic landscape district, such development shall be determined by the planning authority (historic preservation)to be generally compatible with the major character-defining elements of the landmark or portion of the district in the immediate vicinity of the proposed system; such determination shall be made prior to a review under this ordinance by the zoning board of appeals. Character-defining elements of landmarks and historic districts are identified in the historic resources inventory and respective historic district designation reports. An appeal of the planning authority (historic preservation) determination may be made in accordance with section 14-767 (appeals).

(c) *Siting*

1. ***Location on site:*** In residential zones, B1 zone, I-b zone and residence-professional zone where the lot is less than .5 acre, any vertical element of the wind energy system (tower/pole) shall be located in the rear yard or on the rear half of the existing building. Wind energy systems and associated facilities shall be sited to maximize existing vegetative or other screening from nearby residential buildings and public ways. The location shall minimize changes to existing topography and existing natural vegetation which would result from construction or maintenance of the system.

2. ***Number per lot***: In residential zones, I-B zone and residence-professional zone and all business zones excluding B3, B4 and B7, a maximum of one (1) wind energy system shall be permitted per lot.

3. ***Overall height:*** The total height (including the supporting structure or building and the rotors or blades of the generator) of the wind energy system when operating shall be at or below the following maximum height limits.

   These limits do not apply within historic districts (except the Congress Street historic district)or

within 1000 feet of Portland Observatory; Cathedral of the Immaculate Conception; St Dominic's Cathedral; St Luke's Cathedral; State Street Church; and City Hall where the overall height of wind energy systems may be no higher than 45 feet. Within the Congress Street historic district, the overall height of wind energy systems may be no higher than 45 feet in those areas outside of the B3 zone and within the B3 zone the height limits below shall apply.

In addition, the actual height of any roof mounted wind energy system, as measured above the roof from the point of attachment, where allowed as a conditional use shall not exceed 35% of the height of the building on which it is mounted.

a. *Maximum of 45 feet*:

i. Roof mounted in R-6 zone if 10 feet or less above highest part of the roof and permitted by that zone.

ii. Residential zones, B1 zone, I-B zone and residence-professional zone if lot is .5 acre or larger and height permitted by that zone.

iii. Institutional uses in residential zones, B1 zone, I-B zone and residence-professional zone where lot is over 5 acres.

iv. Resource protection zone (roof mounted and up to height permitted by zone).

b. *Maximum of 55 feet:* College, university or trade school in R5 zone where conditional use requirements of the zone are met (14-118(b)(6)(g)).

c. *Maximum of 65 feet:*

i. Waterfront zones.

ii. Business zones B2, B5 and B6.

iii. Industrial zones I-L, IL-b and I-Ma

iv. Freestanding in business zones B3 and B7.

v. USM overlay zone if allowed by overlay heights.

d. *Maximum of 85 feet:*

i. Roof mounted in B3 and B7 if height permitted by overlay heights.

ii. Business zone B4 if height permitted by that zone.

iii. Office-park zone up to 75 feet where requirements of the zone are met (14-230.14(e)).

e. *Maximum of 160 feet (Increased setbacks if over 85 feet):*

i. Industrial zones I-M and IMb and I-H.

ii. Airport business zone.

iii. Recreation open space zones where allowed by 14-758(b).

(d) *Safety*

1. ***Generation equipment:*** All wind energy generation equipment shall be approved under a certification program certified by the US Department of Energy such as the Underwriters Laboratories, Germanishcer Lloyd Wind Energies, or other similar certifying organizations. Experimental, homebuilt, and prototype models shall not be permitted.

2. ***Design safety:*** Wind energy systems and associated facilities, including foundations and support structures, electrical connections and control equipment, associated site improvements and

construction techniques, shall be designed, engineered and installed to comply with all applicable local, state and federal construction and electrical codes/regulations and Federal Aviation Administration regulations and requirements.

3. ***Setbacks:*** Wind energy systems and associated facilities shall meet all setbacks for principal structures for the zone in which the wind energy system is located; where setbacks vary the largest setback shall apply. All parts of the wind energy system, including associated facilities and guy wires, shall be at least 10 feet from the property line (except where connecting to the grid), any utility line (in any direction) or other easement/ROW. The setback from utility lines, easements and ROW lines may be reduced where the owner/benefitted party provides written permission.

4. ***Safety setbacks (roof mounted systems):*** All roof mounted wind energy systems shall be set back from property boundaries and street right of way lines by a distance equal to or greater than 4 times the height of the system as measured from the roof surface at the point of attachment (including attachment structure to roof). For systems in and adjacent to waterfront zones, business zones (except B-1 and I-B), office park zone, industrial zones, island transfer station zone, and ROS zone, the setback from property boundaries and street right of way lines may be reduced to a minimum distance of 1.0 times the height of the system as measured from the roof surface at the point of attachment (including attachment structure to roof) where the system is incorporated into the architecture of the building and a certified engineer confirms that it would not present any public safety risk. The setback distance shall be measured to the center of the wind generator base.

5. ***Safety setbacks (freestanding systems no higher than 85 feet high):*** All freestanding wind energy systems with a total height of 85 feet or less shall be set back from property boundaries and

street right of way lines by a distance equal to or greater than 1.1 times the total height of the system, and from residential buildings and hospitals on other properties by a distance equal to or greater than 2 times the total height of the system. The setback distance shall be measured to the center of the wind generator base.

6. ***Safety setbacks (freestanding systems above 85 feet high):*** All freestanding wind energy systems with a total height above 85 feet shall be set back from property boundaries and street right of way lines by a distance equal to or greater than 2 times the total height of the system, and from residential buildings and hospitals on other properties by a distance equal to or greater than 4 times the total height of the system. For systems in and adjacent to waterfront zones, business zones (except B-1 and I-B), office park zone, industrial zones, island transfer station zone, and ROS zone, the setback from property boundaries and street right of way lines may be reduced to a minimum distance of 1.0 times the total height of the system where the Board determines it will be contrary to the public interest. The setback distance shall be measured to the center of the wind generator base.

7. ***Control of systems:*** Wind energy generators shall have automatic braking, governing or feathering systems to ensure rotational speeds remain within the design parameters of the proposed generator and its support structure and components and do not create intermittent high noise levels.

8. ***Security:*** The support structure (e.g. tower, pole) for freestanding wind generating systems shall not be climbable (no step bolts, ladder, or unshielded lattice structure readily accessible to the public) for a minimum height of twelve (12) feet above the surrounding ground level or accessible surface. All ground mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.

9. ***Clearances:*** All moving components of a wind energy

system shall be a minimum of twelve (12) feet from ground level or accessible surface.

10. ***Wiring:*** All on-site electrical wiring associated with the proposed wind energy system shall be located within the tower/pole/supporting structure and underground; above ground on-site connections near substations or to the electric grid shall be allowed.

11. ***Guy wires:*** The use of guy wires is discouraged; if required they shall be located away from pedestrian routes/access points and marked with visible, reflective, colored objects, such as flags, reflectors, or tape which shall be placed on the anchor points of guy wires and along the guy wires up to a height of ten feet from the ground.

(e) ***Impacts***

1. ***Sound impacts:*** The audible sound levels generated by the wind energy system* shall comply with the requirements of the underlying zone, except that the method of measurement shall be in accordance with this provision and with technical standards set out in the City of Portland Technical Manual. In addition:

   a. Where the underlying zone is residential and does not specify sound requirements, or where the system will be within 100 feet of a residential building, the audible sound levels generated by the wind energy system* shall not exceed forty-five (45) decibels on the A scale between the hours of 9:00 p.m. and 7:00 a.m., and fifty (50) decibels on the A scale between 7:00 a.m. and 9:00 p.m., as measured at the nearest property line in accordance with this provision and technical standards set out in the City of Portland Technical Manual.

   b. For any system over 45 feet in total height not in the recreation open space, resource protection or island transfer station zones, the maximum sound levels allowed by this

ordinance shall not be exceeded at the nearest property boundary and at the nearest point vertically above the property line that coincides with the maximum building height allowed in the abutting zone.

c. Any system located within the recreation open space, resource protection or island transfer station zones and more than 100 feet from a residential building shall not exceed fifty-five 955) decibels on the A scale as measured 50 feet from the base of the tower.

*The audible sound levels of the wind energy system shall include sounds generated in all conditions including low and high winds (furling, yawing, and flutter) and power outages (free wheeling).

If after installation the system is determined to be operating at levels above these limits (as measured at the property lines in accordance with this provision and technical standards set out in the City of Portland Technical Manual) the owner shall take (at the owners cost) remedial action to ensure compliance with these limits. Required action may include relocation nor removal of the system.

2. ***Significant wildlife:*** The proposed wind energy system shall not be located within 250 feet of any significant wildlife habitat, as defined by MDEP/MDIFW under provisions of the Natural Resources Protection Act (Title 38, M.R.S.A. § 480, et seq.) including wildlife habitat for species appearing on the official state and federal list of endangered or threatened animal species.

3. ***MDIFW comments:*** For all wind energy systems over 45 feet in height above the ground (however supported) or over 100kW the applicant shall provide evidence that the environmental coordinator of the Maine Department of Inland Fisheries and Wildlife, and the Maine Natural Area Program, have been notified of the location, height and design of the proposed wind energy system at least 3 weeks

prior to any final determination under this provision. Any comments received therefrom shall be addressed to the satisfaction of these state authorities prior to any final determination under this provision.

4. ***Signal interference:*** Wind energy systems shall be designed to avoid electromagnetic interference with the transmission or reception of radio, telephone, television, microwave, navigational or similar signals to neighboring areas.

5. ***Appearance:*** The wind energy system and associated facilities shall use non-reflective materials and neutral colors and textures that blend in with the surrounding environment. Ground-mounted systems and associated facilities shall be landscaped to integrate the proposed wind energy system into the existing landscape/streetscape. In the case of conditional uses the system shall be screened with a vegetated buffer from public areas and residential buildings.

6. ***Lighting:*** No part of the system may be illuminated, except as required (in writing) by the Federal Aviation Administration (FAA) or other authorities for safety and security purposes. Where lighting is required, it shall be at the lowest intensity allowable with fixtures shielded and directed to minimize glare and visibility from the ground.

7. ***Signs and advertising:*** There shall be no signs, advertisements, flags or decorative items on a wind energy system or any associated facilities, except for the manufacturer's/installer's/owner's identification (not exceeding 1 sq foot in size), appropriate warning signs, or lights if required by the FAA.

8. ***Impact of construction:*** The applicant shall avoid adverse impacts resulting from construction and maintenance of the wind energy system and obtain site plan approval (Article V, Site Plan) where applicable.

Sec. 14-762. Reserved.

Sec. 14-763. Maintenance and removal.

(a) A satisfactory monitoring and maintenance plan shall be required to ensure that all aspects of operation remain safe and in accordance with the approved design, engineering and installation details. All buildings, structures, fences, and property used in connection with a wind energy system shall be regularly inspected and maintained, through the life of the system, so that they remain: in good condition; in compliance with the standards set out in this ordinance (e.g., meeting sound limits); in safe working order; and so that paint and other external materials remain as approved and free from corrosion.

(b) The owner and operator shall, at their expense, complete the removal of the wind energy system within 6 months of the end of the useful life of the wind energy system or within 6 months of the date of abandonment.

(c) The City shall revoke any approvals and/or pursue removal of the wind energy system at the owner and operator's expense in the following circumstances:

1. The wind energy system is not installed and functioning within 12-months from the date of the approval under this ordinance; or

2. The wind energy system is at any time left in an unsafe condition in respect to federal, state and local safety standards (as determined by the City); or

3. The wind energy system has not been brought back to a safe condition/operation or removed from the site within required timeframe; or

4. The wind energy system is defective or abandoned and not been removed from the site within required timeframe.

(Ord. No. 33-11/12, 1-18-12)

Sec. 14-764. Reserved.

Sec. 14-765. Submittal requirements.

(a) The following information shall be submitted with an application for a review of a wind energy system and associated facilities under this ordinance.

1. A narrative describing the proposed wind energy system, including an overview of the project; the project location; the generating capacity of the wind energy system; dimensions and respective manufacturers, the sound levels generated by the wind energy system; and a description of associated facilities and how the system and associated facilities comply with the standards of this ordinance (including a plan or other graphics that demonstrate compliance with the required setbacks). Calculations of sound attenuation and anticipated sound levels shall be in accordance with technical standards set out in the City of Portland Technical Manual.

2. An accurate scaled site plan of the subject property showing the planned location of the proposed wind energy system and all associated facilities; property lines, adjoining streets and access; topographic contour lines; existing and proposed buildings, fencing, structures, substations, vegetation, driveways, parking, and curb cuts on the subject property; and specifications for all proposed electrical cabling/transmission lines, accessory equipment, and landscaping. The site plan shall show any proposed off-site modifications to access the installation and/or to maintain the proposed wind energy system. [Note: separate site plan applications may be required for some or all of the associated modifications; see Article V Site Plan]

3. A boundary survey where the location and dimensions of the wind energy system are determined to be uncertain by the Zoning Administrator.

4. Names and addresses of the owners of abutting properties and the location, dimensions, and types of all existing structures and uses within 100 feet of the property line.

5. A scaled elevation drawing showing the proposed wind energy system and all proposed structures, foundations, supports, fencing, vegetation and landscaping, indicating the height, color and materials of the system.

6. The wind energy system specifications, including manufacturer, model, dimensions of all components, height, tower/support type, total rated capacity and information on any connections to the grid including a copy of the application for interconnection with the electric utility provider where to be connected to the grid.

7. Documentation that the wind generation equipment has been approved under a recognized certification program as set out in paragraph 14-761(d)1 of this ordinance and that the system complies with all applicable local, state and federal codes/regulations and with the standards regarding signal interference. Electrical component and connection information shall be in sufficient detail to allow for a determination that it meets Maine electrical codes.

8. Engineered drawings of the structure, its foundations and associated facilities (stamped by a PE). In the case of conditional uses, the applicant shall provide a Safety Report prepared and stamped by a licensed professional engineer with their application that certifies that the proposed wind energy system design is safe and appropriate in terms of strength, stability, security, grounding, icing impacts, and maintenance, given local soil and climate conditions.

9. Evidence of compliance or non-applicability with FAA requirements, MDEP Certification pursuant to 35-A M.R.S.A. § 3456 for wind energy development (applies to systems over 100kW) and other federal and state regulations regarding potential impacts on wetlands, wildlife and other resources.

10. For any wind energy system that will exceed the height limit for buildings on the subject property, the following shall be submitted:

a. A scaled vicinity map showing the subject property and the proposed wind energy system and fencing in the context of all property located within a distance from the wind energy system equal to three (3) times the height of the wind energy system (in the case of a system 85 feet or higher, ten (10) times the height), showing within this area: all streets and existing buildings; significant structures: uses of any buildings; and topographic contours at five foot intervals.

b. Color photographs showing the current view of the wind energy system site from any adjoining public street or any other street within 200 feet of the proposed wind energy system and from the closest groupings of residential buildings located within an area from the proposed wind energy system equal to three (3) times the height of the proposed structure (ten (10) times the height for systems 85 feet), plus a second set of color photographs showing the same views with the proposed wind energy system superimposed onto the photographs.

11. Where lighting of the wind energy system is proposed (due to FAA requirements), a lighting plan for the proposed win energy system, indicating the location, color and intensity of the lighting, both as it will appear in daylight and at night, and indicating any mechanisms to prevent glare on adjacent properties and streets and to shield the lighting from residences.

12. Where the wind energy system manufacturer's sound level analysis does not clearly meet the sound standard of this ordinance, a statement by a professional engineer licensed in the State of Maine certifying that the proposed wind energy system will meet the sound standard of this ordinance. The technical standards set out in the City of Portland Technical Manual outline further information which may apply in this case.

13. A monitoring and maintenance plan in accordance with

section 14-763(a).

14. The following information shall be submitted with an application for a wind energy system proposed to be attached to the roof of a building or onto another structure:

a. Elevation drawings and details of the building or structure to which the proposed wind energy system will be attached, showing the placement of the wind system and its supports, indicating the location of any enclosures in relation to the surface to which it will be attached, and showing projection of the wind generator from the structure, marked with all necessary dimensions.

b. Design and engineering information for roof-mounted systems shall demonstrate that the structure on which it will be mounted has the structural integrity to carry the weight and wind loads of the system with minimal vibration impacts on the structure.

(Ord. No. 33-11/12, 1-18-12)

Sec. 14-766. Reserved.

Sec. 14-767. Appeals.

(a) Any aggrieved party may appeal a decision by the zoning administrator under the provisions of this ordinance by requesting in writing that it be referred to the zoning board of appeals within thirty (30) days of the decision being rendered. The date of the decision shall be the date of the letter from the zoning administrator documenting the decision.

(b) Any aggrieved party may appeal a decision of the planning authority determination under provision 14-761(b)(2) of this ordinance (compatibility if within 100 feet of a designated landmark, historic district or historic landscape district)by requesting in writing that it be referred to the historic preservation board within thirty (30) days of the determination. The date of the determination shall be the date of the letter from the planning authority documenting the decision. Appeals shall be considered by the historic preservation board as a de-novo review of the determination of compatibility.

(c) Any aggrieved party may appeal the final decision of the zoning board of appeals or the historic preservation board to the superior court in accordance with Rule 80B of the Maine Rules of Civil Procedure. The date of the final decision shall be the date of the board hearing or other board meeting at which a final decision was taken.
(Ord. No. 33-11/12, 1-18-12)

Sec. 14-768. Reserved.
Sec. 14-769. Reserved.
Sec. 14-770. Reserved.
Sec. 14-771. Reserved.
Sec. 14-772. Reserved.
Sec. 14-773. Reserved.
Sec. 14-774. Reserved.
Sec. 14-775. Reserved.
Sec. 14-776. Reserved.
Sec. 14-777. Reserved.
Sec. 14-778. Reserved.
Sec. 14-779. Reserved.
Sec. 14-780. Reserved.
Sec. 14-781. Reserved.
Sec. 14-782. Reserved.
Sec. 14-783. Reserved.
Sec. 14-784. Reserved.
Sec. 14-785. Reserved.
Sec. 14-786. Reserved.
Sec. 14-787. Reserved.
Sec. 14-788. Reserved.
Sec. 14-789. Reserved.
Sec. 14-790. Reserved.
Sec. 14-791. Reserved.
Sec. 14-792. Reserved.
Sec. 14-793. Reserved.
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Sec. 14-802. Reserved.
Sec. 14-803. Reserved.

Sec. 14-804. Reserved.
Sec. 14-805. Reserved.
Sec. 14-806. Reserved.
Sec. 14-807. Reserved.
Sec. 14-808. Reserved.
Sec. 14-809. Reserved.
Sec. 14-810. Reserved.
Sec. 14-811. Reserved.
Sec. 14-812. Reserved.
Sec. 14-813. Reserved.
Sec. 14-814. Reserved.
Sec. 14-815. Reserved.
Sec. 14-816. Reserved.
Sec. 14-817. Reserved.
Sec. 14-818. Reserved.
Sec. 14-819. Reserved.
Sec. 14-820. Reserved.
Sec. 14-821. Reserved.
Sec. 14-822. Reserved.
Sec. 14-823. Reserved.
Sec. 14-824. Reserved
Sec. 14-825. Reserved.
Sec. 14-826. Reserved.
Sec. 14-827. Reserved.
Sec. 14-828. Reserved.
Sec. 14-829. Reserved.
Sec. 14-830. Reserved.
Sec. 14-831. Reserved.
Sec. 14-832. Reserved.
Sec. 14-833. Reserved.
Sec. 14-834. Reserved.
Sec. 14-835. Reserved.
Sec. 14-836. Reserved.
Sec. 14-837. Reserved.
Sec. 14-838. Reserved.
Sec. 14-839. Reserved.
Sec. 14-840. Reserved.
Sec. 14-841 Reserved.
Sec. 14-842. Reserved.
Sec. 14-843. Reserved
Sec. 14-844. Reserved.
Sec. 14-845. Reserved.
Sec. 14-846. Reserved.
Sec. 14-847. Reserved.
Sec. 14-848. Reserved.

Sec. 14-849. Reserved.

ARTICLE XI. PUBLIC ART PROGRAM

------ *__Editor's note—__Ord. No. 174-00, passed 4-24-00, repealed §§14-851-14-860 of this article and enacted new provisions as herein set out. ------

Sec. 14-850. Preamble.

It shall henceforth be the policy of the City to provide on an annual basis regular funding for the preservation, restoration and enhancement of its public art collection. This ordinance and the funding contemplated are in recognition of the fact that only by instituting a steady stream of funding for this effort and standing by that commitment, will the City over time be able to fulfill its role as steward of its public art collection and help nurture and enrich thereby the quality of life in this City.
(Ord. No. 174-00, 4-24-00)

Sec. 14-851. Purpose.

The purpose of the public art ordinance is to promote the educational, cultural, economic and general welfare of the City of Portland by providing the means to fund the acquisition and care of art works by the City of Portland, which shall be the city's public art collection. The public art program seeks to:

(a) Care for and maintain the public art collection of the City of Portland by documenting, preserving and restoring and repairing the collection;

(b) Commission or acquire works of public art, and to seek donations of art work for the city's public art collection;

(c) Provide curatorial expertise and project management for the care of Portland's public art collection;

(d) Enhance and enrich the lives of the city's residents, visitors and employees by incorporating the visual arts into public spaces;

(e) Contribute to the city's civic pride and sense of identity;

(f) Increase access to works of art for residents and visitors to the area;

(g) Enhance Portland's growing reputation as a city which celebrates the arts;

(h) Celebrate the multi-cultural and diverse character of Portland's communities with place specific art; and

(i) Encourage collaboration between artists, landscape architects, urban planners, architects, engineers and other designers.

(Ord. No. 246-91, 3-11-91; Ord. No. 174-00, 4-24-00; Ord. No. 140-08/09, 1-21-09)

Sec. 14-852. Definitions.

(a) For the purposes of this section, ***art work*** shall include:

1. Sculpture, statues or monuments in any material or combination of materials;

2. Painting;

3. Graphic arts, printmaking and drawing;

4. Photography;

5. Crafts in clay, fiber and textiles, wood, metal, plastics, glass and other materials; and

6. Mixed media, any combination of forms or media, including collage.

(7) Functional art such as street furniture, as defined on page two of the Portland public art committee guidelines.

(8) Environmental art consisting of landforms and artistic landscape composition.

(b) For the purposes of this ordinance ***public art*** shall not include:

1. Reproductions by mechanical or other means of original works of art, except for limited editions, controlled by the artist, of original prints, cast sculptures,

photographs or other works of art.

2. Decorative, ornamental, or functional elements which are designed by the building architect or consultants engaged by the architect which are a traditional and typical element of architectural design.

3. Those elements generally considered to be conventional components of a landscape architectural design including, but not limited to, plant materials, pools, paths, benches, receptacles, fixtures and planters except as allowed in subsection (a), paragraphs 7 and 8 above.

4. "Art objects" which are mass produced or of a standard design, such as playground sculpture or fountains, except pieces of historical significance to the city.

5. Directional or other functional elements, such as supergraphics, signage, color coding and maps, except where sculptural pieces are used to define gateways in the city.

6. Electrical, water or mechanical service for activation of the work.

7. Exhibitions and educational programs related to the work.

8. Performing Arts.

9. Art that displays slogans, logos, mascots or commercial advertising.

(c) ***Public art collection***: Art objects that are owned by the City of Portland which are permanently installed in public, accessible locations. Permanent public art must be located in a public place with public visibility and impact, and shall have a permanence at least comparable to associated capital projects.

(d) ***Public art guidelines***: The regulations adopted by the committee and approved by the city council which establish procedures to carry out the purpose of this ordinance. The guidelines shall include but not be limited to criteria for selection of artists and art works, maintenance of a file of interested artists, procedures for artistic competitions, and

requirements for the maintenance of works of art.
(Ord. No. 246-91, 3-11-91; Ord. No. 174-00, 4-24-00; Ord. No. 140-08/09, 1-21-09)

Sec. 14-853. Funding.

(a) Establishment of Public Art Fund

1. The city shall establish a special revenue fund designated as the "public art fund" in the city treasury from which expenditures may be made in accordance with this ordinance. The public art fund shall contain a capital account to fund permanent public improvements in the form of the purchase, acquisition or commission of new public art, or major restorations, and an operations and maintenance account. Authorized expenditures include, but are not limited to, associated site installation costs such as lighting and landscaping, and costs associated with the commission engineering, contract administration, unveiling and dedication activities. Also authorized are expenditures associated with preservation, conservation and repair of existing public art. Capital funds may come from any source, including the sale of general obligation bonds. The city’s capital improvement program shall contain an annual appropriation for the public art fund calculated in accordance with paragraph (b) below. Funds for the operation and maintenance account may come from any source except bonds.

(b) City Funded Projects.

1. A percentage of the city's capital improvement program (CIP) shall be calculated and appropriated annually to the Portland public art fund. The annual appropriation shall be .5% of the total annual CIP.

2. Nothing contained herein shall preclude funding the acquisition of art for municipal property in other ways.

(Ord. No. 246-91, 3-11-91; Ord. No. 174-00, 4-24-00; Ord. No. 140-08/09, 1-21-09)

Sec. 14-854. Administration.

(a) The city public art program shall be administered by the public art committee whose members shall be appointed by the city council, and shall have the following responsibilities:

1. Develop an annual art plan for Portland which shall be presented to the city council for approval.

2. Establish such guidelines as are necessary to carry out the purpose of the ordinance. The guidelines shall include but not be limited to criteria for selection of artists and art work, maintenance of a file of interested artists, review criteria for proposed gifts of art work to the city, procedures for artistic competitions, and requirements for the maintenance of art work. Any and all guidelines or changes to guidelines shall be placed on a city council agenda as a communication. The guideline shall take effect forty-five (45) days after the date of placement on the council agenda, unless the city council takes official action disapproving the guidelines, in whole or in part, prior to the expiration of the 45-day period. If a part of a guideline is vetoed, the remainder shall continue in effect. Any guideline adopted, which is not required by the statutes of the state or by this article, may be waived by the chair upon good cause being shown.

3. Recommend to the city council the expenditure of funds for the acquisition or commissioning of public art, for maintenance of public art and for administration of this program.

4. Seek private donations of funds and/or works of art for the purposes of expanding the public art collection, or the maintenance of the collection.

5. Oversee the maintenance, care and repair of the public art collection.

6. Review the appropriateness of proposed public art which is intended to fulfill all or part of the contribution required by this article.

7. Review potential gifts of art to the city on city property, and assist in the development process of such gifts, in accordance with the ***Guidelines for the City of Portland Public Art Committee.***

8. Recommend appropriate locations and accessibility to the

public for permanent art, with suggestion as to the type of art which is appropriate.

9. Solicit advice from arts professionals, the business community, and from local residents on the appropriateness of proposed art.

10. Recommend revisions to policies and guidelines for the improved implementation of this program.

11. Develop an annual art plan for Portland.

12. Ensure that the use of funds collected under this program will increase the amount of art in the city that is available to the public.

(b) Public art committee - structure.

1. The public art committee shall be composed of eleven voting members who are appointed by the city council. The city council shall appoint one of its members, the city manager shall recommend a member, and the Portland arts and cultural alliance shall recommend one of its members to serve on the public art committee. The city council shall appoint the remaining six members who shall be volunteers and have interest and/or expertise in public art. Such experience may include, but shall not be limited to, education and experience as an architect, a landscape architect, a professional curator, a professional artist and/or an art educator. Persons appointed to the public art committee must live or work in Portland and shall be appointed through the city's annual appointment process.

2. Each public art committee member shall serve for a period of three years. The appointments shall be staggered so that three appointments terminate each year.

3. Whenever a vacancy shall occur, the vacancy shall be filled by the city council.

4. The public art committee shall adopt its own rules for the conduct of its business not inconsistent with the statutes of the state and this article. Any and all rules or changes to rules shall be placed on a city

council agenda as a communication. The rule or rules shall take effect forty-five (45) days after the date of placement on the council agenda, unless the city council takes official action disapproving the rules, in whole or in part, prior to the expiration of the 45-day period

5. The members of the public art committee shall annually elect one (1) of their members as a chair to preside at all meetings and hearings and to fulfill the customary functions of that office, and another of their members as vice-chair.

(Ord. No. 246-91, 3-11-91; Ord. No. 174-00, 4-24-00; Ord. No. 14-08/09, 1-21-09)

Sec. 14-855. Reserved.
Sec. 14-856. Reserved.
Sec. 14-857. Reserved.
Sec. 14-858. Reserved.
Sec. 14-859. Reserved.
Sec. 14-860. Reserved.

ARTICLE XII. RELOCATION OF DISPLACED TENANTS

Sec. 14-861. Purpose.

The purpose of this article is to encourage the retention of a diverse housing supply throughout the downtown and in areas readily accessible to the downtown; to ensure that persons displaced as the result of redevelopment of residential units to nonresidential uses within the B-3 downtown business zone are treated fairly and consistently; and to ensure that persons so displaced will be relocated at the reasonable expense of the developer to comparable housing at a location providing comparable access to services and amenities.

(Ord. No. 246-91, 3-11-91)

Sec. 14-862. Notice and eligibility for relocation assistance.

When a proposed development will result in the displacement of residents of an existing structure, the developer of the property shall give all tenants written notice as set forth below and shall provide relocation assistance as set forth below for any tenant whose gross income is eighty (80) percent or less of the median income of the Portland SMSA, adjusted for family size, as

determined by the U.S. Department of Housing and Urban Development at the time the developer gives the tenant written notice of intent to cause removal of the residential unit. Such written notice shall be given to the tenant at least one hundred twenty (120) days before the tenant shall be required to vacate the premises and shall contain the following statement:

> The developer of this project is required by law to assist you in finding another place to live and in determining your eligibility for relocation payments. If you have questions about your rights under the law, or complaints about the way you have been treated by the developer, you may contact the Department of Planning and Urban Development, City of Portland, 389 Congress Street, Portland, Maine 04101 (telephone 874-8300).

(Ord. No. 246-91, 3-11-91)

Sec. 14-863. Relocation assistance for all tenants.

The developer shall provide, upon demand, assistance to all tenants who will be displaced by the development in the form of referrals to other reasonable accommodations and in determining the tenants' eligibility for relocation payments as provided herein.
(Ord. No. 246-91, 3-11-91)

Sec. 14-864. Relocation payments for eligible tenants.

The developer shall make relocation payments to eligible tenants in accordance with the schedule adopted by the city council.
(Ord. No. 246-91, 3-11-91)

***Editor's Note:** By separate order (Order 126-04/05, 6-6-05)the City Council passed the adoption of relocation payments for qualifying displaced tenants in the B-3 zone as follows:

WHEREAS, the Portland City Code §14-864 (adopted in 1991) requires a developer to provide financial and other assistance to relocate qualifying residential tenants in the B-3 zone, where such tenants are displaced due to the conversion of residential property to nonresidential property; and

WHEREAS, the Portland City Council was charged with adopting a schedule of relocation payments to be utilized in such circumstances; and

WHEREAS, the schedule, if any, adopted at that time cannot be located;

WHEREAS, the Housing Committee recommends the adoption of a payment

schedule equal to two months rent paid by a qualifying tenant.

NOW THEREFORE, it is hereby ordered that the City Council hereby adopts the following schedule pursuant to §14-864 of the Portland City Code:

SCHEDULE OF RELOCATION PAYMENTS FOR ELIGIBLE TENANTS

The developer shall, before the tenant is required by the developer to vacate, make a cash payment to the tenant in an amount equal to the amount of rent paid by the tenant for the immediately preceding two (2) months.

Sec. 14-865. Reserved.
Sec. 14-866. Reserved.
Sec. 14-867. Reserved.
Sec. 14-868. Reserved.
Sec. 14-869. Reserved.
Sec. 14-870. Reserved.
Sec. 14-871. Reserved.
Sec. 14-872. Reserved.
Sec. 14-873. Reserved.
Sec. 14-874. Reserved.
Sec. 14-875. Reserved.
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Sec. 14-885. Reserved.
Sec. 14-886. Reserved.
Sec. 14-887. Reserved.
Sec. 14-888. Reserved.
Sec. 14-889. Reserved.
Sec. 14-890. Reserved.
Sec. 14-891. Reserved.
Sec. 14-892. Reserved.
Sec. 14-893. Reserved.
Sec. 14-894. Reserved.
Sec. 14-895. Reserved.
Sec. 14-896. Reserved.
Sec. 14-897. Reserved.
Sec. 14-898. Reserved.

Sec. 14-899. Reserved.

ARTICLE XIII. RESERVED*

***Editor's note--**Ord. No. 127-98, adopted Oct. 19, 1998, repealed Art. XIII, §§ 14-900, 14-901, relative to moratorium on correctional prerelease facilities, which derived from Ord. No. 26-96, adopted June 17, 1996.

Sec. 14-900. Reserved.

Sec. 14-901. Reserved.

ARTICLE XIV. MORATORIUM ON DEMOLITION OF HOUSING UNITS

***Editor's Note**: Order No. 221-99 adopted February 1, 1999 enacted a moratorium on the demolition of buildings in the area of Bayside. The moratorium was in effect January 1, 1999 through May 1, 1999.

Sec. 14-902. Findings and declaration of emergency.

The city council hereby finds and declares:

(a) The strong economy has increased the demand for housing beyond the supply available in the city and the surrounding area;

(b) The rental vacancy rate in the city has been extremely tight (0 to 2%) for the last 3 years, well below the vacancy rate which is considered healthy for a community, allowing choice and maintaining moderate prices;

(c) The lack of supply has pushed rent levels beyond the level which low and moderate income families and individuals can afford;

(d) Due to high cost of construction and the lack of land, very few new affordable multifamily units are being built in the city;

(e) The lack of supply of affordable housing and high rents hurt the vulnerable populations the most, e.g. those with disabilities, the working poor and the elderly;

(f) Several pending developments in the City contemplate the demolition of residential property or its conversion to nonresidential use;

(g) Housing, because of its scarcity and high costs, is an extremely valuable resource in the City of Portland. Once lost, it is very difficult to replace; and

(h) The City currently has under consideration methods to preserve and expand existing housing as well as proposals to require the replacement of housing which is either demolished or converted to nonresidential use:

Now, therefore, in order to permit the development and implementation of methods which will preserve Portland's existing housing stock as well as to require replacement of dwelling units which are demolished or converted to nonresidential use, it is found and declared that a temporary moratorium is necessary to allow the City to accomplish those goals.
(Ord. No. 26-02/03, 8-5-02)

Sec. 14-903. Moratorium on demolition of housing units.

Notwithstanding any other provisions of this Code, including, but not limited to, the provisions of Chapters 6 and 14, no permit shall be issued or granted and no new applications shall be accepted by the Building Authority or the Planning Authority from and after August 5, 2002 up to and including Monday, October 7, 2002, for the demolition of any dwelling or dwelling units, including single-family, two-family, and multi-family dwellings, lodging houses, sheltered care group homes, and rooming units anywhere within the City of Portland.

It is further found and determined that it is necessary that this article take effect immediately as an emergency, pursuant to article II, section 8 of the City Charter.
(Ord. No. 26-02/03, 8-5-02)

Sec. 14-904. Exceptions.

(a) The moratorium hereunder shall not apply to any building found to be a dangerous building pursuant to 17 M.R.S.A. Secs. 2851 et seq.

(b) The moratorium hereunder shall not apply to property

which, although designed and intended for residential use, is, at the time of adoption of this section, a legally grandfathered non-residential use.

(c) Any demolition or conversion approved by the Portland Planning Board under the Site Plan Review and Conditional Use Standards of Chapter 14 of the Portland Code prior to July 1, 2002, so long as such approval is valid and in effect on the date of this ordinance.
(Ord. No. 26-02/03, 8-5-02)

ARTICLE XV. WATERFRONT CAPITAL IMPROVEMENT AND ECONOMIC REDEVELOPMENT ZONE AND ORDINANCE

Sec. 14-905. Title.

This ordinance shall be known as the Waterfront Capital Improvement and Economic Redevelopment Ordinance.
(Ord. No. 249-01, 6-4-01)

Sec. 14-906. Purposes.

The purpose of this ordinance is to implement those provisions of the Waterfront Economic Development Task Force Report, (Waterfront II) entitled "Investing in Our Working Waterfront: Final Report of the Mayor's Waterfront Task Force on Economic Development," dated September 2000, as adopted by the Portland City Council on June 4, 2001 which create a capital improvement plan for redevelopment on the Portland Waterfront. That plan includes funding the loan fund described in that report, the financing and installation of infrastructure to support the economy of that area of the City of Portland, such as parking facilities, utilities, traffic and congestion management installations, operating facilities for the cargo, fishing and other water-dependent, marine related industries, environmental protection and improvement, including the management and abatement of combined sewer overflows, appropriate assistance in the permitting and completion of dredging of siltation at piers, wharfs and weirs, and such other matters as the City Council shall approve from time to time. These activities shall be collectively known as the redevelopment program.
(Ord. No. 249-01, 6-4-01)

Sec. 14-907. Creation of the Waterfront Redevelopment Economic Zone (WREZ).

The Waterfront Redevelopment Economic Zone is hereby created.

Beginning at a point on the southerly side of the Eastern Promenade at the intersection of the Westerly side of the Portland House Condominium and the Easterly sideline of land now or formerly of Dan Haley.

Thence Southwesterly along the Southerly side of Eastern Promenade to Fore Street.

Thence Westerly along the Southerly side of Fore Street to the intersection of Fore Street and Mountfort Street.

Thence Northerly along Mountfort Street to the Southeast corner of the lot referenced as 20-C-2 on City of Portland Tax maps as of April first, 2001.

Thence Westerly along lot 20-C-2 about 72 feet.

Thence Northerly along 20-C-2 to 20-C-5.

Thence Westerly along 20-C-5 to the south corner of 20-C-5.

Thence Northwesterly along 20-C-5 to Newbury Street.

Thence Southwesterly along Newbury Street to Hancock Street.

Thence Southeasterly along Hancock Street to Middle Street.

Thence Southwesterly along Middle Street to 20-C-27.

Thence Southeasterly along the Northeast sideline of 20-C-27 about 99.99 feet.

Thence Southwesterly along the Southeast sideline of 20-C-27 to India Street.

Thence South along India Street to the Northern corner of 29-N-26.

Thence Westerly along the Northern side of lot 26 to lot 24.

Thence Westerly, Northerly, Westerly, and Southerly along 29-N-24 to Bradbury Court.

Thence Westerly along Bradbury Court to the Franklin Street Arterial.

Thence Northerly along Franklin Street Arterial to Fore Street.

Thence Westerly along Fore Street to Pearl Street.

Thence Southerly along Pearl Street to Gold Street.

Thence Westerly along Gold Street to Silver Street.

Thence Northerly along Silver Street to Fore Street.

Thence Westerly along Fore Street to Market Street.

Thence Southerly along Market to the dividing line between 32-S-3 and 32-S-4 & 5.

Thence Northerly along Moulton Street to Wharf Street.

Thence Westerly along Wharf Street to a passage between Assessor's map 32 blocks "T" and "U" leading to Commercial Street.

Thence Southerly along said passage about 28 feet to the dividing line between lots 32-U-3 and 32-U-5.

Thence Westerly, Southerly, and Westerly along the Southerly line of lot 5 to Dana Street.

Thence Westerly across Dana Street and following the Northern boundary of lots 32-V-2, 4, 5, 8, and 12 to Union Street.

Thence Northerly on Union Street to Fore Street.

Thence Westerly on Fore Street to parcel 38-F-8.

Thence Southerly along the Easterly sideline of 38-F-8.

Thence Westerly along the Southerly sideline of 38-F-8 to Cross Street.

Thence Northerly to Fore Street

Thence Westerly along Fore Street to 38-G-7.

Thence Southerly along the Easterly sideline of 38-G-7.

Thence Westerly along the Southerly sideline of 38-G-7 to the Easterly sideline of Center Street.

Thence Northerly along Center Street to the Southerly sideline of 40-F-11.

Thence Southwesterly along the Southerly sideline of 40-F-11 and 40-E-1.

Thence Westerly along the South side of 42-A-8.

Thence Northerly along the Westerly line of 42-A-7 to York Street.

Thence Westerly along the Southerly side of York Street to High Street.

Thence Southerly along High Street 44 feet ± to Southern sideline of 42-B-7.

Thence Westerly along the Southerly sideline of 44-B-2 to Park Street.

Thence Westerly across Park Street to the Southerly sideline of 43-C-7.

Thence Westerly along the Southern sideline of 43-C-7 to the edge of proposed State Street.

Thence Westerly across proposed State Street to the Southerly sideline of 43-E-8.

Thence Westerly along the Southerly sideline of 43-E-8 to the Casco Bay Bridge.

Thence Southeasterly along the Casco Bay Bridge to the Harbor Commissioner's Line.

Thence Northeasterly along the Harbor Commissioner's line to a point which is the intersection of the Harbor Commissioner's line and a line which is the extension of the lot line between the Southeasterly line of land now or formerly of Dan Haley and the Southwesterly line of the Portland House Condominium.

Thence Northwesterly along said line to the Southerly side of the Eastern Promenade at the point of beginning.

All as shown on a map dated April 13, 2001 entitled "Proposed Waterfront Redevelopment Area" on file in the Planning Office.

Any inconsistencies between this description and the map shall be controlled by the map.
(Ord. No. 249-01, 6-4-01)

Sec. 14-908. Financing Activities.

The following financing activities are authorized for the creation of funds to be used for the activities approved for funding by this ordinance:

(a) Tax Increment Financing Districts Revenues.

1. Within the Waterfront Redevelopment Economic Zone (WREZ) all activity except minor changes as defined below, which results in an increase in assessed value due to new construction, development or redevelopment, renovation, refitting or other physical change to structures or uses, including acquisition of equipment, shall be subject to designation as a Tax Increment Finance (TIF) District to support redevelopment activities within the WREZ pursuant to 30-A M.R.S.A. §§ 251-526, as amended.

   Minor changes shall mean those physical changes, minimal in scope or purpose, which when accumulated with previous and anticipated other changes, over a period of two years, increase the assessed value of the affected property by a cumulative total of $400,000 or less.

2. Affected properties shall mean those properties within the zone which undertake activity, except minor changes as defined above, which results in a change in assessed value due to new construction, development or redevelopment, renovation, refitting or other physical change to structures or uses, including acquisition of equipment.

Affected properties within the WREZ shall be designated for inclusion in this redevelopment program as a TIF District, and the tax increment from the captured assessed value shall be applied to the redevelopment program purposes, subject to approval by the City Council on a TIF-by-TIF basis.

A property is an affected property if it otherwise so qualifies, and the total aggregate amount of captured assessment in the TIF Districts devoted to this redevelopment program does not exceed 1.25% (.0125) of the total taxable valuation of the City of Portland, when adjusted as necessary to reflect 100% valuation, as determined by the City Assessor.

3. Paragraphs (1) and (2) notwithstanding, the Council may by Council order determine that the increases in assessed value that would otherwise be designated for the first time as TIF districts under (1) and (2) above for the next succeeding fiscal year shall not be so designated.

4. The redevelopment program shall be that series of investments, expenditures, guarantees and supports which are planned for project fund expenditures.

(b) Program Income and Other Revenues.

The City Manager will budget the program activities, including the program income and expense, of the redevelopment program annually for approval and implementation by the City Council. The redevelopment program is authorized to receive program income, grants, participations, joint ventures, investments and other revenues for the purposes of the redevelopment program as approved by the City of Portland from time to time.

(c) Updates to development plan.

Periodically, the city manager shall evaluate and propose updates to the Development Plan, and identify properties developed in the redevelopment zone which qualify as TIF District properties. The city manager shall report to the council on conditions and changes in conditions addressing the economic circumstances of the waterfront

economy, and shall include in said report detail on at least the following issues:

1. The utilization, adequacy and capital and operating position of the enterprise loan fund designed to assist water-dependant, marine-related properties and businesses;

2. The state of the fishing industry, the adequacy and demand for berthing space and operating facilities, financing, local markets and opportunities, and the operations of public operations pertaining to the fishing industry;

3. The status of other water dependant industries and operations along the Portland waterfront, including opportunities to develop or promote water dependent and marine resource dependant economic opportunities;

4. The status of dredge operations and needs at public and private piers, the nature of impediments to maintaining full depths at all working Portland piers;

5. The status of cargo operations in the Port of Portland, including analysis of surface transportation capacities serving the Port cargo operations, whether public or private;

6. The status of parking availability, public access to the waterfront and to water dependent recreational activities and pursuits;

7. The status of environmental concerns, programs and issues along the Portland waterfront, and particularly in the inner harbor; and

8. Such other information, data or findings concerning conditions as affects the economic and environmental health of the waterfront area, or recommendations concerning the operations of the loan fund or the capital improvement program.

(d) Recommendations.

As often as he or she deems prudent, the city manager shall submit to the city council a recommended capital improvement plan, utilizing the revenues of the WREZ. The finance committee of the city council or such other committee as the Council shall designate shall conduct public hearings on the recommended plan and refer the matter to the council for action.

(e) Adoption.

The City Council shall adopt amendments to the WREZ, designate TIF Districts and authorize expenditures and take such other actions as are necessary each year to implement this redevelopment plan and administer its revenues and expenses.

(Ord. No. 249-01, 6-4-01; Ord. No. 151-02/03, 2-3-03; Ord. No. 116-08/09, 12-1-08)

Editor's Note:** Sec. 14-909 ***Waterfront economic development advisory committee was repealed in its entirety per council order no. 116-08/09 and passed on 12/1/08.

Sec. 14-909. Reserved.
Sec. 14-910. Reserved.
Sec. 14-911. Reserved.
Sec. 14-912. Reserved.
Sec. 14-913. Reserved.
Sec. 14-914. Reserved.
Sec. 14-915. Reserved.
Sec. 14-916. Reserved.
Sec. 14-917. Reserved.
Sec. 14-918. Reserved.
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Sec. 14-990. Reserved.
Sec. 14-991. Reserved.
Sec. 14-992. Reserved.
Sec. 14-993. Reserved.
Sec. 14-994. Reserved.
Sec. 14-995. Reserved.
Sec. 14-996. Reserved.
Sec. 14-997. Reserved.
Sec. 14-998. Reserved.
Sec. 14-999. Reserved.

ARTICLE XVI. CITIZEN ADVISORY COMMITTEE

Sec. 14-1000. Purpose.

Pressures of growth in the community strain the relationship between neighborhoods and business and therefore a challenge exists to improve communication with, and timely participation by, Portland residents in the planning and development review process. There exists within Portland strong common ground and a desire to address the planning development challenges by constructively working and communicating with the public. The City desires a committee to meet on a quarterly basis that will 1) comment upon the integration and consistency of neighborhood plans with the Comprehensive Plan, 2) facilitate the exchange of information between existing and future planning task forces, 3) collate proposed, revised or amended components of the Comprehensive Plan to ensure internal consistency, 4) submit comments upon updates of

and additions to the Comprehensive Plan to the Planning Board for further review, and 5) respond to other undertakings as directed by the City Council.
(Sub. Ord. 222-01, 4-2-01; Ord. No. 93-03/04, 11-03)

Sec. 14-1001. Created.

There is hereby created a citizen advisory committee.
(Sub. Ord. 222-01, 4-2-01)

Sec. 14-1002. Composition.

The Citizen Advisory Committee shall be comprised of one (1) representative appointed by each City Councilor, as well as an individual representative of the Islands who shall be appointed by the Mayor.

Fourteen (14) additional members of the Citizen Advisory Committee, appointed by the mayor subject to Council approval, shall represent each of the following areas:

Housing	Business and Industry
Social Services	Youth
Parks and Recreation	Historic Preservation
Transportation	Education
Public Safety	Arts
Development	Waterfront
Open Space, Water Quality, and Trails	Residential Renter

All members of the Citizen Advisory Committee shall be Portland residents and all appointments shall be approved by the Council with the staggered terms of membership set by Council order.
(Sub. Ord. 222-01, 4-2-01; Ord. No. 93-03/04, 11-03-03)

Sec. 14-1003. Chair

The committee shall be chaired by a City Councilor and one (1) member of the Planning Board.
(Sub. Ord. 222-01, 4-2-01)

NORTH

BLDG J2
19,650 SF

BLDG J1
30,000 SF

BLDG G
22,350 SF

BLDG E1
23,350 SF

BLDG E2
6,000 SF

BLDG F2
1,530 SF

BLDG F1
32,315 SF

APPROXIMATE HYDRANT HOSE COVERAGE AREA (250' RADIUS)

250' TYP.

BLDG B2
3,600 SF

BLDG B3
6,000 SF

BUILDING B1
14,000 SF

BLDG D
11,000 SF

BUILDING C
33,750 SF

BUILDING H
45,000 SF

BUILDING I
18,080 SF

BUILDING A
34,000 SF

HYDRANT, TYP

NOTE:
ALL BUILDINGS WILL HAVE A COMPLETE SPRINKLER SYSTEM MEETING THE REQUIREMENTS OF NFPA

80 0 40 80 160
(IN FEET)
1 inch = 80 ft.

REV	DATE	DESCRIPTION
1	01.29.14	REVISED PER FIRE RISK MANAGEMENT COMMENTS

REVISIONS

P.E. STEPHEN R. BUSHEY
LIC. #7429

PROJECT
THE FOREFRONT
AT THOMPSON'S POINT

SHEET TITLE
MASTER FIRE
PROTECTION PLAN

CLIENT
FOREFRONT PARTNERS I , LP

FST
FAY, SPOFFORD & THORNDIKE, INC.
ENGINEERS · PLANNERS · SCIENTISTS
778 MAIN ST, SUITE 8, SOUTH PORTLAND, ME 04106

DRAWN:	DED	DATE:	OCT 2013
DESIGNED:	BEK	SCALE:	1" = 80'
CHECKED:	SRB	JOB NO.	2982.05
FILE NAME:	2982.05-UTILITY		
SHEET	C-6.00		

R:\2982.05 Amended Site Plan Part II\Cadd\Permit Set\dwg\2982.05-UTILITY.dwg davis_d 1/29/2014 5:29 PM

FIRE RISK MANAGEMENT, INC
1 Front St., Bath, ME 04530
207/442-7200 [221-1295 (fax)]
www.fireriskmgt.com

Date: 29 January, 2014

Memo Report

From: W. Mark Cummings, P.E.

To: Mr. Steve Bushey, Fay, Spofford, & Thorndike

CC:

Subject: Updated Fire Protection Review of Site Plans, ICW The Forefront at Thompson's Point

As requested, Fire Risk Management, Inc. (FRM) reviewed the information you provided with regards to the updated site plans for the new development at Thompson's Point in Portland, ME. The focus for this review was to further evaluate the fire protection features of the general layout for the proposed development to ensure that all State and Municipal codes, regulations, and ordinances are adequately addressed.

The primary codes and regulations used as reference for this review included;

1. The City of Portland Code of Ordinances; primarily Chapter 10, *Fire Prevention and Protection,* (Rev. 1-20-11),
2. City of Portland Technical Manual, Section 3 – Public Safety, (Rev. 6/17/11),
3. City of Portland Fire Department Rules and Regulations, and
4. National Fire Protection Association (NFPA) 1, the Fire Code® (2012 ed.).

For this review, the primary areas of interest are to ensure that an adequate water supply is available; including location and spacing of the new fire hydrants along the proposed private fire service main and that proper access to the various structures by firefighting equipment and personnel is available. The primary documentation reviewed in support of this evaluation included;

1. The Forefront at Thompson's Point Master Fire Protection Plan; Dwg C-6.00,
2. The Forefront at Thompson's Point Master Plan; Dwg C3.00, and
3. The Forefront at Thompson's Point Master Plan Application submittal package.

Although no updated fire water supply system data have been requested from the Portland Water District (PWD), the data provided for the previous review of this development indicated that the water supply to the site for the new development should be more than adequate to support the requirements outlined by NFPA 1, Ch. 18. Based on the most recent building construction data provided, it is understood that the new buildings being constructed will generally consist of Type IB or IIA construction and will comply with the requirements of the Maine Uniform Building and Energy Code (MUBEC), which mostly follows the requirements outlined in the International Building Code (IBC). The existing buildings that are identified to remain will generally meet a Type IIIB construction classification, as defined by the IBC. Equally, it was discussed that the construction plans call for all new buildings to be fully protected with automatic fire sprinkler systems and most, if not all, existing structures are likely to be retrofitted with a fire sprinkler system as part of their renovations. Some discussion indicated that since building B1 was planned to be an "open air" structure, this facility might not be provided with a fire sprinkler system. Given the type of occupancy classifications, along with the size and construction classifications for all buildings that are proposed for this development, the overall fire flow (firefighting water supply) requirements for each of the buildings, as defined by the requirements in NFPA 1, have been estimated. It is estimated that the "worst-case" demand will likely be that for both the Garage (building F1) and the Office building (building J1). Based strictly on the fire flow areas for these structures, along with a likely requirement that they will consist of Type I or II construction, a minimum fire flow demand of 4250 gpm

for four (4) hours would be required for each. However, given that these structures are planned to be fully sprinklered, this flow value can be reduced by 75%; to less than 1100 gpm. If building B1 is not to be provided with a fire sprinkler system, this building would then represent the worst case demand for the water supply system; 2500 gpm for two (2) hours. The hydrant flow test data previously provided by the PWD indicated that the 12" supply main serving this site can support more than 6000 gpm at the minimum of 20 psig residual pressure, which is used as that needed to be defined as "fire flow." No restriction was listed with regards to the duration for which this flow could be provided. As such, the existing water supply system for the City of Portland should have no problem acting as the primary source of fire water supply for this new development.

Based on the total fire flow demand, NFPA 1 (Annex E) would allow for a minimum spacing of either 450 ft or 500 ft between each hydrant, as measured along the fire department access road(s) [1]. Ultimately, this will depend on whether or not all buildings are provided with sprinkler systems. If, for example, building B1 is not provided with a fire sprinkler system and the requisite fire flow demand is 2500 gpm, the hydrant spacing should be no more than 450 ft along the various access roads; otherwise, the 1100 gpm demand would allow for a 500 ft spacing. Although the current Master Fire Protection Plan was developed using a maximum spacing of 500 ft between hydrants, most are already shown on the plan as not being greater than 450 ft apart and where those that may be slightly more than this distance, the final hydrant locations can easily be adjusted, if/as necessary, to meet this requirement without the need for additional hydrants. Equally, for any hydrant that is considered to be located along a "dead-end" street/access roadway/etc., the distance from any point measured along that street/roadway to a hydrant should not exceed 200 ft. Using these requirements and the information provided on the Master Plan drawings, it appears that the proposed hydrant locations that are adjacent to buildings J1 and J2 (northwest corner of the development) may need to be adjusted slightly to fully comply with this requirement. However, since this can easily be accomplished within the design of the final site plan, it would not be recommended that changes to this current layout occur until the overall site plan is finalized; including building sizes and locations and a definite determination of whether any buildings will not receive a fire sprinkler system.

The Portland Fire Department Rules and Regulations include additional requirements regarding the placement of hydrants. This includes a requirement that the Fire Department Connection(s) (FDCs) for each building must be within 100 ft of a hydrant. Additionally, NFPA 24 (along with the City) has a requirement that no hydrant should be located within 40 ft of a structure. Since the level of detail for the individual buildings provided at this point in the design process is such that it is not known where the FDCs will be located for each building, it cannot be determined as part of this review whether or not this requirement will be met. However, in other recent projects, the City has agreed to "waive" the requirement for a hydrant to be within 100 ft of the FDC; primarily since the genesis of this requirement isn't fully understood and this is not a "typical" requirement for most other municipal Fire Departments. It is understood that the hydrant that is currently depicted as being located adjacent to building H is within 40 ft of this structure. However, as discussed in a number of teleconferences between FST and FRM, it is recommended that this current location be retained. It is understood that the proximity of the access road along these buildings is so close to the property line that a hydrant cannot be installed on the other side of the access road. However, installation of the hydrant at this location has a greater advantage in meeting the overall water supply requirements for the site than the disadvantage of its close proximity to building H. Its removal would then result in the inability to meet the maximum spacing between hydrants. Given that if a fire is within building H, other hydrants are readily available to support firefighting operations, it is considered that the plan to install this hydrant in this location represents the best option for providing the overall site with adequate fire protection. Where it may be in the best interests of the overall firefighting plan for a building/site, the codes do allow for the Authority Having Jurisdiction (AHJ) to accept hydrant locations within the 40-foot limit.

NFPA 1 also requires that any portion of a building, or the exterior walls of the building, can be no more than 450 ft from an access road when the facility is fully protected by an automatic sprinkler system; it cannot be more than 150 ft if not sprinklered. Based on a review of the site plan, it appears that this requirement will easily be met. In addition to this requirement, NFPA 1 also requires that at least one exterior door for each building is within 50 ft. of an access

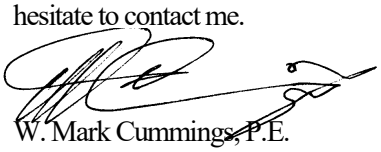
[1] Although FRM used the most recent edition of NFPA 1 for this review, no changes occurred from the previous edition that would alter the calculations/requirements used for this review.

roadway. The drawings provided for this review did not provide a level of detail for the individual buildings that would include locations for all available exterior doorways; albeit based on the locations of the roadways, driveways, and parking lots depicted on the Master Plan, it appears that this requirement too will easily met. However, it will still be necessary to ensure that during the design process for the individual buildings, that this requirement is accommodated.

Chapter 10 of the Portland City Ordinances has a requirement that, where available, the fire department vehicles should have access to at least two (2) sides of each building. Based on the current site plan provided, it will be possible for all buildings to be accessed from at least two sides. Both NFPA 1 and the City's regulations also include requirements for any "dead-end" access road greater than 150 ft to provide a means for fire department apparatus to turn-around. The only portion of the site access roads where this restriction applies is that section that provides access to building J2. The current Master Plan includes a general turn-around area on the west side of building J2. It will be necessary to verify that the final design for this turn-around will be compliant with the City's requirements. The City of Portland's Technical Manual includes a figure that generally depicts the recommended layout for this turn-around (Figure I-5).

Although this development is provided with only a single access point, the design of this roadway will far exceed the minimum requirements outlined by the City's Ordinances (20 ft minimum width where ladder truck may be needed). Unfortunately, the topography and the presence of a railway that isolate Thompson's Point from the remainder of the land mass restrict the ability to provide a second access point to this site. However, given the current plans for the access roadway design, having a single access is not considered to provide any significant increase in risk.

Should there be any questions regarding this assessment and the recommendations contained herein, please do not hesitate to contact me.



W. Mark Cummings, P.E.
Principal Engineer

PLACEMAKER PARTNERS, LLC
18 Van Aken Way
Portland, ME 04102
(207) 747-5288

September 6, 2024

Mr. Matthew Grooms
Development Review Services Manager
Planning and Development Department
389 Congress Street
Portland, Maine 04101-3509

Subject: The Forefront at Thompson's Point
Major Site Plan Application - New Multi-Family Residential Building (G)

Dear Matthew:

On behalf of CPI Management, LLC (Cathartes) and Forefront Partners I, LP (Forefront), Placemaker Partners, LLC is pleased to provide the accompanying package of Major Site Plan submission materials representing the proposed development at 125 Thompson's Point Road, Portland, ME. The proposed Multi-Family Residential Building (labeled "G" on the attached Master Development Plan) with structured parking and outdoor living amenities will be located in the northwestern most portion of The Forefront at Thompson's Point Subdivision lots 17 thru 19, an area anecdotally referred to as the "panhandle". Cathartes, a prominent developer in the northeast with a driven focus on quality of life, has entered into an agreement with Forefront Partners I, LP to bring a vibrant and transformative residential development to Thompson's Point as contemplated in the approved Master Development Plan.

Cathartes is proposing to construct a six story 255-Unit market rate apartment building with a mix of units ranging in size from studios to 3-bedroom apartments. The building includes a variety of amenities and boasts a modern cohesion with the adjacent natural landscape, industrial history, and strong sense of community which Forefront has prioritized on Thompson's Point since the inception of its redevelopment efforts. The living units take full advantage of spectacular views down the Fore River estuary and a doorstep connection to well established multi-modal transportation including the local public trail system and METRO bus routes as well as regional connections on the Concord Trailway Bus and Amtrak railroad transportation center. An attached six (6) story 463 car parking structure, complete with bike storage room and EV charging, dedicated for residents and Thompson's Point managed parking supply, buffers much of the building from the adjacent railroad lines along the north side of the property.

The development proposal is a permitted use within the B-5 Mixed Use Zone and comprises of a portion of the 344 residential units approved under the Thompson's Point Master Development Plan. The multi-family development will be constructed on Lots formally shown as 17, 18, and 19 on the approved Forefront at Thompson's Point Sectional 4 Subdivision Recording Plat (dated May 2018 and last revised March 19, 2020). The Sectional 4 Recording Plat will be the last section to be recorded in the Cumberland County Registry of Deeds (CCRD) and, together with the previously recorded Sectional 1 through 3 Recording Plats, will complete the overall Forefront at Thompson's Point Subdivision. Simultaneously and combined with this Site Plan Application, Forefront is pursuing an amendment to Sectional 2 and 4 Subdivision Plats for review by the Planning Authority. Proposed alterations on the Sectional 4 Plat consolidate Lots 17 through 19 into a single development lot (the revised Lot 17). Lot 8 as described on Sectional 2 Recording Plat (CCRD Plan Book 223 Page 190) will be split into two development lots (the revised Lots 8 and 18). As a result, the amended overall 19 lot subdivision will be reduced to 18 total lots; however, the effective development area, common areas, and infrastructure remains the same.

The proposed development requires a Major Site Plan Submission Pursuant to Table 14-A: Site Plan Classifications in Section 14.3 – Project Classification of the Land Use Code. The applicant is proposing the following applicable development:

1. Construction of a new structure having a total floor area greater than 10,000 Sq. ft. (50,208 sq. ft.+/) and more than 3 (residential) units (255 units)
2. Stripping & grading work greater than 3 AC (4.51 AC)
3. Construction of Impervious Area greater than 1 AC (2.94 AC)
4. Construction of off-street vehicle parking spaces (498 Spaces)
5. Construction of Structures in the Shoreland Zone (Stormwater Outfalls)

This submission package is intended to demonstrate compliance with all documentation required by the Major Site Plan Checklist. The project meets all the requirements as outlined in the Site Plan Review Standards detailed in Section 14.6 of the Land Use Code of Ordinances. This includes but not limited to the following documents which have been uploaded to the City's CSS Portal:

- Application
- Project Plan Drawings – Site Plans, Architectural Drawings, Landscape Architect Drawings, and Photometric Plan
- Attachment A – Major Site Plan Checklist
- Attachment B – Major Site Plan Submission Supporting Narrative
- Attachment C – Evidence of Right, Title, and Interest
- Attachment D – Local, State, Federal, FAA, Historic Permits
- Attachment E – Zoning Analysis Table
- Attachment F – Conformity with Applicable Site and Zoning Standards
- Attachment G – Evidence of Financial and Technical Capacity
- Attachment H – General Construction Management Plan
- Attachment I – Traffic and Parking Generation Summary
- Attachment J – Supplemental Stormwater Management Memorandum
- Attachment K – Utility Correspondence and Wastewater application
- Attachment L – Fire Code Checklist

- Attachment M –Summit Geotechnical Data Report and local Soils information
- Attachment N – Agent Letter
- Attachment O – Summary of Easements
- Attachment P – Transportation Demand Management (TDM)
- Attachment Q – Lighting Specifications
- Attachment R – Site Photos

The Forefront at Thompson's Point development team appreciates your continued assistance on the development of this project. We are very excited to proceed with the residential component of the Thompson's Point neighborhood and look forward to continuing to work with the City of Portland to bring this project to fruition.

If you have any questions regarding these materials, please contact this office.

Sincerely,

PLACEMAKER PARTNERS, LLC



Bo Kennedy, P.E.
Project Manager/Engineer/Partner

List of Attachments: See Above

c: Rob Simmons, Cathartes
Chris Thompson, Forefront Partners I, LP
Jed Troubh, Forefront Partners, I, LP

G:\Development Projects\Thompson's Point\Panhandle\Site Permitting and Engineering\Permitting\Major Site Plan Application - Panhandle Resi\2024.08.30 Major Site Plan Application- Cover Letter.docx

Standard to be Waived: Cite Ordinance or Technical Manual Standard	**Cite Standard Language:** Cite specific language of applicable Ordinance or Technical Manual Standard	**Waiver Being Sought:** Describe waiver being sought. Ex. – We are requesting a two-way parking lot drive aisle width of 20' feet.	**Justification for Waiver:** Address specific waiver criteria, if applicable, and document reasons for the waiver request.
Technical Manual Section 10-Public Safety Standard – Subdivision Standards Table 10.5 Minimum Number of Access Roads	Subdivisions with an approved sprinkler system designed to NFPA #13D with ≥ 100 Units shall have Two (2) access roads	We are requesting a single three lane access road to the overall subdivision as designed, constructed, and accepted by the city's dpw with the intended purpose of serving the full build out of the approved master Development plan.	The development site's extreme land constraints (significant natural resources, topography, railroad) were the reason for the need of a waiver from this standard. The waiver request was extensively researched, discussed, and decided in collaboration with the city's officials during prior approvals of the MDP and Overall Subdivision. It was determined and documented that a single access road with a third lane, public rail crossing designed with emergency vehicles in mind, and a gated access for emergency vehicles only from Sewall Street is sufficient for the full build out of the uses contemplated in the MDP. The three-lane access roadway, together with a host of off-site improvements and safety measures intended to support the full buildout of the MDP, was designed and reviewed by the City, MaineDOT, and their consulting engineers at Gorrill Palmer following MDP approval and with the express understanding that the scope of this infrastructure was adequate to support all uses contemplated under the MDP including a large number of future residential units. Approval of this waiver is intended to formalize what was already presented and approved in prior applications.

CITY OF PORTLAND
Planning & Urban Development Department

MAJOR SITE PLAN
GENERAL DOCUMENT AND DRAWINGS CHECKLIST
Please submit each document as a separate PDF file.
Please confirm by electronically checking the boxes in the left-hand column.

**** PLEASE FILL OUT AND UPLOAD THE ZONING ASSESSMENT TABLE AND WAIVER TABLE SEPARATELY AS NOTED BELOW ****

At the time of application submission, please contact the Department of Public Works regarding E-911 addressing for your project.

GENERAL APPLICATION DOCUMENTS		
Yes	**NA**	**Project Description** Attachment A & B • Cover letter with detailed project description
Yes	**NA**	**Completed Checklist** (this document)
Yes	**NA**	**Evidence of Right, Title, and Interest** Attachment C • Deeds, leases, or purchase and sales agreements
Yes	**NA**	**Evidence of State or Federal Approvals** Attachment D • Permits or letters of non-jurisdiction, if applicable
Yes	**NA**	**Zoning Assessment** (see Zoning Assessment Table) Attachment E Summary of compliance with use and dimensional standards of the land use code
Yes	**NA**	**Site Plan Standards Assessment** (see Section 14.6 of the land use c Attachment F • Summary of project compliance with site plan standards of the land use code
Yes	**NA**	**Summary of Existing and/or Proposed Easements or Covenants, applicable.** • Evidence of existing easements and any proposed easements, covenants, public or private rights-of-way Attachment O
Yes	**NA**	**Waiver Requests** (see Waiver Table) • Written request for waiver describing request and compliance with applicable waiver standards
Yes	**NA**	**Financial Capability** Attachment G • Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
Yes	**NA**	**Technical Capability** Attachment G • Evidence of technical capability of applicant and consultants – resumes and/or examples of past projects

MAJOR SITE PLAN
STANDARDS AND SUBMISSION CHECKLIST

Provide assessment of compliance with standards and include supplemental documentation, as applicable.
Please submit each document as a separate PDF file.

TRANSPORTATION	
Yes **NA**	**Impact on Surrounding Street Systems (14-14.6.1(A))** **Attachment I** ● Describe incremental volume of traffic impacts and mitigation measures. If needed
Yes **NA**	**Access and Circulation (14-14.6.1(B))** **Attachments F & Site Plan Drawing** Identify and describe the following: ● Site access and internal circulation, including ADA access ● Drive-up features, if applicable ● Loading and servicing needs, routes, and geometry, providing turning templates for delivery vehicles, if applicable ● Sidewalks and condition along street frontages and internal walkways ● Engineered details for ADA ramps and public sidewalks, meeting sidewalk material policy and construction requirements (Technical Manual, Section 1)
Yes **NA**	**Public Transit (14-14.6.1(C)), if applicable** **Attachments F** Identify and describe the following: ● Existing available transit service and proposed transit improvements, including design details, such as easement, pad base, and shelter
Yes **NA**	**Off-Street Parking (14-14.6.1(D)), if applicable** **Attachments F** Identify and describe the following: ● Proposed vehicular and bicycle parking supply (including ADA-compliant parking) in relation to applicable parking requirements in Article 19 of the land use code ● Curb cut separation and parking layout (Technical Manual, Section 1) ● Construction details for bicycle racks ● Management plan for snow storage and removal
Yes **NA**	**Transportation Demand Management (TDM) (14-14.6.1(E)), if applicable** ● Provide TDM plan drafted in accordance with Technical Manual Section 1 requirements **Attachment P**

ENVIRONMENTAL	
Yes NA	**Preservation of Significant Natural Features (14-14.6.2(A)), if applicable** Attachment F Identify and describe the following: ● High and moderate value waterfowl and wading habitat ● Aquifers (for Casco Bay Islands) ● Waterbodies (including wetlands, watercourses, significant vernal pools and floodplains) ● Proposed preservation areas and protection measures ● Documentation from environmental compliance consultants and determinations from applicable state and federal agencies
Yes NA	**Landscape Preservation (14-14.6.2(B))** Attachment F Identify and describe the following: ● Measures to preserve trees, including within required zoning setbacks (Technical Manual, Section 4) ● Measures to protect existing vegetation during construction
Yes NA	**Site Landscaping and Buffers (14-14.6.2(C))** Attachment F Identify and describe the following: ● Overall landscaping approach and consistency with standards ● The use of screening and buffering of service areas and between non-residential and residential uses ● Existing Heritage or Feature Trees on site and measures to preserve ● Compliance with street tree requirements
Yes NA	**Water Quality, Stormwater Management, and Erosion Control (14-14.6.2(D))** Attachment J Identify and describe the following: ● Erosion and sedimentation control plan and measures ● Evidence of compliance with Urban Impaired Stream Standards pursuant to DEP Chapter 500 stormwater law, as applicable ● Subsurface sanitary sewage disposal and groundwater protection measures

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY	
Yes **NA**	**Consistency with City Master Plans (14-14.6.3(A))** **Attachment F** ● Describe proposed easements, rights and improvements to connect or continue off-premises public infrastructure, as applicable
Yes **NA**	**Public Safety and Fire Prevention (14-14.6.3(B))** **Attachment L** Identify and describe the following: ● Compliance with Crime Prevention through Environmental Design (CPTED) requirements (Technical Manual, Section 3) ● Emergency vehicle access ● Consistency with public safety standards (Technical Manual, Section 3)
Yes **NA**	**Availability and Adequacy of Public Utilities (14-14.6.3(C)) (Technical Manual, Sections 2 & 9)** **Attachment K** Identify and describe the following: ● Electrical services, including providing underground services ● Existing and proposed connections for public utilities and required public utility upgrades ● Sewer line connections
SITE DESIGN	
Yes **NA**	**Massing, Ventilations and Wind Impact (14-14.6.4(A))** Identify and describe the following: ● Wind and ventilation impacts on adjoining structures and/or adjacent public spaces, including wind study, if applicable ● Bulk, location, or height impacts on adjoining structures
Yes **NA**	**Shadows (14-14.6.4(B)), if applicable** ● Provide shadow analysis of impacts on publicly accessible open space (Technical Manual, Section 11)
Yes **NA**	**Snow and Ice Loading (14-14.6.4(C))** ● Describe building design measures to prevent snow and ice from loading or falling onto adjacent properties or public ways
Yes **NA**	**View Corridors (14-14.6.4(D)), if applicable** ● Describe any protection of designated view corridors (Portland Design Manual, Appendix. 1)
Yes **NA**	**Historic Resources (14-14.6.4(E)), if applicable** Identify and describe the following: ● The site's status as a designated landmark, within a historic district or historic landscape district, or within 100 feet of any designated landmark, historic district, or historic landscape district ● Compliance with standards for preservation and documentation of archaeological resources

Yes	NA	**Exterior Lighting (14-14.6.4(F))** **Attachment F & Q** ● Describe how the proposed site lighting will adhere to photometrics requirements as it relates to light trespass and full cutoff fixture design, pursuant to Technical Manual Section 12
Yes	NA	**Noise and Vibration (14-14.6.4(G))** **Attachment F** ● Provide data on noise levels for HVAC and other mechanical equipment, such as design specifications, to demonstrate consistency with state and federal noise emissions requirements as well as City code
Yes	NA	**Signage and Wayfinding (14-14.6.4(H)), if applicable** **Attachment F** ● Provide signage plan showing the location, dimensions, height and setback of all existing and proposed signs ● Provide drawings of all commercial and directional signage on site
Yes	NA	**Zone-Related Design Standards (14-14.6.4(I))** **Attachment F & E** ● Address any applicable design review standards by zone, including compliance with Design Manual

MAJOR SITE PLAN
DRAWINGS CHECKLIST

Please upload the following DRAWINGS with the listed details into e-Plan as separate pdfs.

All DRAWINGS ARE ON 30" X 42" SHEET SIZE FOR CONSISTENCY WITH PREVIOUS PLAN SETS

All drawings must be submitted in a 24 x 36 sheet size.

BOUNDARY SURVEY (stamped by a Maine Licensed Surveyor and drawn as per Technical Manual Sec. 13)

SITE PLAN(s) (stamped by a Maine Licensed Professional Engineer) including:

All sheets – Include a title block with project title and the following information:

- Project street address
- Name and address of property owner & applicant
- Licensed design professional, incl firm that produced plans
- North arrow
- Date of preparation and revision history block
- Tax parcel (chart, block, and lot) number

Existing Conditions Plan with the following:

- Existing structures, with distance from primary building façade(s) to the property line
- Approximate location of structures on abutting properties
- All streets and intersections adjacent to the site
- Existing driveways, pedestrian ways, and bicycle infrastructure, including dimensions and materials
- Existing public transit infrastructure
- Existing vehicle & bicycle parking areas
- Existing utilities on site and within adjacent rights-of-way
- Existing grades (two-foot contours preferred)
- Location of water courses, wetlands, and vegetation, or other significant natural features
- Existing soil conditions and location of test pits and borings
- Zoning boundary lines, including overlays
- Location of all existing easements and rights-of-way

Proposed Site Plan with the following:

- Proposed structures, including distance from primary building façade(s) to property lines
- Ground floor area, and finished floor elevations for all buildings
- Any proposed geometric modifications to streets and intersections adjacent to site
- Location, dimensions and materials of all proposed driveways, vehicle, bicycle, & pedestrian access ways with corresponding curb lines
- Engineered specifications/ cross-sections for proposed driveways, sidewalks & paved areas
- Location and dimensions of proposed loading areas, including turning templates
- Proposed transit infrastructure with dimensions/ engineering specifications
- Location of vehicle and bicycle parking with dimensions and engineering specifications
- Location of all snow storage areas
- Exterior lighting (please see Technical Manual Sec. 12 for photometrics requirements)

- Location of fire hydrants
- Location of solid waste management receptacles
- Location of all proposed HVAC and mechanical equipment, including proposed screening, where applicable
- Location of proposed easements and rights-of-way, including dimensions
- Please utilize color-coding and/or hatches and shading to delineate changes between the pre and post development condition as needed

UTILITY PLAN including:

- Proposed electrical infrastructure
- Location, sizing and directional flows of all proposed sewer and stormwater infrastructure
- Location and dimensions of off-premises public or publicly accessible infrastructure adjacent to site
- Electric utility infrastructure

GRADING AND DRAINAGE PLAN including:

- Proposed grades
- Proposed stormwater management measures meeting Technical Manual (Section 5) standards
- Any proposed alteration of a watercourse or wetlands
- Any groundwater protection measures
- Proposed buffers and preservation measures for wetlands or significant natural features

LANDSCAPE PLAN including:

- Existing vegetation to be preserved and preservation measures
- Proposed landscaping, screening, and street trees, including caliper widths for trees
- Planting schedule, including street trees

ARCHITECTURAL PLANS AND RENDERINGS including:

- Exterior building elevations, color renderings, illustrations of all sides
- Axonometric and street-level views for structures greater than three stories in height
- Provide context drawings, if applicable (Design Manual, page 1)
- Floor plans

CONSTRUCTION MANAGEMENT PLAN including:

- Specifics on traffic control, sidewalk sheds, and pedestrian rerouting
- Include a drawing and written narrative

OTHER

- Details and cross-sections, as necessary

MAJOR SITE PLAN SUBMISSION SUPPORTING NARRATIVE

In accordance with Section 16.1, City of Portland Technical Manual, Section 14.6., Land Use Code Chapter 14, and General Written Submission Checklist, we offer the following narrative describing the information supporting the Major Site Plan submission as Attachment B.

Section 16.1.A General Submissions Requirements

1. Application Form – Submitted on Portland's CSS Portal
2. Application Fees – Paid online as applicable
3. Project Description:
   See Cover Letter

4. Evidence of Right, Title, and Interest

   Copies for proof of land ownership and agreements are on file with the city and available upon request. A letter from Forefront Partners I, LP (current owners) stating the legitimacy of agreement to develop and authorization to seek entitlements is included in Attachment C.

5. Evidence of State and/or Federal Approvals; if applicable

   The Applicant has provided copies of the State and Federal Permits issued for the project including the Traffic Movement Permit, U.S. ACOE Permit, and MaineDEP NRPA Permit in Attachment D.

6. Written Assessment of Proposed Project's Compliance with Applicable Zoning Requirements

   A written summary is contained in Attachment E to this submission.

7. Written Assessment of Project's Compliance with Site Plan Standards

   A written summary is contained in Attachment F to this submission

8. Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site

   A summary of existing and proposed easements is included in Attachment O

9. Written requests for waivers from the city's site plan or technical standards, if applicable;

   No waivers are requested from technical standards.

10. Evidence of Financial and Technical Capacity

    The Applicant has enclosed a letter in Attachment G from M&T Bank affirming Cathartes has the financial capacity and technical expertise to complete the proposed project.

11. The Boundary and Topographic Survey Plans prepared by Sebago Technics and submitted as part of the original 2013 Level III approval documents, subsequent 2014 Master Plan approval, and 2016 Subdivision approval documents remain valid and are the basis of this Major Site Plan submission. The approved amended Sectional 4 Subdivision Recording Plat dated 03.19.2020, Sheet C-2.0 – Existing Conditions Plan, and C-2.1 Demolition and Removals Plan are included with the site plan drawing set.

Section 16.1B – Written Materials for Site Plan Applications

1. The construction management plan is enclosed in Attachment H of the site plan submission package.

2. A Traffic Study was completed as part of the approved MaineDOT Traffic Movement Permit for the previously reviewed and approved with the previously approved Master Development Plan, Overall Subdivision Plan, and Level III/Major site plan applications. The work proposed as part of this application is consistent with these approvals. The proposed scope of work has been estimated for trip generations as shown in the enclosed memorandum prepared by Gorrill Palmer Associates dated 2024.09.04 in Attachment I. The enclosed Memorandum states that the proposed project forecasted trip generation is well below the permitted number of trips.

3. Thompson's Point has some vegetation on the far westerly end of the panhandle where some mature trees have established, and which require protection under the Shoreland protection requirements. This phase of the project will not clear this vegetation. The residential project will fill a small coastal wetland area of significance to install a stormwater outfall plunge pool. Furthermore, the Fore River tidal flats, river, and protected shoreland bird habitat surround the perimeter of the peninsula. The proposed lot 17 site development area is not adjacent to migratory shore bird habitat and the Shoreland zone established during state agencies during the Master Development Plan and Subdivision Plan entitlement process. The future proposed activities on other lots with-in the subdivision adjacent to these zones have been previously reviewed and approved as part of the Master Development Plan, Subdivision Plan, and Level III Site Plan approval, by the MaineDEP under a Natural Resources Protection Act (NRPA) review and Army Corp of Engineering (ACOE).

   The proposed construction includes installation of two stormwater outfalls and landscaping in the shoreland zone. Temporary and permanent erosion and sediment control measures are proposed to protect the nearby resources during and after construction. A new stormwater management system will collect and convey runoff from the new development area to a stabilized outfall sized with the appropriate amount of energy dispersion for the design flows. This approach limits the potential for sediment entering the adjacent wetlands and Fore River.

4. A detailed narrative describing the existing site watershed hydrology, existing buildings, and existing land cover is included in the previously submitted stormwater management reports on file with the city and a new Supplemental Stormwater Memorandum addressing this phase of the project is included with this submission in Attachment J.

5. A memorandum detailing the proposed stormwater management components and runoff calculations is appended to this application. The proposed improvements included with this submission include the disturbance of 4.51 acres. The disturbance area is contained almost entirely within the site's previously developed impervious area (Pre-1975) and proposes the redevelopment of approximately 2.94 acres of new impervious area (roadway, building, and pedestrian access).

6. The proposed development was found to be consistent with the City Master Plans during the Master Development Plan and Subdivision Plan review process.

7. The applicant has received ability to serve letters for the currently proposed Master Development plan from all utilities. The development proposed on Lot 17 will utilize the common infrastructure sized and installed to accommodate the entire master plan. New utility services (Water, Sewer, Storm, Electrical) will be tapped on to the existing mains currently feeding the entire subdivision. Updated Letters from utilities specifically addressing this project are included in Attachment K. A new City of Portland Wastewater Capacity Application summarizing the estimated proposed wastewater flows is included in Attachment K.

8. All waste will be stored in roll out type bins inside a trash room. All residents will have access to the trash chute. These containers will be serviced by an independent solid waste contractor on a regular basis. The frequency at which the solid waste is collected will be determined by the management company on an as needed basis.

   All waste generated from the site preparation and general site work will be collected and sorted/separated on-site until they are removed and disposed of properly, off-site, by a private contractor.

   All construction waste will be collected and sorted/separated on-site and managed by the general contractor.

9. Fire/Building Codes:
   -The full Fire Department Development Checklist is made part of this submission in Attachment L.
   -The building will be designed in accordance with the city building code, as well as all applicable local, state, and federal codes/laws. The building will be fully sprinklered in accordance with NFPA 13, NFPA 14, and will have fire detection/alarm systems as dictated by NFPA 72 and the underlying codes. The proposed building construction is classified as follows:
   Group B: fitness, offices
   Group R-2: amenity, residential units
   Group S-2: parking, storage, MEP

   Technical Standard 3.2 - Fire Hydrants:
   -There are (2) Two proposed private fire hydrants and (1) one existing municipal fire hydrant located within 500 feet radius of the building. Please see the attached Fire Safety Compliance Plan C-9.0.

   Technical Standard 3.3 - Single and Two Family Residential Development:
   - Multi – Family Building will be Fully Sprinklered; Parking Structure will be Fully Sprinklered with a dry system.

   Technical Standard 3.4 - Site Access Standards:
   3.4.1. - Private road provides turnaround designed to accommodate 40' ladder truck
   3.4.2. - Fire department access is provided via Thompson's point access road and a private Drive for access to 2 sides of the building.
   3.4.3. - Zoning does not require building setbacks
   3.4.4. - Fire department access roads extend to within 50' of entrances to building
   3.4.5. - All site access provides no less than 9 feet in clearance height.
   3.4.6. - All elevators will accommodate an 80 x 24 stretcher.
   3.4.7. - The street numbering and 911 address has been reviewed and approved by the city of Portland public works.
   3.4.8. - The building will display the assigned street numbers. Approved 911 address is **125 Thompson's Point Road**

   Technical Standard 3.5 – Standards for Emergency Access Lanes and Gates:
   All access roads exceed 16' in Width and Road Radius can Accommodate a 40' long Fire Truck/ Single Body Vehicle

   Technical Standard 3.6 – Subdivision Standards
   The Subdivision Standards have been reviewed and approved by the City of Portland. This approval granted a waiver to permit a subdivision with 1 Access Road.

   Technical Standards 3.7 through 3.11 - Standards for blasting and regulation of explosives:

- Geotechnical explorations were performed and the subsurface condition does not contain bedrock. Based on the findings, large blast operations are not anticipated. Geotechnical data reports are enclosed in Attachment M.

10. A review of the Applicable Technical Design Standards of Section 3 is included in Attachment F of the application.

11. HVAC equipment has not been specified and selected yet, but Embarc, as an experienced licensed architects and engineers, will ensure that all equipment are specified and installed in full compliance with all codes and regulations, including but not limited to state and federal emissions requirements.

Section 16.1C – Plans Required for Site Plan Applications

1. Requirements 1 thru 4 - A Site Layout Plan – Sheet C-3.1 and a Grading Plan – Sheet C-5.0 accompanies this submission. These plans show the location and details for all disturbed surfaces.

5. The engineering specification and cross-sectional designs remain consistent with those approved during the Subdivision application review and are included on plan sheet C-8.8.

6. The proposed buildings will not have dedicated loading bays but will incorporate a 40 ft long loading zone space for 1 to 2 trucks to park at grade on the northerly side of the building. This space is in proximity to the service elevator and will be used for all loading, deliveries, as well as short term parking for moving vans.

7. Public transit is accessible at the near-by Portland Transportation Center via the METRO service. Forefront Partners is actively engaged with the METRO as part of the ongoing TDM effort. Two METRO stops on Thompson's Point Road are in close proximity to the front door of the residential building.

8. The design plans detail the (498) four hundred ninety-eight proposed vehicular parking spaces proposed in this application. (102) One hundred and two bicycle parking spaces are located in front of and inside the proposed Building (G). The developers will use Standard City of Portland Dero hitch bicycle posts on the exterior of the building consistent with the other onsite posts. The bike rooms will be equipped with wall mounted bike racks.

9. Snow storage is proposed to be located temporarily along the edges of the drive aisles and landscaped areas until such a time when the stockpiles need to be removed from the property. Snow removal on the parking roof deck will be plowed to a drop chute where it can be managed on the ground.

10. The plan includes a landscape preservation area and landscape plantings to screen the development from the existing trail.

11. This project does not propose alterations to any watercourses. The accompanying plan sheets show the site's proximity to existing watercourses which includes the Fore River.

12. Wetland boundaries and natural resources are shown on the referenced boundary and topographic plans. This portion of the project will fill a small area of the coastal wetlands for the installation of a new stormwater outfall. This wetland fill was approved by the ACOE and MeDEP.

13. The applicant's project proposes to setback the development from the delineated wetlands located on the panhandle portion of the site. The wetlands are preserved with the exception of a very small impact for the installation of a stormwater outfall.

14. Existing soil conditions are well documented in the previously approved Master Development Plan and Subdivision Plan. The site has a long history of heavy development and most of the surfaces are described as compacted gravel, pavement or building overlaying urban fill and clayey substrata. The existing surface land cover types are identified on the accompanying plan set. A geotechnical exploration data report for the area prepared by Summit GeoEngineering services is enclosed with this application in Attachment M further describing the underlaying soils.

15. The applicant proposes landscaping in pervious areas as shown on the enclosed Landscaping Plan L-1.0.

16. The Grading Plan Sheet C-5.0 and Overall Interim Stormwater Management Plan Sheet C-5.1 and Stormwater Management Plans 1 (C-5.2) and 2 (C-5.3) are included in the accompanying plan set. The proposed stormwater management plan is consistent with the previously approved Subdivision plan and utilizes multiple Jellyfish cartridge and Filterra bioretention filtration devices to satisfy Section 5 of the City of Portland Technical manual for stormwater quality treatment. A stormwater memorandum prepared by the engineer of record is appended to this application.

17. A Grading Plan Sheet C-5.0 accompanies this Major Site Plan submission. This plan shows the detailed site grading within the "disturbed areas" as defined in Section 5 III (F) of the City of Portland Technical Manual. The Erosion Control and Construction Management Plan C-6.0 depicts the erosion and sediment control measures meeting the Basic Standards as required as part of City of Portland's Technical Manual Section 5. Generally speaking, the site grades are greater than 13' above the 100-year floodplain as indicated on the latest Flood Hazard Maps for the City of Portland.

18. Sheet C-2.1 Demolition and Removals Plan details specific measures to handle groundwater dewatering during construction to comply with the approved MaineDEP Voluntary Response Action Program (VRAP). We anticipate very little need for groundwater dewatering during these interim phase activities. Additional ground water protection measures are included in the stormwater management treatment facilities by using an impermeable liner separating stormwater runoff and groundwater.

19. The applicant proposes two new 8" diameter sewer connections to an existing sanitary sewer manhole. The Utility Plan Sheet C-4.0 shows details for the proposed sewer services.

20. The enclosed Utility Plan Sheet C-4.0 shows the location of all existing and proposed fire hydrants. The Life Safety Compliance Plan C-9.0 shows all hydrants to be in service at the completion of this development project with service radius of 100' and 250'.

21. The existing 12" water main (publicly owned), 15" sewer main (publicly owned), and electrical/communications (private) duct bank serving the project is shown on the enclosed Utility Plan Sheet C-4.0. The proposed development will construct new utility stubs for the development lot.

22. No off-site infrastructure is required as part of this project application.

23. The residential building will have a dedicated 24' x 29' trash room and trash chute inside the building for on-site solid waste and recyclable storage receptacles. These containers will be

serviced by an independent solid waste contractor, on a regular basis. All waste generated from the site preparation and general site work will be collected and sorted/separated on-site until they are removed and disposed of properly, off-site, by a private contractor. All construction waste will be collected and sorted/separated on-site and managed by the general contractor.

24. C-3.0 Site Layout Plan shows the building location and orientation on the site. The enclosed architectural plans prepared by Embarc Designs show the proposed floor plans and building elevations for all sides of the building.

25. A shadow analysis is not applicable to this application.

26. The proposed development is not with-in a Historic preservation district. All non-determination letters are on-file with the city and included in Attachment D.

27. HVAC equipment has not been specified and selected yet, but Embarc Designs, as an experienced design architect with licensed architects and engineers, will ensure that HVAC systems are specified and installed in full compliance with all codes and regulations, including but not limited to state and federal emissions requirements. Currently, all HVAC systems are proposed to be centralized on the roof.

28. Lighting fixture locations are shown on sheet C-4.0 Utility Plan. An exterior Lighting Photometrics Plan Sheet E-0.0 is included and generally consistent with the lighting plan approved as part of the Subdivision Plan review with some updates to modernize the fixtures and bring them more in-line with current lighting technical standards.

29. A separate signage plan and application will be submitted under a separate cover and application. The applicant is anticipating signage on the canopy above the main entrance as well as a small freestanding monument sign near the intersection with Thompson's Point Road.

    Standard traffic signage shall meet MUTCD standards and is detailed in the included plan set.

30. All existing and proposed easements and rights of access are described in the Declaration of Covenants recorded in the county registry of deeds. A summary of easements specific to development Lot 17 is enclosed in Attachment O.

Att. D

Forefront Partners I, LP
501 Danforth Street | Portland, ME 04102

8 July 2024

VIA EMAIL DELIVERY

Kevin Kraft, AICP
Director, Planning & Urban Development Department
City of Portland
389 Congress Street
Portland, Maine 04101

Dear Mr. Kraft,

On behalf of Forefront Partners I, LP, I am writing to confirm that we are under contract in a Purchase and Sale Agreement with Cathartes to purchase Lots 17-19 at Thompson's Point.

They have our express permission to pursue site plan approval and all necessary permitting for their proposed multi-family project and related improvements.

If you have any questions, please do not hesitate to contact me.

Thank you for your support and very best of regards,

Chris Thompson
President, Forefront GP, LLC

ATTACHMENT D

State and Federal Permits, Local Permits, Historic Determination

Planning and Urban Development
Kevin Kraft, AICP
Director

To: Chris Thompson
From: Kevin Kraft
Date: 8/9/2024
Re: Inclusionary Zoning Applicability – Thompson's Point

Chris,

On March 11, 2014, the Planning Board voted to approve your Master Development Plan (MDP) application for the Forefront at Thompson's Point. City of Portland Land Use Code*, Section 14.3.2.B Master Development Plan*, states that MDP approval confers pending proceeding status upon development with the effect of maintaining the applicability of regulations in effect at the time of approval for as long as the MDP approval remains valid.

On October 19, 2015, the City Council adopted Inclusionary Zoning regulations which went into effect on November 18, 2015 (Order 82-15/16). The Forefront at Thompson's Point Master Development Plan was approved before the Inclusionary Zoning regulations were implemented and therefore is not subject to Portland's Inclusionary Zoning requirements.

According to Section 14.12.2 of the City of Portland Land Use Code, a Master Development Plan (MDP) expires six years after approval if no site work or building construction has commenced. Since several phases of the Thompson's Point MDP have been constructed and continuous site work has been ongoing since its approval, the MDP remains valid.

Please reach out should you have any additional questions or concerns.

Sincerely,

Kevin Kraft

CC:
Matt Grooms

389 Congress Street, Portland, Maine 04101 | ph: 207.874.8430 | kkraft@portlandmaine.gov

Mary Davis

389 Congress Street, Portland, Maine 04101 | c: 207.272.7885 | jgrondin@portlandmaine.gov

Planning & Urban Development
Christine Grimando, AICP
Director

To: Brandon Mazer, Chair, and members of the Planning Board

From: Christine Grimando, Planning & Urban Development Director

Date: June 30, 2023

RE: Master Development Plan Pending Proceeding

A question was raised in the course of the review of recent site plan applications for Portland Foreside/58 Fore Street, regarding whether a Master Development Plan (MDP) approved under a previous iteration of the Land Use Code (Code) was subject to the expiration provisions of the current Code, or whether the section in the Code in place at the time of MDP approval (for 58 Fore Street, December 2016, but the question extends to all MDPs) would apply. The Planning & Urban Development Department has determined the current Code's expiration section applies to this and other previously approved MDPs. Discussion of prior and current expiration sections, how pending proceeding is determined, and how the applicable Code standard is determined follows below.

MDP Expiration Under 2016 & 2023 Versions Of The Land Use Code
The current Code states:

> *Master development plans approved under this article shall expire six years from the date of approval if no site work or building construction has commenced.* (sec. 14.12.2) and *Master development plan approvals may be extended by the Planning Authority up to two times, for up to two years from the date of expiration of the original master development plan approval.* (sec. 14.13.4).

The Code in effect in December 2016 states:

> *Master Development Plan approval may be sought separately or currently with the Phase I Final Level III site plan approval, and shall have an initial approval period of six (6) years, with potential extension periods as provided for in section 14-532(d). (14-524(f)(i))*
>
> *Prior to the expiration of the Master Development Plan, an applicant may submit a written request to the Planning Authority for an extension of a Master Development Plan approval and associated waivers. Only two (2) such extensions may be granted by the Planning Authority, and*

each such extension shall be limited to two (2) years from the date of expiration of the Master Development Plan. (14-532(d))

The expiration language currently in effect means that once site work has commenced, the MDP won't expire, whereas the 2016 MDP expiration language included a finite 10 year end, assuming two two-year extensions were granted. Under the current and 2016 versions of the Code, Individual Site Plan approvals, including those that are part of an MDP, expire in one year, with possible extensions up to a maximum of three years. Lapses in construction for a period in excess of 12 months will also result in a site plan expiration. (2016 14-532(c)(1), 2023 14.12.1; 14.13.3)

Pending Proceeding

Pending proceeding is a term that, in context of development applications, indicates that substantive review has begun, which, in turn, determines which set of regulations an application is reviewed under. For the purposes of applications that are within the jurisdiction of a land use (Historic or Planning) Board, pending proceeding status is conferred when the Board holds its first review, whether that is a workshop or public hearing. For the purposes of administrative/staff reviewed applications, this occurs when the first substantive comments are provided. For applications in-review when the City adopts, through Council action or referendum, amendments to the City Code, it is important to understand whether an application is pending in order to determine what standards they are held to. A submitted application, accepted for the purposes of beginning review, does not have pending proceeding status, but a development application that has been before the Board for an initial workshop does, and may continue in the review and approval process under the Code in effect at the time of the first workshop.

Determining when an application has pending proceeding status is not outlined in the Land Use Code, but there are two references to the term in the Land Use Code: 1) Section 14.5.1 states that voluntary, non-binding pre-application meetings do not confer pending proceeding status; and 2) Section 14.3.2 (formerly 2016 Section 14.524(f)(iv)) states MDP a*pproval shall confer pending proceeding status upon the development with the effect of maintaining the applicability of regulations in effect at the time of approval for as long as the master development plan approval remains valid, including permissible extensions if granted*.

Sec. 14.3.2 is the reason a subsequent site plan application (or subdivision application where applicable) that is a component of an MDP is still reviewed under the regulations in effect at the time of the MDP approval, even if standards of the Code are amended over time. Pending proceeding status is one of the benefits of an MDP approval, and it offers a degree of regulatory predictability for both property developers and the City for these large multi-year phased projects. Without pending proceeding status, it would be difficult to predict all of the potential regulatory changes that could impact a project that is expected to be built out over years. For instance, if maximum heights were reduced, or minimum parking standards increased (to name a few examples of standards that could change over time in the City's Code), site plans that are phases of previously approved MDPs are not held to more stringent or restrictive standards that were adopted during a valid MDP approval period.

Though an MDP and its associated applications have pending proceeding status for the life of the MDP's approval, nothing *prohibits* an applicant of an MDP approved under a previous version of the Code from seeking review under the current version of the Code. Becoming more conforming with the adopted Land Use Code is generally something the standards encourage; a previous approval may proceed under the Code it was reviewed under, but it is not compelled to remain non-compliant with current standards.

In the event an applicant proposes to develop a site to meet current regulations that differ from the regulations in effect at the time of MDP approval, they may do so. However, substantive changes to an approved MDP would require an amendment, and substantive amendments related to areas of the Code that have been changed since the application was originally approved would be reviewed under the current Code. An applicant with an approved site plan who wishes to make use of a new provision in the Land Use Code is also free to apply for an amendment, and this also could subject them to new sections of the current Code if the amendment broaches sections that have since been amended. For example, a proposed change to the total housing units would be reviewed for consistency not only with residential density standards, but with other applicable Code requirements such as inclusionary zoning; or, as previously mentioned, if maximum heights were lowered since an approval was granted, and an amendment to a prior approval was submitted to alter heights of buildings, the new standards would apply.

Exhibit 3

Planning & Urban Development
Christine Grimando, AICP
Director

March 1, 2022

Bo Kennedy
Placemaker Partners, LLC
501 Danforth St
Portland, ME 04102

Project Name: Forefront at Thompson's Point – Master Development Plan
Project ID: 2013-262 CBL: 201-A-5
Applicant: Forefront Partners I, LP

Mr. Kennedy:

Thank you for your letter dated January 19, 2022 requesting an extension of the approval of the Master Development Plan for the Forefront at Thompson's Point project.

In my capacity as Director and under the provisions of Land Use Code Sec. 14.13, Extension of Approvals, I am granting your request to extend your approval to March 11, 2024.

If there are any questions, please contact James Rather, Development Review Manager at (207) 874-8699.

Sincerely,

Christine Grimando, AICP
Director, Planning and Urban Development

CITY OF PORTLAND

Planning & Urban Development

Christine Grimando, AICP, Director

February 14, 2020

Chris Thompson
Forefront Partners I, LP
55 Lisbon Street
Lewiston, ME 04240

Bo Kennedy
Placemaker Partners, LLC
501 Danforth Street
Portland, ME 04102

Project Name:	Forefront at Thompson's Point – Master Development Plan		
Project ID:	2013-262	CBL:	201-A-5
Applicant:	Forefront Partners I, LP		
Planner:	Shukria Wiar		

Dear Mr. Thompson:

Thank you for your letter dated January 30, 2020 requesting a two- year extension of the approval for your Master Development Plan for the Forefront located at Thompson's Point. I understand that you will continue to pursue fulfillment of the Master Development Plan through future Site Plan applications.

In my capacity as Director of the Planning & Urban Development Department and under the provisions of Section 14-532 (d), Expiration of Master Development Plan, I am granting your request to extend the approval for application ID 2013-262 to March 11, 2022.

If there are any questions, please contact Shukria Wiar at 756-8083 or at shukriaw@portlandmaine.gov.

Sincerely,

Christine Grimando, AICP
City Planning Director

CITY OF PORTLAND, MAINE

PLANNING BOARD

Stuart O'Brien, Chair
Timothy Dean, Vice Chair
Elizabeth Boepple
Sean Dundon
Bill Hall
Carol Morrissette
Jack Soley

March 12, 2014

Chris Thompson
Forefront Partners I, LP
55 Lisbon Street
Lewiston, ME 04240

Bo Kennedy
FST
778 Main Street, Suite 8
S. Portland, ME 04106

Project Name: Forefront at Thompson's Point – Master Development Plan
Project ID: 2013-262
CBL: 201-A-5
Applicant: Forefront Partners I, LP
Planner: Nell Donaldson

Dear Mr. Thompson:

On February 11 and March 11, 2014, the Planning Board considered your master development plan application for the Forefront at Thompson's Point. The Planning Board reviewed the proposal for conformance with the master development plan standards of the city's land use code, made findings that the proposal met the required standards and voted to approve the application with the conditions presented below.

MASTER PLAN

The Planning Board voted (6-0, Boepple abstained) that the proposed plans are in conformance with the master plan standards of the city's land use code, subject to the following conditions of approval, which must be met prior to subdivision approval, unless otherwise stated:

1. The applicant shall provide a summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site, including the proposed easement to the Department of Public Services to use the private drive system for turn-around access and easements and conditions relating to public use of trails and open space on the site, for review and approval by the Department of Public Services and the Planning Authority;

2. The applicant shall provide evidence of water capacity from the Portland Water District, for review and approval by the Planning Authority;

3. The applicant shall provide evidence of sewer capacity from the Department of Public Services, for review and approval by the Planning Authority;

4. The applicant shall submit a revised report from a certified fire protection engineer describing evacuation procedures; add a note to the master development plan indicating that all buildings will include sprinkler and fire alarm systems, except for buildings determined by the Fire Prevention Bureau to be exempt from such regulations; and revise the event management plan to indicate that free and clear fire access will be maintained at all times during events, for review and approval by the city's Fire Prevention Bureau;

5. The off-site transportation-related improvements as heretofore required through prior approvals shall represent the off-site transportation-related improvements required for the master development plan and subsequent Level III subdivision and site plan review, so long as the existing Traffic Movement Permit applies; additional requirements for on-site transportation improvements shall be addressed through subdivision and site plan review.

The approval is based on the submitted plans and findings related to master development plan standards as contained in the Planning Board Report and Addendum for application 2013-262, which are attached.

STANDARD CONDITIONS OF APPROVAL & REQUIREMENTS
Please note the following standard conditions of approval and requirements for all approved master development plans:

1. **Separate Level III Subdivision/Site Plan Approvals Required** This approval establishes the general parameters to be adhered to for the development, including the supporting documentation for floor area ratio and/or residential density, general types of uses, building coverage, generalized open space plans and infrastructure systems. This master development plan approval shall not be construed as final authorization of the development. Approval shall confer pending proceeding status upon the development with the effect of maintaining the applicability of regulations in effect at the time of approval for as long as the master development plan approval remains valid, including permissible extensions if granted. Separate Level III subdivision and site plan approvals are required. Level III subdivision and site plans for each phase shall be in general conformance with the master development plan.

2. **Master Development Plan Amendments** A minor amendment to a master development Plan shall be defined as a change which is generally consistent with the approved master development plan layout of buildings, circulation infrastructure, and open spaces, and:

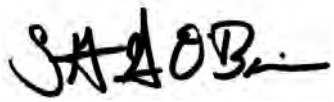
i. Does not propose any new general type of use beyond those approved initially;
ii. Does not increase the building ground coverage, floor area ratio or residential density of the Master Development Plan;
iii. Does not decrease any specified area regulations or enumerated parking ratios; and
iv. Does not substantially change access, circulation, or infrastructure on or adjacent to the site.

The Planning Authority shall be authorized to approve such minor amendments to a master development plan upon written application and explanation of the change(s) by the owner (or its agent) of the property. No further public hearings shall be required.

3. **Master Development Plan Expiration** An approved master development plan shall expire six (6) years from the date of approval unless, prior to the expiration of the master development plan, a written request for an extension is submitted to the Planning Authority. Only two (2) such extensions may be granted by the Planning Authority, and each such extension shall be limited to two (2) years from the date of expiration of the master development plan. The Planning Authority may grant an extension provided there have not been substantial changes to the underlying zoning or site plan standards since the date of the master development plan approval that would have a substantial impact on the approval. The Planning Authority may condition the extension on an amendment of the master development plan to comply with such applicable ordinance or site plan standard changes per *Section 14-532(d)* of the city's land use ordinance. Approved major or minor amendments to a master development plan do not alter the expiration date for the master development plan.

If there are any questions, please contact Nell Donaldson at (207) 874-8723.

Sincerely,



Stuart O'Brien, Chair
Portland Planning Board

Attachments:
1. Planning Board Report & Addendum

Electronic Distribution:
cc: Jeff Levine, Director of Planning and Urban Development
Alexander Jaegerman, Planning Division Director
Barbara Barhydt, Development Review Services Manager
Philip DiPierro, Development Review Coordinator, Planning
Marge Schmuckal, Zoning Administrator, Inspections Division
Tammy Munson, Inspection Division Director
Lannie Dobson, Administration, Inspections Division
Brad Saucier, Administration, Inspections Division
Michael Bobinsky, Public Services Director
Katherine Earley, Engineering Services Manager, Public Services
Bill Clark, Project Engineer, Public Services
David Margolis-Pineo, Deputy City Engineer, Public Services
Doug Roncarati, Stormwater Coordinator, Public Services
Greg Vining, Associate Engineer, Public Services
Michelle Sweeney, Associate Engineer

John Low, Associate Engineer, Public Services
Matt Doughty, Field Inspection Coordinator, Public Services
Mike Farmer, Project Engineer, Public Services
Jane Ward, Administration, Public Services
Jeff Tarling, City Arborist, Public Services
Captain Chris Pirone, Fire Department
Thomas Errico, P.E., TY Lin Associates
David Senus, P.E., Woodard and Curran
Rick Blackburn, Assessor's Department
Approval Letter File

Memorandum
Planning and Urban Development Department
Planning Division

To:	Stuart O'Brien, Chair, and Members of the Portland Planning Board
From:	Nell Donaldson, Planner
Date:	March 6, 2014
Re:	Addendum to 2/11/14 Board report, Thompson's Point Master Development Plan
Project #:	2013-262 **CBL:** 201 A 005001
Meeting Date:	March 11, 2014

I. INTRODUCTION

On February 11, 2014, the Planning Board held a final hearing on the master development plan for the Forefront at Thompson's Point. This plan, which had been reviewed by the board at a previous workshop held on January 28, 2014, represented a reiteration of a prior, approved subdivision for the site. As such, the application relied heavily on materials submitted as a product of earlier reviews. Due to time constraints, the Planning Board was not able to deliberate fully on the final master development plan during the February 11 hearing. However, several questions, mainly related to potential transportation impacts and the approach to the site's existing Traffic Movement Permit (TMP), the form and scale of the proposed buildings, and the process of managing future amendments to the master development plan, were raised. The board elected to table the plan and requested that the applicant consider these aspects of the project and return to the board at the next available hearing date on February 25. The applicant subsequently requested to be moved to the March 11 hearing, based on staff availability and a desire to develop additional supporting materials.

This addendum to the February 11 Planning Board report reviews additional materials submitted by the applicant and discusses items which were raised in the Board hearing or in the intervening time. On the basis of these materials and items, this addendum also presents a revised motion with updated conditions of approval.

II. REVISED SUBMITTALS

Following several meetings with planning staff, the applicant provided additional supporting materials to the Planning Division during the week of March 3. The materials included a revised trip generation analysis for the master development plan, intended to fit within the limits of the existing TMP, a revised parking analysis, additional renderings, and revised master plan graphics. These materials are discussed in detail below.

1. Revised Trip Generation Analysis

At the February 11 hearing, board members and members of the public raised a number of concerns regarding potential traffic and transportation impacts resulting from the project. Staff's report to the board, which referenced comments from Thomas Errico, consulting traffic engineer, provided brief overviews of the master plan's approach to transportation infrastructure; the existing Traffic Movement Permit (TMP), including off-site mitigation currently funded through the EDA grant and FHWA funding processes; the parking plan; the draft events management plan; and the draft transportation demand management plan *(Attachment 1)*. It should be reiterated that Mr. Errico expressed his satisfaction with the applicant's request to rely on the previously-developed events management and transportation demand management plans; Mr. Errico's comments note that these plans will be more fully vetted under subdivision and site plan review.

Existing Traffic Movement Permit (TMP)
As previously discussed, the applicant's plan relies heavily on the existing Traffic Movement Permit for the site, developed as a product of previous reviews. This permit, which was issued by the Maine Department of Transportation in June of 2012, includes a number of assumptions regarding uses *(Attachment 1, See J under 'Applicants' Submittals')*. Based on these assumptions, the TMP permits a certain number of AM and PM peak hour weekday trips (734 AM and 1,091 PM trips to be exact). It should be noted that the permit speaks to allowable trips and not to specific uses; modification of uses is permissible under the existing TMP so long as the program does not generate traffic exceeding the number of permitted AM and PM trips.

Based on the projected trip generation and the quantity of permitted trips, the TMP requires a substantial degree of on-site and off-site mitigation. This includes:

1. Overhead illumination for all entrances;
2. Widening of the Thompson's Point Connector Road to include an 8 ft. shared bike/pedestrian path; 3 ft. shoulders, two 11 ft. travel lanes, and one 11 ft. concrete flush median (which would transition to an exclusive outbound left-turn lane at the Fore River Parkway and be used as a reversible lane during events);
3. A provision that no concerts/sporting events be held between 4-7 pm Monday-Friday;
4. A provision that, during 'large' concerts/sporting events, flaggers and uniformed police officers be present to manage the reversible lane on the Thompson's Point Connector Road; help pedestrians cross at crosswalks, manage inbound and outbound buses at the Portland Transportation Center (PTC) entrance, assist PTC patrons leaving the PTC parking lot in merging with the outbound flow, and direct traffic at the Thompson's Point Connector Road/Fore River Parkway;
5. Improvements to the Fore River Parkway/Thompson's Point Connector Road/I-295 Exit 5A SB intersection, including the reconstruction of the southbound off-ramp to include a separate 13 ft. left turn lane and a 13 ft. through lane, the addition of a queue detector to pre-empt the signal as necessary, and the modification of signal phasing;
6. Improvements to the Fore River Parkway/Congress Street/I-295 Exit 5B intersection, including widening the southbound off-ramp to include two 12 ft. right-turn lanes, the installation of a queue detector to pre-empt the signal as necessary, modification of signal phasing, and the restriping of Congress Street westbound to lengthen the existing left-turn lane;
7. Improvements to the Congress Street/Stevens Avenue intersection, including restriping Stevens Avenue to create an exclusive left turn lane and a shared left-through-right lane, modification of signal phasing, and payment of an impact fee of $15,000 for inlaid thermoplastic paint skips, retro-reflective back plates, and overhead lane signage;
8. Payment of an impact fee of $15,000 for inlaid thermoplastic paint skips, retro-reflective back plates, and overhead lane signage at the Congress Street/Westbrook Street intersection;
9. Payment of an impact fee of $15,000 for inlaid thermoplastic paint skips, retro-reflective back plates, and overhead lane signage at the Congress Street/Frost Street intersection; and
10. A provision that transportation demand management strategies be used to offset additional traffic impacts.

The TMP also states explicitly that, if any supporting data changes, the applicant shall "request in writing from MaineDOT a decision of what impacts those changes will have on the permit. The applicant will then be required to submit those changes for review and approval and additional mitigation as a result of those changes may be required at the expense of the applicant."

In terms of history, it should be noted that staff's final report to the Planning Board on the original subdivision/Level III site plan for the project, published in June 2012, discussed the improvements required as a product of the TMP. The report did not raise significant issues related to the off-site

mitigation requirements.

It should also be noted that, as a product of the original planning process, additional off-site traffic investments are planned which will provide capacity that will benefit the Forefront at Thompson's Point. These investments include sidewalk improvements, trail connections, and lighting improvements.

As discussed in the February 11 Planning Board report, the applicant originally proposed a development program for the master plan that resulted in trip generation exceeding the existing TMP thresholds cited above. The applicant suggested a monitoring approach and, as necessary, modification of the TMP under site plan review at later phases of the project. The city's consulting traffic engineer, Tom Errico, generally agreed with this approach. However, he requested a letter from MDOT verifying their concurrence and suggested that monitoring occur at each phase of site plan review to ensure that trip generation thresholds not be exceeded. These recommendations were included in the February 11 Board report as conditions of approval.

Revised Trip Generation Analysis
Recognizing that, regardless of Mr. Errico's or MDOT's comfort with the approach to the TMP, the Board and public had concerns regarding modifications to the TMP at later stages of buildout, the applicant has chosen to submit supplemental materials which alter their development program and reassess their trip generation numbers in an effort to fit within the trip generation thresholds of the existing TMP. The applicant's revised trip generation analysis describes their approach (*Attachment B).*

In their revised analysis, the applicant has generally achieved a reduction in trip generation through three mechanisms: the modification of uses, reduction in occupancy, and the reassessment of projected trip generation numbers using revised trip generation ratios from the Institute of Traffic Engineers (ITE). Together, these have the effect of reducing the projected AM peak hour trip generation from 1,146 to 800 and the PM peak hour trip generation from 1,314 to 1,015. The trip generation changes include the following:

- In the original master plan submittal, Building B3 was proposed as a 6,000 SF restaurant generating 69 AM and 66 PM peak hour trips. In the applicant's revised trip generation analysis, the building's use has been changed such that it will be "ancillary to the Depot building and will not generate additional traffic" *(Attachment B)*. In conversation, the applicant has further explained that this building will serve as back-of-house operations for the performance space contained in the adjacent Depot. As such, no trips are estimated to be generated as a product of this building.
- In the original master plan submittal, Building C1, the Circus Conservatory of America, was estimated to generate 123 AM and 104 PM peak hour trips. These trip generation figures were based on ITE rates for community colleges using square footage as the independent variable. In the revised submittal, the applicant has recalculated trip generation figures using the ITE rate for community colleges, but basing the total on student population and staffing numbers rather than on square footage. This results in a decrease in trip generation to 25 AM and 21 PM trips.
- The original master plan submittal projected 70 AM peak hour trips as a product of Building E1, the hotel. In the revised trip generation analysis, this figure has been reduced to 54 using an ITE-based trip generation rate referenced in prior approvals.
- Under the original master plan application, the event center was proposed with an occupancy of 2,866 and projected to generate 115 AM and 224 PM peak hour trips. In the revised submittal, the occupancy has been reduced to 2,500, resulting in a decrease in trip generation to 100 AM and 195 PM peak hour trips.
- Lastly, in the original master plan submittal, Building J1 was proposed as a 160,000 SF office building. In the revised trip generation analysis, this building has been converted to 160 residential condominium units. Based on ITE ratios, this results in a decrease in AM peak hour

trips from 273 to 70 and in PM peak hour trips from 258 to 83.

It should be noted that the revised trip generation analysis also assumes a 100 trip "buffer" customarily provided by MDOT when considering TMP thresholds. While the revised cumulative PM trip generation figure stands well below the TMP threshold of 1,091 trips, the total AM trip generation figure of 800 actually exceeds the 734 trips permitted under the TMP. The buffer is needed in this case in order to accommodate these excess trips.

The applicant states in their revised trip generation analysis that "[t]he MaineDOT requires any development that exceeds their permitted trips by more than 99 trip ends in any peak hour to receive a permit modification. Since the proposed Master Plan does not exceed the 99 trip end threshold, a MaineDOT permit modification is not required. This was confirmed with MaineDOT" *(Attachment B).*

Tom Errico, consulting traffic engineer, has reviewed the revised trip generation analysis. He writes,

> *The applicant has revised the trip generation analysis to reflect the current development program and I concur with the methods used and the conclusions. Accordingly, the proposed project will comply with the MaineDOT Traffic Movement Permit (TMP) from a trip generation threshold perspective. In the issuance of a TMP, MaineDOT allows for a "buffer" of 100 trips above that noted in the Permit before a modified permit is required. As detailed by the applicant, the Project will generate less trips during the AM and PM peak hours when considering the buffer trips. I find the Master Plan to be in compliance with the TMP.*

NNEPRA/Portland Transportation Center Consultation
At the hearing on February 11, Board members raised questions regarding the involvement of Northern New England Passenger Rail Authority (NNEPRA) and the Portland Transportation Center in the planning of traffic mitigation measures. In terms of history, a stakeholder meeting was held in September of 2011, as the traffic movement permit was being developed, in order to discuss potential improvements and user conflicts on the Thompson's Point Connector Road and its surroundings. Representatives of NNEPRA, Concord Coach Lines (who owns the adjacent Portland Transportation Center), Amtrak, the city, and MDOT attended.

It should be noted that this meeting coincided with NNEPRA's *Portland Station Location Evaluation,* which considered future rail service in the context of several alternatives to the existing Portland Transportation Center site. The NNEPRA study, concluded in October of 2011, resulted in the decision to remain in the current location and invest in its improvement as a "thriving transportation hub." This decision was based, at least in part, on the "potential for increased transit connections, expansion and development associated with the Forefront project." NNEPRA's Executive Director, Patricia Quinn, has more recently indicated her organization's endorsement of the project as revised under the master plan, noting that the "project as proposed provides wonderful and exciting opportunities for the Downeaster, the City of Portland, and all of southeastern Maine" *(Attachment PC-1).*

In terms of coordination with the Portland Transportation Center, as mentioned during the February 11 hearing, the PTC contracted with Sebago Technics to conduct an independent assessment of the Thompson's Point traffic impact study during the initial subdivision and site plan review. The TMP was revised following the release of this report in an effort to accommodate concerns raised by the PTC.

Revised conditions of approval
Given Mr. Errico's review of the revised trip generation analysis, original conditions from the February 11 Board report that required written approval from MDOT regarding the TMP approach and traffic

monitoring are no longer germane. (It should be noted that compliance with the TMP will be assessed as the applicant proceeds through site plan review.) As such, these conditions of approval have been eliminated.

Further, at the applicant's request, staff has added a condition of approval related to the off-site transportation improvements required through the TMP and prior planning work, to which the applicant has made significant financial commitment. This condition is intended to define the off-site mitigation required so long as the existing TMP applies.

2. Revised Parking Analysis

The applicant's additional materials also include a revised parking analysis that recalculates peak parking demand *(Attachments C and D)*. In the original master plan submittal, the peak parking demand, represented by an average day with a live theater event after 5 PM, was estimated at 1,877 spaces. In the revised analysis, this figure has dropped to 1,822 spaces "as a result of [a] minor modification of the "outbuildings" near the old Union Station Depot outdoor event structure at the tip of the point (the removal of the second restaurant use and its consolidation with the proposed boathouse/café structure next to the "Depot")" *(Attachment C).*

Mr. Errico noted in his comments in the February 11 Board report that the peak parking demand exceeds the proposed parking supply at full buildout, 1,290 spaces. Even under the revised parking analysis, this remains the case. Mr. Errico stated previously that "during the site plan approval process the applicant will be required to demonstrate that adequate parking supply will be provided for the proposed uses" *(Attachment 1).* Again, this will remain the case. The applicant has indicated that they intend to use a combination of transportation demand management strategies, many of which are outlined in the transportation demand management plan, to accommodate peak parking demand without "over-building" parking infrastructure. It should be noted that the proposed parking supply is more than adequate to meet the projected demand on the average day without events. Mr. Errico has reviewed the revised parking analysis and writes,

> *I have reviewed the parking demand analysis and I find the method and estimates to be reasonable. I would note that the evaluation of parking supply adequacy will be conducted during each phase of the project. In general the project will provide sufficient parking for typical days and during large events a host of strategies will be employed that may include off-site parking with shuttle services. The on-going review will be linked to the TDM plan and Event Management Plan and will be adjusted as actual parking needs and management are better understood. Accordingly, I find the parking program under the Master Plan to be acceptable.*

3. Additional Renderings

At the February 11, 2014 hearing, Board members also raised questions regarding the design and massing of the proposed master plan, particularly as seen from the adjacent neighborhood to the north. In response, the applicant has provided renderings showing the site from residential streets across the railroad tracks *(Attachment E)*. It should be noted that the applicant has also provided links to the walk-throughs shown at the February 11 hearing.

4. Revised Plans

In keeping with the changes to the development program as represented in the revised trip generation and parking analyses, the applicant has provided updated master plan graphics *(Plans 1 and 2).* The updated development program includes changes in uses for Buildings B3 (from restaurant to "ancillary") and J1 (from office to residential) and slight changes in the program for Building J2 (from 120 to160 residential units) and the event center (a decrease in occupancy). Altogether, these changes result in less commercial

square footage and more residential density. The increased emphasis on residential development advances the notion of the site as a transit-oriented development and in many ways allows for a more efficient use of the site overall. The revised development program is as follows:

Table 1: Forefront at Thompson's Point, Proposed Development Program

	Building	Height	Floor area	Footprint	Units	Rooms	Seats	Surface parking	Garage parking	Total parking
1A	Building A: Office, Café, Retail	Existing	34,000	34,000				71		*71*
1B	Building B1: Multi-Purpose (Live Theater)	Existing	14,000	14,000				436		*507*
	Boat Launch									
1C	Building C: Educational	1-2 Floors	41,000	33,750				(175)		*332*
1D	Building B2: Restaurant	1 Floor	3,600	3,600				(19)		*313*
	Building D: Gym & Medical Office	1 Floor	11,000	11,000						
	Portions of West Side Trail & Outdoor Stage									
1E	Building E1: Hotel & Condominiums	120 ft	70,000	23,350	24	125		144		*457*
	Building E2: Restaurant	1 Floor	6,000	6,000						
	Remainder of West Side Trail									
1F	Building F1: Parking Garage	5 Floors	161,575	32,315				15	730	*1,202*
	Building F2: Parking Garage		1,530	1,530						
1G	Building G: Office	9 Floors	180,000	22,350				58		*1,260*
1H	Building H: Event Center	80 ft	63,000	47,564			4,800	30		*1,290*
2A	Building I: Cultural Center	1-2 Floors	25,000	18,080						*1,290*
2B	Building J1: Condominiums	6 Floors	160,000	30,000	160			(78)	78	*1,290*
	Building J2: Condominiums	TBD	196,500	19,650	160			(48)	48	
2C	Building B3: Ancillary to B1	1 Floor	6,000	6,000						*1,290*
	TOTAL		***973,205***	***303,189***	***344***	***125***	***4,800***	***434***	***856***	***1,290***

III. ADDITIONAL DISCUSSION ITEMS & MODIFICATIONS TO CONDITIONS

In addition to the supplemental materials provided by the applicant, there are several discussion items which have emerged in the time since the February 11 hearing. All of these relate to the original conditions of approval from the February 11 Board report.

1. Trail and Open Space Access

Following the hearing, representatives of Portland Trails and the city's Department of Public Services raised questions regarding bike and pedestrian access along the northern edge of the site *(Attachment 3)*. The city's *Bicycle and Pedestrian Plan* and PACTS's *Regional Bicycle and Pedestrian Plan* identify the existing rail line in this location as an alignment for a future bike/pedestrian trail link, and Portland Trails and the city's Department of Public Services expressed a desire to identify this link in some capacity in the master plan. The link would serve a different purpose from the proposed perimeter trail, which has

always been a foundational element of the master plan; a bicycle/pedestrian way along the rail corridor, when combined with other bicycle and pedestrian links defined in regional long-range planning efforts, would provide a commutable alternative to Congress Street, with direct access from outlying neighborhoods to the peninsula.

In conversations following the correspondence with DPS and Portland Trails, the applicant stated clearly that a lack of space precludes the creation of a dedicated trail or bicycle lane paralleling the railroad tracks at the northern edge of the site. However, they also expressed a willingness, in concept, to create a bicycle/pedestrian way in some capacity, through pavement markings, signage, or other mechanisms, that would establish a more direct east-west route and link with the greater Portland Trails network. It is assumed that the details of this arrangement would be resolved under Level III site plan/subdivision review.

Also related to trails and open spaces, staff requested clarification from the applicant on the terms of public access to the perimeter trail, boat launch, and water on Thompson's Point. In conversation, the applicant stated explicitly that, as will be the case under the easement for the panhandle trail, the boat launch, water access, and perimeter trail will be accessible for public use through a license or other such agreement. That agreement would include provisions reserving the right of the applicant to limit public access at particular times (e.g. during events on site).

2. Fire

Staff has suggested a minor modification to the condition of approval relating to fire safety, based on conversations conducted with Chris Pirone of the Fire Prevention Bureau regarding the Depot building at the southern end of the peninsula. Captain Pirone has indicated that this building may not require a sprinkler, depending on its use. As such, staff has modified the condition of approval to state that all buildings will be sprinklered except as determined to be exempt by the Fire Prevention Bureau.

3. Phasing Plan

Lastly, staff was able to review the master phasing plan; as a result, the original condition of approval relating to this phasing plan has been eliminated.

IV. MASTER DEVELOPMENT PLAN AMENDMENTS

As noted in the February 11 report, the city's site plan ordinance includes language related to the procedure for processing master plan amendments (*Section 14-532(b)*). The ordinance defines "minor" amendments, or those that simply require administrative approval, as those which are "generally consistent" with the approved master plan layout, circulation, infrastructure, and open spaces. A minor amendment is qualified as a change which:

> *(i) Does not propose any new general type of use beyond those approved initially;*
> *(ii) Does not increase the building ground coverage, floor area ratio or residential density of the Master Development Plan;*
> *(iii) Does not decrease any specified area regulations or enumerated parking ratios; and*
> *(iv) Does not substantially change access, circulation, or infrastructure on or adjacent to the site.*

It is implied that changes which do not meet these conditions would require Planning Board review.

However, at the February 11 hearing, both board members and the applicant pressed for further clarification on thresholds triggering board review of future master plan changes. In internal discussions, as well as in discussions with the applicant, staff considered a series of thresholds, such as when an applicant proposes an increase in net square footage, a change of use, changes in trip generation, or

substantial changes in circulation or the location of buildings. On closer inspection, however, this list of potential additional thresholds was found to closely mirror the language of the existing ordinance. As such, no condition of approval related to amendments is suggested here.

V. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommends that the Planning Board approve the master development plan for the Forefront at Thompson's Point.

VI. PROPOSED MOTION – MASTER DEVELOPMENT PLAN

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board report for the public hearing on February 11, 2014 and the addendum to said report for the public hearing on March 11, 2014 for application 2013-262 relevant to the master development plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board finds that the plan **is/is not** in conformance with the master development plan standards of the land use code, subject to the following conditions of approval, which must be met prior to subdivision approval unless otherwise stated:

1. The applicant shall provide a summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site, including the proposed easement to the Department of Public Services to use the private drive system for turn-around access and easements and conditions relating to public use of trails and open space on the site, for review and approval by the Department of Public Services and the Planning Authority;

2. The applicant shall provide evidence of water capacity from the Portland Water District, for review and approval by the Planning Authority;

3. The applicant shall provide evidence of sewer capacity from the Department of Public Services, for review and approval by the Planning Authority;

4. The applicant shall submit a revised report from a certified fire protection engineer describing evacuation procedures; add a note to the master development plan indicating that all buildings will include sprinkler and fire alarm systems, except for buildings determined by the Fire Prevention Bureau to be exempt from such regulations; and revise the event management plan to indicate that free and clear fire access will be maintained at all times during events, for review and approval by the city's Fire Prevention Bureau;

5. The off-site transportation-related improvements as heretofore required through prior approvals shall represent the off-site transportation-related improvements required for the master development plan, so long as the existing Traffic Movement Permit applies; additional requirements for on-site transportation improvements shall be addressed through subdivision and site plan review.

VII. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. Planning Board report for hearing date 2/11/14
2. Traffic Engineer review (memo from Thomas Errico, 12/30/13)
3. Bicycle-Pedestrian Coordinator memo (memo from Bruce Hyman, 2/27/14)

APPLICANT'S SUBMITTALS

A. Cover letter (from Bo Kennedy, FST, Inc., dated 3/4/14)
B. Trip generation summary/methodology
C. Parking memorandum (from Chris Thompson, Forefront Partners, I, dated 3/1/14)
D. Parking summary
E. Renderings of panhandle

PUBLIC COMMENT

PC-1. Letter from Patricia Quinn, NNEPRA

PLANS

Plan 1 Revised Master Plan
Plan 2 Revised Master Plan

PLANNING BOARD REPORT
PORTLAND, MAINE

The Forefront at Thompson's Point, Portland, Maine
Master Development Plan
Application #2013-262
Thompson's Point Development Company, Inc., d/b/a Forefront Partners I, LP, Applicant

Submitted to: Portland Planning Board: Public Hearing Date: February 11, 2014 CBL: 201-A-5	Prepared by: Nell Donaldson, Planner Date: February 7, 2014

I. INTRODUCTION

The Thompson's Point Development Company, Inc, doing business as Forefront Partners I, LP, appears before the Planning Board for a final review of the proposed master development plan for the Forefront at Thompson's Point. The plans represent a final iteration of a preliminary application that was presented to the board at a workshop on January 28, 2014.

Thompson's Point consists of approximately 30 acres of land located adjacent to the Portland Transportation Center. The applicant's master development plan for the Forefront at Thompson's Point involves a mixed-use development including an event center, hotel, sports medicine facility, parking structure, educational facility, residential units, restaurants, and office uses.

The project is subject to master development plan review under *Section 14-524* of the city's ordinance. A total of 262 notices were sent to property owners within 500 feet of the site and a legal ad for the Planning Board hearing ran on February 3 and 4, 2014.

Applicant: Forefront Partners, I LP
Consultants: Stephen Bushey, FST, Inc; Owens McCullough, Sebago Technics; Bill Hopkins, Archetype

II. REQUIRED REVIEWS

Review	***Applicable Standards***
Master Development Plan	*Section 14-524(a)3c(iii)*
Site Location of Development Act	*Technical Manual Chapter 14 (to be completed at time of subdivision review)*

III. PROJECT DATA

Existing Zoning	B-5 Urban Mixed Use
Existing Use	Manufacturing, construction, and storage
Proposed Use	Mixed-Use/TOD
Parcel Size	32.67 acres

	Existing	*Proposed*	*Net Change*
Building Footprint	123,684 SF	303,189 SF	179,505 SF
Building Floor Area	123,684 SF	973,205 SF	849,521 SF
Impervious Surface Area	908,661 SF	761,430 SF	-147,231 SF
Parking Spaces	Undetermined	1,290	
Estimated Cost of Project	$100-110 million		

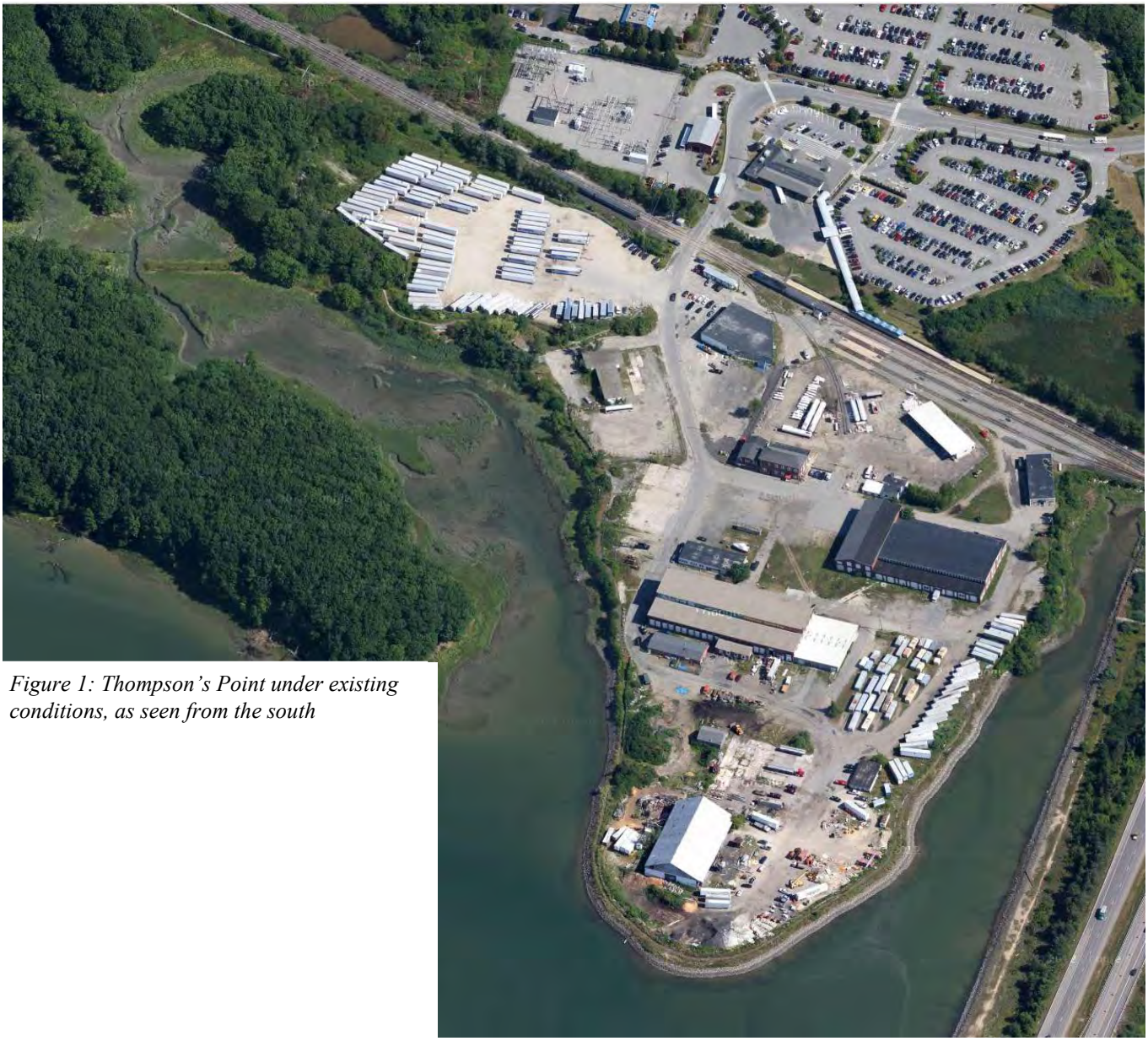


Figure 1: Thompson's Point under existing conditions, as seen from the south

IV. EXISTING CONDITIONS and BACKGROUND

Thompson's Point is a typical industrial site, bounded by railroad tracks to the north and the Fore River to the west, south, and east, and currently occupied by vacant buildings, semi-trailer box storage, and various other temporary uses *(Figure 1)*. The site does house an extension of the Fore River trail and some remnant natural areas on its western panhandle. It is a unique site in terms of its large size and its proximity to both the river and regional public transportation resources. It is zoned for urban commercial mixed-use development under the B-5 zone and is designated as a Tax Increment Financing (TIF) District.

The original plans for the Forefront at Thompson's Point, also submitted by the Thompson's Point Development Company, were approved on June 5, 2012. These plans included over 600,000 SF of non-garage building space dedicated to office, hotel, restaurant, and event center uses designed around a campus concept. In the spring of 2013, the proposed development program changed, and the applicant submitted reconfigured subdivision and site

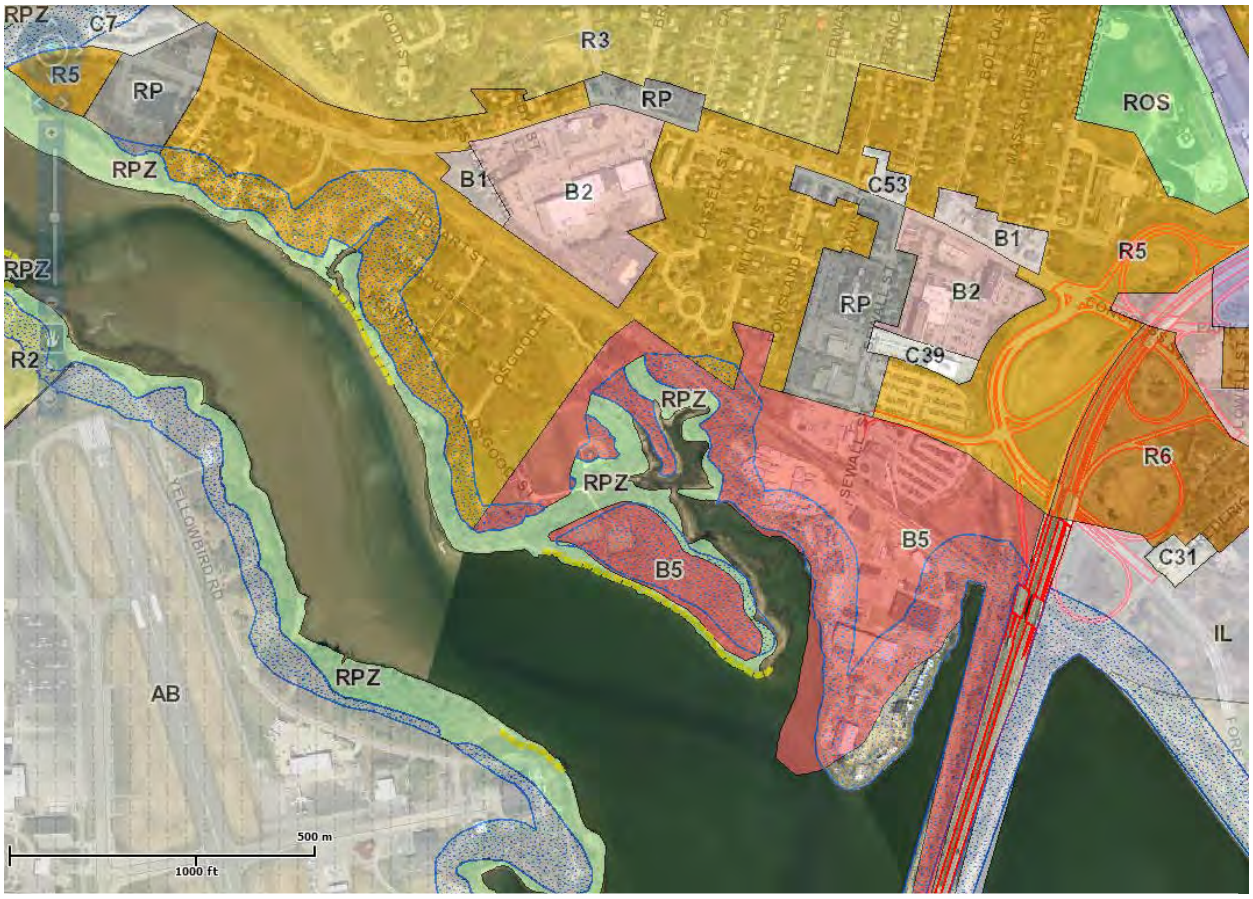


Figure 2: Thompson's Point, zoning context

plans designed to, among other things, retain existing rail-era brick buildings on the site. Amended subdivision and site plans, modified to include these buildings, were approved administratively on June 19, 2013.

In the time since these approvals, efforts to start work on off-site transportation-related improvements required through both MDOT Traffic Movement Permit (TMP) and city review processes has begun. These improvements are funded almost entirely by an EDA grant and include work to enhance bicycle and pedestrian connections, vehicular access to the adjacent highway and street networks, and the surrounding streetscape. The work is scheduled to begin in March 2014 and continue throughout the year.

V. PROPOSED DEVELOPMENT

In the time since the original approvals, the applicant has also engaged in negotiations to obtain purchase and sale agreements for two adjacent parcels critical to the development of the entire Thompson's Point peninsula. The recent acquisition of development rights to these parcels, owned by Suburban Propane and Northern New England Passenger Rail Authority (NNEPRA), has allowed the applicant to change its long-term vision for the site. In this vein, the applicant has submitted this new master development plan for the Forefront at Thompson's Point,. This plan encompasses many of the original programmatic elements of the approved subdivision. However, the physical design, affected by the additional acreage at the site's north end, is markedly different.

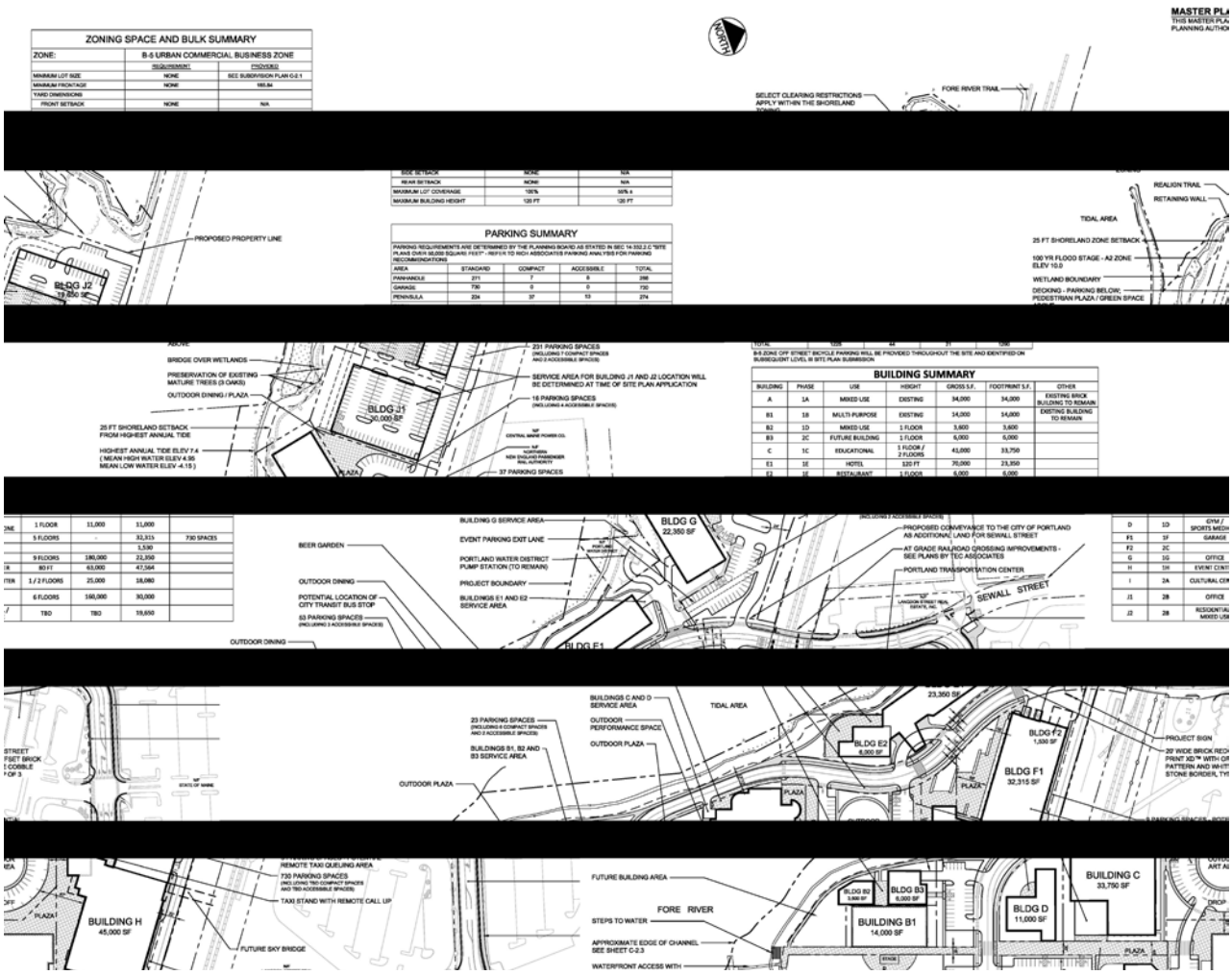


Figure 3: Revised Forefront at Thompson's Point master plan

The original Forefront at Thompson's Point plan demolished all existing structures and, as noted above, developed over 600,000 SF of non-garage square footage, comprised of institutional, office, restaurant, hotel, and event center uses. The centerpiece of the scheme was a 70,000 SF event center and concert hall. The plans included significant open space, surface parking, a perimeter trail, and public access to a shoreline boat launch. The amendments to these plans, approved in June of 2013, modified the plan to retain some of the existing buildings on site.

In the master development plan, much of this program remains. The applicant still envisions office, restaurant, educational/institutional, restaurant, hotel, event center, and garage space. The master development plan also includes live theater space, a post-secondary education complex, an 18,000 SF cultural center, and residential development. This 970,000 SF development program, by incorporating a more diverse mix of uses, including residential, advances the concept of the site as a transit-oriented development. The preliminary development program for the Forefront at Thompson's Point master plan is outlined in Table 1.

With the negotiations to acquire the Suburban Propane and NNEPRA sites and the decision to renovate four of the existing structures on the site under the master plan, the composition of the site has changed dramatically *(Figure 3)*. The master plan retains the trail surrounding the peninsula, but shortens the ring road. The development program is now organized around a stronger central core enclosed by the proposed event center and garage, a hotel and restaurant, the renovated Brick North building (to contain office, retail, and restaurant uses),

Table 1: Forefront at Thompson's Point, Proposed Development Program

Phase	Building	Height	Floor area	Footprint	Units	Rooms	Seats	Surface parking	Garage parking	Total parking
1A	Building A: Office, Café, Retail	Existing	34,000	34,000				71		*71*
1B	Building B1: Multi-Purpose (Live Theater)	Existing	14,000	14,000				436		*507*
	Boat Launch									
1C	Building C: Educational	1-2 Floors	41,000	33,750				(175)		*332*
1D	Building B2: Restaurant	1 Floor	3,600	3,600				(19)		*313*
	Building D: Gym & Medical Office	1 Floor	11,000	11,000						
	Portions of West Side Trail & Outdoor Stage									
1E	Building E1: Hotel & Condominiums	120 ft	70,000	23,350	24	125		144		*457*
	Building E2: Restaurant	1 Floor	6,000	6,000						
	Remainder of West Side Trail									
1F	Building F1: Parking Garage	5 Floors	161,575	32,315				15	730	*1,202*
	Building F2: Parking Garage		1,530	1,530						
1G	Building G: Office	9 Floors	180,000	22,350				58		*1,260*
1H	Building H: Event Center	80 ft	63,000	47,564			4,800	30		*1,290*
2A	Building I: Cultural Center	1-2 Floors	25,000	18,080						*1,290*
2B	Building J1: Office	6 Floors	160,000	30,000				(78)	78	*1,290*
	Building J2: Condominiums	TBD	196,500	19,650	120			(48)	48	
2C	Building B3: Restaurant	1 Floor	6,000	6,000						*1,290*
	TOTAL		***973,205***	***303,189***	***144***	***125***	***4,800***	***434***	***856***	***1,290***

the renovated Brick South building (to be occupied by the Circus Conservatory of America), the cultural center, and outdoor theater space/concert venue. Access from the Thompson's Point Connector Road is retained, and additional pedestrian access is provided via a sky bridge from the Portland Transportation Center.

This application is subject to master development plan review under *Section 14-524(a)3c(iii)* of the city's code. Following master development plan approval, the project will be reviewed under the city's subdivision and site plan ordinances. In addition to these municipal reviews, it should be noted that the original subdivision for the Forefront at Thompson's Point was reviewed under the state's Site Location of Development Act, for which the city had delegated review authority. Per correspondence with the Maine Department of Environmental Protection (MDEP), the city will remain the reviewing entity under the SLDA for the re-envisioned project considered here.

The original Forefront at Thompson's Point was also subject to the following state and federal permitting:

- U.S. Army Corps of Engineers General or Individual Permit (Wetland Impact)

- Natural Resources Protection Act (NRPA) Permit issued by Maine Department of Environmental Protection
- MDOT Traffic Movement Permit (issued by MDOT)
- MDEP Air Emissions License

The applicant has provided evidence of state and federal permits related to the approved subdivision plan *(Attachment J)*. In the final plan submission, the applicant has also provided a letter addressed to the Maine DEP outlining changes from the approved subdivision plan and the intent to comply with the conditions of the original NRPA permit *(Attachment L)*. Similar coordination with respect to other permitting entities will be required during subdivision review. Ultimately, evidence of new or updated permits, or documentation from reviewing entities regarding the applicability of the existing permits, will be required at the time of Level III subdivision and site plan review.

VI. PUBLIC COMMENT

The Planning Division has received no written comments from neighbors on the project. However, as noted in staff's prior workshop memo, the applicant has provided documentation from a neighborhood meeting held on December 23, 2013 *(Attachment J)*. The concerns expressed at this meeting generally focused on parking and traffic impacts, particularly during large events to be held on site. There was also some discussion of design and building height. These concerns were echoed during the board's workshop on January 28, 2014, where members of the public raised concerns regarding traffic impacts, event management, parking supply, trail access, and visual impacts from the abutting neighborhoods.

VII. RIGHT, TITLE, & INTEREST

The applicant has provided a deed demonstrating ownership of the original Thompson's Point site. In addition, the applicant has provided letters from Suburban Propane, Inc. and the Northern New England Passenger Rail Authority indicating that purchase and sale agreements have been signed for those adjacent parcels *(Attachment G)*.

VIII. FINANCIAL & TECHNICAL CAPACITY

The applicant has provided a copy of a letter from TD Bank attesting to the Thompson's Point Development Company's ability to complete the project and "see that it operates effectively over the long term" *(Attachment I)*.

IX. ZONING ANALYSIS

The Forefront at Thompson's Point lies in a B-5 zone, and is also subject to shoreland and floodplain regulations under the city's land use code. Marge Schmuckal, zoning administrator, has provided the following comments on the revised master plan:

> *I am under the realization that this review is only for a Master Plan and is not a site plan review. The applicant states that the team is working on an update to the acoustical study and compliance with B-5 Noise Performance Standards which will be forwarded upon completion. I will need that study during the Site Plan review stage.*
>
> *I have reviewed page C-3.00 where the HAT (Highest Annual Tide) for 2013 is denoted along with the 25 foot shoreland zone setback and the current 100 year flood elevation. All three of these meet the current Land Use Ordinance.*
>
> *The applicant mentions that they will comply with the Shoreland tree clearing certification as part of the Condition of Compliance. Again, I can confirm this regulation during the Site Plan Review process.*

In reference to off-street loading requirements, I will default the final review of this requirement, along with the other B-5 dimensional requirements during the Site Plan review application.

X. MASTER PLAN SUBMISSION REQUIREMENTS (*Section 14-527(e)*)

Section 14-527 of the city's site plan ordinance outlines master development plan submittal requirements. The applicant has generally met these requirements, including the submission of a digital 3D model of the development. In accordance with the submittal requirements, the city has requested a summary of existing and/or proposed easements, covenants, public or private rights-of-way, including the proposed easement to the Department of Public Services to use the private drive system for turn-around access and conditions relating to public use of trails and open space on the site, as requested under previous reviews. This has been included as a condition of approval.

XI. MASTER DEVELOPMENT PLAN STANDARDS (*Section 14-524(a)3.c(iii)*)

Section 14-524 of the city's land use code establishes standards under which master development plan applications must be reviewed. Per this section, master development plans must be:

a. A designated tract of land consisting of a parcel or parcels of contiguous land or land on both sides of a public street, totaling one (1) acre or more;
Altogether, the Thompson's Point site, when expanded to include the adjacent Suburban Propane and NNEPRA parcels, encompasses 32.67 acres.

b. Developed in a comprehensive, design-integrated manner, according to an overall master development plan;
The applicant has submitted a master plan for the Forefront at Thompson's Point which incorporates all major aspects of the site in a comprehensive manner.

c. Consistent with the objectives of this ordinance;
The application and development plan are generally consistent with the objectives of the city's ordinance, including the purpose of the B-5 zone, which is "to provide zones in areas of the peninsula near the central business district where a mixture of uses, including marine, industrial, commercial, and residential, is encouraged. The B-5 and B-5b zones are characterized by larger underdeveloped lots with great potential for denser, clustered, urban mixed use development and more efficient reuse of existing land and buildings. It is anticipated that such denser, mixed uses would rely on a shared infrastructure system, including service alleys, parking lots, public transportation facilities, stormwater management, and driveways."

d. Consistent with the City's Comprehensive Plan and consistent with City Council approved master plans and facility plans for off-premise infrastructure, including but not limited to, trails, pedestrian and bicycle network, view corridors, environmental management, sewer and stormwater, streets, or other facilities (see Section 15 of the Technical Manual);
The Forefront at Thompson's Point master plan is also generally consistent with the city's long-range transportation and economic planning work, including the following goals and policies from the comprehensive plan, among others:

- …Encourage sustainable development patterns and opportunities within the city by promoting efficient land use, conservation of natural resources, and easy access to public transportation, services, and public amenities (21);
- Create local multi-modal centers for the city's commuters and mass transit passengers, building on the presence of existing centers of activity, connected with each other and with regional transportation centers (24);
- Create a variety of job opportunities for the full spectrum of the labor pool which are appropriate to our current and potential skills, provide good pay and benefits, are rewarding/satisfying (37); and

- Encourage higher density housing for both rental and home ownership opportunities, particularly located near services, such as schools, businesses, institutions, employers, and public transportation (44).

e. Developed so as to locate buildings and improvements in a manner that provides usable open space, preserves significant natural features, as defined by the site plan ordinance standards, and preserves existing trees to the maximum extent possible;
As an industrial site, Thompson's Point is largely developed, with very few remaining natural features. Those natural features which do exist include emergent and existing wetlands and stands of trees along the westerly shoreline, at the far western end of panhandle, and along the northeastern shore. The Forefront at Thompson's Point master plan generally reorganizes the site in an efficient manner which allows for minimal wetland alteration, the preservation of some specimen trees, and the creation of significant new open spaces, both in hardscaped and landscaped areas.

In terms of landscape preservation, during the original approval process for the Forefront at Thompson's Point, the city arborist identified mature red oaks and a small stand of sapling white oaks meriting





Figures 4 & 5: Aerial view of the Forefront at Thompson's Point; rendering of the central 'quad area,' including the façade of the proposed event center

preservation in the western panhandle. In the revised submittal, these trees are shown on the master plan and referenced in the landscape narrative, where the applicant has stated that "several significant oak trees have been identified for preservation and all efforts will be made to protect the trees and provide adequate zones around them during construction" *(Attachment N)*. Notes have also been added to the master plan relating to clearing restrictions within the shoreland zone *(Plan 2)*. The applicant states in their narrative that "tree removal…will be certified by our forester to insure consistency with the Shoreland Zoning Vegetation Management requirements."

As noted previously, under the master plan, a central plaza, framed by the event center, renovated Brick North Building, and renovated Brick South building, forms the core element of the site's new open space network *(Figure 5)*. The plan links this plaza with a large, grassed open space area at the southern end of the peninsula, intended for outdoor concerts, via a tree-lined pedestrian walkway which runs the length of the peninsula's spine *(Figure 4)*. Exhibit, outdoor performance, and parking areas flank this corridor to the east and west. Additional, smaller hardscaped areas adjoin most of the site's proposed buildings. The applicant's landscape narrative emphasizes the use of native trees and shrubs, with a naturalized treatment at the perimeter of the site and more formal landscape design at the site's interior.

The plans also show a perimeter trail around the majority of the peninsula, much of which is proposed in the footprint of the existing trail. This path would link with the Fore River Trail and the Portland Trails network to the west. It would transition to sidewalk approximately one-third of the way up the eastern side of the peninsula.

Jeff Tarling, the city's arborist, has indicated his general approval of the master development plan. He writes,

> *The Thompson Point 'Landscape Master Plan' is a new look for many of the landscape treatment recommendations considered for this site in earlier renditions. Particularly important are guidelines for the shoreland zones and the upland parts of the site. 'Tree save' areas are shown for the Red Oak trees growing near the foot of the slope near building 'H' and Area 'A'.*
>
> *Overall, Thompson Point is a very visible and environmentally sensitive site with the location surrounded on three sides by the Fore River and Turning Basin. Creating a Master Plan will help guide future site work and the corresponding landscape treatment needed.*

f. Developed so as to be in conformance with Portland's Historic Preservation Ordinance standards for designated landmarks or for properties within designated historic districts or designated historic landscapes, if applicable. When proposed adjacent to or within one hundred (100) feet of designated landmarks, historic districts or historic landscapes, the Master Plan shall be developed so as to be generally compatible with the major character-defining elements of the landmark or portion of the district in the immediate vicinity of the proposed development;

The site is not located in a historic preservation district; nor is it adjacent to a designated landmark or designated historic landscape. However, the previous review for the Forefront at Thompson's Point included documentation from the Maine Historic Preservation Commission stating that the two existing brick buildings are likely eligible for designation under the National Register of Historic Places due to the lack of other existing early rail-era structures in the city. These are slated for redevelopment under the master plan. It should also be noted that the early 19th century Cumberland and Oxford Canal crossed the site; evidence of the channel and tow path remain visible in the western panhandle area. The previously-approved subdivision and site plans were deemed by the city to have no impact on these historical remnants. The applicant has noted their location and has stated that the master plan will, likewise, have no impact.

g. An efficient use of land which properly considers topography and protects significant natural features including, but not limited to, waterways, wetlands, floodplains and wildlife;
As noted above, the existing Thompson's Point site is largely developed with industrial buildings and associated paved and gravel areas. Generally, the proposed master plan respects the minimal natural features which do remain on the site.

The site is largely flat, with the exception of the northwestern panhandle, where there are several small bluffs and rocky outcroppings. These areas will require regrading under the proposed plans *(Plan 15)*. The panhandle buildings are proposed with a retaining wall.

The site is adjacent to the Fore River and its tidal flats, and as a result, the site houses fresh and saltwater wetlands on its perimeter. As with the original subdivision and site plan applications for the Forefront at Thompson's Point, the master plan proposes minimal activity in these areas, namely a seasonal dock at the southern end of the peninsula in the location of coastal wetlands and several drainage outfalls which coincide with freshwater wetlands in the panhandle area. The applicant has noted that the location and size of the seasonal dock slated for the southern end of the peninsula may change as subsequent subdivision and site plans evolve. All of these plan elements were previously reviewed under the National Resources Protection Act (NRPA) by the Maine Department of Environmental Protection (MDEP) as a product of the prior plans. As noted above, the applicant has provided a letter to MDEP generally stating their intent to comply with the conditions of the previous permit *(Attachment L)*. The original Thompson's Point approval also involved a permit from the Army Corps of Engineers regarding wetland impacts. As previously stated, the applicant will be required to provide evidence of updated permits, or the continued applicability of the previous ones, during Level III subdivision and site plan review.

During the original approval, the Maine Department of Inland Fisheries & Wildlife (MDIFW) reviewed the plans under NRPA and found that the mudflats and riparian zones below the highest annual tide (HAT) line on the western and eastern shorelines qualify as significant migratory shorebird feeding and roosting areas, respectively. This finding resulted in changes to the original plan for the site, including the selection of alternative plantings for shoreline areas to enhance screening between the shore and proposed trail yet minimize the potential for increased predatory activity. The applicant has identified these areas in the revised submittal, and, again, has reiterated the intent to comply with the conditions of the previous permit.

h. An efficient use of land demonstrating full coordination of its own site development and surrounding context including, but not limited to, the land uses and functions contemplated, architecture, open space and pedestrian networks, vehicular access and circulation, and all other infrastructure;
As noted above, in the Forefront at Thompson's Point master plan, the applicant has redesigned the Thompson's Point site to adaptively reuse existing buildings, increase densities in the panhandle area, and introduce a more balanced mix of uses, including residential development. These changes allow for a more efficient use of the site in general, and further the concept of the site as a transit-oriented development. The plans show development clustered at the northern end of the peninsula, with open space as an organizing concept linking the more developed portions of the site with the dominant open space feature at the southern end of the site and the shore. Circulation networks and infrastructure plans have been reviewed and have not elicited major concerns from staff *(Plans 15-19)*.

i. Linked and coordinated with surrounding land uses, infrastructure and off-site public facilities, including but not limited to the public school system, where appropriate, in a manner that is safe, efficient, non-injurious to the public, and an improvement or benefit to the public where possible; and
j. Designed with sizing of street and other infrastructure systems to accommodate the overall service demand of the Master Plan;
As noted during prior review processes, the Thompson's Point site both suffers and benefits from its isolated geography as a peninsula "across the tracks" and on the banks of the Fore River. Because of its isolation, the site essentially serves as its own neighborhood. Efforts have been made to coordinate uses with those surrounding the peninsula – the access to the regional transportation system lends itself to use for regional destinations such as the event center, theater, or higher education facility; the proposed medical and hotel uses integrate well with the neighboring medical office and hotel node immediately adjacent; and the residential use, though certainly different in scale and form, echoes residential uses found to the north. The master plan integrates open space uses in a manner that retains access from the greater neighborhood and provides for connections to regional open space, particularly to the west.

Circulation & Parking System
The site generally has limited vehicular access, although its proximity to a major interstate connection is an asset. The master development plan benefits from prior transportation planning work completed during the original site plan and subdivision review. This work resulted in funding for transportation-related improvements on the Thompson's Point Connector Road, Fore River Parkway, Sewall Street, and Congress Street. These improvements are intended to provide the capacity to handle trips to and from the site via all modes, and, as noted above, are slated for completion in 2014-2015. Likewise, the master plan benefits from developed events management and transportation demand management (TDM) plans created and vetted during prior review processes.

Generally, the site benefits from good transit, pedestrian, and bicycle access. Thompson's Point is located adjacent to the city's Transportation Center, including its local bus, intercity bus, intercity rail, and taxi service. As noted previously, the site also benefits from a high degree of trail connectivity.

The applicant has provided a trip generation and parking analysis, including trip generation calculations, and a revised master circulation plan in the final submittal *(Attachment M and Plan 19)*. The proposal continues to rely on one vehicular access point via the Thompson's Point Connector Road from Fore River Parkway. This three-lane connector road crosses the existing Portland Terminal Company railroad line at grade and, once past the proposed garage entrance, continues as a private two-lane, two-way perimeter road that circumnavigates the peninsula. Access to almost all of the site's buildings is provided via this ring road, with a subsidiary loop providing a connection to the western panhandle. A vehicular way is also provided through the center of the site.

Pedestrian access is proposed via sidewalk from both Sewall Street and the Fore River Parkway via the Thompson's Point Connector Road. (Note that while Sewall Street is a dead-end street with no vehicular access to the Thompson's Point Connector Road or the site, pedestrian, bike, and emergency vehicle access is proposed via a path and emergency gate.) Under the master development plan, the site would also be accessible via pedestrian or bicycle from the existing Portland Trails network to the west. The master plan depicts a skybridge to the Portland Transportation Center, which would ultimately provide a second major pedestrian access point to the north. It should be noted that the original approvals for the project included sidewalk connection on only one side of the Thompson's Point Connector Road across the Portland Terminal Company right-of-way. A waiver was granted for this condition. During prior review processes, staff also identified the need for additional pedestrian signal improvements at the Thompson's Point Connector Road/Fore River Parkway. These plan elements will be considered under

subdivision and site plan review. Generally, Tom Errico, the city's consulting engineer, has stated that he finds the master plan acceptable from a transportation perspective. He writes,

> *In general I find the Master Plan layout to be acceptable with the following comments that can be addressed during the site plan review process (a detailed review of site plan elements has not been conducted and so this should not be considered an approval of the site plan):*
>
> - *I believe the pedestrian crossing from the main entry roadway into the event center area (building H) needs special considerations.*
> - *A sidewalk connection from the back side of parking garage to the main roadway should be included.*
> - *I am concerned about the number of driveways that intersect the main circulation road in the vicinity of the hotel and parking garage.*
> - *The on-street parking spaces on the circulatory roadway do not have access to a sidewalk and will not work well for passengers entering and exiting vehicles.*

As noted in staff's prior memo to the board, the applicant has found that trip generation under the master plan exceeds thresholds from the existing Traffic Movement Permit (TMP), issued for the original site plan/subdivision by the Maine Department of Transportation (MDOT) *(Attachment J)*. The applicant has asked for master plan approval under the existing TMP, with a follow-up traffic analysis to be conducted after the completion of Phase I of the master plan, as the site is expected to approach approved trip generation levels. This analysis would assess actual trip generation and compare it against the TMP-approved trip generation levels. Pending the results of this study and projections for the remainder of the site, additional mitigation would be required. The city has requested a letter from MDOT verifying that they find this approach acceptable. The applicant has provided documentation requesting this letter *(Attachment P)* and has stated that MDOT has verbally agreed to this approach. Of the trip generation estimates and TMP, Tom Errico, the city's consulting traffic engineer, writes,

> *I have reviewed the updated traffic generation estimate conducted by the applicant and I generally concur with their findings. As noted the project is anticipated to exceed the trip threshold established by the current Traffic Movement Permit (TMP) and therefore modification to the TMP will be required in the future. I am comfortable with this approach, but would like to see documentation from MaineDOT supporting this approach. It is my suggestion that during each Site Plan approval phase, the applicant shall submit trip generation information that documents current trip generation levels (through both field monitoring and standard ITE trip generation methods), trip generation estimates for the Phase under consideration, and how the project complies with the TMP. I would note that the TMP is flexible on land use implementation and is relevant as it relates to trip levels during the peak hours of consideration.*

Conditions of approval related to MDOT's acceptance of the TMP approach, as well as Mr. Errico's request for trip generation estimates during Level III subdivision and site plan review, have been suggested.

Vehicular parking is proposed throughout the site, with a total of 1,290 spaces (approximately 856 garage spaces and 434 surface) at full buildout. Most of the proposed surface parking is located at the exterior of the site in double-loaded parking areas. Interior spaces are proposed in the event center garage and under residential and office buildings on the western panhandle. All of the garage parking is proposed for later phases of the project. The applicant's parking analysis calculates peak parking demand under each phase

of development, as well as peak cumulative parking demand at full buildout. It should be noted that the peak cumulative parking demand exceeds the proposed parking supply. Of this, Mr. Errico writes,

> *The application materials indicate that a total parking supply of 1290 parking spaces will be provided during full build-out of the project. According to the parking analysis conducted by Gorrill-Palmer, a parking demand of 1699 parking spaces is estimated during the weekday typical time period and 1877 parking spaces are estimated during evening event conditions. Accordingly, an insufficient parking supply will be provided under full build conditions. During the Site Plan approval process the applicant will be required to display that adequate parking supply will be provided for the proposed uses.*

The revised submittal includes the previous TDM plan, dated September 2011 *(Attachment J).* The TDM plan describes a scheme centered around the creation of what is functionally a transportation management association for the entire peninsula, which would coordinate the various entities on the site in a set of shared transportation demand management strategies designed to maximize the use of adjacent transit infrastructure, increase transit opportunities, reduce peak hour vehicle trip impacts, reduce parking demand, and encourage healthier transportation options. Proposed TDM-related strategies include the promotion of carpooling and car-sharing, the addition of express bus service, and the provision of shuttle service during peak events. This TDM plan will be fully reviewed at the time of Level III subdivision and site plan review. Mr. Errico notes,

> *The applicant has provided the TDM Plan that was developed in 2011 and approved as part of the original approval. In concept I find the TDM Plan to be acceptable but want to emphasize the importance of the measures included in the Plan and how the traffic study and parking analyses assume some level of TDM success. The applicant will be required to update the TDM Plan at the next Site Plan review stage to reflect the proposed implementation schedule (including what specific strategies are being implemented, implementation dates, and specific monitoring activities).*

The applicant has also provided an updated events management plan in the revised submittal *(Attachment O).* This plan restricts events to weekdays after 7 pm or weekends. The plan also includes various strategies, in conceptual form, which are designed to facilitate the movement of large numbers of visitors to and from the site. These include the use of a reversible lane on the Thompson's Point Connector Road, police officers to direct traffic at the Thompson's Point Connector Road/Fore River Parkway, traffic control personnel throughout the site (including the parking garage), and directional signage. As with the TDM plan, it is anticipated that this event management plan will be more fully vetted under subdivision and site plan review.

> *The applicant has provided a general approach to managing event traffic volumes as part of the Master Plan. I would note that a detailed traffic management plan was developed in conjunction with the original application and that plan should continue to be used (if the applicant suggests deviating from the Plan, those details should be provided). I would note that the Traffic Management Plan is a live plan and will be reviewed and adjusted over time as conditions in the area are monitored.*

It should be noted that the applicant has submitted documentation requesting that special events occur on the site during the coming summer. It is assumed that the applicant may not have completed subdivision or site plan review under the master development plan by that time. Of this, Mr. Errico writes,

> *It is my understanding that some events may occur during the summer of 2014 and those events will be permitted through the City Special Event Permit process. I would note that the applicant*

would be required to provide details on traffic management and parking under a scenario where the full EDA off-site traffic improvements are not in place. DPS would review the details of the traffic and parking analysis at the time of the requested permit and approval of the details is not issued as part of the Master Plan.

Master development plan approval should not be construed as approval for these special events.

During the initial review, the city raised concerns regarding pedestrian connections from the Connector Road to the panhandle trails. This concern was voiced previously by Portland Trails, which has noted the potential for through trail traffic coming from the Fore River Trail to the west and the Fore River Parkway pedestrian accommodations to the east. In the revised master plan, the applicant has added a pedestrian connection to the panhandle trail immediately north of Building E1.

John Peverada, the city's parking manager, has repeatedly stressed the need for taxi accommodations in the master development plan. The applicant has indicated in the revised master plan that a taxi queuing area may be provided on the inbound side of the loop road to the north of the event center garage. An additional taxi stand is shown in the circle directly in front of the event center.

Water
Regarding water infrastructure, an existing 12" water main terminates at a fire line supply meter pit at the end of the Sewall Street extension. Per their master utility plan and their utility analysis, the applicant intends to extend 8"+ water onto the site from this main, providing both domestic and fire protection service *(Attachment E and Plan 17)*. The applicant has requested an updated capacity letter from the Portland Water District (PWD). This has not yet been received, and has thus been included as a condition of approval. City staff has not identified areas of major concern with respect to water service provision.

Sewer
As with the original plans for the site, the applicant proposes to connect sanitary sewer services into the PWD pump station directly adjacent to the property. The PWD has previously provided a capacity letter indicating the ability to accept the project's sanitary sewer discharge. An updated letter has not yet been received by the city; as such, it has been included as a condition of approval. At the request of the Department of Public Services, the prior approval also included a condition relating to revised wastewater flow projections and the potential need for upgrades to the PWD pump station. It is assumed that this condition will be addressed during subdivision review. David Margolis-Pineo, of the city's Department of Public Services, adds,

The City expects, as originally proposed, that all sources of inflow into the sanitary sewers on Thompson Point be eliminated as build out of the Thompsons Point Master Plan progresses. Also that all abandoned laterals connected to the sanitary system be sealed at the sewer main.

The applicant has stated in their final narrative that they concur with this approach *(Attachment A)*.

Gas & Electric
In their master utility plan and utility analysis, the applicant shows new gas service extending onto the site from Sewall Street/Thompson's Point Connector Road and underground electric from an existing pole on the southwestern side of the railroad tracks. Public Services has indicated no concerns with this arrangement as proposed.

Stormwater

The applicant has provided a master grading and drainage plan which shows preliminary contour lines *(Plan 15)*. In addition, in the revised submittal, they have included a stormwater schematic which illustrates, in more detail, potential storage and water quality treatments proposed for each of the various stormwater management zones of the site *(Plan 16)*. This diagram includes notes relating the intent to comply with city and MDEP water quality treatment standards, as requested by David Senus, consulting civil engineer, during the preliminary review. Mr. Senus has indicated his satisfaction with the revisions as submitted *(Attachment 5).*

Fire
The applicant has provided an updated fire safety compliance plan showing hydrant locations and fire vehicle turning radii on the proposed master plan layout *(Plan 18)*. In addition, the applicant has submitted an assessment from a certified fire protection engineer *(Attachment O)*. Captain Chris Pirone, of the city's Fire Prevention Bureau, has reviewed the submittal and offers the following comments,

> *I am comfortable with the FPE's analysis regarding the issues he addressed in his report, which focused on water supply, hydrants and access roads.*
>
> *However, as requested in the most recent Thompson's Point meeting with their Team, I requested that the FPE report needed to analyze the evacuation procedures from the buildings once outside the buildings and where there staging areas would be.*
>
> *I encourage them to have the FPE contact me to discuss this process which then will need to be added to his report.*
>
> *Lastly, as a reminder, when Fire Chief LaMontagne gave the approval for the single access road the condition he placed on the development was that all buildings would need to have sprinkler and fire alarm systems even if codes did not require them. He also required and approved the event management plan that would always allow free and clear access into the point; basically an emergency access lane which would be maintained by event staff.*

A condition of approval relating to these comments has been suggested.

Schools
Lastly, the plan includes 144 residential units in high-density, high-rise settings. Both of the buildings intended for residential use appear on the western panhandle of the site. While these units may ultimately house families with school-age children, the applicant has stated that they expect "minimal impact on the city's public school system" *(Attachment C).* Any students from the development would likely attend Ocean Avenue Elementary and King Middle Schools.

k. Designed to create a street grid pattern that reflects average city block sizes of the neighborhood for street connectivity;
The master plan, which is proposed with private streets, is not organized around a traditional grid pattern *(Figure 2)*. In this way, it differs from those neighborhoods immediately to the north, which house long rectilinear blocks with limited connectivity. Instead, the project adheres to a campus-like concept, with a central 'quad' created by the hotel, existing Brick South building (slated for use as the Circus Conservatory of America), the Brick North building (slated for mixed use), and the garage and event center. Internal circulation patterns allow vehicles and pedestrians to cut through this quad or to circumnavigate the peninsula. A short loop is also provided to the panhandle area. As described above, vehicular access to the site as a whole, however, remains solely via the single access point at the





Figures 6 & 7: Aerial view of the Forefront at Thompson's Point from the north (above) and southeast, looking over the central open space feature (below)

Thompson's Point Connector Road. Pedestrian and bicycle connectivity is slightly higher, with access via the skybridge and trail, as well as the Thompson's Point Connector Road.

l. Designed as to create a cohesive identity through building scale, massing, and articulation; use of quality exterior materials, architectural detailing at pedestrian scale; consistency of design and materials for streetscape and pedestrian amenities; framing of outdoor open space and linkages; a clear conveyance of the function and significance of various buildings, entrances, and features; and to generally comply with design and development standards of the zone in which it is located;
The drawings for the Forefront at Thompson's Point master plan depict an overall scheme for the site which incorporates existing and new buildings, single-story industrial architecture with high-rise residential/hotel and event center/garage design, and significant open space *(Figures 4-7 and Attachment D)*. The applicant uses several tools to make the site cohere, namely consistent streetscape and landscaping, integrated plaza spaces, integrated design taking cues from the existing brick buildings slated for adaptive reuse, and a logical pattern of form and massing which announces entry and a clear progression onto the site.

The city's site plan standards state that projects "in the…B-5 zone…shall be designed to support the development of dense, mixed use neighborhoods with attractive, safe, and convenient street level pedestrian environments as demonstrated by compliance with all applicable design standards listed in the Design Manual." The B-5 design standards provide guidance related to building and parking lot siting. Generally, these standards are oriented toward more urban environments; many of the design standards reference proximity and orientation toward the street. Given the campus-like concept employed here, where an urban street grid is not used as an organizing concept, many of the standards don't apply. It should be noted that the applicant has generally oriented buildings towards the central spine of the site, with parking toward the perimeter, and has organized the site in an effort to create a dense and mixed-use neighborhood, in keeping with the spirit of the design standards.

m. Inclusive of provisions for the ownership and maintenance of usable open space as appropriate; and
Per the preliminary submittal, the open space slated for the Forefront at Thompson's Point is proposed on both independent and common lots. In the revised submittal, the applicant has stated that open space will be "owned and managed by the applicant's professional property management company. The trail area (easement to the city) will be maintained by Portland Trails; however the ownership and control of access is [to be] managed by the applicant. The boat launch and water access [will be] privately owned but he public [will be] encouraged to use the facilities within the rules established by the owner" *(Attachment X).* It is assumed that further details regarding ownership and maintenance of open space will be addressed under subdivision review.

n. For areas proposed as future development phase(s), the proposed interim conditions shall be managed and maintained to ensure stable, safe and attractive site conditions.
In the final submittal, the applicant has continued to provide a phasing plan consisting of two phases with 11 sub-phases. However, the applicant has also provided a master plan graphic which shows four simplified "sections" which may be used for future subdivision recording purposes *(Plan 22).* It is assumed that, under each of the eventual proposed sections, multiple site plan reviews would occur for distinct buildings which might come online at any time. Given the timing of this submittal, the city has not had an opportunity to fully review this sectional recording/phasing plan. As such, its review has been included as a condition of approval. It should be noted that, while this plan is labeled as a "subdivision plan," approval of the master development plan here should not be construed as approval of the subdivision.

XII. SITE LOCATION OF DEVELOPMENT ACT

As previously noted, under the prior subdivision and site plan review a site law permit was approved for the Forefront at Thompson's Point under the city's delegated review authority. The MDEP has granted the city the authority to continue delegated review of the Forefront at Thompson's Point under state site law. Chapter 14 of the city's *Technical Manual* enumerates standards for local site location of development review. All of these, including the standards regarding financial and technical capacity, traffic movement, and the protection of natural resources, echo master plan, subdivision, and site plan standards outlined in the city's land use ordinance. The applicant has stated their intent to comply with their existing SLDA permit. As noted previously, a formal review will occur at the time of subdivision application.

XIII. MASTER DEVELOPMENT PLAN AMENDMENTS

At the workshop on the Forefront master plan, Planning Board members raised questions regarding potential future amendments to the plan and the formal review process. The land use code includes language related to Planning Board decisions on the master plan, including the following,

> *(Section 14-524(a)3.f.(iv)) Decisions. The Planning Board shall approve, approve with conditions, or deny a MasterDevelopment Plan application based upon the applicable review standards…An approval, including an approval of waivers, establishes the general parameters to be adhered to for the development, including the supporting documentation for floor area ratio and/or residential density, general types of uses, building coverage, generalized open space plans and infrastructure systems.*

Under *Section 14-532(b) Revisions and amendments to Master Plans and approved site plans,* the land use ordinance further defines a "minor" master plan amendment, which, per the ordinance, may be approved administratively. According to the ordinance, a change qualifies as a minor amendment when it is "generally consistent" with the approved master plan layout, circulation, infrastructure, and open spaces, and:

(i) Does not propose any new general type of use beyond those approved initially;
(ii) Does not increase the building ground coverage, floor area ratio or residential density of the Master Development Plan;
(iii) Does not decrease any specified area regulations or enumerated parking ratios; and
(iv) Does not substantially change access, circulation, or infrastructure on or adjacent to the site.

It is implied that changes which do not meet these conditions would require Planning Board review.

XIV. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommends that the Planning Board approve the master development plan for the Forefront at Thompson's Point.

XV. PROPOSED MOTIONS – MASTER DEVELOPMENT PLAN

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on February 11, 2014 for application 2013-262 relevant to the master development plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board finds that the plan **is/is not** in conformance with the master development plan standards of the land use code, subject to the following conditions of approval, which must be met prior to subdivision approval unless otherwise stated:

1. The applicant shall provide a summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site, including the proposed easement to the Department of Public Services to use the private drive system for turn-around access and conditions relating to public use of trails and open space on the site, for review and approval by the Department of Public Services and the Planning Authority;

2. The applicant shall provide correspondence from the Maine Department of Transportation indicating their acceptance of the proposed approach to monitoring and traffic analysis related to the existing Traffic Movement Permit, for review and approval by the city's Department of Public Services;

3. For each Level III site plan/subdivision review, the applicant shall submit trip generation information that documents current trip generation levels and trip generation estimates complying with the TMP, for review and approval by the city's Department of Public Services;

4. The applicant shall provide evidence of water capacity from the Portland Water District, for review and approval by the Planning Authority;

5. The applicant shall provide evidence of sewer capacity from the Department of Public Services, for review and approval by the Planning Authority;

6. The applicant shall submit a revised report from a certified fire protection engineer describing evacuation procedures, add a note to the master development plan indicating that all buildings will include sprinkler and fire alarm systems, and revise the event management plan to indicate that free and clear fire access will be maintained at all times during events, for review and approval by the city's Fire Prevention Bureau; and

7. The applicant shall revise the master phasing plan for review and approval by the Planning Authority.

XVI. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. Zoning administrator review (memo from Marge Schmuckal, 2/6/14)
2. City arborist review (memo from Jeff Tarling, 2/3/14)
3. Traffic Engineer review (memo from Thomas Errico, 2/6/14)
4. Department of Public Services review (memo from David Margolis-Pineo, 1/13/14)
5. Civil Engineer review (memo from David Senus, 2/3/14)
6. Fire Prevention Bureau review (memo from Chris Pirone, 1/30/14)

APPLICANT'S SUBMITTALS

A. Cover Letter (from Bo Kennedy, FST, Inc., dated 1/24/14)
B. Master Development Plan Development Review Application
C. Master Plan Submission Supporting Narrative
D. Site Graphics
E. Utility Analysis
F. Evidence of Right, Title, and Interest
G. Conformity with Applicable Design Standards
H. Letter of Financial Capacity
I. Neighborhood Meeting Minutes
J. Evidence of Prior Permitting
K. Utility Capacity Request Letters
L. Letter to MDEP (from Bo Kennedy, FST, Inc., dated 1/23/14)
M. Trip Generation and Parking Summary (with supporting data)
N. Landscaping Response (from Carroll Associates, dated 1/23/14)
O. Updated Event Management Plan
P. Letter to MDOT (from Randall Dunton, Gorrill-Palmer Consulting Engineers, Inc., dated 1/15/14)
Q. Updated Fire Protection Review (from W. Mark Cummings, PE, dated 1/29/14)

C. PLANS

Plan 1 Overall Existing Conditions Plan
Plan 2 Master Plan
Plan 3 Master Plan Phase I
Plan 4 Master Plan Phase IA
Plan 5 Master Plan Phase IB
Plan 6 Master Plan Phase IC
Plan 7 Master Plan Phase ID
Plan 8 Master Plan Phase IE
Plan 9 Master Plan Phase IF
Plan 10 Master Plan Phase IG
Plan 11 Master Plan Phase IH
Plan 12 Master Plan Phase 2A
Plan 13 Master Plan Phase 2B
Plan 14 Master Plan Phase 2C
Plan 15 Master Grading and Drainage Plan
Plan 16 Master Stormwater Management Strategy Schematic
Plan 17 Master Utility Plan
Plan 18 Master Fire Protection Plan
Plan 19 Master Circulation Plan
Plan 20 Expanded View of Event Center Plaza
Plan 21 Landscape Master Plan
Plan 22 Amended Subdivision Plan (Draft Sectional Recording "Phases")
Plan 23 Master Plan (Draft Sectional Recording "Phases")

CITY OF PORTLAND

Planning & Urban Development

Christine Grimando, AICP, Director

April 3, 2020

Chris Thompson
Forefront Partners I, LP
501 Danforth Street
Portland, Maine 04102

Bo Kennedy, PE
Placemaker Partners, LLC
501 Danforth Street
Portland, Maine 04102

Project Name:	The Forefront at Thompson's Point Subdivision Alteration		
Project ID:	2017-102	CBL:	201/A/5,8,10 202/A/1, 4
Address:	10 Thompson's Point	Applicant:	Forefront Partners I, LP
Planner:	Shukria Wiar		

Dear Mr. Thompson:

On April 2, 2020, the Planning Authority approved minor alterations to the approved Sectional 1 through 4 subdivision plats for the Forefront at Thompson's Point. The decision is based on the documents and plans as submitted and prepared by Bo Kennedy, PE, of Placemaker Partners, LLC on behalf of Forefront Partners I, LP. The proposal was reviewed for conformance with the standards of Portland's Subdivision Ordinance and has been found to meet these standards. The scope of the alteration includes changes to the internal lot boundaries for the former Suburban Propane and Northern New England Rail Authority (NNEPRA) properties (lots 8 through 16) to facilitate a proposed 2,800 square foot bar and service building, an 11,400 square foot warehouse building, a 61-room hotel, and associated site improvements. The amendments will also document the execution of the second and final phase of the land exchange between Forefront Partners I, LP and NNEPRA. No change is proposed to any approved lot line, easement, infrastructure, proposed uses, or other components of the previous approval on January 12, 2016.

Standard Procedures

Note: The following standard conditions of approval and requirements apply to all approved site plans:

1. Site Plan Expiration The site plan approval will be deemed to have expired unless work has commenced within one (1) year of the approval or within a time period up to three (3) years from the approval date as agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the one (1) year expiration date.

2. Separate Building Permits Are Required This approval does not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Permitting and Inspections Department.

3. Performance Guarantee and Inspection Fees A performance guarantee of $8,400 Division that covers the site improvements for the Phase III sidewalk and an inspection fee payment of $300 must be submitted to the Planning Division.

4. Construction Management Plans The applicant, contractor and subcontractors are required to conform to the approved Construction Management Plan, and all conditions contained within the project's approval, for the entire duration of the project. Any amendments to the approved Construction Management Plan shall be reviewed and approved by the Department of Public Works prior to the execution. The Planning Authority and the Department of Public Works have the right to seek revisions to an approved Construction Management Plan. The applicant shall coordinate the project's construction schedule with the timing of nearby construction activities to avoid cumulative impacts on a neighborhood and prevent unsafe vehicle and pedestrian movements. Accordingly, nearby construction activities could involve a delay in the commencement of construction.

5. Preconstruction Meeting Prior to the release of a building permit or site construction, a pre-construction meeting shall be held at the project site. This meeting will be held with the contractor, Development Review Coordinator, Public Works representative and owner to review the construction schedule and critical aspects of the site work.

6. Department of Public Works Permits If work or obstructions will occur within the public right-of-way, such as utilities, curb, sidewalk, driveway construction, site deliveries and equipment siting, a Street Opening and/or Occupancy Permits are required for your site. Please contact the Department of Public Works Permit Clerk at (207) 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

7. Develop Site According to Plan The site shall be developed and maintained as depicted on the site plan and in the written submission of the applicant. Any modifications of an approved site plan or alteration of a parcel, which was the subject of site plan approval after May 20, 1974, shall require the prior approval of an amended site plan by the Planning Board or Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.

8. Design Review of Exterior Elevations If the project is subject to design review, then the exterior elevations shall be constructed and maintained as depicted on the approved elevation drawings and in the written submission of the applicant. Modification of any approved exterior elevations shall require the approval of the revised plans by the Planning Board or Planning Authority pursuant to the terms of Chapter 14, Land Use of the Portland City Code.

9. Defect Guarantee A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

10. As-Built Final Plans Final sets of as-built plans shall be submitted digitally to the Planning and Urban Development Department, on a CD or DVD, in AutoCAD format (.dwg), release AutoCAD 2005 or greater.

11. Mylar Copies Mylar copies of the as-built drawings for the public streets and other public infrastructure in the subdivision must be submitted to Public Works prior to the issuance of a certificate of occupancy.

12. Impact Fees New development or changes of use that result in net new residential dwelling units, non-residential building square footage, or water meters, are subject to the City of Portland's impact fee ordinance (Chapter 14, Article XVII). Impact fees are calculated at the time of building permit and must be paid prior to the certificate of occupancy. For more information, visit https://www.portlandmaine.gov/2409/Impact-Fees

The Development Review Coordinator must be notified five (5) working days prior to the date required for final site inspection. The Development Review Coordinator can be reached at the Planning and Urban Development Department at (207) 874-8632. All site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Shukria Wiar at (207) 756-8083 or via email shukriaw@portlandmaine.gov.

Sincerely,



Christine Grimando, AICP
Director

CITY OF PORTLAND, MAINE
PLANNING BOARD

Elizabeth Boepple, Chair
Sean Dundon, Vice Chair
Bill Hall
Carol Morrissette
Jack Soley
Dave Eaton

January 21, 2016

Chris Thompson
Parallax Partners (dba Forefront Partners I, LP)
501 Danforth Street
Portland, ME 04102

Bo E. Kennedy, P.E.
Stantec (formerly FST)
778 Main Street, Suite 8, South
Portland, ME 04106

Project Name: The Forefront at Thompson's Point Project Level III Site Plan and Subdivision Application

ID: 2015-133 & 2015-159

Address: 1 Thompson's Point, Portland, Maine 04102 CBL: 201 A 005001
Applicant: Chris Thompson
Planner: Christine Grimando

Dear Mr. Thompson:

On January 12, 2016, the Planning Board considered a Level III Site Plan and Subdivision application for an amended subdivision plan consisting of 19 lots, an amended Site Location of Development Act approval, a Level III site plan for the renovation of an existing building (Brick South) for use as a flexible 2,500 person event/assembly space with associated parking, utilities and stormwater management within the 34,000 square foot building. Included in this site plan is coordination with a previous approval of Brick North and adjacent site work. Both the site plan and subdivision application are applications towards fulfillment of the previously approved Master Development Plan for this site. The Planning Board reviewed the proposal for conformance with the standards of the: Shoreland Zoning Regulations, Floodplain Management Regulations, Traffic Movement Permit, Subdivision Ordinance and Site Plan Ordinance, including the Site Development of Location Act. The Planning Board voted 5-0 (Elizabeth Boepple absent) to approve the application with the following waivers and condition(s) as presented below.

WAIVERS

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations, contained in the Planning Board Report for the public hearing on January 12, 2015 for applications #2015-133 and #2015-159 relevant to Portland's Technical and Design Standards and other regulations, and the testimony presented at the Planning Board hearing, the Planning Board voted 5-0 (Boepple absent) to waive the following Technical Manual standards regarding City street design:

1. 1.7.2.1, requiring a perpendicular driveway connection to the street, to allow for an alternative angle for the proposed Parking Garage Entrance (Lot 14/Building F1).
2. 1.7.2.9, requiring that vehicular circulation to be contained off-site and to not utilize the adjacent street system, to allow for anticipated delivery truck maneuvers.
3. 10.8, requiring a minimum aggregate base course thickness of 3 inches for collector roads, to allow for alternative road design specifications as noted on Sheet C7-0. .
4. Figure I-2 (Collector Street Cross-Section), requiring continuous sidewalks on both sides of the collector road to allow for sidewalk not to be built on an easterly portion of the road, as shown on the Site Layout Plan, sheet C-3.0, for the purposes of the Level III site plan (2015-159) subject to a condition of approval for completion of full sidewalk design as shown on Sheet C-3.0, *Overall Site Plan* is (2015-133) at a future phase.
5. Figure I-2 (Collector Street Cross-Section), requiring a minimum roadway width of 40 feet for collector roads, to allow for a variable width of 30-39 feet.
6. Figure I-2 (Collector Street Cross-Section), requiring a minimum esplanade width of 5 feet for collector roads, to allow for a 4ft wide esplanade.

SUBDIVISION REVIEW

The Planning Board voted 5-0 (Boepple absent) that the plan is in conformance with the subdivision standards of the Land Use Code and the Site Location of Development Act, subject to the following condition(s) of approval:

1. The applicant shall finalize the subdivision plat for review and approval by Corporation Counsel, the Department of Public Works, and the Planning Authority. The subdivision plats shall note all conditions of public access, all relevant easements including any for city vehicle access and turning, language regarding rights of lot ingress/egress/regress, and final street turnaround easement location and design in accordance with City of Portland Technical Manual section 1.3.

2. Prior to the issuance of certificates of occupancy, the applicant shall provide a revised Declaration of Easements, Covenants and Restrictions document for review and approval by Corporation Counsel;

3. Street Lighting: The proposed street lights on the 1st segment of the public portion of the Sewell Street extension are to be privately owned, metered and maintained by the Forefront at Thompson's Point. The City shall grant a license for such a purpose at the time of street acceptance.

SITE PLAN REVIEW

The Planning Board voted 5-0 (Boepple absent) that the plan is in conformance with the site plan standards of the Land Use Code, subject to the following condition(s) of approval:

1. Future phases of work in the vicinity of the outfall associated with "Stormwater Management Zone F" (as depicted on sheet C-4.1 of the Subdivision Application) shall incorporate water quality treatment measures that provide adequate treatment capacity for runoff from the untreated parking lot south of the Brick North Building in accordance with the General Standards. If no future work occurs on the site, the Applicant will not be held to completing this measure;

2. The applicant shall provide a full construction management plan for review and approval by the Public Works Department.

3. Sidewalks and Road Improvements: At the time a Site Plan application is submitted for Buildings F1/H (or alternate Level III proposal for Lots 14 & 15 as depicted on Sheet C-2.0, *Subdivision Plan*), the portion of roadway included in Sheet C-3.0, *Site Layout Plan*, including the easterly sidewalk and all remaining road improvements, shall include provisions for conformity with the road design depicted on Sheet C-3.0, *Overall Site Plan.*

4. Final landscape plan shall incorporate 2" caliper trees in 4 foot-wide esplanade.

5. The 8'x20' Concrete Pad for the storage of CO2 tanks and chiller equipment on the North Side of Brick North, as shown on Sheet C-3.0, Site Layout Plan, will be subject to review by the Inspections Division, and any associated life safety reviews, before construction.

The approval is based on the submitted plans and the findings related to site plan and subdivision review standards as contained in Planning Report for application 2015-133 & 2015-159 which is attached.

STANDARD CONDITIONS OF APPROVAL

Please note the following standard conditions of approval and requirements for all approved site plans:

1. **Subdivision Recording Plat** Revised recording plats listing all conditions of subdivision approval must be submitted for review and signature prior to the issuance of corresponding performance guarantees. Performance guarantees must be issued prior to the release of the recording plat for recording at the Cumberland County Registry of Deeds.

2. **Subdivision Waivers** Pursuant to 30-A MRSA section 4406(B)(1), any waiver must be specified on the subdivision plan or outlined in a notice and the plan or notice must be recorded in the Cumberland County Registry of Deeds within 90 days of the final subdivision approval).

3. **Develop Site According to Plan** The site shall be developed and maintained as depicted on the site plan and in the written submission of the applicant. Modification of any approved site plan or alteration of a parcel which was the subject of site plan approval after May 20, 1974, shall require the prior approval of a revised site plan by the Planning Board or the Planning Authority pursuant to the terms of Chapter 14, Land Use, of the Portland City Code.

4. **Separate Building Permits Are Required** This approval does not constitute approval of building plans, which must be reviewed and approved by the City of Portland's Inspection Division.

5. **Note on Stormwater Management Inspection and Monitoring** The applicant and all assigns must comply with the conditions of Chapter 32 Storm Water including Article III, Post-Construction Storm Water Management, which specifies the annual inspections and reporting requirements. The developer/contractor/sub-contractor must comply with conditions of the construction storm water management plan and sediment & erosion control plan based on the applicant's submitted materials and applicable city standards and state guidelines. A maintenance agreement for the stormwater drainage system, as attached, or in substantially the same form with any changes to be approved by Corporation Counsel, shall be submitted and signed prior to the issuance of a building permit with a copy to the Department of Public Works.

6. **Site Plan Expiration** The site plan approval will be deemed to have expired unless work has commenced within one (1) year of the approval or within a time period up to three (3) years from the approval date as agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the one (1) year expiration date.

7. **Subdivision Plan Expiration** The first section of the subdivision plat shall be recorded within three years of Planning Board approval. Subdivision plat approval of the remaining sections of the plat shall remain in effect for five (5) years after Planning Board approval.

8. **Performance Guarantee and Inspection Fees** A performance guarantee covering the

site improvements as well as an inspection fee payment of 2.0% of the guarantee amount and seven (7) final sets of plans must be submitted to and approved by the Planning Division and Public Works Department prior to the release of each sectional subdivision plat for recording at the Cumberland County of Deeds, and prior to the release of a building permit, street opening permit or certificate of occupancy for site plans. If you need to make any modifications to the approved plans, you must submit a revised site plan application for staff review and approval.

9. **Defect Guarantee** A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.

10. **Preconstruction Meeting** Prior to the release of a building permit or site construction, a pre-construction meeting shall be held at the project site. This meeting will be held with the contractor, Development Review Coordinator, Public Service's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the Development Review Coordinator will confirm that the contractor is working from the approved site plan. The site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.

11. **Department of Public Works Permits** If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)

12. **As-Built Final Plans** Final sets of as-built plans shall be submitted digitally to the Planning Division, on a CD or DVD, in AutoCAD format (*,dwg), release AutoCAD 2005 or greater.

13. **Mylar Copies** Mylar copies of the as-built drawings for the public streets and other public infrastructure in the subdivision must be submitted to the Department of Public Works prior to the issuance of a certificate of occupancy.

The Development Review Coordinator must be notified five (5) working days prior to date required for final site inspection. The Development Review Coordinator can be reached at the Planning Division at 874-8632. All site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact Christine Grimando at 874-8608.

Sincerely,



Elizabeth Boepple, Chair
Portland Planning Board

Attachments:

1. Planning Board Report
2. City Code, Chapter 32
3. Sample Stormwater Maintenance Agreement
4. Performance Guarantee Packet

Electronic Distribution:

cc: Jeff Levine, AICP, Director of Planning and Urban Development
Stuart G. O'Brien, City Planning Director
Barbara Barhydt, Development Review Services Manager
Christine Grimando, Planner/Senior Planner
Philip DiPierro, Development Review Coordinator, Planning
Ann Machado, Zoning Administrator, Inspections Division
Tammy Munson, Inspections Division Director
Jonathan Rioux, Inspections Division Deputy Director
Jeanie Bourke, Plan Reviewer/CEO, Inspections Division
Brad Saucier, Administration, Inspections Division
Katherine Earley, Engineering Services Manager, Public Works
Bill Clark, Project Engineer, Public Works
David Margolis-Pineo, Deputy City Engineer, Public Works
Doug Roncarati, Stormwater Coordinator, Public Services
Greg Vining, Associate Engineer, Public Works
Michelle Sweeney, Associate Engineer, Public Works
John Low, Associate Engineer, Public Works
Rhonda Zazzara, Field Inspection Coordinator, Public Works
Mike Farmer, Project Engineer, Public Works
Jane Ward, Administration, Public Works
Jeff Tarling, City Arborist, Public Works
Jeremiah Bartlett, Public Works
Keith Gautreau, Fire Department
Jennifer Thompson, Corporation Counsel
Thomas Errico, P.E., TY Lin Associates
David Senus, P.E., Woodard and Curran
Rick Blackburn, Assessor's Department
Approval Letter File

PLANNING BOARD REPORT
PORTLAND, MAINE

The Forefront at Thompson's Point
Level III Site Plan and Subdivision Review
2015-133 (Subdivision) & 2015-159 (Level III Site Plan)
Chris Thompson, Forefront Partners I LP

Submitted to: Portland Planning Board Date: January 8, 2016 Public Hearing Date: January 12, 2016	Prepared by: Christine Grimando, Senior Planner CBL: 201 A005001 Project #: 2015-133 (Subdivision) & 2015-159 (Level III Site Plan)

I. INTRODUCTION

Forefront Partners I LP has requested a Level III site plan and subdivision review for a 19 lot subdivision, and a Level III site plan for the renovation of an existing building (Brick South) for use as a flexible 2,500 person event/assembly space with associated parking, utilities and stormwater management within the 34,000 square foot building. The application includes a summary of the proposed modifications to the approved master development plan and incorporation of another existing building (Brick North), and its associated site improvements. A time line of the multiple prior approvals for this site is below as background information.



1, Brick South

The total development area consists of over 30 acres. The site's approved master development plan is for a mixed-use development including an event center, hotel, sports medicine facility, parking structure, educational facility, residential units, restaurants, and office uses. The current Site Plan and Subdivision application includes a 19 lot subdivision, and a Level III site plan for assembly/event space and related infrastructure. This application represents the first to be submitted to the Planning Board towards fulfillment of the master development plan, approved in March 2014. The application also folds in a prior approval for Brick North– this was approved, and amended under the 2012 subdivision approval that preceded the 2014 plan for this property. It is included in this application as a means to facilitate superseding the pre-Master Development Plan approvals, and begin to fulfill build-out of the site under one, consolidated program. A previous Planning Board workshop was held for this application on October 13, 2015.

This development is being referred to the Planning Board for compliance with the site plan and subdivision standards. A total of 288 notices were sent to property owners within 500 feet of the site and a legal ad ran in the Portland Press Herald on December 28 and December 29, 2015.

A Neighborhood Meeting was held on Friday, October 9th. A notice dated September 29, 2015 was sent to property owners within 500 feet of the property. Notes from that meeting are included in Attachment O. Questions and comments from the Neighborhood Meeting regarded questions about bike parking, redevelopment aesthetics, and support for the current appearance of the site and recent uses.

Applicant: Chris Thompson, Forefront Partners I LP
Consultants: Bo Kennedy, P.E., Fay, Spofford & Thorndike; Lawrence E. Bartlett, P.E., Bartlett Design; Charles D. Marchese, Surveyor, Sebago Technics



2, Thompson's Point in 2014

II. REQUIRED REVIEWS

Waiver Requests	***Applicable Standards***
1.3; 1.7.2.1; 1.7.2.9; 1.10.8; I-2	Requirement for turnaround on dead-end streets; Requirement for perpendicular driveway connection to street; Requirement for vehicular circulation to be contained off-site and not use adjacent street system; Requirement for a minimum aggregate base course thickness of 3 inches for collector roads; Requirement for continuous sidewalks on both sides of the collector road; Requirement for a minimum roadway width of 40 feet for collector roads; Requirement for a minimum esplanade width of 5 feet for collector roads
Review	***Applicable Standards***
Site Plan	*Section 14-526*
Subdivision	*Section 14-497*

III. PROJECT DATA

Existing Zoning	B-5
Existing Use	Industrial
Proposed Use	Event/Assembly

Proposed Development Program	App. 2,500 SF mixed use assembly/event space
Parcel Size	32.67 acres

	Existing	*Proposed*	*Net Change*
Building Footprint	34,600 SF	34,600 SF	N/A
Building Floor Area	34,600 SF	34,600 SF	N/A
Impervious Surface Area	725,710 SF	687,813 SF	-37,897 sf site-wide total, +2.2 ac. this development phase
Parking Spaces (on site)	Unknown	118 (8 handicapped spaces)	118 delineated
Bicycle Parking Spaces	0	16	16
Estimated Cost of Project	$3,000,000		

IV. BACKGROUND & EXISTING CONDITIONS

Thompson's Point consists of 30+ acres immediately adjacent to the Portland Transportation Center, on a peninsula of land that extends into the Fore River. It has been a continuously occupied industrial site, and in recent years has begun its transition to a mixed-use destination, hosting events at the southern tip of the peninsula and securing new tenants to support the redevelopment of the property. Bound by railroad tracks to the north, surrounded by the Fore River on three sides, it is currently occupied by existing buildings, and a mixture of long term and temporary uses. The site also includes an extension of the Fore River trail. In recognition of its unusual potential to be a new destination in the City, and its proximity to existing public transit, it was made a Tax Increment Financing District, towards further transit improvements. Zoned B-5 (urban commercial mixed-use zone), it is immediately adjacent to residential, industrial, business and resource protection zones. Its size, proximity to both the natural resource of the Fore River and the transit resources of the Portland Transportation Center, and its location at the intersection of a variety of urban contexts make this a unique development site in Portland.

Applications Timeline

In June 2012 this site was approved for 600,000 sf of office, hotel, restaurant and event center uses. The original site plan and subdivision approval was amended in June 2013, to reflect an altered development program, as well as retention of modified existing brick buildings on the site.

In late 2013, a Level III site plan application was submitted for a portion of the site, specifically a segment of road, infrastructure, and site work supporting the re-use of Brick North (Phase 1A). This site plan was submitted under the still valid 2013 approval. Approved in January 2014, it was intended to allow development to proceed while the development program for the overall site was being considered in a newly envisioned master development program, submitted for planning board review on an overlapping time frame with the 1A application. In December of 2014 the 1A application was amended to bring the proposal into greater alignment with the master development plan, including road layout.

In January and February 2014 a master development plan application was reviewed by the Planning Board, and approved in March of that year. A master development plan is a tool that establishes a cohesive development program on larger parcels (one+ acre), allowing for multiple phases over an extended time frame of six years. An approval of a master development plan then requires subsequent site plan and subdivision applications with specific construction proposals towards fulfillment of the overarching master development plan approval.

In June 2014 the applicant received a Level II approval for site work at the southern end of the Thompson's Point peninsula, in the area of the open air "Depot" structure (formerly the Barnstormers building), to allow for seasonal events. This application was amended in February 2015 to allow for additional site work and an extension of the seasonal event approval.

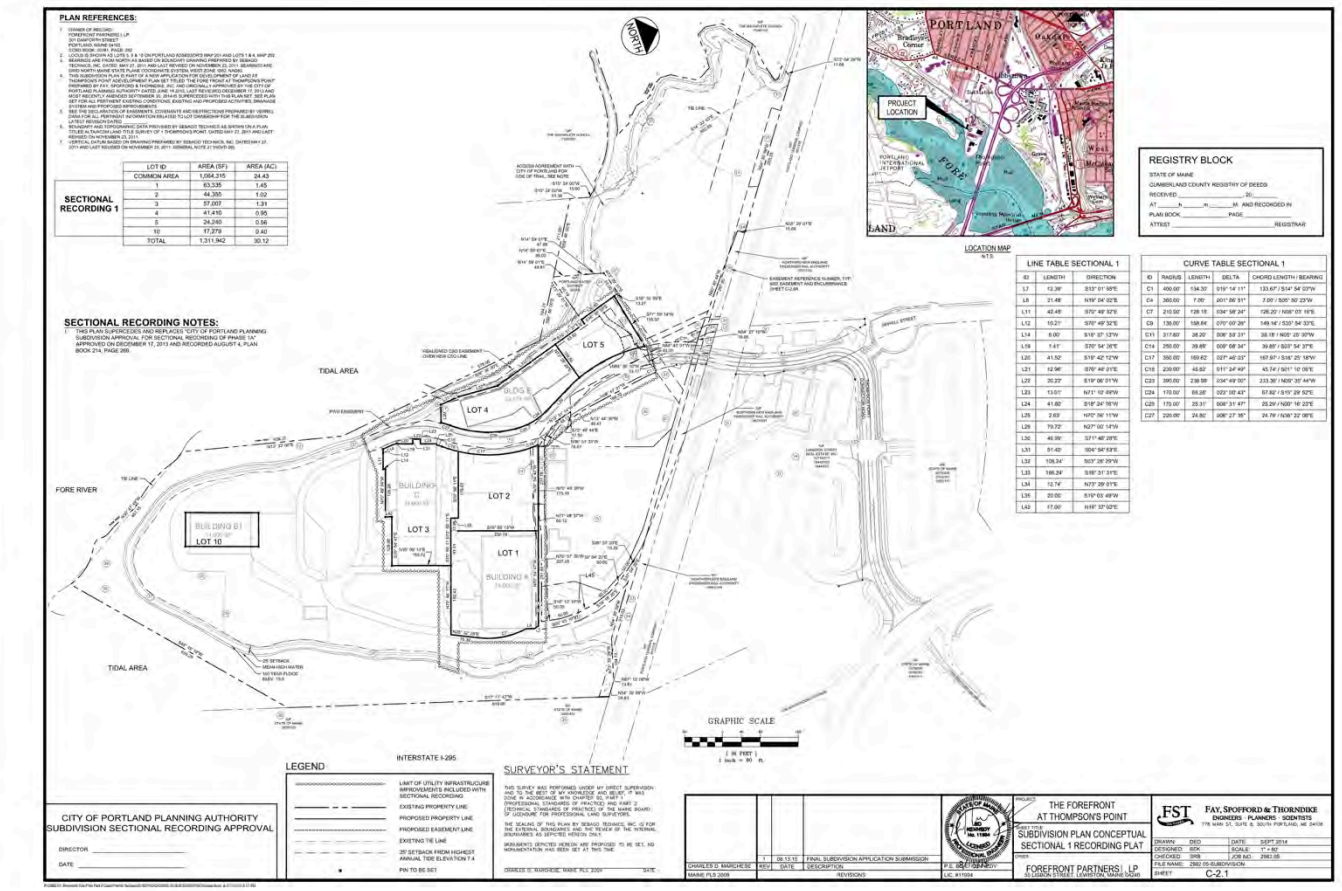
This application was originally scheduled for November 24th, and was postponed until January 12th. New information received since November is summarized in sections XVIII and XIV below.

V. PROPOSED DEVELOPMENT

Subdivision

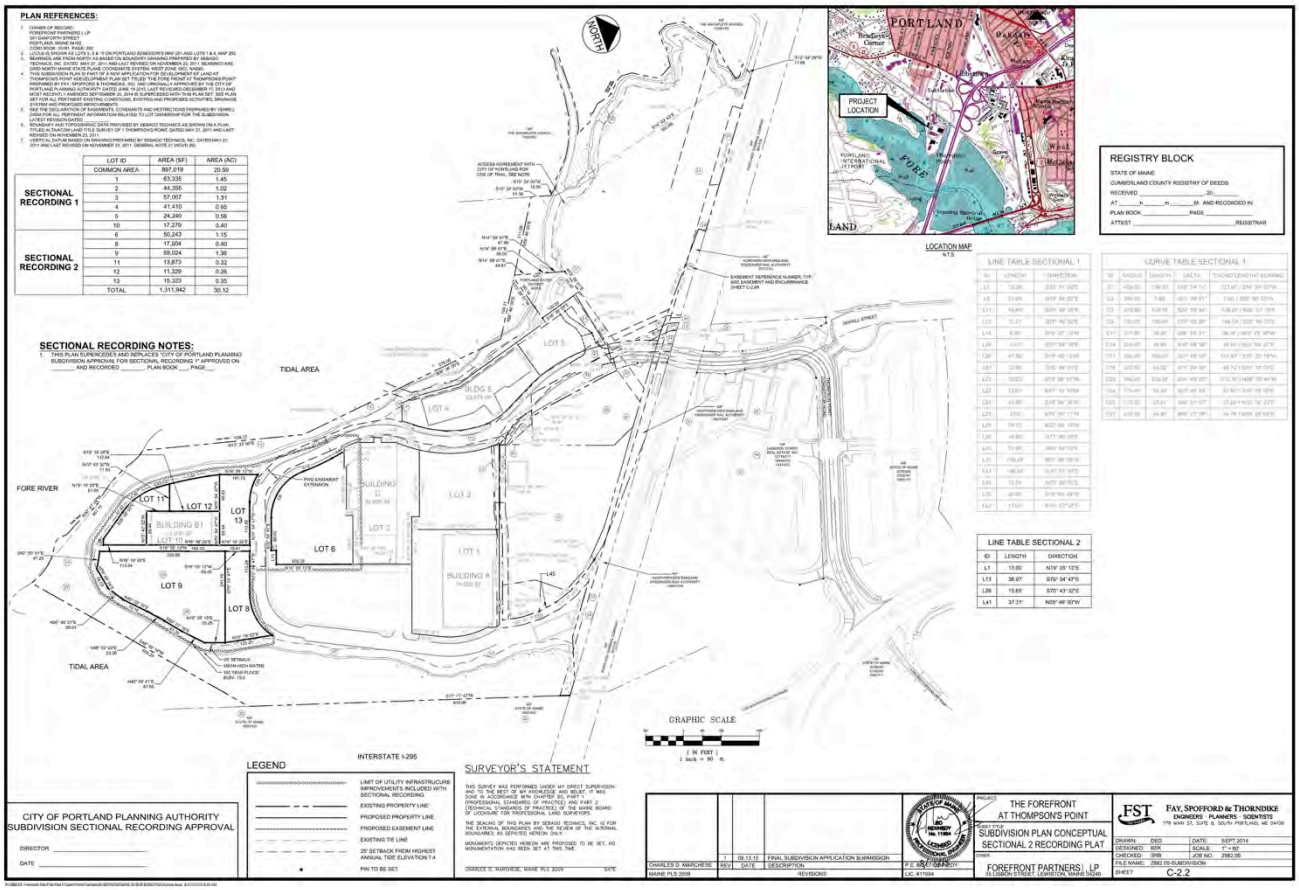
A new, site-wide subdivision plan has been submitted for review, consisting of nineteen lots. It will supersede the 2012/2013 subdivision approval. It reflects the most up to date, integrated development plan for the site, consisting of nineteen lots plus common area, and four sectional recordings. It includes detailed road geometries, grading, drainage, landscape design, and utility infrastructure details. The four proposed sectional recordings consist of the following:

Sectional 1: This encompasses six lots, two of which include Brick North and Brick South, as well as the Depot area, and two lots to the west of the access road. It incorporates redevelopment of the existing Brick North building for mixed uses, and supersedes a previously recorded sectional recording for this area. This plat encompasses the development area of the current Level III site plan application.



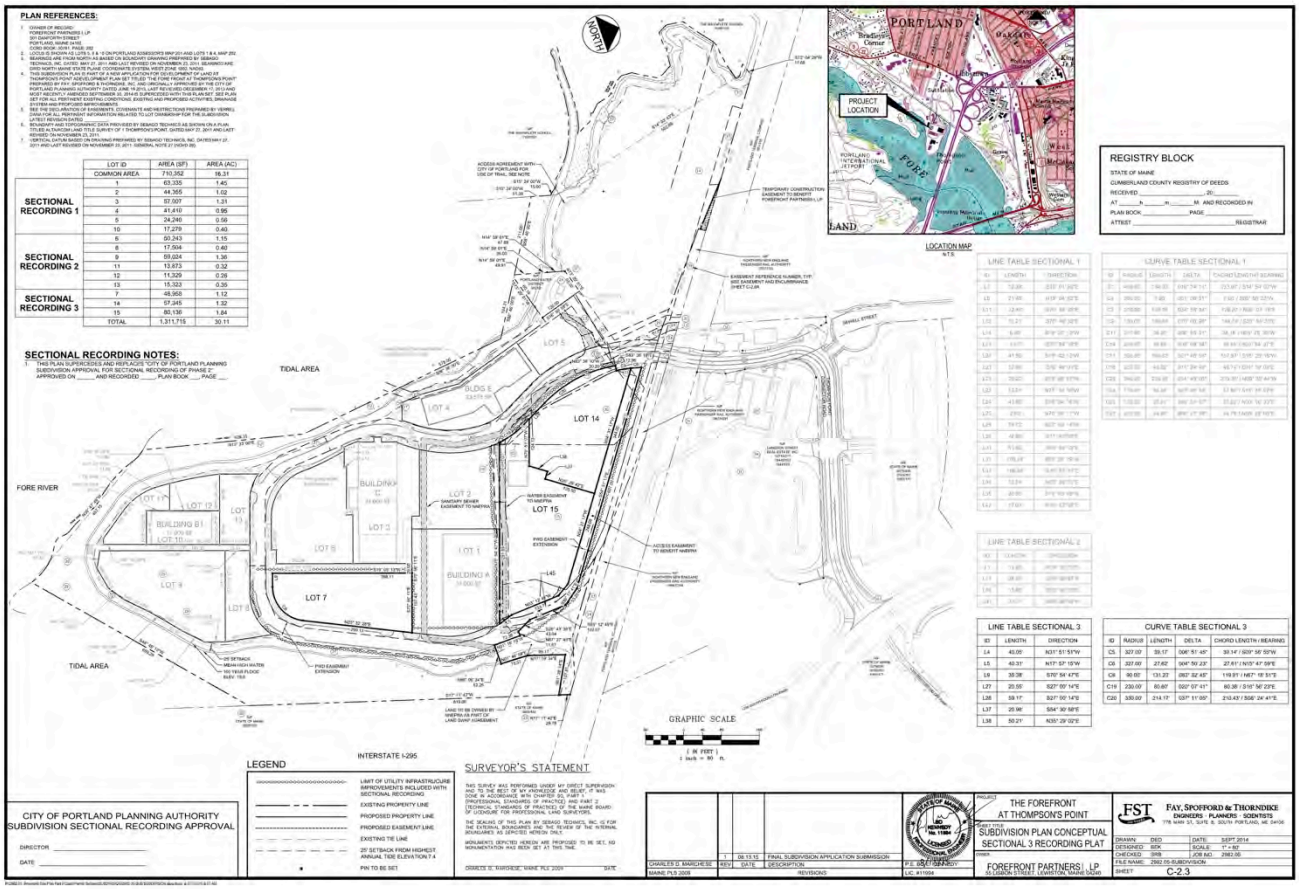
3, Sectional Recording 1

Sectional 2: The second sectional recording plat encompasses the land area surrounding Depot building. Sectional Recording 2 would create Lots 8, 9, and 11 to support The Depot as well as Lot 6 (temporary parking/future building pad) and Lots 12 and 13 (Restaurant and Parking). The area around the Depot is approved as a multi-purpose event space. An outdoor event space had previously been envisioned as adjacent to an event center in a previous iteration of the plan, but is now aligned with the Depot/Lot 10. This section also incorporates a future restaurant and an approved seasonal dock. The application indicates that the outdoor area was evaluated for public safety considerations last year: *the Fire Department asked us to assess the maximum capacity of the Depot area from a public safety perspective. It was determined by Mark Cummings, P.E. that it was feasible to accommodate 7,300 people safely on the site, assuming that an adequate off-site parking plan and temporary pedestrian safety layout could be provided, in the context of a business licensing scenario.*



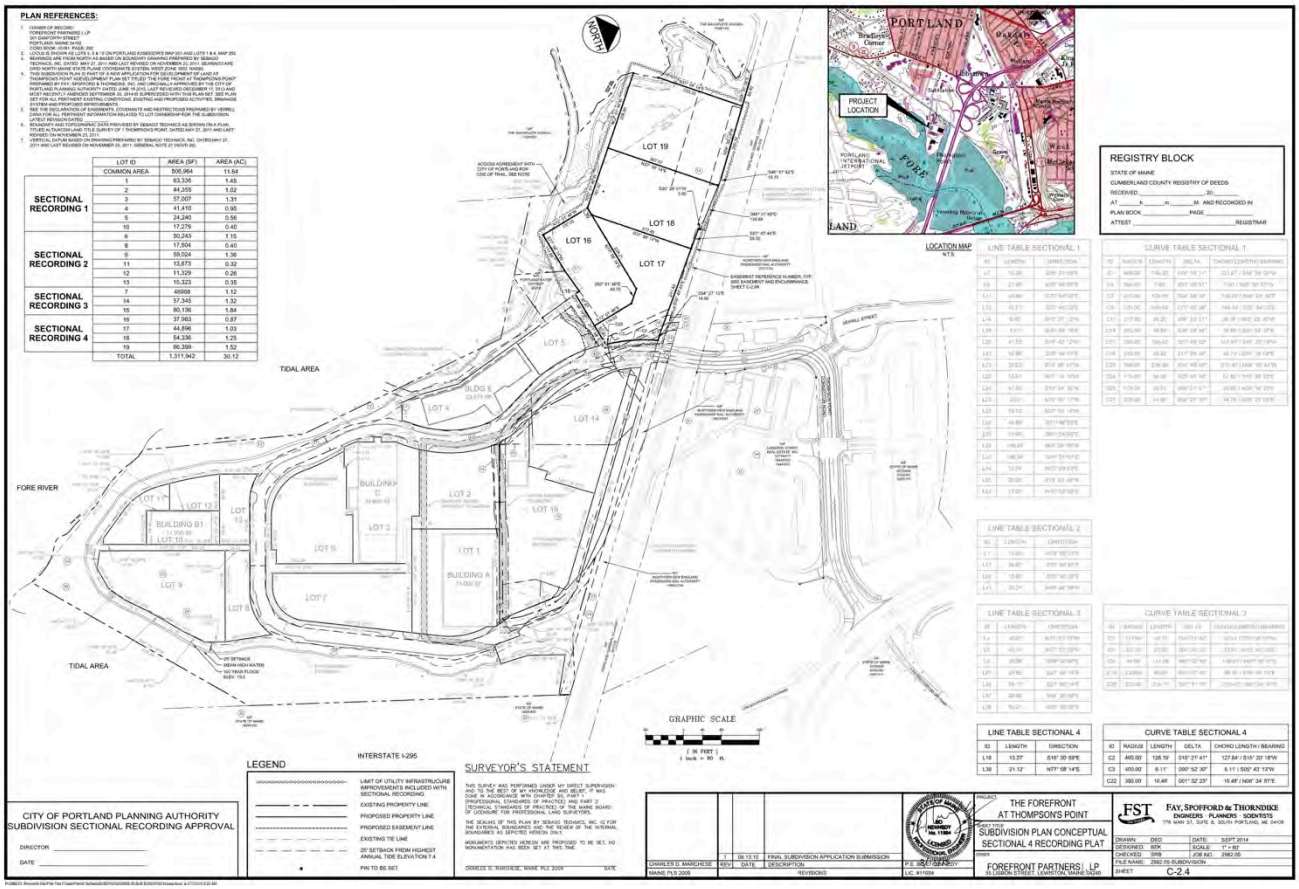
4, Sectional Recording 2

Sectional 3: Section three is premised on the closing of a land swap agreement with NNEPRA and the acquisition of the Suburban Propane property – this land will be consolidated into lots 14 and 15 for the purposes of a parking garage and event center, respectively. Lot 7 is anticipated to be the future location of a cultural center.



5, Sectional Recording 3

Sectional 4: This is anticipated to be the last recording of the full subdivision plan, and includes lots 16-19 in the northwestern "Panhandle" portion of the site. It's intended for use as office space and residential units.



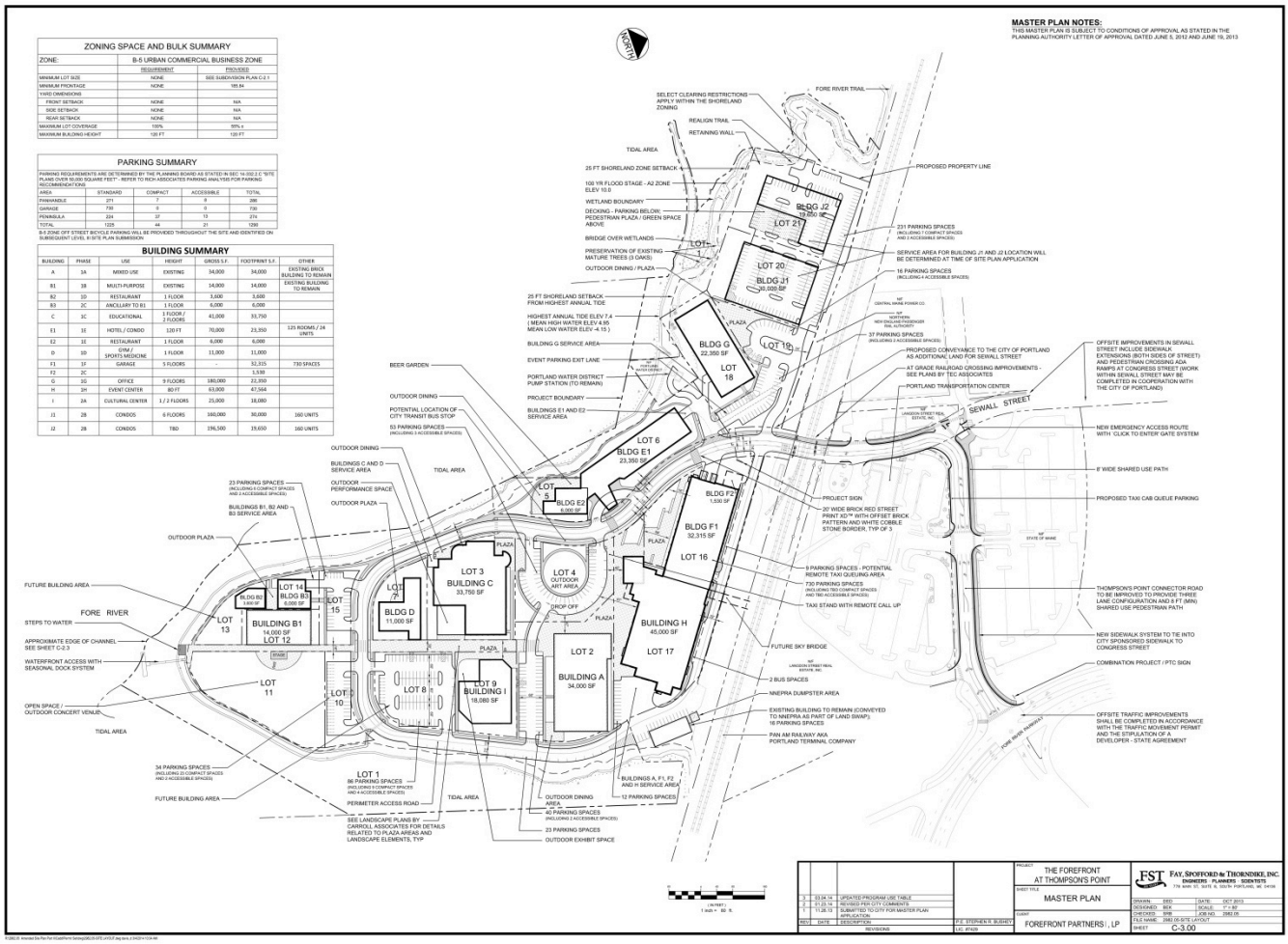
6, Sectional Recording 4

Master Plan

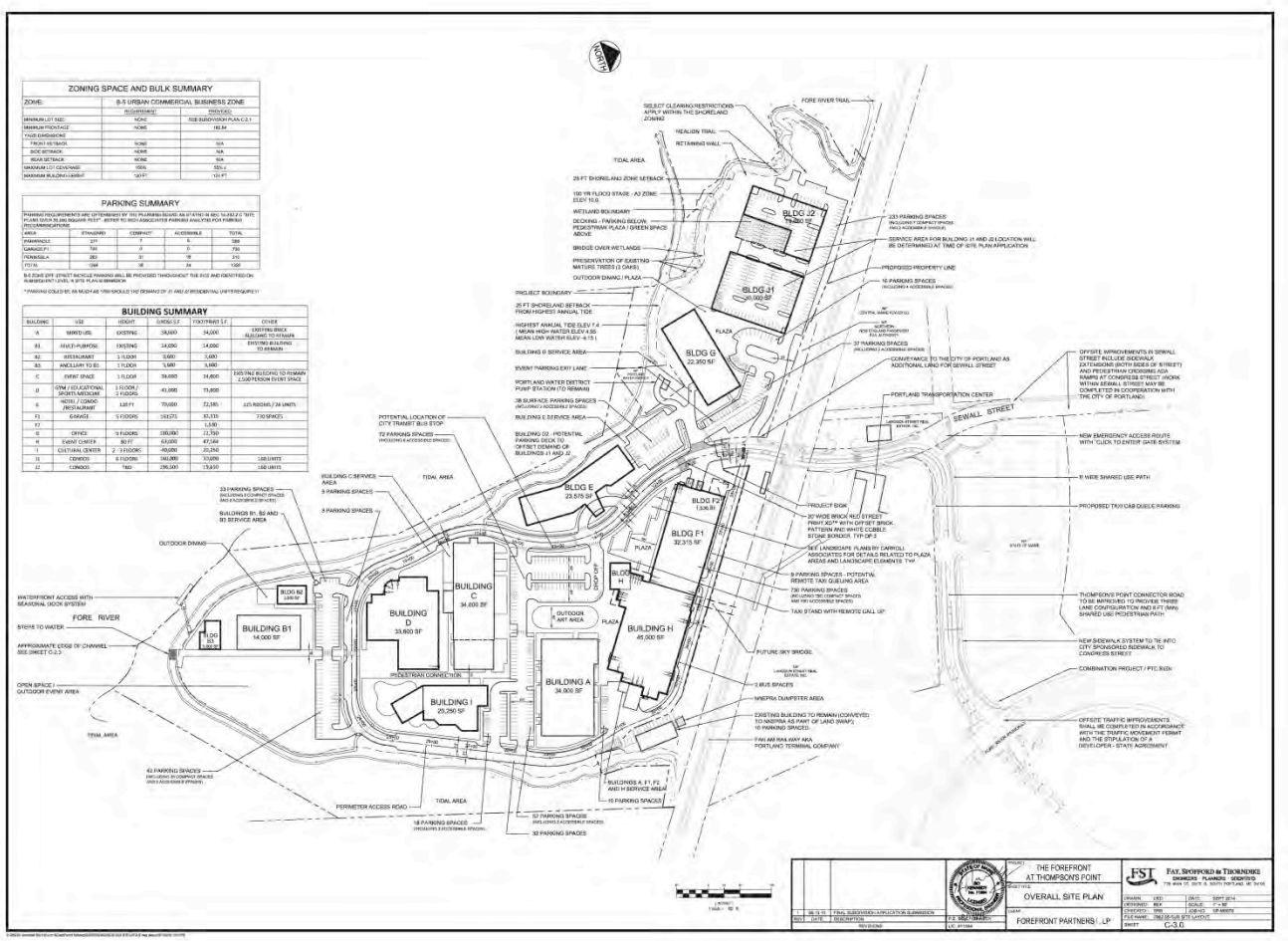
The application outlines changes to the master development plan. The subdivision application (Attachment M) cover letter gives an overview of these changes, which result in similar layout, parking, total square footage and anticipated uses as the approved master development plan. Some elements of the development that were outlined in the original master development plan application have shifted location on the site. In the original, 2012 subdivision approval the existing brick buildings were to be removed; however subsequent applications, including the 2014 master development plan have shown these as retained with some significant modifications. The current application depicts Brick South retained in its entirety. The applicant summarizes the master development plan changes as follows:

- *At the heart of the layout adjustments, is Forefront's decision to retain and renovate the existing brick building referred to as Brick South in its entirety. Brick South shown as Building C on the enclosed plans will be used as assembly event space. The event space is meant to complement the proposed event center, the outdoor event area held at the Depot and the southern portion of the site, and is not intended to increase the overall size of events, or number of people at the site at one time. Brick South will be renovated to accommodate 2,500 people and support space such as a kitchen, meeting space, storage and bathrooms, and related ancillary services for the event space.*
- *The restaurant space (E2) has been incorporated into the hotel's ground floor. This allows space for additional surface parking next to the hotel.*

- *The educational building (Circus Conservatory) will be divided into their primary space in the new Building (D) and their current leased space in a portion of the Brick North Building (Building A). There is no change in total office space proposed for the overall site.*
- *The Cultural Center (Building I) has grown in gross square footage and building footprint; however, the program has remained the same.*



7, Approved master development plan layout



8, Current proposed site layout

The modifications to the revised site layout are consistent with the overall master development plan approval – it is generally consistent with the approved layout of buildings, circulation infrastructure, open spaces, and uses, cumulative lot coverage, parking and circulation. The area west of Brick North (Lot 2/Building A) shows a modified interior circulation and parking area, the circular drive and art space being modified in shape and parking configuration. The overall proposed site circulation remains closely aligned to the originally approved master development plan.

The revised master development plan use program follows:

TABLE 1
MASTER PLAN PROGRAM

Building Master Plan		Master Plan - August 2015 Gross Size
Building A:	Mixed Use: Cellar Door Winery (5,840 SF) Circus Program (6,799 SF; 400 People) Big Room Studios (3,461 SF) Café (1377 SF) Brewery (10,068 SF) Distillery (5,284 SF) Color Me Mine (2,136 SF) Common (741 SF)	34,800 SF +/-
Building B1:	Multi-Purpose (Assume Live Theater)	4,800 Seats
Building B2:	Ancillary to B1 and Seasonal Dock	3,600 SF
Building B3:	Restaurant	3,600 SF
Building C:	Event/Assembly Space (2,500 People)	34,600 SF
Building D:	Educational/Gym/Sports Medicine	41,600 SF
Building E:	Hotel & Restaurant Condominiums	125 Rooms 24 Units
Buildings F1/F2:	Parking Garage *(see next page)	730 Spaces
Building G:	Office	180,000 SF
Building H:	Event Center	63,000 SF
Building I:	Cultural Center	40,000 SF
Building J1:	Condominiums (Assumed)	160,000 SF/160 Units
Building J2:	Condominiums (Assumed)	196,500 SF/160 Units
Total Non-Garage		**814,300 SF**

** Depending on the timing of garage construction which will follows the relocation of Suburban Propane and the commencement of the phase two buildings, it is conceivable that by the time the garage is ready to begin construction we may actually elect to add floors taking advantage of the 120' height limit to increase structured parking capacity. It may also be desirable to build the garage structure to provide for the possibility of adding floors in the future after the initial 730 spaces are built. We are continuing to assess these options now, but would suggest that the Master Plan retains the ability to plan for a dynamic future outcome without compromising the needs of the first phase of development.*

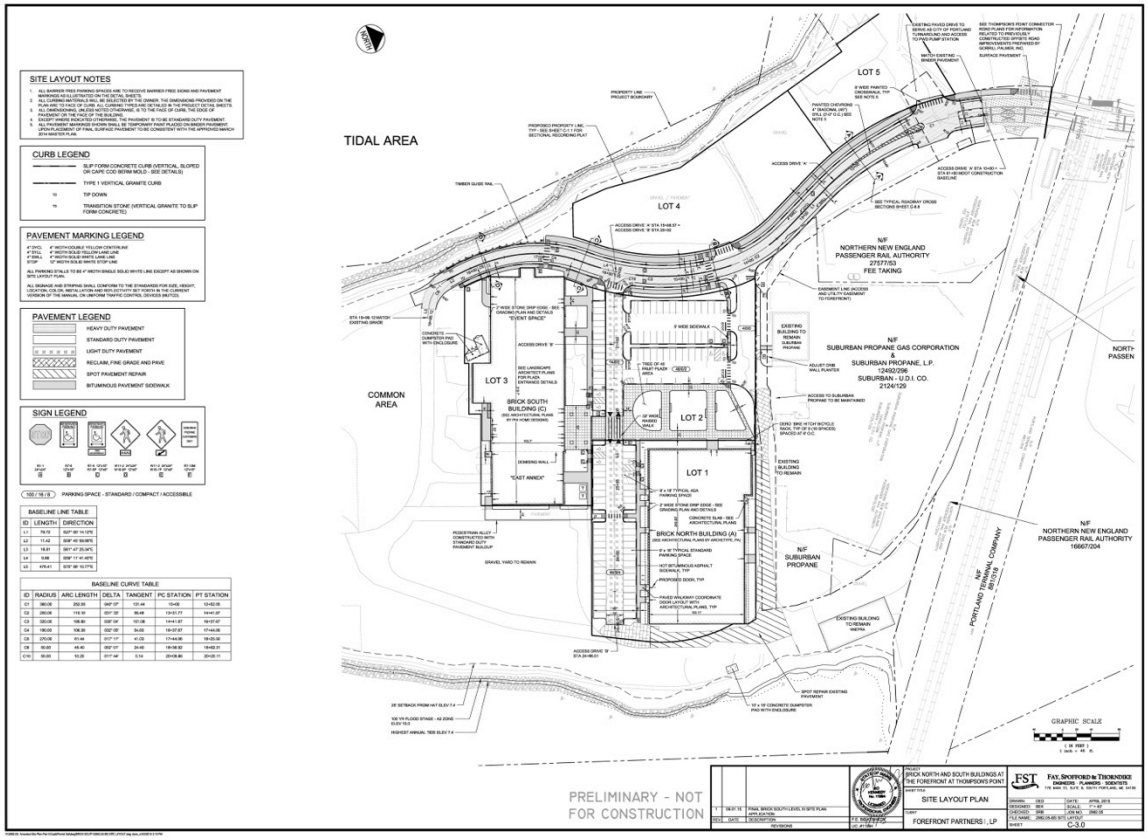
2014 master development plan square foot calculations are as follows, and show slightly higher square feet totals across the proposed use categories.

PROJECT DATA JUSTIFICATION
BUILDING AREA TABLE

Building	Height	Floor Area	Footprint
Building A: Office, Café, Retail	Existing	34,000	34,000
Building B1: Multi-Purpose (Live Theater)	Existing	14,000	14,000
Building B2: Restaurant	1 Floor	3,600	3,600
Building B3: Restaurant	1 Floor	6,000	6,000
Building C: Educational	1-2 Floors	41,000	33,750
Building D: Gym & Medical Office	1 Floor	11,000	11,000
Building E1: Hotel & Condominiums	120 ft	70,000	23,350
Building E2: Restaurant	1 Floor	6,000	6,000
Building F1: Parking Garage	5 Floors	161,575	32,315
Building F2: Parking Garage		1,530	1,530
Building G: Office	9 Floors	180,000	22,350
Building H: Event Center	80 ft	63,000	47,564
Building I: Cultural Center	1-2 Floors	25,000	18,080
Building J1: Office	6 Floors	160,000	30,000
Building J2: Condominiums	Assume 10 Floors (TBD)	196,500	19,650
TOTAL		**973,205**	**303,189**

Site Plan

The Level III site plan application encompasses the renovation of the existing Brick South (Building C/Lot 3), includes Brick North (Building A/Lot 1), currently under renovation under a prior approval, and includes a significant portion of roadway, as well as stormwater infrastructure, parking, circulation, landscaping, and utilities associated with both of these buildings. The street design for the Level III application differs from the full subdivision road design in several ways – full sidewalk on the eastern side is not proposed until a later phase, and eventual crosswalk placement, for instance. That these items be completed in a later phase of site development is noted as a condition of approval.



9, Level III Site Plan Layout



10, Renovated Brick South

VI. PUBLIC COMMENT

No comments have been received to date.

VII. RIGHT, TITLE, & INTEREST

The applicant has provided evidence of Right, Title & Interest in Attachment J of the subdivision application. Included is a trail easement, a quitclaim deed with covenant for the property, a letter from Suburban Propane, Inc. and the Northern New England Passenger Rail Authority indicating that purchase and sale agreements have been signed for those adjacent parcels and that the applicant is authorized to seek entitlements for the redevelopment of the parcels.

VIII. FINANCIAL & TECHNICAL CAPACITY

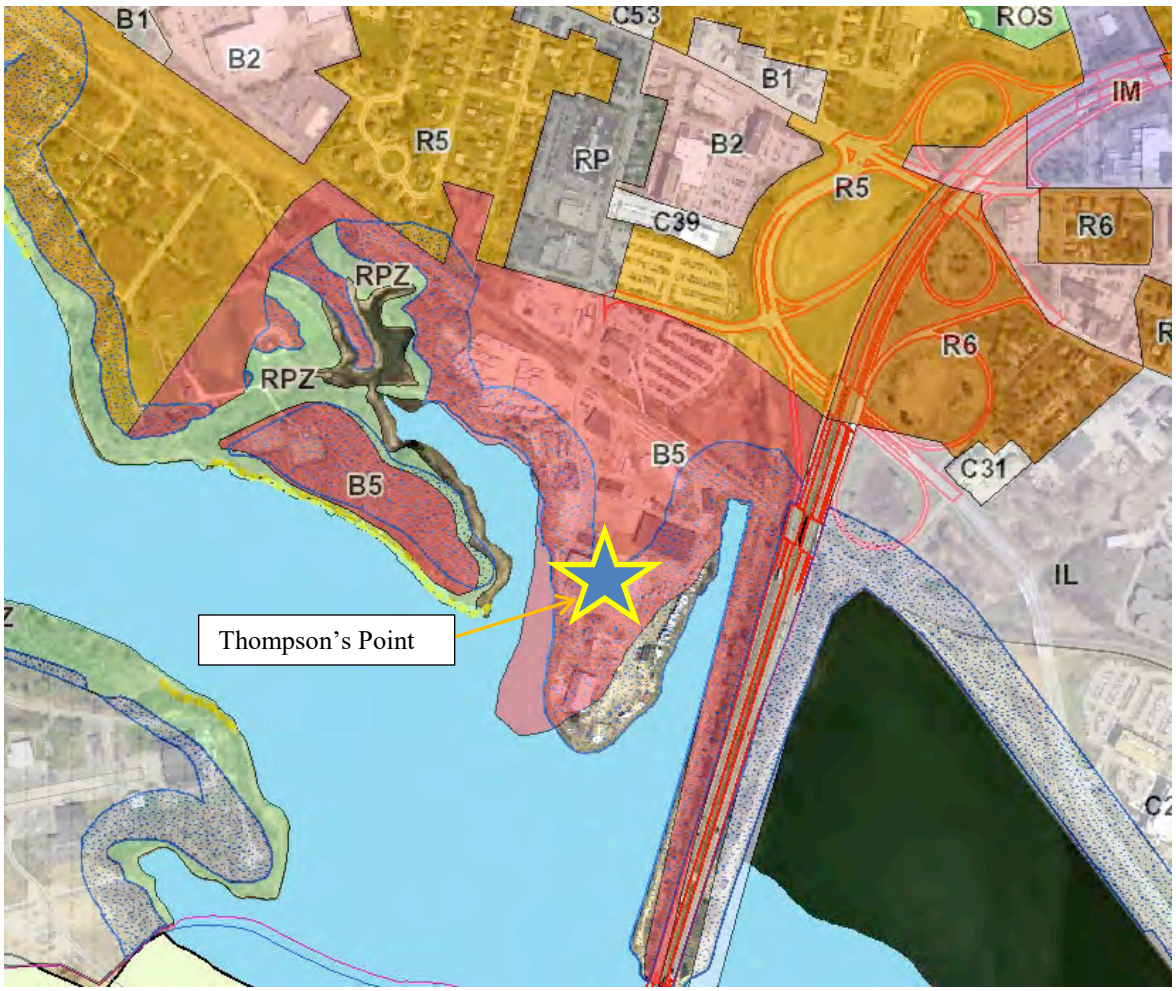
The October workshop comments included a request for updated indication of financial capacity. On file is a letter from TD Bank from 2011 attesting to the Thompson's Point Development Company's ability to complete the project and "see that it operates effectively over the long term". The applicant has supplied a letter dated October 13, 2015, from Androscoggin Bank attesting to Forefront Partners I, LP's financial capacity.

IX. ZONING ANALYSIS

Thompson's Point lies in the B-5 zone, and is also subject to shoreland and floodplain regulations under the city's land use code. The application complies with floodplain and shoreland requirements. The buildings included in the current Level III application are not in the floodplain. Shoreland setbacks are a required minimum 25' for structures from the annual mean high tide line. There are areas on the site layout plan where the road hugs the 25' line, on the allowable side of that boundary; the proposed activity meets shoreland requirements.

The project meets the requirements of the B-5 zone use and dimensional standards. The B-5 zone allows for a wide range of commercial and mixed uses, and encourages urban patterns of development. There are no lot coverage limits or applicable setbacks in the B-5, and there is a height limit of 120 feet.

There are also B-5 standards in the City's Design Manual, concerned with shared infrastructure, the location of buildings to the street, and location of parking lots, none of which is applicable to a lot of this size, particular geography, or internal circulation pattern.



11, Thompson's Point Zoning Context

X. SITE PLAN SUBMISSION REQUIREMENTS (Section 14-527) and **SUBDIVISION PLAT AND RECORDING PLAT REQUIREMENTS (**Section 14-496)

The overall subdivision plan and the four sectional recording plats have been reviewed by the Department of Public Services for conformance with 14-496, and the applicant has already incorporated initial comments. The final versions of the plats, post-approval, will need to be reviewed by the Department of Public Services and Corporation Counsel before they can be finalized, signed by the Planning Board, and recorded.

With a subdivision of this size, with 19 lots, proposed to be developed in phases, and not all with frontage on the proposed road (not required in the B-5 zone), language is needed to secure ingress and egress and access to the proposed infrastructure. The Declaration of Easements, Covenants and Restrictions (Attachment L) includes provisions for this, that Corporation Counsel has suggested some changes to in the final, recorded version:

7.2. Ingress, Egress and Regress. Each Lot Owner, and the clients, customers, guests, employees, tenants, subtenants, invitees, agents, contractors and licensees of Lot Owners shall have an easement, subject to any rules and regulations established by the Board of Directors, in common with all other Lot Owners to use the entrances, exits, corridors and other Common Area roadways as a means of ingress, egress and regress to and from the Property and the adjoining public streets. ~~The Board of Directors shall not and cannot establish any rules and regulations depriving any Lot Owner of reasonable ingress, egress and regress to and from its Lot, the Property and Common Areas and the adjoining public streets. Notwithstanding the foregoing~~The Lot Owners' use of the entrances, exits, corridors and roadways as a means of ingress, egress and regress to and from the Property and the adjoining public streets, and to parking spaces and areas located on the Property shall be subject to the Event Management Plan generally described in Schedule D attached hereto and the Transportation Demand

Management Program generally described in Schedule E attached hereto, which Event Management Plan and Transportation Demand Management Program shall be incorporated into the Rules and Regulations as adopted by, and amended from time to time, by the Board of Directors. Notwithstanding the foregoing, the Board of Directors shall not and cannot establish any rules and regulations depriving any Lot Owner of reasonable ingress, egress and regress to and from its Lot, the Property and Common Areas and the adjoining public streets.

Similar language will be required on the final recording plat, to be reviewed and approved by Corporation Counsel before final signatures and recording of the plat.

XI. SUBDIVISION REVIEW (14-497(a). Review Criteria)

The proposed amendments have been reviewed by staff for conformance with the relevant review standards of the City of Portland's subdivision ordinance.

1. Water, Air Pollution

The site plan, grading and utility plans are designed to adequately address stormwater quality and to minimize pollution from the site. No detrimental water or air quality impacts are anticipated. Stormwater review comments are included in the Site Plan Review section, below.

2 & 3. Adequacy of Water Supply

The applicant has provided evidence of capacity from the Portland Water District (Attachment H).

4. Soil Erosion

The erosion and sedimentation control plans (Plans 21, 56, 65, 66) have been reviewed and found to adequately meet the standards of avoiding soil erosion impacts.

5. Impacts on Existing or Proposed Highways and Public Roads

This project is subject to a MDOT Traffic Movement Permit, issued in 2012 (Attachment H). Efforts have been made over the course of this project's multiple reviews to coordinate this project with the surrounding neighborhood and the transportation system it abuts, and to safely plan for anticipated road impacts. To that end the project developed events management and transportation demand management (TDM) plans that were reviewed in the course of the master development plan approval. Tom Errico, the City's consulting Transportation engineer, reviews all modifications and submissions in relation to conformity with that program and related city standards. Mr. Errico's preliminary comments are included below, as well as his updated assessments of where the issues her previously raised stand in bold. Additional comments on transportation and parking follow under XII, Site Plan Review, below.

- *In general I find the overall Subdivision Plan layout to be acceptable with specific site issues addressed during the site plan review process. The applicant should be specific about what triggers the full construction of the circulatory roadway or how it is being phased. Additionally, it is unclear where the public right-of-way terminates for the phasing of the circulation road given that EDA funding is extending the public roadway system.*

  Status: The applicant has provided information responding to this comment and DPW has been coordinating directly with the applicant on the roadway design and maintenance elements. I have no further comment.

Previous staff comments indicated the need for more information regarding phasing of the subdivision. Additional annotation on infrastructure required for each subdivision section has been added to revised plan sheets, as well as color utility plan sheets submitted for the November 24th public hearing, as well

Mr. Errico offers the following additional comments regarding trip generation and traffic management, requesting more detailed trip estimates for the Level III site plan application.

- *I have reviewed the updated traffic generation estimate conducted by the applicant and request that the applicant provide back-up information for the noted AM and PM peak hour trip estimate. Additionally, the applicant should provide supporting documentation for each specific use. An example is the Brewery where 8 entering and exiting vehicles were assumed in a peak hour, when occupancy of a tasting room may be indicative of greater trip activity during the PM peak hour. The applicant does note that the project is anticipated to exceed the trip threshold established by the current Traffic Movement Permit (TMP) during the AM peak hour while the PM peak hour is projected to be under the threshold. In an attempt to understanding specific project phasing traffic impacts, the applicant should also provide the trip estimate for the Level III Site Plan application.*

  Status: Given that the full-build out of the project has been permitted under the TMP, I concur that the current application is well below the trip threshold established by the TMP. I would note that I do not endorse the trip generation methods contained in the application (e.g. Brewery Trip activity) and will require future site plan review phases to quantify actual trip activity for buildings already occupied (to ensure the trip threshold dis not exceeded).

- *The applicant has provided a general approach to managing event traffic volumes as part of the Master Plan. I would note that a detailed traffic management plan was developed in conjunction with the original application and that plan should continue to be used (if the applicant suggests deviating from the Plan, those details should be provided). I would note that the Traffic Management Plan is a live plan and will be reviewed and adjusted over time as conditions in the area are monitored.*

  Status: I have no further comment.

Mr. Errico found the Master Plan materials sufficient, but has specific Level III Site Plan comments in XII., below.

6. Sanitary Sewer/Stormwater Disposal
A wastewater capacity letter from the Portland Water District, dated March 14, 2014 (Attachment H), indicated a capacity to serve. *The application's stormwater management plan has been reviewed by the City's consulting engineer, David Senus, who had the following comment (in addition to one Site Plan-specific comment addressed below in XII):*

> *The Applicant has presented revisions to the previously approved stormwater management plan to include technologies now considered acceptable by MaineDEP as of January 2015, specifically Filterra units without an isolator row and Jellyfish Filter Units. The approach presented by the Applicant provides an acceptable means of meeting the General Standards as outlined in MaineDEP Chapter 500 and by the City of Portland Technical Manual Section 5 for both the Subdivision Application and the Brick South Level III Site Plan Application.*

7. Solid Waste
The applicant has proposed trash enclosures in association with the site plan application, to be privately managed, as well as provided evidence of sewer capacity from the Portland Water District, and full utility plans to address waste disposal. In addition, in response to previous Public Works comments, updated sewer flow estimates have been submitted in the November 10, 2015 cover letter accompanying the new submission materials (Attachment N).

8. Will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, significant wildlife habitat identified by the department of inland fisheries and wildlife or by the city, or rare and irreplaceable natural areas or any public rights for physical or visual access to the shoreline.
The new subdivision application is not anticipated to affect original assessments related to historic sites, significant wildlife habitat, or irreplaceable natural areas. The property has been extensively evaluated on each of these measures over the course of prior reviews. The site is largely developed with pavement, gravel lots, and existing

buildings. The project has provided an extensive landscaping plan that the City's Arborist, Jeff Tarling, has approved:

> *I have reviewed the proposed landscape plans and find them acceptable as shown. To date we have refined the landscape goals and plans a number of times to a point where the current plan meets the objective of a site on the Fore River.*

The City Arborist submitted additional comments specifically regarding the area proposed as public ROW. Though the overall landscape plan has been approved, he notes that the esplanade in this area needs to be a minimum of 4 feet if trees are to be planted there. The esplanade width is 4 feet. He also recommends smaller trees than shown on the plan (see Attachment 7 for full comments). His planting suggestions are noted in the approval conditions.

In regard to historic sites, Brick North and Brick South were found eligible for National Register but are not included in the City of Portland Historic Preservation program. However, they will be retained and repurposed as part of this proposal.

Significant Wildlife/Natural Areas: The applicant has retained a Natural Resources Protection Act (NRPA) permit from the Department of Environmental Protection (Attachment G), that protects feeding and roosting areas for migratory shore birds along the westerly shore. The need to protect this habitat resulted in prior changes to the trail alignment and to the landscaping plan, both reflected in the current application.

Shoreline Access: The shoreline of the Thompson's Point peninsula is currently ringed with an unimproved trail, which is part of the Portland Trails network. The trail is now proposed to transition from a rustic unimproved path to a perimeter paved walkway along the primary access drive. A seasonal dock providing access to the Fore River with a kayak/small boat launch ramp has been previously approved. Terms and access to the water is included in the subdivisions Declaration of Easements, Covenants and Restrictions (Attachment L) and have been referenced on the revised plan set.

9. Is in conformance with the land development plan or its successor

The B-5 zone itself is in compliance with the Comprehensive Plan, and this project that complies to the B-5 zone it is also consistent. The application is also generally consistent with long range planning goals in the areas of transportation and economic development, such as the following goals of the Comprehensive Plan, Volume 1:

- Encourage sustainable development patterns and opportunities within the city by promoting efficient land use, conservation of natural resources, and easy access to public transportation, services, and public amenities (p21);
- Create local multi-modal centers for the city's commuters and mass transit passengers, building on the presence of existing centers of activity, connected with each other and with regional transportation centers (p. 24);
- Create a variety of job opportunities for the full spectrum of the labor pool which are appropriate to our current and potential skills, provide good pay and benefits, are rewarding/satisfying (p. 37); and
- Encourage higher density housing for both rental and home ownership opportunities, particularly located near services, such as schools, businesses, institutions, employers, and public transportation (p. 44)

10. Financial and Technical Capacity

See VIII above.

11. Wetland/Water Body Impacts

With the exception of necessary stormwater discharges, all structures and paved surfaces will be set 25 feet back from high water at the shoreline, as consistent with Shoreland Zoning regulations. There is a full stormwater management plan that has been reviewed and approved for the site as a whole, with comments on revisions and specific proposals for the Level III stormwater plan addressed in the Site Plan Standards, below. The site is currently almost entirely impervious, with no stormwater treatment – proposed stormwater management techniques

post-redevelopment will benefit water quality leaving the site.

12. Groundwater Impacts
There are no anticipated impacts to groundwater supplies.

13. Flood-Prone Area
The perimeter of the peninsula is located with the flood plain. Buildings in the current site plan application are not in the flood plain.

XII. SITE PLAN REVIEW

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's site plan ordinance. Staff comments are below.

Transportation Standards

1. *Impact on Surrounding Street Systems*
   The applicant has obtained a traffic movement permit to address impacts on the surrounding street systems. The project has provided off-site improvements through an EDA Grant Program towards this end. The project also has an approved Transportation Demand Management Plan (TDM) for managing and reducing traffic trips and parking demand.

2. *Access and Circulation*
   a. Site Access and Circulation.
   Thompson's Point's relatively isolated peninsula geography has provided access challenges for this site, off-set by its access to multiple forms of transit served at the Portland Transportation Center. There has been extensive coordination on the part of the applicant and the City of Portland to establish a safe and efficient system for all users. Served by Thompson's Point Connector Road, the approved master plan provides for vehicle, transit, bicycle and pedestrian access. As individual project phases are brought forward for review, each will have to be evaluated for compliance with the approved master development plan, and for the appropriateness of each stand-alone phase. Mr. Errico's review speaks to this issue, finding the current application generally acceptable, but needing some further refinement both at the level of subdivision phasing and Level III site plan detail:

   The applicant has provided the TDM Plan that was developed in 2011 and approved as part of the original approval. In concept I find the TDM Plan to be acceptable but want to emphasize the importance of the measures included in the Plan and how the traffic study and parking analyses assume some level of TDM success. Accordingly, the applicant should provide an update of the TDM Plan for the Level III Site Plan application to reflect the proposed implementation schedule (including what specific strategies are being implemented, implementation dates, and specific monitoring activities).

   Status: The applicant should identify if there are any TDM strategies that can be implemented as part of the Level III Site Plan buildings in conjunction with a typical non-event day.

   I find the Level III Site plan to be acceptable, although further review is required. I would note that the applicant should provide details on construction activities and how current parking and traffic will be managed.

   Status: I have reviewed the construction management plan and site plans and find them to be acceptable. I would note that specific traffic control plans will be required for the project and that information will be reviewed in conjunction with the pre-construction meeting. Given that the site only impacts Thompson's Point traffic and pedestrians activity (not the general public), I'm confident safe conditions can be detailed.

Since the workshop the applicant was asked to speak to accessibility and safe access for all users on the site (as referenced in Sec. 14-526.a.2) in greater detail than the preliminary application materials had provided. New application materials (Attachment N, which addresses issues raised in regard to Site Plan and Subdivision applications) include additional information summarizing ADA compliance:

The previously submitted Site Layout Plan C-3.0 shows the site vehicular and pedestrian circulation. All sidewalks represented on the plan have been designed to meet the 2010 ADA Standards for Accessible Design. An accessible route has been provided from the public street to all main entrances as well as from designated parking stalls to the main entrances. The plan proposes a total of 118 parking spaces of which 8 have been designed to meet the ADA standards. The design provides for ADA stalls in each separate parking facility and as a result the total number of provided ADA stalls exceeds both the required number of ADA spaces if computed holistically (5 required) or the required number of spaces when tallied up per parking area (7 required).

b. Loading and Servicing

Formal loading docks have not been proposed for the Level III site plan, but a service area has been designated on the southerly side of the Brick South Building, and large doors have been retained to allow for movement of event support equipment, delivery vehicles, etc.

c. Sidewalks

Sidewalks are proposed to both Brick North and Brick South (Plan 52). Overall site circulation (Plan 15) includes sidewalks, crosswalks and trail connections throughout the site.

3. *Public Transit Access*

The development is served by the existing transit service at Portland Transportation Center. The Level III site plan does not include additional transit facilities, though the project at full build-out will include a bus stop and shelter.

4. *Parking*

a. Location and number of parking spaces

The overall site layout contains an adequate number of parking spaces, meeting the City's dimensional requirements. Mr. Errico's traffic and parking review provided the following commentary on the parking analysis that accompanied the site plan application, requesting more detail regarding demand/supply allocation for the overall site, and for the Level III site plan application:

According to the parking analysis conducted by Gorrill-Palmer, a parking demand of 1790 parking spaces is estimated. The applicant should provide specific detail on parking demand/supply allocation for the entire Master Plan and for the Level III Site Plan application plan.

Status: From an overall parking generation perspective, I find the applicant estimate to be reasonable with the understanding that updated analyses will be needed as future project phases are implemented. The applicant has not provided information as it relates to the parking demand/supply adequacy for the Level III Site Plan application. My general sense is that sufficient parking will be provided for typical day-to-day activity at the Level III buildings following occupancy. The applicant should provide documentation that a sufficient parking supply will be provided.

The applicant has sufficiently answered site-wide parking supply questions, but should directly address the sufficiency of the parking proposed for the uses and space included in this Level III site plan application by the November 24th public hearing.

b. Location and number of bicycle parking
Fifteen parking spaces are required at this stage, with sixteen provided on the western face of Brick North.

c. Motorcycle and scooter parking
There is no required amount of motorcycle or scooter parking, only that the project provide access for these vehicles, which the site plan does through the provision of conventional parking spaces.

d. Snow Storage
On-site snow storage will be accommodated along the perimeter of the site.

e. TDM
As noted, the applicant has an approved Transportation Demand Management. Comments on the TDM in relation to this Level III application are in 2.a, above.

Environmental Quality Standards

1. *Preservation of Significant Natural Features*
Preservation of significant natural features is being met through maintaining a 25' buffer from the annual mean high tide, as required by shoreland regulations, as well as adhering to the MaineDEP NRPA permit regarding protection of the western shore.

2. *Landscaping and Landscape Preservation*
The existing tree population is concentrated in the northwest corner of the site, and received some protection within the shoreland zone. The current Level III application does not have bearing on this portion of the property. The City Arborist has given extensive feedback on the proposed landscape plan (Plans 42, 43, 78), and is satisfied with the landscaping for this application (Attachment 3).

3. *Water Quality/Storm Water Management/Erosion Control*
The applicant has submitted a stormwater management and erosion control plan for the overall site, and for the specific needs of the Level III site plan. It has previously met City of Portland standards as outlined in Section 5 of the Technical Manual, as well as the standards required by the MaineDEP Site Location and Development Permit. David Senus, the consulting Civil Engineer, commented in his peer review of the revisions, and the specific proposal for the Level III application that the revisions presented are acceptable, with the following additional comments:

- *The Applicant has presented revisions to the previously approved stormwater management plan to include technologies now considered acceptable by MaineDEP as of January 2015, specifically Filterra units without an isolator row and Jellyfish Filter Units. The approach presented by the Applicant provides an acceptable means of meeting the General Standards as outlined in MaineDEP Chapter 500 and by the City of Portland Technical Manual Section 5 for both the Subdivision Application and the Brick South Level III Site Plan Application.*
- *Consistent with the previous approval for the Brick North Level III Site Plan Application, Woodard & Curran recommends including a condition of approval for the Brick South Level III Site Plan Application requiring that future phases of work in the vicinity of the outfall associated with "Stormwater Management Zone F" (as depicted on sheet C-4.1 of the Subdivision Application) incorporate water quality treatment measures that provide adequate treatment capacity for runoff from the untreated parking lot south of the Brick North Building*

in accordance with the General Standards. This condition does not need to be contingent upon future phases of work occurring on the site; if no future work occurs on the site, the Applicant will not be held to completing this measure.

Public Infrastructure and Community Safety Standards

a. *Consistency with Related Master Plans*
The only area currently needing clarification in regard to consistency with City standards as they relate to public infrastructure is an extension of the public portion of the access road that is being supported by EDA funding. The applicant has indicated that this section will be public roadway with the applicant providing maintenance – the pertinent road segment, ownership status, and maintenance agreements should be indicated on the final plan set.

b. *Public Safety and Fire Prevention*
The proposal has been reviewed for public safety and fire prevention, and has been found to allow for emergency response vehicles to move around all areas of the site. It provides for new and existing fire hydrants. A Fire Safety Compliance Plan (Plan 69) and Attachment E, a review of fire protection provisions for the site, have been submitted towards meeting the public safety requirements for the site.

c. *Availability and Capacity of Public Utilities*
The applicant has provided letters indicating the capacity to serve for water, sewer, gas, and power. All utility work has been reviewed with conformance with the city's Technical Manual, including all stormwater management standards. Trash will be stored in dumpsters, eventually to be served by a contracted waste management company.

Site Design Standards

1. *Massing, Ventilation, and Wind Impact*

These standards are concerned primarily with bulk, location, or height of buildings incurring health, safety, unsafe wind conditions, and direct impact of buildings on abutters. As the proposed buildings do not have direct abutters, these standards are not applicable to this site.

2. *Shadows*

As in the massing standards in 1, above, these standards are concerned with impacts on direct abutters, and are not applicable.

3. *Snow and Ice Loading*

This standard is concerned with snow and ice loading as it impacts neighboring properties and public ways, and is not applicable.

4. *View Corridors*

This standard is in regard to impacts on public view corridors, and is not applicable.

5. *Historic Resources*

The property is not in an historic district, and contains no designated landmarks. It has, however, received state review regarding the historic integrity of the brick existing buildings, and correspondence regarding this is included in Attachment G.

There are no known archeological resources on site.

6. *Exterior Lighting*

Lighting and photometric information has been submitted in Plans 37 and 76.

7. *Noise and Vibration*

The proposal does not anticipate exceeding current noise levels for the permanent uses on the site, or overall permitted noise levels.

8. Signage and Wayfinding
Signage and wayfinding is proposed to be submitted under a separate application, and is not included in this submission.

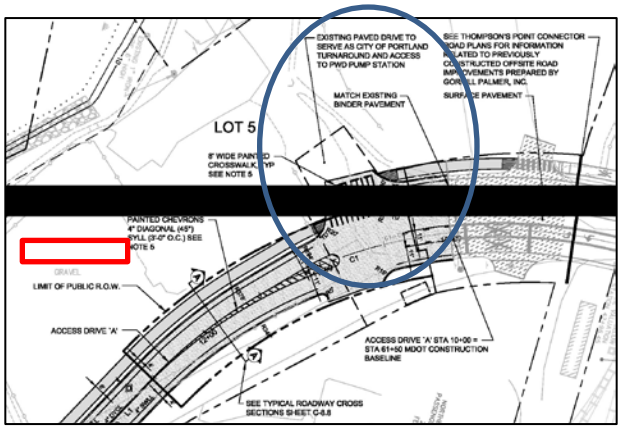
9. Zoning-Related Design Standards
Zoning-related design standards encourage dense, mixed-use development, and attractive pedestrian environments. The Design Manual standards for the B-5 zone encourages shared circulation, parking and transportation infrastructure wherever possible, and several standards for building orientation towards public streets, not applicable to this site.

XIII. EDA ROAD EXTENSION

A portion of the roadway system, approximately 400 feet, will be funded by an EDA grant. The previous subdivision review for this site included 150 linear feet of roadway on the Thompson's Point side of the new railroad crossing. Recently the EDA-funded portion of the roadway was extended another 250 feet. The terms of the EDA contract require that such rights of way be publicly owned. The revised submission materials show the limits of this extension in Plan 83 and Plan 87. DPW, through discussions with the applicant, have concurred the proposed road design specifications are acceptable. An itemized list of how these specifications diverge from the City's Technical Manual has been included as Attachment Q. The road layout, sidewalk design, site circulation, and stormwater management specifications are unchanged. The City and the applicant have agreed there will be ongoing general maintenance expectations for the applicant, including snow plowing, sanding, salting, and street sweeping.

Variations from the Technical Manual are bundled into one general waiver. An explanation of each item follows. All section references are to the City of Portland Technical Manual.

- 1.3. Requirement for turnaround on dead-end streets. This is in reference to the City street terminating without a turnaround at the end – the street itself continues, and does not physically dead-end. Since the applicant will be assuming general maintenance responsibilities beyond where the existing City turnaround currently sits on the plan, it is not being requested for this to be moved to the end of the area delineated as the Limit of Public ROW (see Figure 12).
- 1.7.2.1. This is a requirement for a perpendicular driveway connection to street. Tom Errico, consulting traffic engineer, reviewed this with the following comment: *The applicant is requesting a waiver as it relates to the angle of the Parking Garage Entrance. Given the direction of most traffic movements, the proposed design would be expected to operate adequately and therefore I support a waiver.*



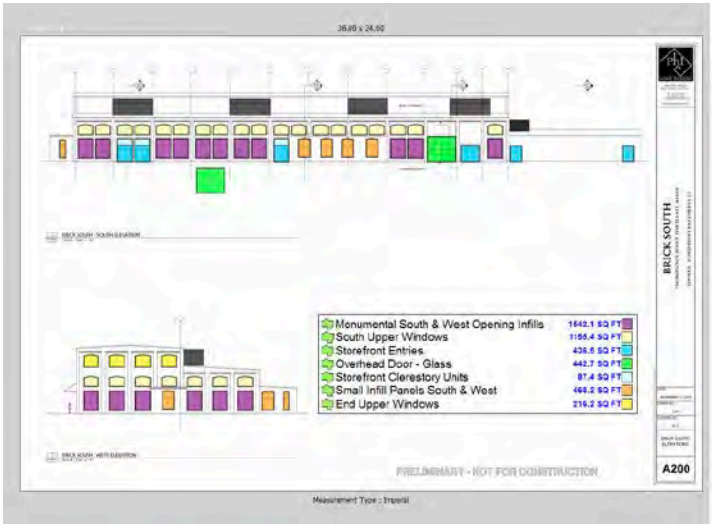
12, Turnaround, ROW limits

- 1.7.2.9. A requirement for vehicular circulation to be contained off-site and not use the adjacent street system. The designation of a portion of the development's road as a public right of way results in some of the anticipated deliveries using a public rather than a private street, triggering this standard. Mr. Errico's comments: *The applicant is requesting a waiver for use of the public street for delivery truck maneuvers. Given that few large truck deliveries are anticipated for the proposed office building, I support a waiver.*
- 1.10.8. A requirement for a minimum aggregate base course thickness of 3 inches for collector roads. The application meets MaineDOT material standards which do not meet City standards, but exceed City's materials standard.

- Figure I-2. A requirement for continuous sidewalks on both sides of the collector road. There is a sidewalk planned for full length of the western side of the road, and a facing sidewalk that begins partway in to the first lot on the eastern side (suburban propane/Lots 14 & 15/location of Building F1/H on the overall site plan). The Level III site plan does not include the eastern sidewalk. Mr. Errico's comments*: The current Level III Site Plan for the Brick North/South phase does not include a sidewalk on the east side of Thompson's Point Road Extension. I support a waiver for building this sidewalk under this phase with the condition that the applicant will be responsible for construction of a sidewalk (and any necessary improvements to the Thompson's Point Road Extension) during the construction of Building H/F1, as depicted on the overall site plan.*
- Figure I-2. A requirement for a minimum roadway width of 40 feet for collector roads. The road design shows a range of 30-39 feet. Mr. Errico notes in his comments that he is comfortable with the proposed roadway cross-section.
- Figure I-2. Requirement for a minimum esplanade width of 5 feet for collector roads. Plan depicts a 4 foot esplanade.

XIV. SUPPLEMENTAL MATERIALS

On January 6th supplemental materials were submitted that included the following changes: the Level III site plan has been revised to include an 8'x20' Concrete Pad for the storage of CO2 tanks and chiller equipment on the North Side of Brick North to serve the brewery tenant in the Brick North building (Plan 87); updated Brick South Building elevations showing window openings with faux glass infill intended to replicate glass windows but eliminate the need for most event users having to cover the windows with large shades (Plan 88 & 89). There are no transparency standards in the B-5 zone that would prohibit this change. The concrete pad is a minor change, but one that will require Inspections review, and any associated life safety review before construction.



13, Brick South Elevation, Plan 88

XV. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommends that the planning board approve the proposed subdivision and site plan for The Forefront at Thompson's Point.

XVI. PROPOSED MOTIONS

A. WAIVERS

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the planning board report for the public hearing on January 12, 2016 for applications 2015-133 and 2015-159 relevant to Portland's technical and design standards and other regulations; and the testimony presented at the planning board hearing:

1. The planning board **finds/does not find**, based upon the Department of Public Works and City Engineer review *(Attachments 5 & 6),* that extraordinary conditions exist or undue hardship may result from strict compliance with the Technical Manual standards *(Sections 1.3; 1.7.2.1; 1.7.2.9; 1.10.8; I-2*), that substantial justice and the public interest are secured with the variation from these standards, and that the variation is consistent with the intent of the

ordinance. The planning board **waives/does not waive** the Technical Manual standards *(Sections 1.3; 1.7.2.1; 1.7.2.9; 1.10.8; I-2),* applicable to the extension of the public ROW.

B. SUBDIVISION

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the planning board report for the public hearing on January 12, 2016 for application 2015-133 relevant to the subdivision regulations; and the testimony presented at the planning board hearing, the planning board finds that the plan **is/is not** in conformance with the subdivision standards of the land use code, subject to the following condition of approval, which must be met prior to the signing of the plat:

1. The applicant shall finalize the subdivision plat for review and approval by Corporation Counsel, the Department of Public Services, and the Planning Authority. The subdivision plats shall note all conditions of public access, all relevant easements including any for city vehicle for access and turning, language regarding rights of lot ingress/egress/regress, and any applicable road maintenance limits and agreements;

2. Prior to the issuance of certificates of occupancy, the applicant shall provide a revised Declaration of Easements, Covenants and Restrictions document for review and approval by Corporation Counsel;

3. Street Lighting: The proposed street lights on the 1st segment of the public portion of the Sewell Street extension are to be privately owned, metered and maintained by the Forefront at Thompson's Point. The City shall grant a license for such a purpose at the time of street acceptance.

C. DEVELOPMENT REVIEW

On the basis of the application, plans, reports and other information submitted by the applicant; findings and recommendations contained in the Planning Board Report for the public hearing on January 12, 2016 for application 2015-159 relevant to the site plan regulations; and the testimony presented at the planning board hearing, the planning board finds that the plan **is/is not** in conformance with the site plan standards of the land use code, subject to the following conditions of approval that must be met prior to the issuance of a building permit, unless otherwise stated:

1. Future phases of work in the vicinity of the outfall associated with "Stormwater Management Zone F" (as depicted on sheet C-4.1 of the Subdivision Application) shall incorporate water quality treatment measures that provide adequate treatment capacity for runoff from the untreated parking lot south of the Brick North Building in accordance with the General Standards. If no future work occurs on the site, the Applicant will not be held to completing this measure;

2. The applicant shall provide a full construction management plan for review and approval by the Public Works Department.

4. Sidewalks and Road Improvements: At the time a Site Plan application is submitted for Buildings F1/H (or alternate Level III proposal for Lots 14 & 15 as depicted on Sheet C-2.0, *Subdivision Plan*), the portion of roadway included in Sheet C-3.0, *Site Layout Plan*, including the easterly sidewalk and all remaining road improvements, shall include provisions for conformity with the road design depicted on Sheet C-3.0, *Overall Site Plan*.

5. Final landscape plan shall incorporate 2" caliper trees in 4 foot-wide esplanade.

6. The 8'x20' Concrete Pad for the storage of CO2 tanks and chiller equipment on the North Side of Brick North, as shown on Sheet C-3.0, Site Layout Plan, will be subject to review by the Inspections Division, and any associated life safety reviews, before construction.

XVII. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. Civil Engineer review (10/5/2015)
2. Traffic Engineer reviews (10/8/2015 & 11/19/2015)
3. City Arborist review (10/8/2015)
4. Corporation Counsel (11/19/2015)

APPLICANT'S SUBMITTALS

Subdivision Application:

A. Supporting Narrative (August 13, 2015)
B. AutoTurn
C. Traffic Study Information
D. SWM Report
E. Life Safety Plan
F. Photometric
G. Permits
H. Utility Capacity
I. Conformity to Applicable Design Standards
J. Title Right
K. Financial Capacity
L. Declaration
M. Cover Letter
N. Narrative (November 10, 2015)
O. Neighborhood Meeting Materials

PLANS

Plan 1. Cover Sheet
Plan 2. General Notes and Legend
Plan 3. Subdivision Plan (revised)
Plan 4. Subdivision Sectional 1 (revised)
Plan 5. Subdivision Sectional 2 (revised)
Plan 6. Subdivision Sectional 3 (revised)
Plan 7. Subdivision Sectional 4 (revised)
Plan 8. Land Title Survey 1
Plan 9. Land Title Survey 2
Plan 10. Land Title Survey 3
Plan 11. Land Title Survey 4
Plan 12. Existing Conditions Plan
Plan 13. Environmental Remediation 1
Plan 14. Environmental Remediation 2
Plan 15. Overall Site Plan
Plan 16. Site Plan East
Plan 17. Site Plan West

Plan 18. Overall Grading and Drainage
Plan 19. Overall Stormwater Management
Plan 20. Water Quality Design Summary
Plan 21. Overall Erosion and Sedimentation Control
Plan 22. Overall Utility Plan
Plan 23. Utility Plan East
Plan 24. Utility Plan West
Plan 25. Pavement Sections and Sidewalk Detail
Plan 26. Curbing and Sidewalk Details
Plan 27. Parking and Traffic Control Details
Plan 28. Stormwater Details
Plan 29. Stormwater and Sanitary Sewer Details
Plan 30. Erosion and Sedimentation Control Details 1
Plan 31. Erosion and Sedimentation Control Details 2
Plan 32. Water and Gas Service Details
Plan 33. Typical Roadway Cross Sections 1
Plan 34. Typical Roadway Cross Sections 2
Plan 35. Access Drive Profile
Plan 36. Sanitary Sewer Profiles
Plan 37. Photometrics Plan
Plan 38. Electrical Master Plan 1
Plan 39. Electrical Master Plan 2
Plan 40. Electrical Master Plan 3
Plan 41. Electrical Master Plan Details
Plan 42. Landscape East
Plan 43. Landscape West
Plan 44. Conceptual Utility 1
Plan 45. Conceptual Utility 2
Plan 46. Conceptual Utility 3
Plan 47. Easements and Encumbrances

Site Plan Application:
P. Cover Letter and Application Narrative (August 13, 2015)

PLANS
Plan 48. Brick South Floor Plan
Plan 49. Brick South Elevations 1
Plan 50. Brick South Elevations 2
Plan 51. Cover Sheet
Plan 52. Subdivision Plat Sectional Recording 1
Plan 53. General Notes and Legend
Plan 54. Existing Conditions Plan
Plan 55. Demolition and Removals Plan
Plan 56. Site Layout Plan
Plan 57. Utility Plan (revised)
Plan 58. Grading Plan
Plan 59. Stormwater Management Plan
Plan 60. Erosion Control & Construction Management Plan (revised)
Plan 61. Stormwater Details 1
Plan 62. Stormater Details 2
Plan 63. Stormwater Details 3

Plan 64. Pavement Sections and Sidewalk Details
Plan 65. Curbing and Sidewalk Details
Plan 66. Parking and Traffic Control Details
Plan 67. Stormwater Details
Plan 68. Stormwater and Sanitary Sewer Details
Plan 69. Erosion and Sediment Control Details 1
Plan 70. Erosion and Sediment Control Details 2
Plan 71. Water and Gas Service Details
Plan 72. Typical Roadway Cross Sections
Plan 73. Fire Safety Compliance Plan
Plan 74. Sanitary Sewer Profiles
Plan 75. Water Profiles
Plan 76. Storm Drain Profiles Zone D
Plan 77. Storm Drain Profiles Zone D and F
Plan 78. Site Sections
Plan 79. Access Drive Profiles
Plan 80. Photometric Lighting Plan
Plan 81. Site Lighting Plan
Plan 82. Landscape Plan

Supplemental Materials for January Public Hearing:

Review Comments
5. DPW Review (Jan 8)
6. Traffic Engineer Review (Jan 7)
7. Arborist Review (Jan 6)

Documents
Q. December 23, 2015 Cover letter Re: Road Technical Specifications
R. January 6, 2016 Cover letter Re: Minor Revisions

Plans
Plan 83. Overall Site Plan
Plan 84. Site Plan East
Plan 85. Typical Roadway Cross Sections I
Plan 86. Typical Roadway Cross Sections II
Plan 87. Site Layout Plan Level III
Plan 88. Brick South Elevations I
Plan 89. Brick South Elevations II

US Army Corps of Engineers®
New England District

Section VI: Self-Verification Notification Form

(for all tidal and non-tidal projects in Maine subject to Corps jurisdiction)

At least two weeks before work commences, complete all fields (write "none" if applicable) below or use the fillable form found at www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Maine-General-Permit/ The two-week lead time is not required for emergency situations. **Send this form, an Official Species List, and project plans to the following email address: cenae-r-me@usace.army.mil**

Maine Project Office
U.S. Army Corps of Engineers
442 Civic Center Drive, Suite 350
Augusta, Maine 04330

State Permit #: L-25672-2G-A-N
Date of State Permit: 08-24-2012; 04-10-2014
State Project Manager: Rodney Howe - Jana Jacobson

Permittee: Forefront Partners I, LP
Address, City, State, Zip: 501 Danforth Street, Portland, ME, 04102
Email, Phone: parallaxpartners@gmail.com - 207-747-5288

Agent: Bo Kennedy, Placemaker Partners, LLC
Address, City, State, Zip: 501 Danforth Street, Portland, ME 04102
Email, Phone: bo@placemakerpartners.com 207-318-8364

Contractor: Shaw Bros. Construction
Address, City, State, Zip: P.O. Box 69 - 341 Mosher Rd (RTE 237), Gorham, Maine, 04038
Email, Phone: astmichel@shawbrothers.com 207-839-2552

Project Name: Forefront at Thompson's Point
Address, City, State, Zip: Thompson's Point Road, Portland, Maine, 04102
Lat °N, Long °W: 43.64897 70.29191 Tax Map/Lot: 202 A 004
Waterway Name: Fore River
Description of Work: Anchored Dock Floats and Wetland Fill for Stormwater outfall

Proposed Starting Date: March 2024 Proposed Finish Date: June 2024

Area of wetland impact (SF): Permanent: 386 SF Temporary:
Area of waterway impact (SF): Permanent: Temporary:

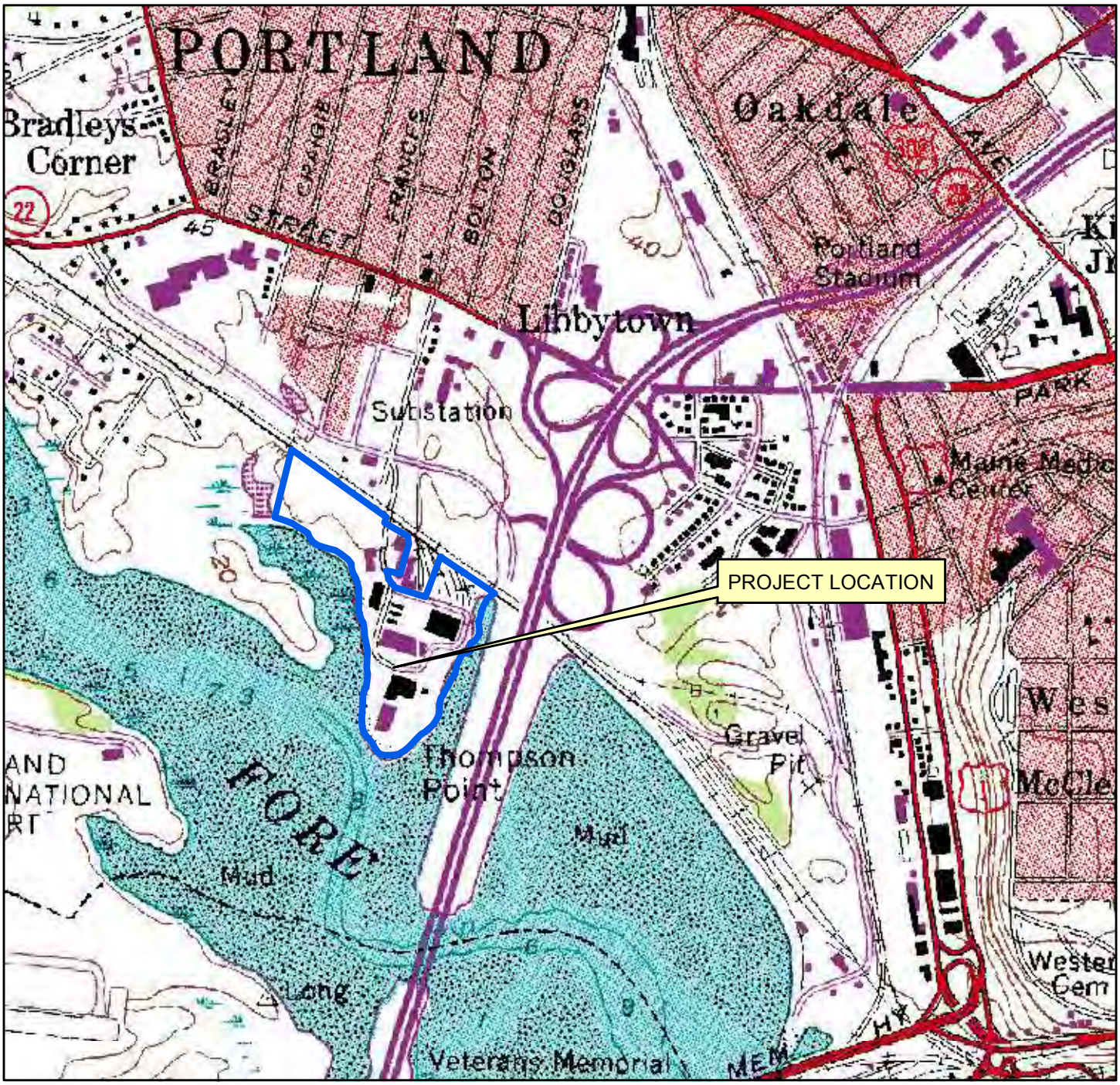
Work will be done under the following Section V General Permits (circle all that apply):

I. Inland Waters and wetlands: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
II. Navigable Waters: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

Have MHPC and all five federally-recognized tribes in Maine been notified of the proposed work? X Yes ____ No

Your signature below, as permittee, indicates that you accept and agree to comply with the terms, eligibility criteria, and general conditions for Self-Verification under the Maine General Permit.

Permittee Signature: Bo Kennedy Date: 2023.10.24



N
W E
S

USGS LOCATION MAP
THOMPSON'S POINT
PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS - MAPS

DeLuca-Hoffman Associates, Inc.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, ME 04106
207-775-1121
www.delucahoffman.com

DRAWN:	DED
CHECKED:	SRB
DATE:	SEPTEMBER 2010
FILENAME:	2982-USGS
SCALE:	1 inch = 1,000 feet

FIGURE

2

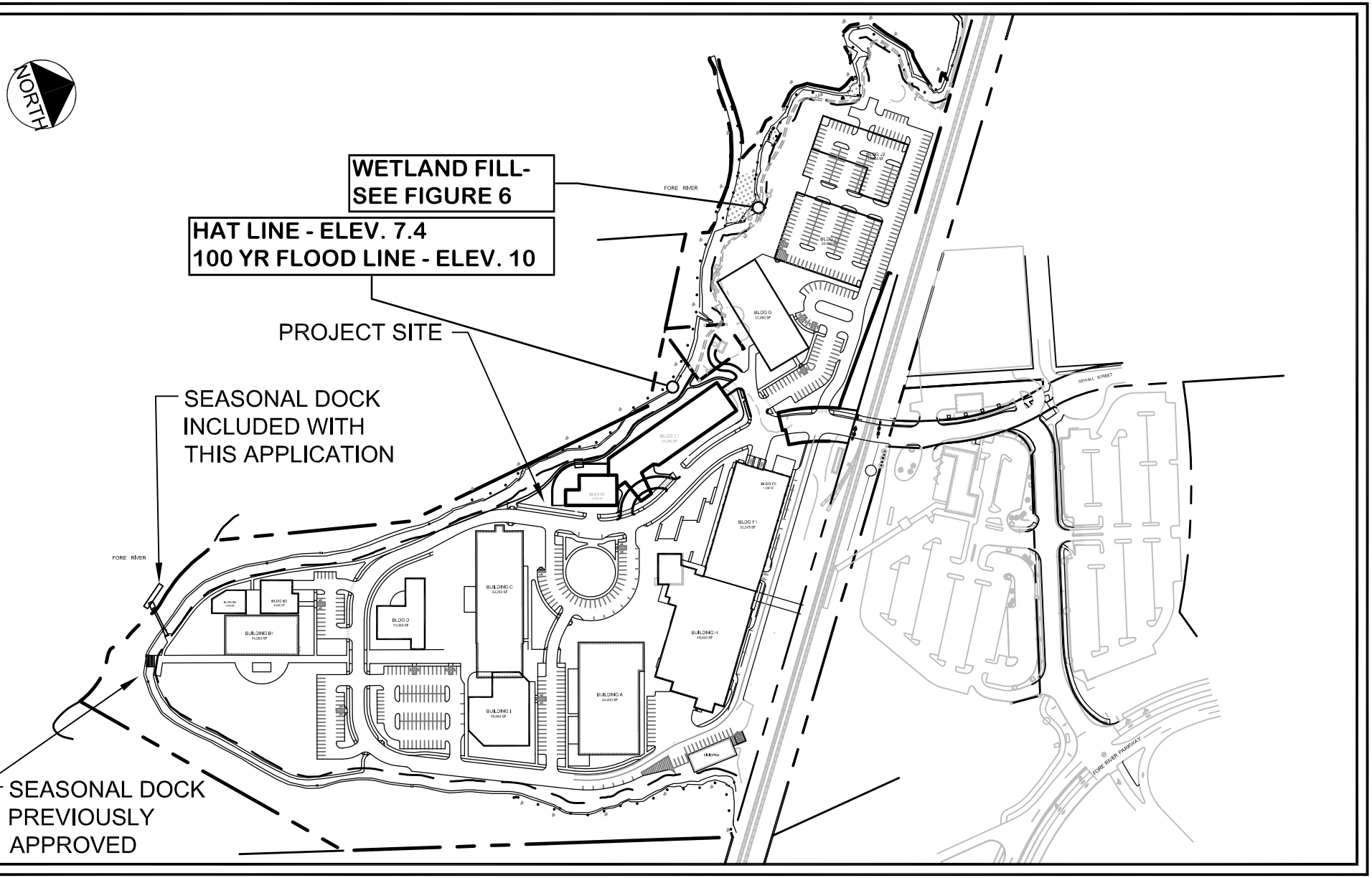


FIGURE:	BOOK:	PAGE:	LOCATION:	PROPOSED ACTIVITY:	PROJECT APPLICANT:
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LEGAL DESCRIPTION:	WATER BODY:	ABUTTERS:	SCALE: 1" = 300' DATUM: -	FST
SEE ALTA SURVEY BY SEBAGO TECHNICS INC	FORE RIVER	SEE ATTACHMENT 10	DATE: MAY 2014	

NAE-2012-00992

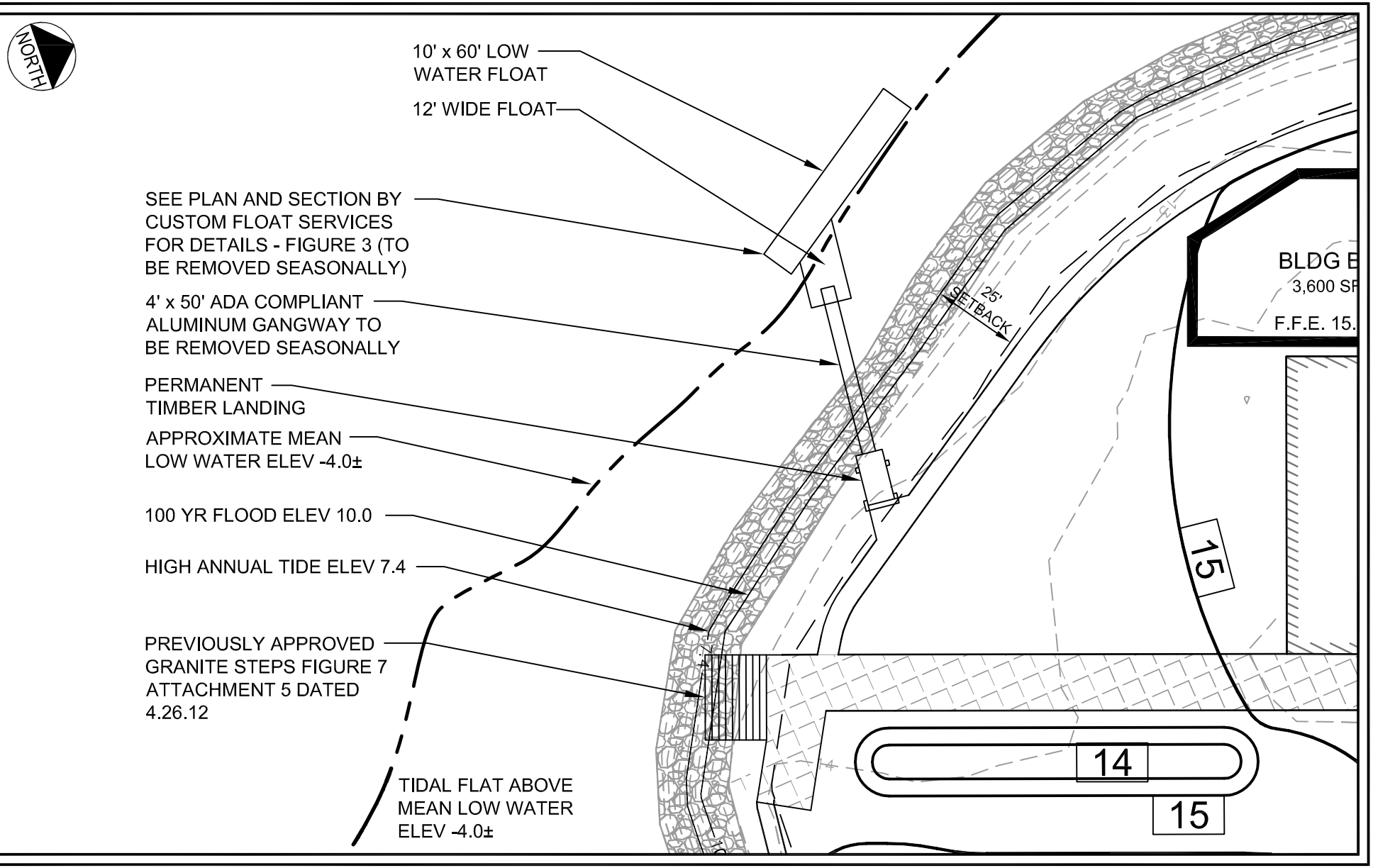
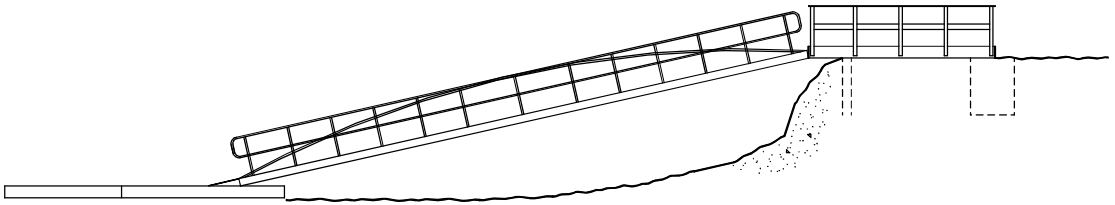


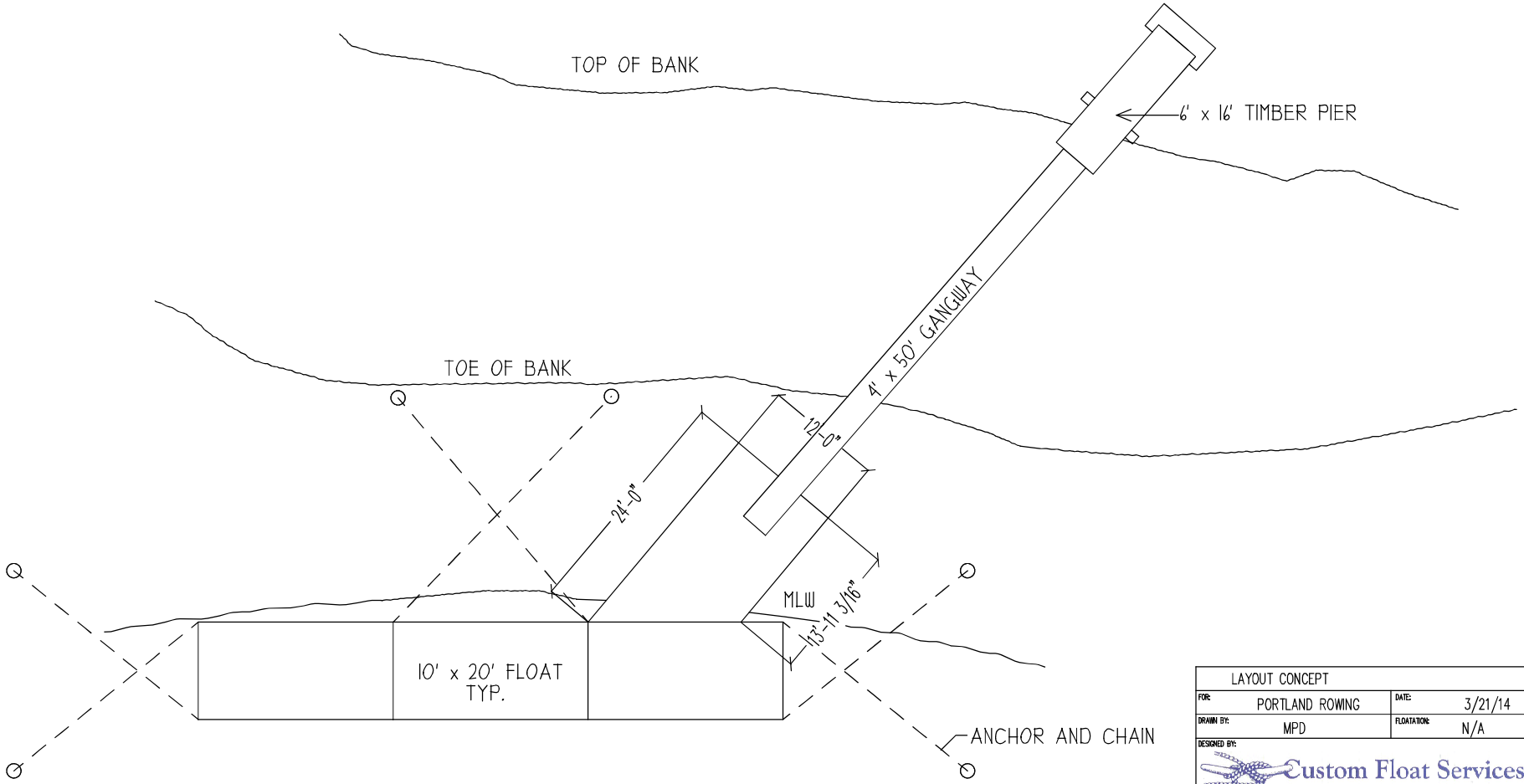
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2	6579 6875	30 287	CITY OF PORTLAND THOMPSON'S POINT	COMMERCIAL REDEVELOPMENT	FOREFRONT PARTNERS I , LP

LEGAL DESCRIPTION:	WATER BODY:	ABUTTERS:	SCALE: 1" = 40' DATUM: -	FST
SEE ALTA SURVEY BY SEBAGO TECHNICS INC	FORE RIVER	SEE ATTACHMENT 10	DATE: MAY 2014	

NAE-2012-00992



ELEVATION VIEW



LAYOUT CONCEPT		REV: C
FOR: PORTLAND ROWING	DATE: 3/21/14	
DRAWN BY: MPD	FLOATATION: N/A	
DESIGNED BY:		

Custom Float Services, Inc.

NAE-2012-00992

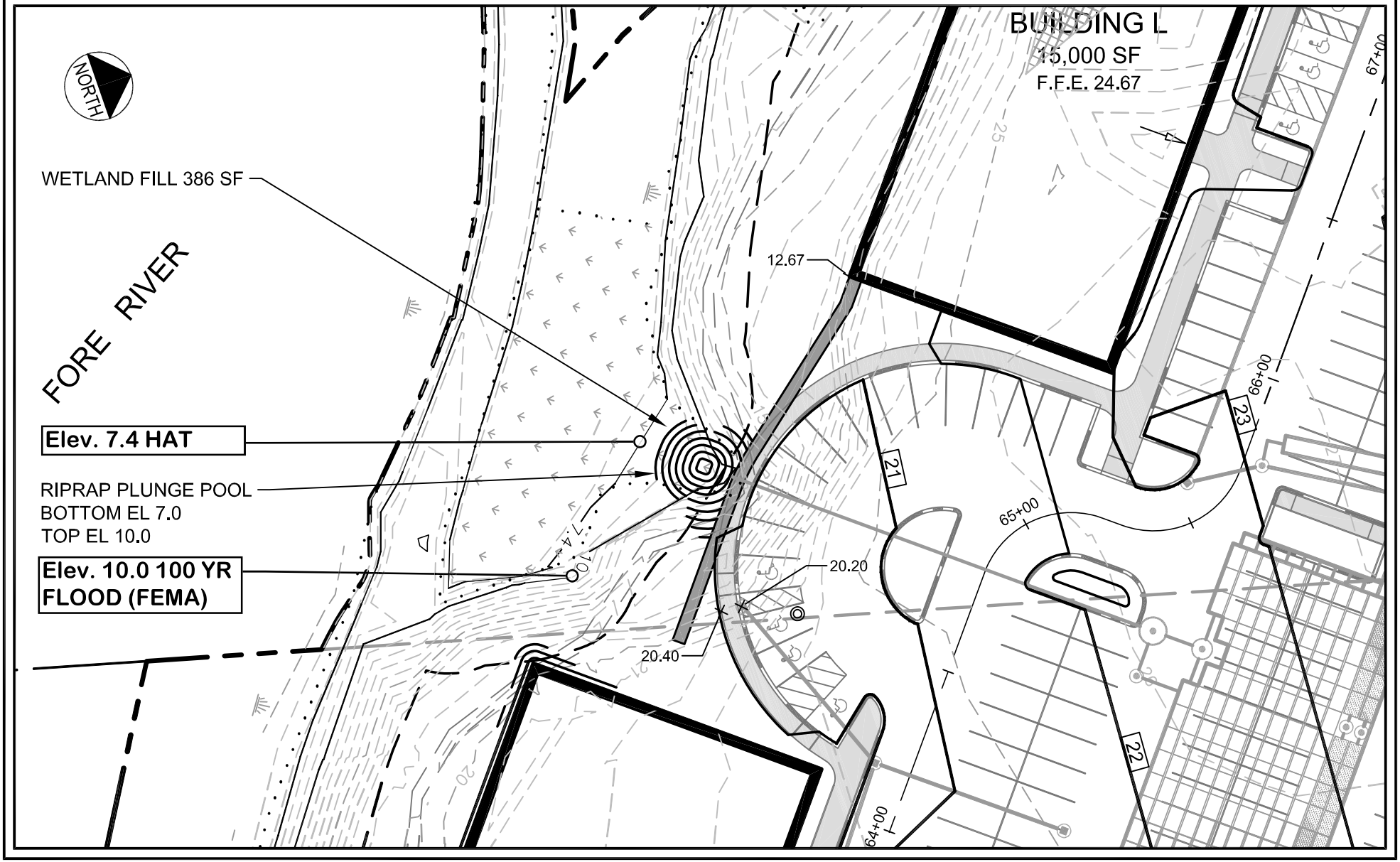


FIGURE:	BOOK:	PAGE:	LOCATION:	PROPOSED ACTIVITY:	PROJECT APPLICANT:
6	6579 6875	30 287	CITY OF PORTLAND THOMPSON'S POINT	COMMERCIAL REDEVELOPMENT	FOREFRONT PARTNERS I, LP
	LEGAL DESCRIPTION:		WATER BODY:	ABUTTERS:	SCALE: 1" = 40' DATUM: -
	SEE ALTA SURVEY BY SEBAGO TECHNICS INC		FORE RIVER	SEE ATTACHMENT 10	DATE: APR 2012

DELUCA-HOFFMAN ASSOCIATES, INC.

NAE-2012-00992

REPLY TO ATTENTION OF

DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

MAINE GENERAL PERMIT (GP)
AUTHORIZATION LETTER AND SCREENING SUMMARY

Forefront Partners I, LP
55 Lisbon Street, Suite 2400
Lewiston, Maine 04240

CORPS PERMIT #: NAE-2012-00992 amendment
CORPS PGP ID# 12-154
STATE ID# L-25672-2G-A-N

DESCRIPTION OF WORK:
Department of the Army permit NAE-2012-00992 authorized you to construct and maintain an 8' x 9' landing with an attached 4.33' x 40' aluminum ramp leading to a 10' x 10' intermediate float with a 12' x 20' float attached perpendicular extending southwest in Fore River off Thompson's Point. As requested your permit is hereby amended to shift the pier location slightly west and construct a 6' x 16' pile and timber pier with an attached 4' x 50' ramp leading to an 12'X24' intermediate float cut at an angle with a 10' x 60' line of bottom moored floats attached at an angle extending southwest in Fore River off lot 13 at Thompson's Point at Portland, Maine as shown on the attached plans entitled " the Forefront at Thompson's Point Seasonal Dock System by FST" in 3 sheets

LAT/LONG COORDINATES : 43.64897 N 70.29191 W **USGS QUAD:** ME-Portland West

I. CORPS DETERMINATION:
Based on our review of the information you provided, we have determined that your project will have only minimal individual and cumulative impacts on waters and wetlands of the United States. **Your work is therefore authorized by the U.S. Army Corps of Engineers under the enclosed Federal Permit, the Maine General Permit (GP).** Accordingly, we do not plan to take any further action on this project.

You must perform the activity authorized herein in compliance with all the terms and conditions of the GP [including any attached Additional Conditions and any conditions placed on the State 401 Water Quality Certification including any required mitigation]. Please review the enclosed GP carefully, including the GP conditions beginning on page 5, to familiarize yourself with its contents. You are responsible for complying with all of the GP requirements; therefore you should be certain that whoever does the work fully understands all of the conditions. You may wish to discuss the conditions of this authorization with your contractor to ensure the contractor can accomplish the work in a manner that conforms to all requirements.

If you change the plans or construction methods for work within our jurisdiction, please contact us immediately to discuss modification of this authorization. This office must approve any changes before you undertake them.

Condition 41 of the GP (page 18) provides one year for completion of work that has commenced or is under contract to commence prior to the expiration of the GP on October 12, 2015. You will need to apply for reauthorization for any work within Corps jurisdiction that is not completed by October 12, 2016.

This authorization presumes the work shown on your plans noted above is in waters of the U.S. Should you desire to appeal our jurisdiction, please submit a request for an approved jurisdictional determination in writing to the undersigned.

No work may be started unless and until all other required local, State and Federal licenses and permits have been obtained. **This includes but is not limited to a Flood Hazard Development Permit issued by the town if necessary.**

II. STATE ACTIONS: PENDING [ ], ISSUED[ ], DENIED [ ] DATE_____

APPLICATION TYPE: PBR:___, TIER 1:___, TIER 2:___, TIER 3: X, LURC:___ DMR LEASE:___ NA:___

III. FEDERAL ACTIONS:

JOINT PROCESSING MEETING: 5-17-12 LEVEL OF REVIEW: CATEGORY 1:___ CATEGORY 2: X

AUTHORITY (Based on a review of plans and/or State/Federal applications): SEC 10_ X _, 404___ 10/404___, 103_

EXCLUSIONS: The exclusionary criteria identified in the general permit do not apply to this project.

FEDERAL RESOURCE AGENCY OBJECTIONS: EPA NO, USF&WS NO, NMFS NO

If you have any questions on this matter, please contact my staff at 207-623-8367 at our Manchester, Maine Project Office. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at http://per2.nwp.usace.army.mil/survey.html

Rodney A. Howe
RODNEY A. HOWE
SENIOR PROJECT MANAGER
MAINE PROJECT OFFICE

4-16-2012
FRANK J. DEL GIUDICE **DATE**
CHIEF, PERMITS & ENFORCEMENT BRANCH
REGULATORY DIVISION

-R (1145-2-303b) Date April 10, 2014

EMORANDUM FOR FILE

SUBJECT: Forefront Partners I,LP NAE-2012-00992 amendment

1. PRELIMINARY JURISDICTIONAL DETERMINATION:

__X__ The State of Maine has performed a **preliminary jurisdictional determination** with which the Corps concurs. **(OR)**
___Our preliminary determination of jurisdiction is that the aquatic resources within the review area are waters of the United States due to the presence of: (Check all that apply)
__X__TNWs, including territorial seas
___Wetlands adjacent to TNWs
___Relatively permanent waters (RPWs) that flow directly or indirectly into TNWs
___Non-RPWs that flow directly or indirectly into TNWs
___Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
___Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
___Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
___Impoundments of jurisdictional waters
___Isolated (interstate or intrastate) waters, including isolated wetlands

2. SECTION 106 COORDINATION
Coordination with the State Historic Preservation Officer Yes/ N/A **(circle one)**. Determination & date:
_____No effect by 10 day default; 8/10/12 No effect; _____May effect; _____No Adverse effect

Coordination with the Tribal Historic Preservation Officer(s) Yes/ N/A **(circle one)**.
Determination & date: 5/27/12 No effect by default;_____No effect;_____May effect; ___No Adverse effect

3. ENDANGERED SPECIES CONSULTATION: USFWS/NMFS (circle one or both).
Determination & date: 6/7/12 No effect;_____Not likely to adversely effect

4. ESSENTIAL FISH HABITAT (EFH): EFH PRESENT Y / N (circle one).
IF YES: Based on the terms and conditions of the PGP, which are intended to ensure that authorized projects cause no more than minimal environmental impacts, the Corps of Engineers has preliminary determined that this project will not cause more than minimal adverse effects to **EFH** identified under the Magnunson-Stevens Fisheries Conservation and Management Act.
Determination & date:_____No recommendations received; ___No effect; 6/7/12 May Adversely effect.
EFH recommendations: Normal TOYR construction window and Cat 2 Standards for installation.

IMPACTS: 0.0 Short-term; _____ Long-term; 0.0 Cumulative. (Brief description)

Environmental impacts are minimal both individually and cumulatively Y / N (circle one).
The original permit authorized an 8' x 9' landing with an attached 4.33' x 40' aluminum ramp leading to a 10' x 10' intermediate float with a 12' x 20' float attached perpendicular extending southwest in Fore River off Thompson's Point. This amendment authorizes the permittee to shift the pier location slightly west and construct a 6' x 16' pile and timber pier with an attached 4' x 50' ramp leading to an12'X24' intermediate float cut at an angle with a 10' x 60' line of bottom moored floats attached at an angle extending southwest in Fore River off lot 13 at Thompson's Point at Portland. The structure meets Corps guidelines for structures placed in navigable waters and there are no FNP's in the vicinity. Impacts to navigation in the immediate vicinity are considered minimal. The federal resource agencies have reviewed the original project and recommended normal TOYR restriction for construction. They determined the project is eligible for a Cat 2 GP as proposed. The permit is conditioned accordingly.

Rodney Howe
Senior Project Manager
Maine Project Office

US Army Corps
of Engineers ®
New England District

WORK-START NOTIFICATION FORM

(Minimum Notice: Two weeks before work begins)

****
* MAIL TO: U.S. Army Corps of Engineers, New England District *
*
* Policy Analysis/Technical Support Branch *
* Regulatory Division *
* 696 Virginia Road *
* Concord, Massachusetts 01742-2751 *
****

Corps of Engineers Permit No. NAE-2012-00992 was issued Forefront Partners I, LP. The permit authorized the permittee to construct a 6' x 16' pile and timber pier with an attached 4' x 50' ramp leading to an 12'X24' intermediate float cut at an angle with a 10' x 60' line of bottom moored floats attached at an angle extending southwest in Fore River off lot 13 at Thompson's Point at Portland, Maine.
The people (e.g., contractor) listed below will do the work, and they understand the permit's conditions and limitations.

PLEASE PRINT OR TYPE

Name of Person/Firm: _____

Business Address: _____

_____

_____

_____

Telephone Numbers: ( ) _____ ( ) _____

Proposed Work Dates: **Start** _____ **Finish** _____

Permittee's Signature: _____ **Date:** _____

Printed Name: _____ **Title:** _____

****

FOR USE BY THE CORPS OF ENGINEERS

PM: Howe **Submittals Required:** _____

Inspection Recommendation: _____

_____

US Army Corps of Engineers®
New England District

(Minimum Notice: Permittee must sign and return notification within one month of the completion of work.)

COMPLIANCE CERTIFICATION FORM

Corps of Engineers Permit No: NAE-2012-00992

Name of Permittee: Forefront Partners I, LP

Permit Issuance Date: _____

Please sign this certification and return it to the following address upon completion of the activity and any mitigation required by the permit. You must submit this after the mitigation is complete, but not the mitigation monitoring, which requires separate submittals.

****

* MAIL TO: U.S. Army Corps of Engineers, New England District *
* Policy Analysis/Technical Support Branch, ATTN: PAS*
* Regulatory Division *
* 696 Virginia Road *
* Concord, Massachusetts 01742-2751 *

****

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit was completed in accordance with the terms and conditions of the above referenced permit, and any required mitigation was completed in accordance with the permit conditions.

_____ _____
Signature of Permittee ***Date***

_____ _____
Printed Name Date of Work Completion

( ) ( )
Telephone Number ***Telephone Number***

DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

REPLY TO
ATTENTION OF

MAINE GENERAL PERMIT (GP)
AUTHORIZATION LETTER AND SCREENING SUMMARY

Forefront Partners I, LP
55 Lisbon Street, Suite 2400
Lewiston, Maine 04240

CORPS PERMIT # NAE-2012-00992
CORPS PGP ID# 12-154
STATE ID# L-25672-2G-A-N

DESCRIPTION OF WORK:
To construct and maintain an 8' x 9' landing with an attached 4.33' x 40' aluminum ramp leading to a 10' x 10' intermediate float with a 12' x 20' float attached perpendicular extending southwest in Fore River off Thompson's Point. The work also includes placing fill in approximately 420 SF of intertidal area in conjunction with the construction of a 25' x 20' granite block stairway and in 386 SF of intertidal area to construct a riprap plunge pool for a storm drainage outfall for a total of 806 SF (0.018 acres) off Thompson's Point at Portland, Maine as shown on the attached plans entitled "Forefront Partners I,LP, Commercial Redevelopment, City of Portland, Thompson's Point, Maine" in 4 sheets dated April 2012. **SEE ATTACHED CONDITIONS:**

LAT/LONG COORDINATES : 43.64897 N 70.29191 W **USGS QUAD:** ME-Portland West

I. CORPS DETERMINATION:
Based on our review of the information you provided, we have determined that your project will have only minimal individual and cumulative impacts on waters and wetlands of the United States. **Your work is therefore authorized by the U.S. Army Corps of Engineers under the enclosed Federal Permit, the Maine General Permit (GP).** Accordingly, we do not plan to take any further action on this project.

You must perform the activity authorized herein in compliance with all the terms and conditions of the GP [including any attached Additional Conditions and any conditions placed on the State 401 Water Quality Certification including any required mitigation]. Please review the enclosed GP carefully, including the GP conditions beginning on page 5, to familiarize yourself with its contents. You are responsible for complying with all of the GP requirements; therefore you should be certain that whoever does the work fully understands all of the conditions. You may wish to discuss the conditions of this authorization with your contractor to ensure the contractor can accomplish the work in a manner that conforms to all requirements.

If you change the plans or construction methods for work within our jurisdiction, please contact us immediately to discuss modification of this authorization. This office must approve any changes before you undertake them.

Condition 41 of the GP (page 18) provides one year for completion of work that has commenced or is under contract to commence prior to the expiration of the GP on October 12, 2015. You will need to apply for reauthorization for any work within Corps jurisdiction that is not completed by October 12, 2016.

This authorization presumes the work shown on your plans noted above is in waters of the U.S. Should you desire to appeal our jurisdiction, please submit a request for an approved jurisdictional determination in writing to the undersigned.

No work may be started unless and until all other required local, State and Federal licenses and permits have been obtained. **This includes but is not limited to a Flood Hazard Development Permit issued by the town if necessary.**

II. STATE ACTIONS: PENDING [ ], ISSUED[ ], DENIED [ ] DATE_____

APPLICATION TYPE: PBR:___, TIER 1:___, TIER 2:___, TIER 3: X , LURC:___ DMR LEASE:___ NA:___

III. FEDERAL ACTIONS:

JOINT PROCESSING MEETING: 5-17-12 LEVEL OF REVIEW: CATEGORY 1:___ CATEGORY 2: X

AUTHORITY (Based on a review of plans and/or State/Federal applications): SEC 10_X_, 404_____ 10/404_____, 103_____

EXCLUSIONS: The exclusionary criteria identified in the general permit do not apply to this project.

FEDERAL RESOURCE AGENCY OBJECTIONS: EPA NO , USF&WS NO , NMFS NO

If you have any questions on this matter, please contact my staff at 207-623-8367 at our Manchester, Maine Project Office. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at http://per2.nwp.usace.army.mil/survey.html

Rodney A Howe

RODNEY A. HOWE
SENIOR PROJECT MANAGER
MAINE PROJECT OFFICE

8-24-12

FRANK J. DEL GIUDICE **DATE**
CHIEF, PERMITS & ENFORCEMENT BRANCH
REGULATORY DIVISION

US Army Corps
of Engineers ®
New England District

PLEASE NOTE THE FOLLOWING GENERAL CONDITIONS FOR
DEPARTMENT OF THE ARMY
GENERAL PERMIT
NO. NAE-2012-00992

1. The following condition applies to the construction of the granite block stairway and the rip rapped stormwater plunge pool. Please note appendix A, II. Navigable Waters of the United States, Category 1, (a) Fill, 2. Work conducted in the intertidal zone must be conducted in-the dry during low water, or between Nov. 8 – Apr. 9.

2. The following condition applies to the construction of the ramp and float system. Please note appendix A, II. Navigable Waters of the United States Category 2 and (f) Structures and Floats Category 2 of the attached Programmatic General Permit.

MAR-2012-00992

APPLICATION FOR A NATURAL RESOURCES PROTECTION ACT PERMIT

→PLEASE TYPE OR PRINT IN *BLACK INK ONLY*

1. Name of Applicant:	Forefront Partners I, LP	**5.Name of Agent:**	DeLuca-Hoffman Associates, Inc.
2. Applicant's Mailing Address:	55 Lisbon Street, Suite 2400 Lewiston, ME 04240	**6. Agent's Mailing Address:**	778 Main Street, Suite 8 South Portland, ME 04106
3. Applicant's Daytime Phone #:	(207) 347-1614	**7. Agent's Daytime Phone #:**	(207) 775-1121
4. Applicant's Email Address (Required from *either* applicant or agent):	parallaxpartners@gmail.com	**8. Agent's Email Address:**	sbushey@delucahoffman.com

9. Location of Activity: (Nearest Road, Street, Rt.#)	1 Thompson's Point	**10. Town:**	Portland	**11. County:**	Cumberland

12. Type of Resource: (Check all that apply)	☐ River, stream or brook ☐ Great Pond ☐ Coastal Wetland ☐ Freshwater Wetland ☐ Wetland Special Significance ☒ Significant Wildlife Habitat ☐ Fragile Mountain	**13. Name of Resource:**	adjacent tidal flats of the Fore River
		14. Amount of Impact: (Sq.Ft.)	**Fill:** N/A **Dredging/Veg Removal/Other:**

15. Type of Wetland: (Check all that apply)	☐ Forested ☐ Scrub Shrub ☐ Emergent ☐ Wet Meadow ☐ Peatland ☐ Open Water ☐ Other coastal wetland	**FOR FRESHWATER WETLANDS**		
		Tier 1	*Tier 2*	*Tier 3*
		☐ 0 - 4,999 sq ft. ☐ 5,000-9,999 sq ft ☐ 10,000-14,999 sq ft	☐ 15,000 – 43,560 sq. ft.	☐ > 43,560 sq. ft. or ☐ smaller than 43,560 sq. ft., not eligible for Tier 1

16. Brief Activity Description:	The applicant proposes a transit oriented development over the previously developed Thompson's Point site in Portland. See Attachment 1 for additional information.

17. Size of Lot or Parcel & UTM Locations:	☐ _____ square feet, or ☒ 27.56 acres	UTM Northing: 4,833,933	UTM Easting: 395,870

18. Title, Right or Interest:	☐ own ☐ lease ☒ purchase option ☐ written agreement

19. Deed Reference Numbers:	Book#: 6579/6676 Page: 30/287	**20. Map and Lot Numbers:**	Map #: 201/202	Lot #: A-5, A-8, A-10/A-1, A-4	
21. DEP Staff Previously Contacted:	Marybeth Richardson	**22. Part of a larger project:**	☐ Yes ☒ No	**After-the-Fact:**	☐ Yes ☒ No
23. Resubmission of Application?:	☐ Yes→ ☒ No	**If yes, previous application #**		**Previous project manager:**	
24. Written Notice of Violation?:	☐ Yes → ☒ No	**If yes, name of DEP enforcement staff involved:**		**25. Previous Wetland Alteration:**	☐ Yes ☐ No
26. Detailed Directions to the Project Site:	Take Exit 5 off I-295 South and proceed onto Thompson's Point Connector Road, cross railroad tracks into site.				

27. TIER 1	**TIER 2/3 AND INDIVIDUAL PERMITS**	
☐ Title, right or interest documentation ☐ Topographic Map ☐ Narrative Project Description ☐ Plan or Drawing (8 1/2" x 11") ☐ Photos of Area ☐ Statement of Avoidance & Minimization ☐ Statement/Copy of cover letter to MHPC	☒ Title, right or interest documentation ☒ Topographic Map ☒ Copy of Public Notice/Public Information Meeting Documentation ☒ Wetlands Delineation Report (Attachment 1) that contains the Information listed under Site Conditions ☒ Alternatives Analysis (Attachment 2) including description of how wetland impacts were Avoided/Minimized	☒ Erosion Control/Construction Plan ☐ Functional Assessment (Attachment 3), if required ☐ Compensation Plan (Attachment 4), if required ☐ Appendix A and others, if required ☒ Statement/Copy of cover letter to MHPC ☐ Description of Previously Mined Peatland, if required

28. FEES Amount Enclosed:	

CERTIFICATIONS AND SIGNATURES LOCATED ON PAGE 2

IMPORTANT: IF THE SIGNATURE BELOW IS NOT THE APPLICANT'S SIGNATURE, ATTACH LETTER OF AGENT AUTHORIZATION SIGNED BY THE APPLICANT.

By signing below the applicant (or authorized agent), certifies that he or she has read and understood the following :

DEP SIGNATORY REQUIREMENT

PRIVACY ACT STATEMENT

Authority: 33 USC 401, Section 10; 1413, Section 404. Principal Purpose: These laws require permits authorizing activities in or affecting navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters. Disclosure: Disclosure of requested information is voluntary. If information is not provided, however, the permit application cannot be processed nor a permit be issued.

CORPS SIGNATORY REQUIREMENT

USC Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry shall be fines not more than $10,000 or imprisoned not more than five years or both. I authorize the Corps to enter the property that is subject to this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein.

DEP SIGNATORY REQUIREMENT

I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

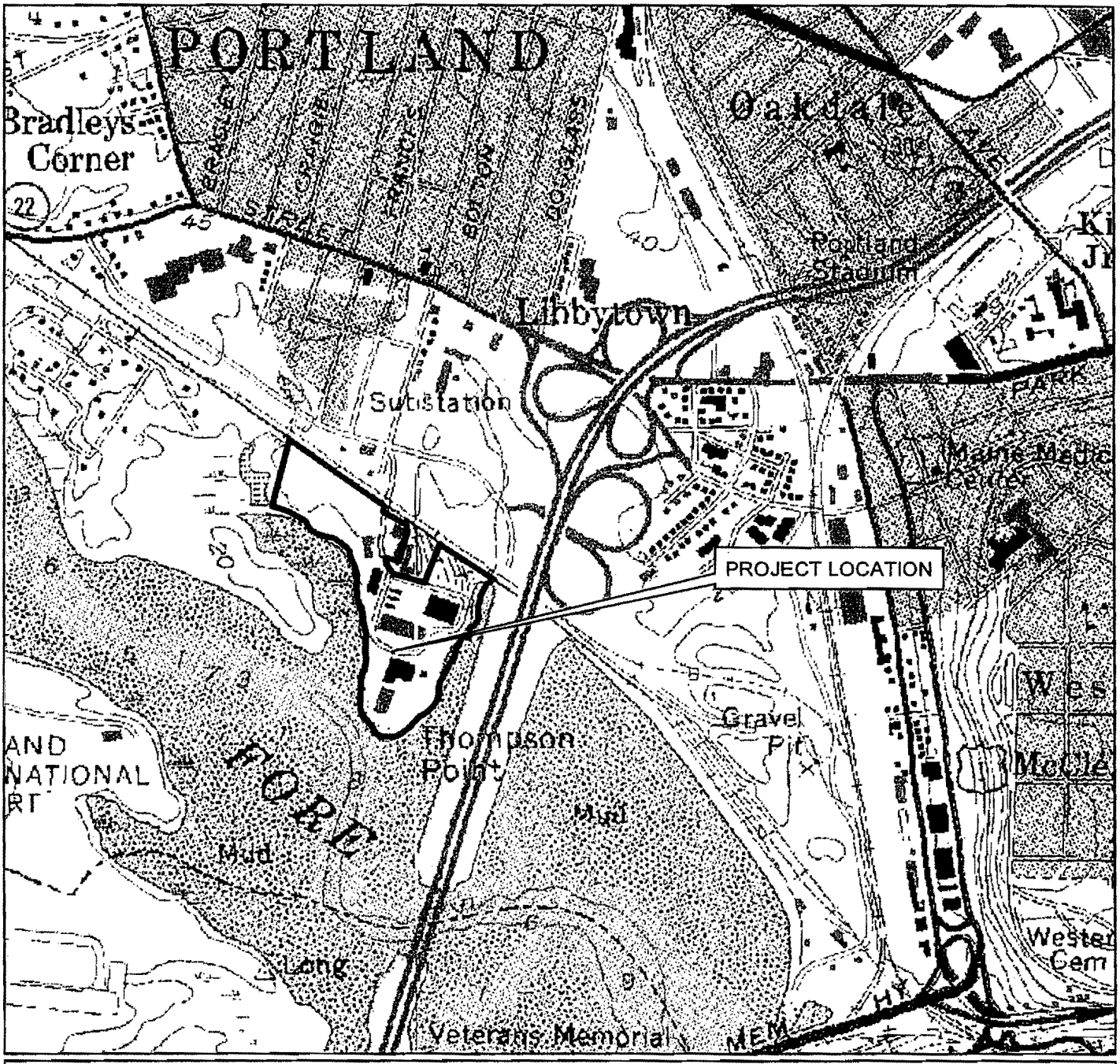
Further, I hereby authorize the DEP to send me an electronically signed decision on the license I am applying for with this application by emailing the decision to the address located on the front page of this application (see #4 for the applicant and #8 for the agent).

SIGNATURE OF AGENT/APPLICANT

Date: 4/26/12

NOTE: Any changes in activity plans must be submitted to the DEP and the Corps in writing and must be approved by both agencies prior to implementation. Failure to do so may result in enforcement action and/or the removal of the unapproved changes to the activity.

(pink)



N
W E
S

USGS LOCATION MAP
THOMPSON'S POINT
PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS - MAPS

DeLuca-Hoffman Associates, Inc.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, ME 04106
207-775-1121
www.delucahoffman.com

DRAWN:	DED
CHECKED:	SRB
DATE:	SEPTEMBER 2010
FILENAME:	2982-USGS
SCALE:	1 inch = 1,000 feet

FIGURE
2

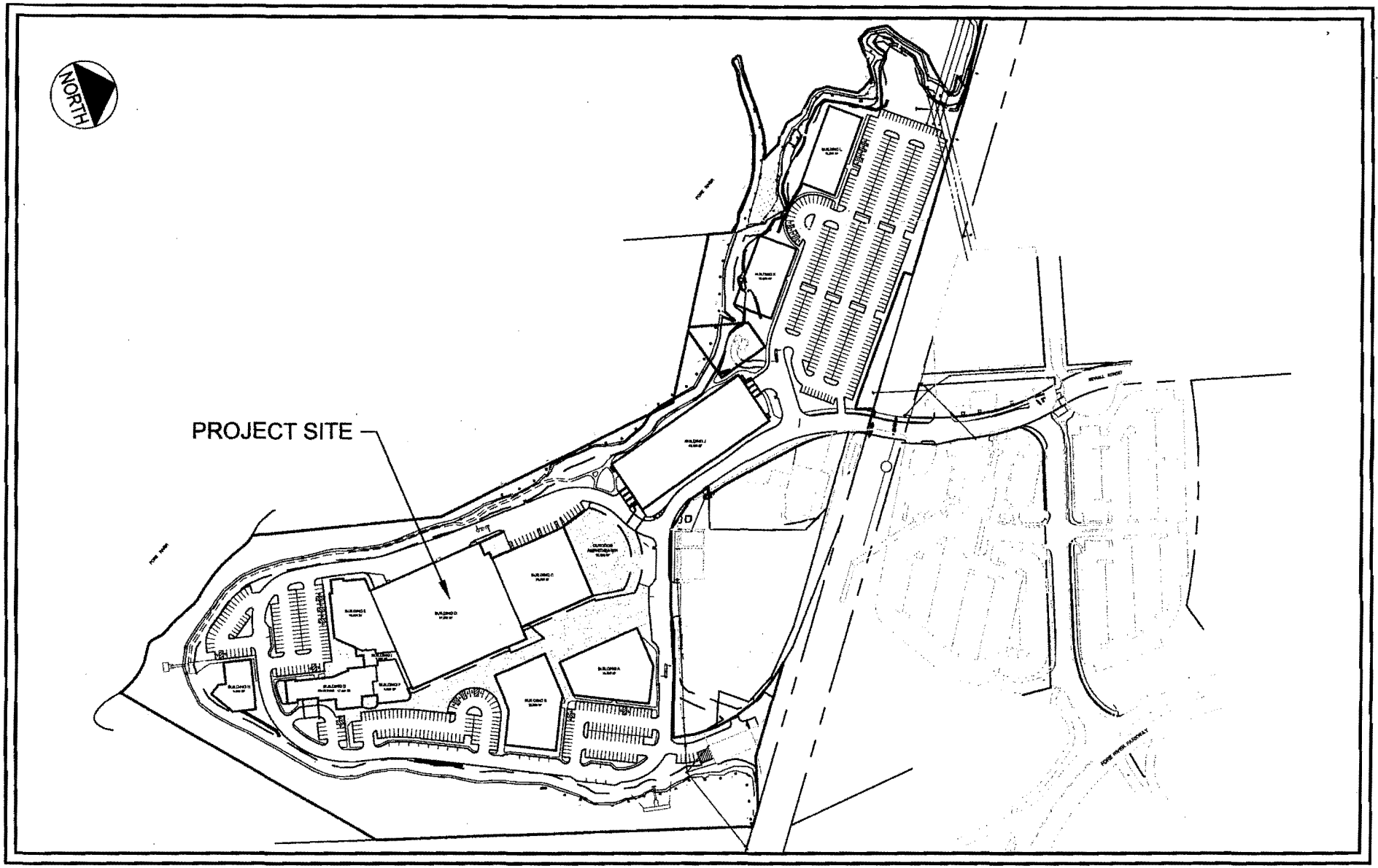


FIGURE:	BOOK:	PAGE:	LOCATION:	PROPOSED ACTIVITY:	PROJECT APPLICANT:
1	6579 6875	30 287	CITY OF PORTLAND THOMPSON'S POINT	COMMERCIAL REDEVELOPMENT	FOREFRONT PARTNERS I, LP

LEGAL DESCRIPTION:	WATER BODY:	ABUTTERS:	SCALE: 1" = 300' DATUM: -	DELUCA-HOFFMAN ASSOCIATES, INC.
SEE ALTA SURVEY BY SEBAGO TECHNICS INC	FORE RIVER	SEE ATTACHMENT 10	DATE: APR 2012	

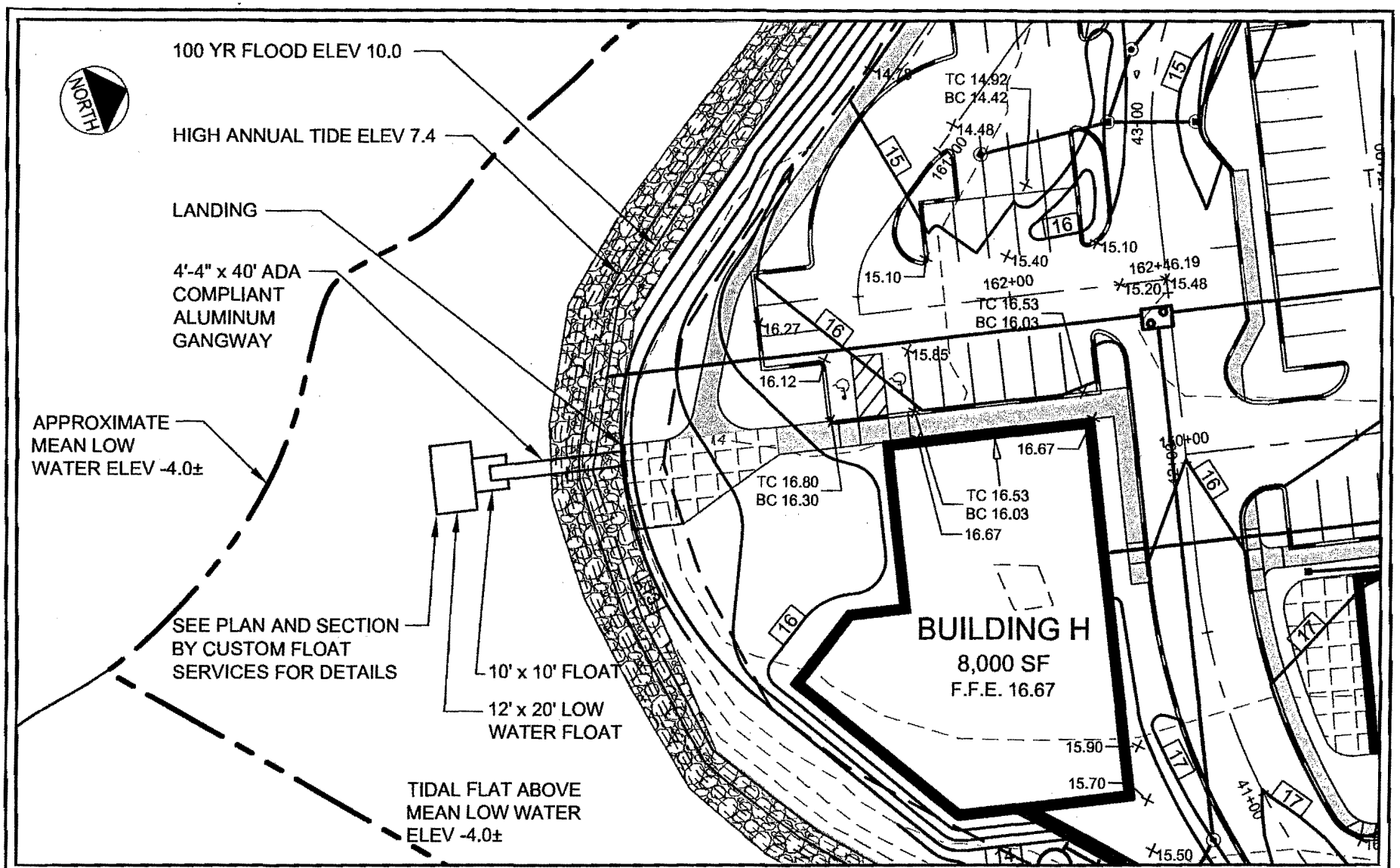
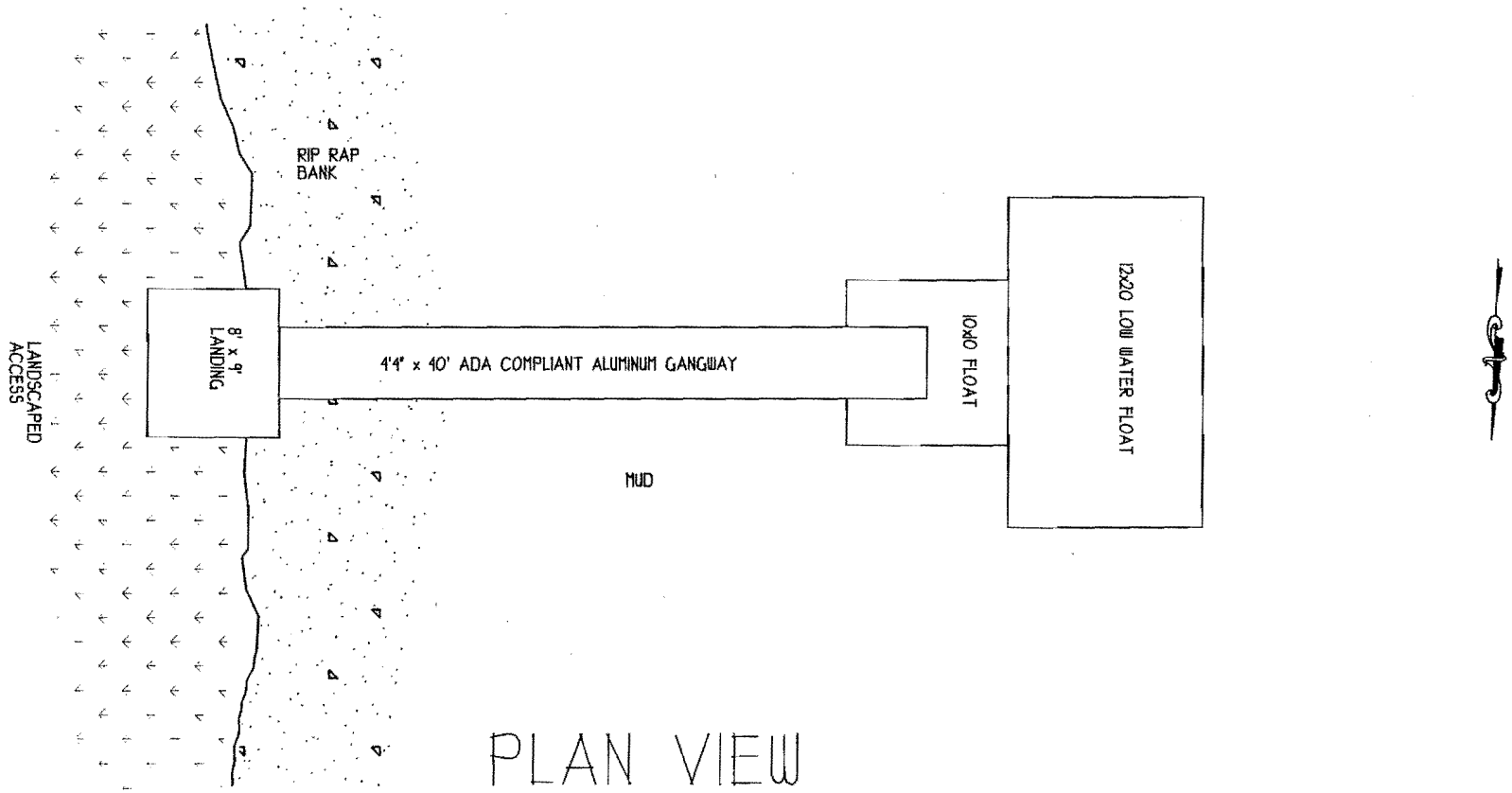
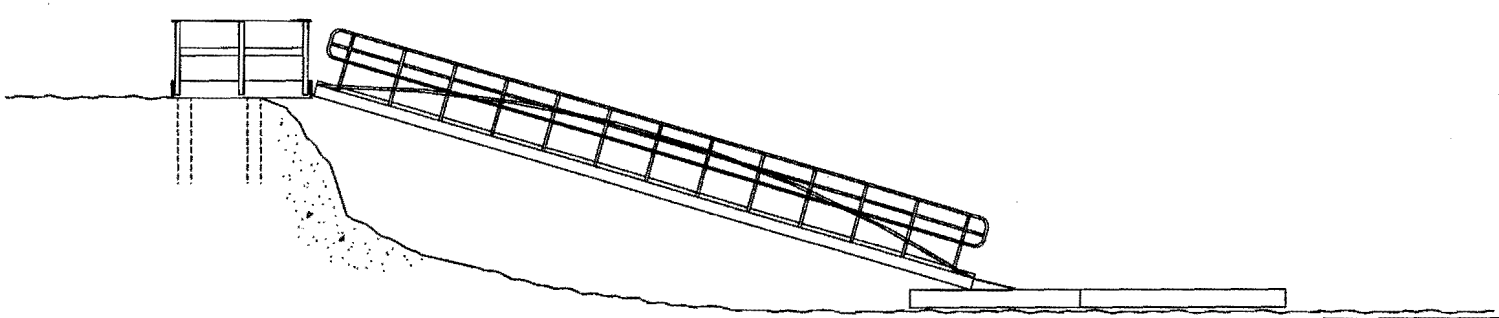


FIGURE:	BOOK:	PAGE:	LOCATION:	PROPOSED ACTIVITY:	PROJECT APPLICANT:	
2	6579 6875	30 287	CITY OF PORTLAND THOMPSON'S POINT	COMMERCIAL REDEVELOPMENT	FOREFRONT PARTNERS I, LP	
	LEGAL DESCRIPTION: SEE ALTA SURVEY BY SEBAGO TECHNICS INC		WATER BODY: FORE RIVER	ABUTTERS: SEE ATTACHMENT 10	SCALE: 1" = 40' DATUM: -	DELUCA-HOFFMAN ASSOCIATES, INC.
					DATE: APR 2012	



PLAN VIEW

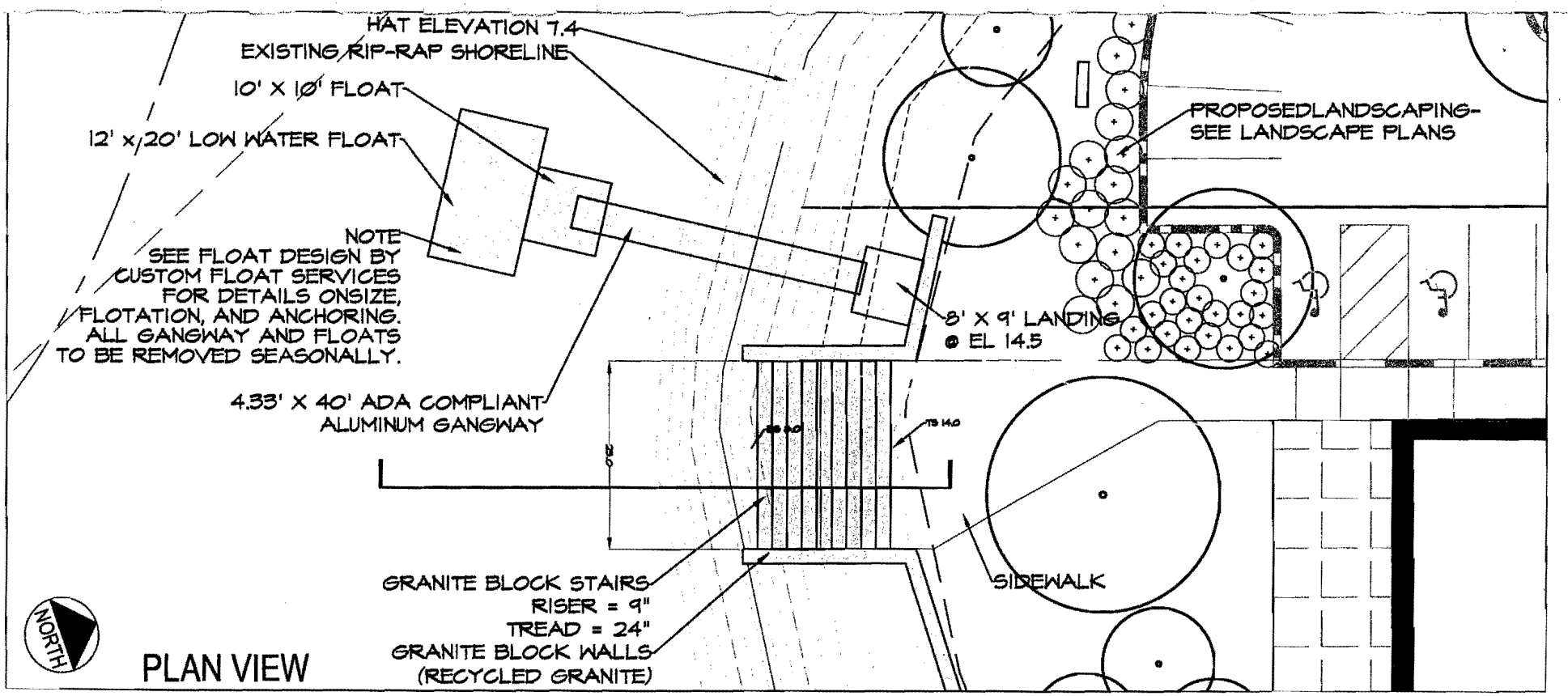


SIDE ELEVATION

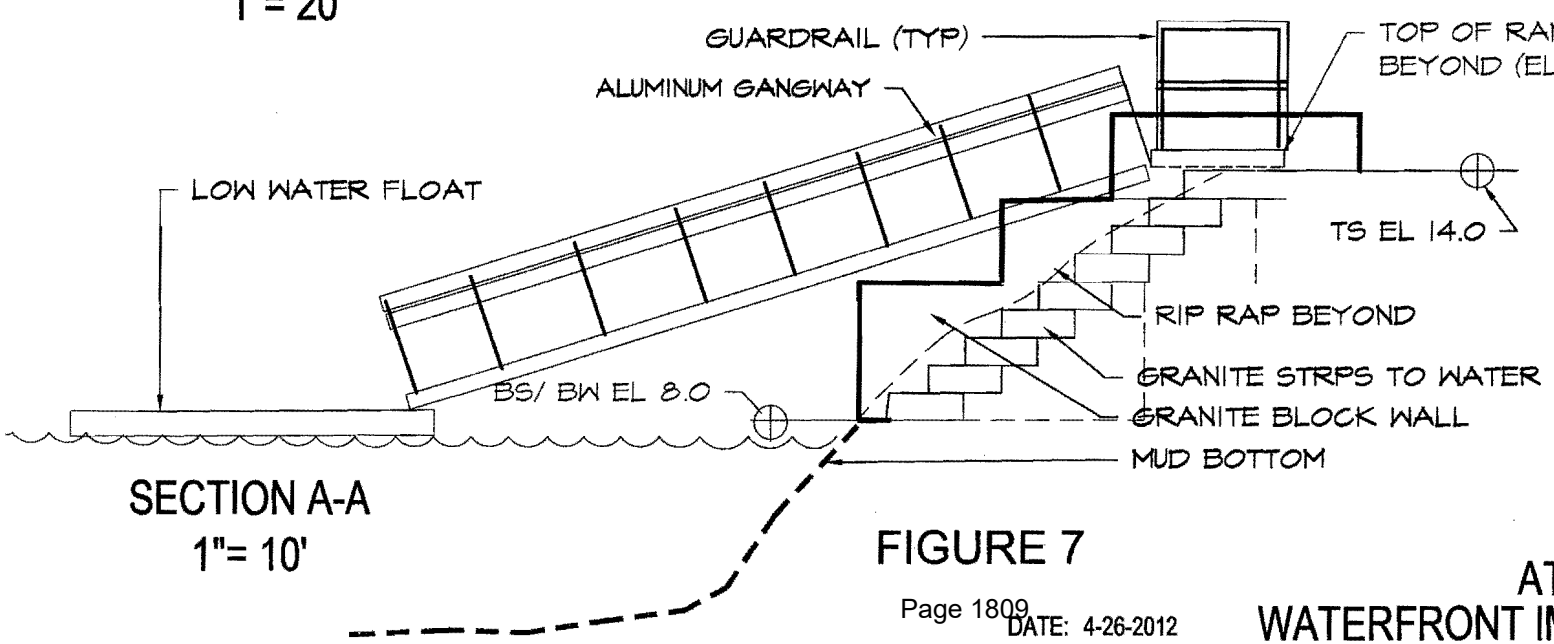
FIGURE:
5

THE FOREFRONT AT THOMPSON'S POINT PLAN #1	REV:
FOR: CHRIS THOMPSON / JON JENNINGS	DATE: 11/21/11
DRAWN BY: MPD	SCALE: NOT TO SCALE
DESIGNED BY:	

Custom Float Services



PLAN VIEW
1"= 20'



SECTION A-A
1"= 10'

FIGURE 7

CARROLL ASSOCIATES
LANDSCAPE ARCHITECTS
217 COMMERCIAL STREET
PORTLAND, MAINE 04101
PHONE: (207) 772-1552
FAX: (207) 772-0772

THE FOREFRONT
AT THOMPSON'S POINT
WATERFRONT IMPROVEMENTS PLAN

DATE: 4-26-2012

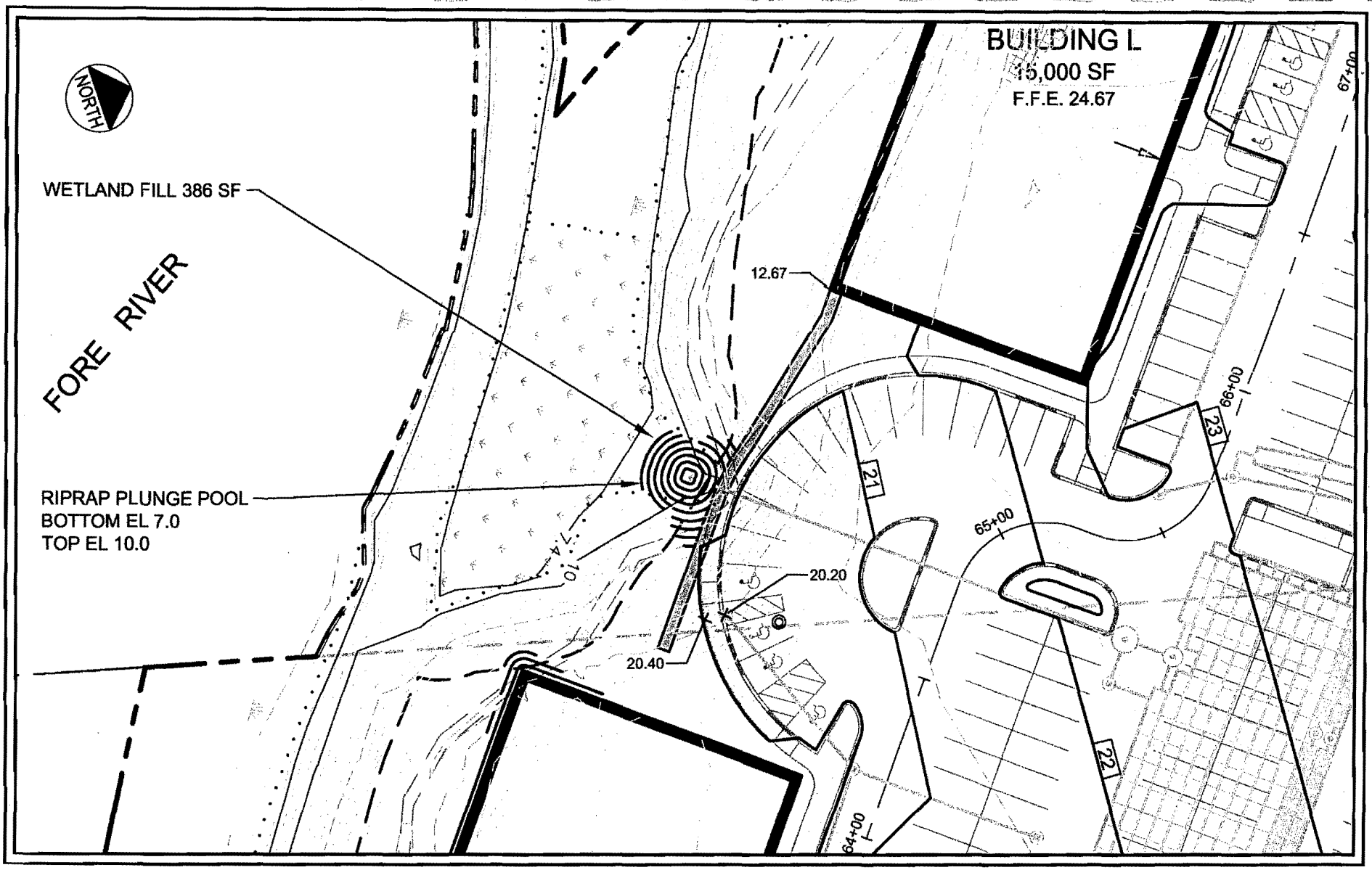


FIGURE:	BOOK:	PAGE:	LOCATION:	PROPOSED ACTIVITY:	PROJECT APPLICANT:
6	6579 6875	30 287	CITY OF PORTLAND THOMPSON'S POINT	COMMERCIAL REDEVELOPMENT	FOREFRONT PARTNERS I, LP

LEGAL DESCRIPTION:	WATER BODY:	ABUTTERS:	SCALE: 1" = 40' DATUM: -	DELUCA-HOFFMAN ASSOCIATES, INC.
SEE ALTA SURVEY BY SEBAGO TECHNICS INC	FORE RIVER	SEE ATTACHMENT 10	DATE: APR 2012	

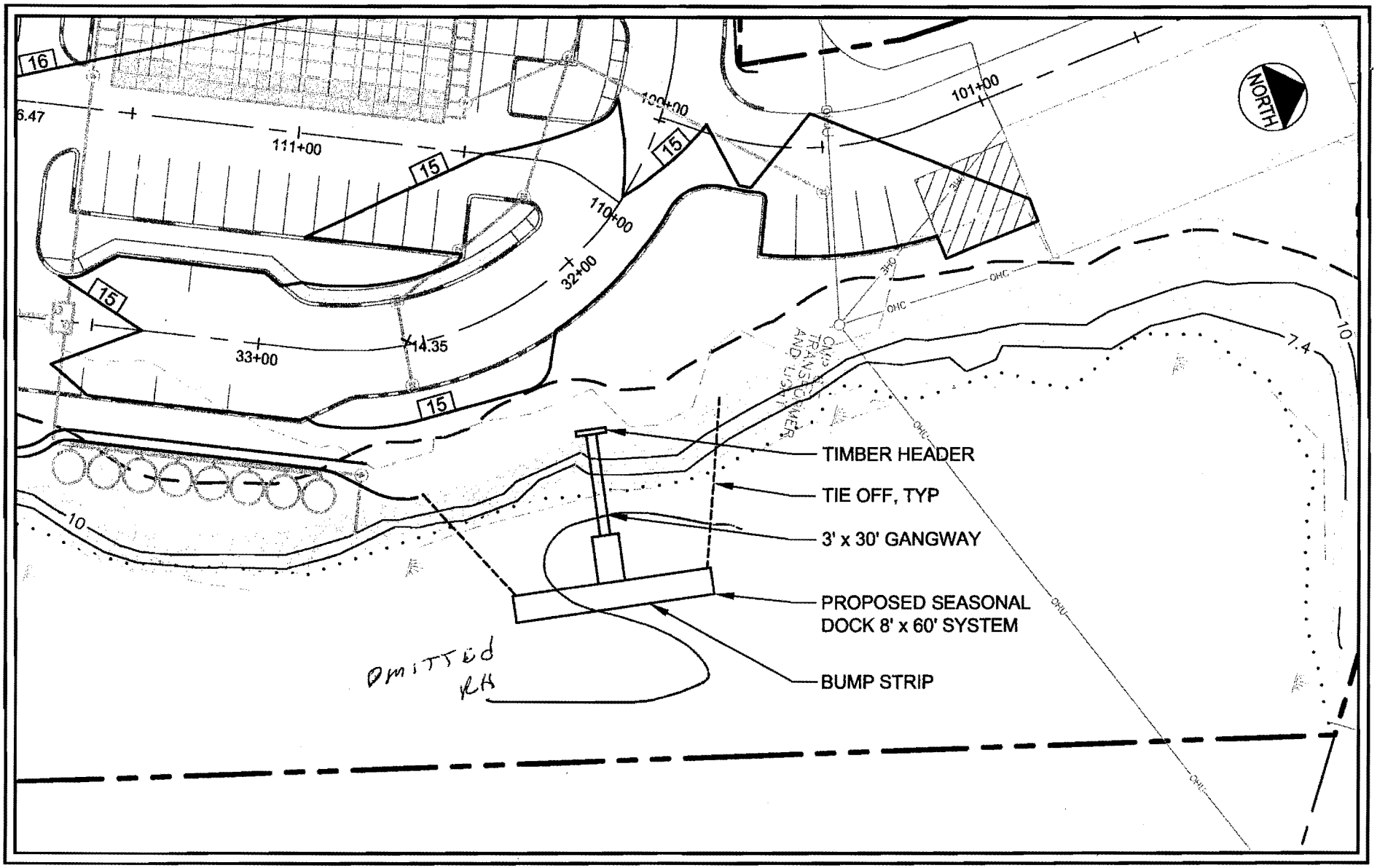


FIGURE:	BOOK:	PAGE:	LOCATION:	PROPOSED ACTIVITY:	PROJECT APPLICANT:
3	6579 6875	30 287	CITY OF PORTLAND THOMPSON'S POINT	COMMERCIAL REDEVELOPMENT	FOREFRONT PARTNERS I, LP
	LEGAL DESCRIPTION:	WATER BODY:	ABUTTERS:	SCALE: 1" = 40' DATUM: -	DELUCA-HOFFMAN ASSOCIATES, INC.
	SEE ALTA SURVEY BY SEBAGO TECHNICS INC	FORE RIVER	SEE ATTACHMENT 10	DATE: APR 2012	

Federal Aviation Administration
Air Traffic Airspace Branch, ASW-520
2601 Meacham Blvd.
Fort Worth, TX 76137-0520

Aeronautical Study No.
2010-ANE-904-OE

Issued Date: 12/21/2010

Steve Bushey
DeLuca-Hoffman Associates
778 Main Street
South Portland, ME 04106

**** FEASIBILITY REPORT ****

The Federal Aviation Administration has conducted a limited aeronautical review concerning the feasibility of a structure described as follows:

Structure:	Feasibility Study (commercial buildings)
Location:	Portland, ME
Latitude:	43-39-03.79N NAD 83
Longitude:	70-17-28.48W
Heights:	150 feet above ground level (AGL)
	175 feet above mean sea level (AMSL)

The results of this review can be found on the attached page(s).

NOTE: THE RESULTS OF OUR LIMITED REVIEW IS NOT AN OFFICIAL DETERMINATION OF FINDINGS BUT ONLY A REPORT BASED ON THE GENERAL OR ESTIMATED INFORMATION SUPPLIED FOR THE STRUCTURE. ANY FUTURE, OFFICIAL AERONAUTICAL STUDY MAY REVEAL DIFFERENT RESULTS.

If we can be of further assistance, please contact our office at (847) 294-7575. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2010-ANE-904-OE.

Signature Control No: 131185695-134672885 (FSB)
Vivian Vilaro
Specialist

Attachment(s)
Additional Information

Additional information for ASN 2010-ANE-904-OE

Feasibility Study for Aeronautical Study No. 2010-ANE-904-OE

This informal feasibility report is based on the data submitted by the sponsor. This is not a formal determination but only a report based on the information furnished to this office. Please keep in mind that there is always a possibility that the final outcome of a formal aeronautical study might prove to be different from the results of this informal feasibility study.

1. The proposed site would be located approximately 3279 feet (0.53 nautical miles) northeast of the Runway 29 threshold of the Portland International J Airport (PWM) in Portland, ME.

2. Based on Part 77, notice to the FAA would be required and the structure does not exceed the obstruction standards. This information is based on airport information currently on file with the FAA.

3. This informal feasibility report does not supercede or override any state, county or local laws or ordinances.

4. Based on the unofficial nature of this study, the FAA shall not be held responsible for any type of commitment entered into by the sponsor based solely on this informal feasibility report.

5. If the location or overall AMSL height changes, the results of this feasibility study are will not apply.

6. Please refer to the ASN noted above on any future correspondence concerning this feasibility report or if you do file formal notice with the FAA concerning the structure.

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

PAUL R. LEPAGE
GOVERNOR

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

March 29, 2013

RECEIVED APR - 2 2013

Greg A. Mitchell, Director
Economic Development Department
City of Portland
389 Congress Street
Portland, Maine 04101

Project: MHPC #0812-11; Forefront at Thompson's Point, proposed commercial development; Maine Historic Building Record documentation
Location: Portland, ME

Dear Mr. Mitchell:

The Commission is in receipt of the final Maine Historic Building Record narrative history and description from Sutherland Conservation & Consulting for the subject project. This narrative meets the requirements of the Schedule of Documentation for the former Maine Central Railroad Machine Shop and Car Repair Shop/Planing Mill at Thompson's Point, Portland, Maine.

Under separate cover from Todd Caverly, we have received the photographic documentation for the Thompson's Point facility. The photographic documentation meets the requirements of the Schedule of Documentation.

The submittals described above satisfy Stipulation A of the Memorandum of Agreement between the Economic Development Administration, the Maine State Historic Preservation Officer, the City of Portland, and Forefront Partners I, LP.

If you have any questions regarding this matter, please feel free to contact me.

Sincerely,

Kirk F. Mohney
Deputy State Historic Preservation Officer

cc: Amy Cole Ives, Sutherland Conservation & Consulting
Todd Caverly

PHONE: (207) 287-2132

FAX: (207) 287-2335

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Paul R. LePage
GOVERNOR

David Bernhardt
COMMISSIONER

LEGAL SERVICES Tel: (207) 624-3020 Fax: (207) 624-3021
MDOT TTY TEL: 888-516-9364

April 3, 2012

Danielle P. West-Chuhta
Associate Corporation Counsel
389 Congress Street
Portland, ME 04101-3509

Re: Railroad Decision #364

Dear Ms. West-Chuhta:

I enclose Railroad Decision # 364, dated April 3, 2012, signed by David Bernhardt, P.E., Commissioner of the Maine Department of Transportation. Decision # 364 relates to the City of Portland's petition to establish a public highway crossing over railroad tracks at Sewall Street in Portland, Maine.

If you have any questions regarding the above, please contact me.

Very truly yours,

Richard N. Hewes

Richard N. Hewes
Attorney for MaineDOT

RNH/jas
Enclosure
cc: Nathan Moulton, Manager, Rail Transportation, MaineDOT w/enc.
David Fink, President, Pan Am Railways w/enc.
Central Maine Power Co., Land Management Dept. w/enc.
Cumberland County Commissioners w/enc.
Langdon Street Real Estate w/enc.
Mercy Hospital w/enc.
Northern New England Rail Authority w/enc.
Portland Water District w/enc.
Thompson's Point Inc. w/enc.
The Waynflete School w/enc.
Kat Beaudoin w/enc.
Robert Bremm, Ritter Project Management w/enc.
Tony Donovan, Fishman Realty Group w/enc.
James Howard, Esq. w/enc.

H:\$Legal-shared\Hewes\Railroad Decisions\RR Hearing #364 - Portland\ Ltr to Interested Parties 4 4 12 Decision.doc

MAINE DEPARTMENT OF TRANSPORTATION

RAIL DECISION - RR # 364

REGARDING:

Petition pursuant to 23 M.R.S.A. § 7202 by the City of Portland to Establish a Public Highway Crossing Over Railroad Tracks at Sewall Street in Portland, Maine.

ABSTRACT:

On September 7, 2011, the City of Portland petitioned the Maine Department of Transportation to establish a public grade crossing for highway traffic on Sewall Street in Portland, Maine at Railroad Mile Post 1.92 on the Mountain Division Branch Line. Portland Terminal Company has owned a private railroad crossing at that location for decades. Rail traffic is operated by Springfield Terminal Railway Company. The owner of the rails and the operator of rail traffic are owned by Pan Am Railways. This decision, RR # 364, establishes a public grade crossing on Sewall Street after the conditions outlined herein are satisfied.

Hearing was held February 27, 2012

Location of hearing: Portland City Hall

The petition is granted

Date of Decision: April 3, 2012

Commissioner: David Bernhardt, P.E.

Hearing Officer: Richard N. Hewes, Esq.

I. PROCEDURAL BACKGROUND

On September 7, 2011, pursuant to 23 M.R.S.A. § 7202, the City of Portland ("City") petitioned the Maine Department of Transportation ("Department") to establish a public highway crossing ("Crossing") over railroad tracks in Portland at Sewall Street. The tracks are owned by Portland Terminal Company, train traffic is operated by Springfield Terminal Railway Company and Pan Am Railways owns Portland Terminal Company and Springfield Terminal Railway Company (these three entities are separately and collectively referred to as the "Railroad"). Tracks currently cross over a private way immediately to the south of the terminus of Sewall Street at Mile Post 1.92 on the Mountain Division Branch Line. The City requests that a public crossing be established where the private crossing now exists.

Hearing on the aforementioned petition was ordered to be held at the City Hall in Portland at 6:00 o'clock in the evening on November 22, 2011. Asserting membership in a class that could be substantially and directly affected by Railroad Decision #364, Pan Am applied for intervenor status. At the November 22, 2011 hearing, Pan Am's motion for intervenor status was granted without objection. The City asked for a continuance. Representatives of the railroad were present and did not object. The City and Pan Am had not yet finalized an agreement on fundamental aspects of the Crossing, but felt they could reach agreement on those issues through further communications. The hearing was continued and rescheduled for January 12, 2012. The January hearing was cancelled because of a snow storm. The matter was rescheduled and a public hearing was held February 27, 2012 at Portland City Hall.

II. NOTICE

Exhibit 18 is a copy of the January 18, 2012 cover letter with attached notice of the February 27, 2012 hearing that was sent to the following interested parties, including abutters and stakeholders:

City of Portland
Nathan Moulton, Manager, Rail Transportation, MaineDOT.
George Thayer, Springfield Terminal Railway Company/Maine Central Railroad
David Fink, President, Pan Am Railways
Central Maine Power Co.
Cumberland County Commissioners
Langdon Street Real Estate
Mercy Hospital
Northern New England Rail Authority
Portland Terminal Co.
Portland Water District
Thompson's Point Inc.
The Waynflete School
Kat Beaudoin, Integrated Planning Solutions
Robert Bremm, Ritter Project Management
Tony Donovan, Maine Rail Transit Coalition

Exhibits 19 and 20 are pages from the February 7 and 13, 2012 editions of the Portland Press Herald, a newspaper that has general circulation in the area affected by the City's petition. These pages contain notices which state that the hearing would be held February 27, 2012 at 6:00 p. m, in the Portland City Hall. Notice was proved to have been given in the manner prescribed by 23 MRSA § 7202 and 5 MRSA § 8053. Hearing on the aforementioned petition was held at the time and place stated in the notice. The hearing officer viewed the crossings on the day of the hearing and his observations are part of the evidence.

III. EVIDENCE

A. Exhibits.

Exhibit #

1. September 7, 2011 hearing request from Danielle P. West-Chuhta, Esq., Counsel for the City of Portland.

2. Sign-up sheet for November 22, 2011 hearing.

3. Maine Sunday Telegram's Classified Section's Tear Sheet of Notice of Hearing published October 30, 2011 which indicated the hearing would be held at the Portland Transportation Center on November 22, 2011 at 6:00 p.m.

4. Notice of Hearing which indicated that the hearing would be held at the Portland Transportation Center on November 22, 2011 at 6:00 p.m.

5. Copy of Letter to Danielle P. West-Chuhta, Esq. and Interested Parties dated October 27, 2011 enclosing the Notice of Hearing which indicated that the hearing would be held at the Portland Transportation Center.

6. Notice of Hearing indicating a new location for the hearing being held on November 22, 2011 to be the Portland City Hall.

7. Copy of Letter to Danielle P. West-Chuhta, Esq. and Interested Parties dated November 3, 2011 enclosing the Notice of Hearing indicating the new location for the hearing to be held on November 22, 2011 to be the Portland City Hall.

8. Undeliverable return envelope with hearing notice mailed to Northern New England Rail Authority.

9. Email to Patricia Quinn at NNEPRA dated November 15, 2011, enclosing a copy of the Notice of Hearing with the new location of Portland City Hall incorporated.

10. Portland Press Herald Newspaper Classified Section Tear Sheet with Notice of

Hearing published November 4, 2011 with the new location of Portland City Hall incorporated.

11. Maine Sunday Telegram Classified Section Tear Sheet with Notice of Hearing published November 6, 2011 with the new location of Portland City Hall incorporated.

12. Pan Am Railways Application for Intervenor Status.

13. Email from Danielle West-Chuhta, Esq. waiving the City of Portland's objections to the Application for Intervenor Status.

14. November 22, 2010 hearing transcript.

15. Portland Press Herald Newspaper's Classified Section's Tear Sheet of Notice of Hearing published December 22, 2011.

16. Portland Press Herald Newspaper's Classified Section's Tear Sheet of Notice of Hearing published December 29, 2011.

17. Letter to Danielle P. West-Chuhta, Esq. and Interested Parties dated December 12, 2011 with Notice of the January 12, 2012 Hearing.

18. Letter to Danielle P. West-Chuhta, Esq. and Interested Parties dated January 18, 2012 with Notice of the February 27, 2012 Hearing.

19. Portland Press Herald Newspaper Tear Sheet (p. D 6) published February 7, 2012 with Advertised Notice of February 27, 2012 Hearing.

20. Portland Press Herald Newspaper Tear Sheet (p. D 3) published February 13, 2012 with Advertised Notice of February 27, 2012 Hearing.

21. Sign-in Sheet for Attendees of the February 27, 2012 Public Hearing.

22. September 7, 2012 petition for hearing with margin notations.

23. Subdivision plat of the area of the proposed Sewall Street crossing.

24. Written testimony by Gregory Mitchell, City of Portland.

25. Public Hearing Submission by City of Portland with photos, plans and descriptions of proposed crossing and Thompson's Point development.

26. Email (two pages) confirming that Pan Am Railways and the developer of Forefront at Thompson's Point reached agreement relative to the Crossing.

A. Public Comments.

Danielle P. West-Chuhta, Esquire, Associate Corporation Counsel for the City, spoke in support of the petition to establish the Crossing. Ms. West offered Exhibit 22, the request for hearing, and Exhibit 23, a plat map showing the area surrounding the Crossing and the planned extension of Sewall Street. The Crossing is located at Mile Post 1.92 on the Mountain Division Branch Line. Trains travel at 10 miles per hour through the Crossing area. The Crossing will be at grade and the purpose of the Crossing will be to create a way for highway traffic to travel to and from Thompson's Point, which will be developed in the near future.

The terminus of Sewall Street, a town way, is at the northern boundary of the railroad corridor. A private way, also known as Sewall Street, continues through the Crossing and runs into Thompson's Point. The tracks currently run through that private way. The City plans to extend Sewall Street about 130 feet to the south of the existing crossing. When this piece of road is accepted as a public way, the tracks will be located within a public street. The City requests that a public crossing be established where the private crossing now exists.

Gregory Mitchell, Acting Director of the City's Department of Planning and Urban Development said that the Crossing is part of a larger plan to develop Thompson's Point, a peninsula to the south of the Crossing that extends into the Fore River. The planned development will be a world class destination that will provide access to cultural functions, athletic events and other entertainment activities. Officials from the Portland Fire Department have reviewed plans for the proposed Crossing and approve of the design.

Christopher Thompson, a representative of Forefront Partners I, LP, the company that plans to develop Thompson's Point, said that Thompson's Point will be converted into a 27 acre complex called the Forefront at Thompson's Point. The development will have an event center, a concert hall and amphitheater, a sports medicine facility, a hotel, a restaurant, office buildings and a parking garage. The event center will offer 3500 basketball fans the chance to view Portland's local professional team. Vendors and entrepreneurs will be able to display their wares at trade shows in a 44,000 foot facility. Music enthusiasts will have the opportunity to enjoy concerts at a 4500 seat auditorium and office space will be available as well. The Forefront at Thompson's Point will serve to connect walking trails to the Portland Transportation Center. Given the large number of people expected to use this facility, the existing crossing must be upgraded to facilitate the flow of public highway traffic to and from Thompson's Point.

Stephen Bushey, an engineer who works for Deluca Hoffman Associates, spoke in favor of the Crossing. He offered Exhibit 25, a brochure entitled Public Hearing Submission by City of Portland. Exhibit 25 contains photos, plans and descriptions of the Crossing area, including the planned development. Surface parking will be available for 712 vehicles and the parking garage will have space for 732 cars.

The Crossing will be constructed sometime between 2012 and 2014 at a cost of about $500,000 - $600,000. The two sets of tracks currently in place, a main line and a siding, will be in the proposed Crossing. The Crossing will be about 36 feet wide and will have three lanes for automobiles. Incoming and outgoing traffic will each have a dedicated lane. The middle lane

will be reversible to accommodate incoming or outgoing automobiles when traffic is heavy. A path on the west side of the inbound automobile lane will be available for pedestrians.

Flashing warning lights will be attached to a cantilevered structure over the Crossing to warn highway travelers about passing rail traffic. Pedestrian access will be controlled by automatic gates. Gates will not be installed over automobile lanes. The reversible middle lane will be used for heavy traffic during peak hours. Traffic control workers will direct traffic as needed. According to Exhibit 26, the developer has concluded an agreement with the Railroad that obligates the developer to reimburse the cost of improving the Crossing.

To access the planned development, highway traffic must enter the Thompson's Point Access Road from the Fore River Parkway. Once on the access road, travelers will move in an easterly direction until they turn onto Sewall Street at a 90 degree angle and travel south toward the Crossing. Southbound motorists travel down a slight decline that begins about 50 feet north of the Crossing. The tracks cross Sewall Street in an east-west direction at the bottom of that dip in the road. Sewall Street runs in a north-south direction and intersects the tracks at a ninety degree angle. The approach for motorists leaving Thompson's Point is level.

Automobile traffic is expected to pass through the proposed crossing during peak hours at the rate of 955 total trips. The highway speed limit at the crossing will be 25 miles per hour. After southbound motorists turn onto Sewall Street, they will have sight distance of about 500 feet to the Crossing. Highway traffic approaching from Thompson's Point can view the Crossing from a distance of 300 feet.

Two to four freight trains per week move through the Crossing. No passenger train traffic uses the Crossing at this time. Track speed is ten miles per hour. Randall Pike, P. E., a member of the firm that will design the Crossing, said that eastbound trains will have sight distance on their approach to the Crossing of several thousand feet and westbound trains will have sight distance of about 1000 feet to the Crossing.

The surrounding area is generally industrial. A parking lot and passenger loading area in the rear of the Portland Transportation Center are on the northeast quadrant of the Crossing. A power transmission facility and two story metal building are on the northwest quadrant. An Amtrak office resembling a mobile home is on the southeast quadrant. A fenced parking lot that holds dozens of trailers is on the southwest quadrant. An Amtrak passenger station is located about 600 feet to the east of the Crossing.

Nathan Moulton, Manager of Rail Transportation for the Department, said that the Department supports the proposed Crossing. Exhibit 26 states that the Department will be provided with plans of the Crossing for review and approval. Signage, pavement markings, gates, lights and other safety installations must be approved by the Department and will conform to the Manual on Uniform Traffic Control Devices.

Robert Burns, a lawyer for the Railroad, confirmed that the Railroad and the developer were close to reaching an agreement for the development of the Crossing. James Howard, a lawyer for the developer of Thompson's Point, said that the parties were close to finalizing

financial concerns and that safety and design issues were resolved. Robert Haines, a Portland resident, spoke in favor of the Crossing, but expressed doubt that the access road would accommodate inevitable congestion during big events. Dory Waxman, a former City Councilor and a resident of Portland, spoke in favor of the Crossing and stressed that traffic during big events would be manageable because designers would anticipate traffic congestion problems.

IV. FINDINGS AND CONCLUSIONS

Based on exhibits, hearing testimony and site visits, the following findings are made:

1. Parties. The City of Portland petitioned the Maine Department of Transportation to issue an order establishing a public crossing. Portland Terminal Company owns the railroad in the proposed crossing area and Springfield Terminal Railway Company operates rail traffic. Pan Am Railways owns these two entities.

2. Location of Proposed Crossing. The proposed Crossing will be located at Mile Post 1.92 on the Mountain Division Branch Line, the site of a private crossing.

3. Status of Existing Crossing. The existing crossing is private. The terminus of Sewall Street, a town way, ends on the northern edge of the rail corridor. A private way, also named Sewall Street, runs in a southerly direction over the tracks to Thompson's Point. The City plans to extend Sewall Street an additional 130 feet south of the existing crossing. When this road is accepted as a public way, the tracks will be located within a public street.

4. Crossing Geometry. Two sets of tracks, a mainline and a siding, run through Sewall Street to form a double-track crossing. The rails run in an east-west direction and intersect Sewall Street at a 90 degree angle. Sewall Street runs in a north-south direction.

5. Sight Distance. Eastbound trains will have sight distance on the approach to the Crossing of several thousand feet and westbound trains will have sight distance of about 1000 feet. Southbound motorists will approach on a decline and will have a clear view of the Crossing for about 500 feet. Motorists traveling north on Sewall Street from Thompson's Point will have sight distance of about 300 feet.

6. Railroad Traffic. Four trains pass through the Crossing each week. Timetable speed over the rails is 10 miles per hour.

7. Highway Traffic. Automobile traffic is expected to pass through the Crossing during peak hours at the rate of 955 total trips. The speed limit for automobiles will be 25 miles per hour. The highway in the Crossing will be 36 feet wide with three lanes for automobile traffic. One lane will be dedicated for incoming highway traffic and one lane will be dedicated to outgoing vehicles. The middle lane will be reversible to accommodate either incoming or outgoing vehicles when traffic is heavy. A paved path will facilitate the flow of pedestrian traffic.

8. Purpose. The Crossing will allow public highway traffic to pass through the railroad corridor and flow into the planned development at Thompson's Point.

9. Area Land Use. A parking lot and passenger loading area for the Portland Transportation Center are on the northeast quadrant of the Crossing. A power transmission facility and a two story metal building occupy the northwest quadrant. An Amtrak office resembling a mobile home is on the southeast quadrant. A parking lot that holds dozens of trailers is on the southwest quadrant. An Amtrak passenger station is located about 600 feet to the east of the crossing.

10. Construction and maintenance. The Crossing is expected to be constructed between 2012 and 2014. The estimated cost is $500,000 to $600,000.

11. Design. The Railroad and Forefront Partners I, LP have reached agreement on the design of the Crossing. The Department will be provided with the plans for review and approval to ensure that the design meets safety requirements. Officials from the Portland Fire Department approve of the proposed Crossing.

V. ORDER

Based upon the evidence and the applicable law, it is hereby ORDERED that the City of Portland's Application to Establish a public highway crossing along the planned extension of Sewall Street at Mile Post 1.92 on the Mountain Division Branch Line is granted upon the fulfillment of the following conditions:

1. The City shall lay out and accept a public way across the Mountain Division Branch Line at Railroad Mile 1.92 in Portland.

2. The following actions shall be taken and safety measures installed:

   a) All safety measures including signalization, gates, bells, signage, lights and pavement shall be properly designed and constructed in accordance with the Department's Standard Specifications and Standard Details in effect at the time the Department approves the Crossing.

   b) All safety measures that are required or recommended by the Manual on Uniform Traffic Control Devices (MUTCD) in effect when the Department approves the Crossing shall be properly located and installed.

   c) Final design plans for traffic lanes at or near the Crossing shall be submitted to the Department for approval at least 30 days before construction of the Crossing commences. Construction shall not begin until the Department approves the plans.

d) The Railroad and the City shall coordinate the planning, construction and testing of all signals and other safety devises to ensure that they are properly synchronized and in good working order before the Crossing is opened for use.

e) All pedestrian access transitions at the Crossing shall be designed and installed in compliance with the Americans with Disabilities Act (ADA).

f) Street lighting shall be installed at the crossing. Said lighting shall comply with all federal, state and local requirements.

g) The City shall be responsible for the cost of constructing the Crossing. The Railroad shall be responsible for operating and maintaining the Crossing.

h) If the Crossing has not been approved by the Department for public use by January 1, 2017, then the authority to establish the Crossing under this order shall expire unless the City or the Railroad petitions the Department before January 1, 2017 to modify this Decision for an extension of the deadline.

MAINE DEPARTMENT OF TRANSPORTATION



David Bernhardt, P. E.
Commissioner

VI. APPEAL RIGHTS

Pursuant to 23 M.R.S.A. § 7202, this decision shall be final and binding on all parties unless an appeal from this decision is taken. Any party wishing to appeal must, within 14 days from the date of the filing of this decision, file in the office of the Maine Department of Transportation its reasons for appeal and shall cause to be served on any other interested parties, a copy of the reasons for appeal certified by the department. The department must be made a party to the appeal.

Pursuant to the requirements of 5 M.R.S.A. § 11001 et seq. appellate procedures also apply to an appeal of this decision. Pursuant to 5 M.R.S.A. § 11002, a petition for review of this decision shall be filed within 30 days after receipt of notice of this decision if the appeal is taken by a party to the proceeding for this decision. Any other person aggrieved shall have 40 days from the date the decision was rendered to petition for review. If the review sought is from the Department's failure or refusal to act, the petition for review shall be filed within 6 months of the expiration of the time within which the action should reasonably have occurred.

Pursuant to 5 M.R.S.A. § 11002 (2), the petition shall specify the persons seeking review, the manner in which they are aggrieved and the final agency action which they wish reviewed. It shall also contain a concise statement as to the nature of the action or inaction to be reviewed, the grounds upon which relief is sought and a demand for relief which may be in the alternative. Copies of the petition for review shall be served by Certified Mail, Return Receipt Requested, upon the Maine Department of Transportation, all parties to the proceedings, and the Department of the Maine Attorney General.

Planning and Urban Development
Christine Grimando, AICP
Director

City of portland

Applicant:	Chris Thompson Forefront Partners I, LP 501 Danforth Street Portland, Maine 04102
Project Location:	1 Thompson's Point Rd. Portland, Maine 04102
Parcel #	201 A005001
Project:	Thompson's Point/Mixed-use Development
Identification #:	Reg. 01-00155-A-N
Permit Category:	200 Plus PCE
Traffic Engineer:	Thomas Gorrill/Randy Dunton Gorrill-Palmer Consulting Engineers 300 Southborough Dr., #200 South Portland, ME 04106

Pursuant to the provision of 23 M.R.S.A. § 704-A and Chapter 305 of the Maine Department of Transportation's (MaineDOT) Regulations, the City of Portland and MaineDOT have determined that a one-time extension of the Traffic Movement Permit issued for Thompson's Point is warranted. The permit will be considered expired if construction of the project has not been completed by March 1, 2027, unless a modification is approved prior to this date.

In the event the permit expires prior to construction being completed by the end of the one-time extension date, the Applicant shall submit a new permit, with information pertaining to Sections 1 thru 6 of the General Submission Requirements and a Notice of Intent to File, as outlined in Chapter 305, and address any changes in facts since the initial analysis and approval. Consistent with Section 8 of Chapter 305, in the event the Applicant completes all mitigation required for the Development, but cannot complete the Project within the one-time extension date, the Developer will be required to submit a TMP Modification that includes any programmatic changes to the Development for review and approval. An applicant may be required to provide additional mitigation of permitted trips as a result of changes to the Development program increase beyond the initial approval. Additionally, the Developer may be required to attend a Scoping Meeting, unless the Maine Department of Transportation waives this requirement.

389 Congress Street, Portland, Maine 04101 | ph: 207.874.8608 | cdg@portlandmaine.gov

All required terms and mitigation of the original TMP approval remain in effect.

Christine Grimando, AICP
Director, Department of Planning & Urban Development
City of Portland

Date: March 1, 2024

Stephen Landry, P.E.
State Traffic Engineer
Maine Department of Transportation

Date: 3/12/24

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Paul R. LePage
GOVERNOR

David Bernhardt
COMMISSIONER

Applicant:	Thompson's Point Development Company Inc.
Project Location:	Thompson's Point Rd, Portland, ME Portland Tax Map 201Lot(s) 8, 9 and 10 and Map 202 Lots 2, 4 and 5
Project:	Mixed use Development
Identification #:	Reg. 01-00155-A-N
Permit Category:	200 Plus PCE
Traffic Engineer:	Thomas Gorrill Gorrill-Palmer Consulting Engineers PO Box 1237 15 Shaker Rd. Gray, ME 04039

Pursuant to the provision of 23 M.R.S.A. § 704-A and Chapter 305 of the Department's Regulations, the Maine Department of Transportation (MaineDOT) has considered the application of Thompson's Point Development Company Inc with supportive data, agency review and other related materials on file.

PROJECT DESCRIPTION

The applicant proposes to construct a 97,697 sf event center/convention hall/exhibit hall; 32,000 sf concert hall plus outdoor venue for up to 4,800 attendees; 378,000 sf of office space; 4,000 sf of medical office space; 20,000 sf gym and rehabilitation center; 125 room hotel; 6,000 sf of restaurant space (high-turnover sit down). The site is forecast to generate 734 AM and 1,091 PM weekday peak hour trip ends.

Findings

Based on a review of the files and related information, MaineDOT approves the Traffic Movement Permit Application of Thompson's Point Development Company Inc. subject to the following conditions:

MITIGATION

On-Site Mitigation

All Site Entrances

All entrances shall have overhead illumination provided, if not existing, to illuminate the intersections per MaineDOT standards at a minimum. Overhead lighting shall have an average of

0.6 to 1.0 foot candles, with the maximum to minimum lighting ratio of not more than 10:1 and an average to minimum light level of not more than 4:1.

Thompson's Point Road

Thompson's Point Road shall be widened to accommodate an 8 foot shared bike/pedestrian path, a 3 foot wide grass esplanade, a 3 foot shoulder with granite curb, an 11 foot wide outbound lane, and 11 foot wide flush concrete median, an 11 foot wide inbound lane and a 3 foot shoulder with granite curb. This section will be constructed from the site driveway to the Fore River Parkway. The 250 feet of flush median closest to Fore River Parkway shall be designated as an exclusive left turn lane outbound. The shared bike/pedestrian path shall have a crossing built at the Sewall Street cul de sac and the path extended to the existing sidewalk on Sewall Street. Another pedestrian crossing shall be installed where the current pedestrian crossing is at the bus/train station. Both crossings shall have solar powered/radio interconnected pedestrian activated rectangular rapid flashing beacon lights installed.

Thompson's Point Development

No sporting events or concerts shall begin between 4 pm and 7pm Monday through Friday.

During large sporting and concert events, the applicant shall ensure that there are flaggers and uniformed police officers present to ensure that there will be two inbound lanes prior to the event and two exit lanes after the event. Flaggers/uniformed police officers shall be stationed to ensure that pedestrians are able to cross at either of the two crosswalks, at the Transportation Center Entrance to let busses in or out and also at the transportation center parking lot entrances to ensure that transportation center patrons leaving the parking lots are merged into the out-bound flow. Uniformed police officers shall be present after an event to direct traffic at the Thompson's Point Road/Fore River Parkway intersection. Retro-reflective traffic cones shall be used by the development to create the reversible lane. Flaggers will direct vehicles into the proper lanes.

Off-Site Mitigation

Fore River Parkway/Thompson's Point Road/I-295 Exit 5A off-ramp

The Southbound off ramp at Exit 5 A shall be reconstructed to have a separate 13 foot wide left turn lane and 13 foot wide through lane. The widths include the

required curb offset. The left lane shall extend back 200 feet. Install Queue detector at the ramp gore area to act as pre-emption for the signal should the queue spill back that far.

Modify traffic signal timing and phasing accordingly.

Fore River Parkway/Congress St/I-295 Exit 5 B off-ramp

Widen the southbound off-ramp to accommodate a 5 foot wide right shoulder, two 12 foot wide right turn lanes and a 2 foot curb offset for a distance of 125 feet with an appropriate taper. Install Queue detector at the ramp gore area to act as pre-emption for the signal should the queue spill back that far.

Re-stripe Congress Street Westbound to accommodate a longer westbound left turn lane, extend back to the end of the island (to the slip lane from Park Ave to Congress St).

Modify traffic signal timing and phasing accordingly.

Congress St/Stevens Ave

Restripe Steven's Avenue to an exclusive left and a shared left/thru/right and modify traffic signal timing and phasing accordingly.

The developer shall pay an impact fee in the amount of $15,000 for inlaid thermoplastic paint skips, retro-reflective back plates and overhead lane usage signage. This money will be put towards improvements funded by PIN 19078.00.

Congress St/Westbrook St

The developer shall pay an impact fee in the amount of $15,000 for inlaid thermoplastic paint skips, retro-reflective back plates and overhead lane usage signage. This money will be put towards improvements funded by PIN 19078.00.

Congress/Frost St

The developer shall pay an impact fee in the amount of $15,000 for inlaid thermoplastic paint skips, retro-reflective back plates and overhead lane usage signage. This money will be put towards improvements funded by PIN 19078.00.

Transportation Demand Management

In lieu of additional mitigation, Transportation Demand Management shall be used to offset the traffic impacts on the roadway network. The City has implemented a Transportation Oriented Development Tax Increment Financing District for the Thompson's Point Development. This development would benefit from some increased transit connections to the airport and Old Port, funding for handicap accessible taxis or for increase in parking at the Transportation Center.

Overall

A. Provide all necessary auxiliary signs, striping and pavement markings to implement the improvements described herein according to State of Maine and/or National standards.

B. All plantings and signs (existing and/or proposed; permanent and/or temporary) shall be placed and maintained such that they do not block available sight distances and do not violate the State's "Installations and Obstructions" law. No signage or plantings shall be allowed within the "clear zone" if they constitute a deadly fixed object as determined by MaineDOT. All signs shall meet MRSA Title 23, Chapter 21, Section 1914: "On-Premise Signs".

C. If any of the supporting data or representations for which this permit is based changes in any way or is found to be incorrect / inaccurate, the applicant shall request in writing from MaineDOT a decision of what impacts those changes will have on the permit. The applicant will then be required to submit those changes for review and approval and additional mitigation as a result of those changes may be required at the expense of the applicant.

D. Because the proposed project affects the state highway and drainage systems and requires improvement to that system, the applicant must obtain approval of the design plans and coordinate work through MaineDOT's State Traffic Engineer, who can be reached at (207)-624-3620 in Augusta.

By:

Stephen Landry, P.E.
Assistant State Traffic Engineer

Date: 6/13/12

NOTICE OF INTENT TO COMPLY WITH MAINE CONSTRUCTION GENERAL PERMIT

PLEASE TYPE OR PRINT IN *BLACK INK ONLY*

Name of Applicant (Owner):	Forefront Partners I, LP Attn: Chris Thompson	**Applicant Mailing Address:**	501 Danforth Street		
Town/City:	Portland	**State:**	Maine	**Zip Code:**	04102
Daytime phone: (with area code)	207-747-5288	**Email if available:**	parallaxpartners@gmail.com	**Name of Agent:**	Bo Kennedy, P.E. - FST bkennedy@fstinc.com
Project Location: (Town/City):	Portland	**UTM Northing: (if known)**	4,833,933	**UTM Easting: (if known)**	395,870
Map #:	201/202	**Lot #:**	A-5, A-8, A-10/ A-1, A-4	**Size of disturbed area proposed:**	5.0 ac.

Creating a common plan of development or sale?	**Yes** X	**No**	**Part of a larger project?**	**Yes** X	**No**

Name of waterbody(ies) to which the disturbed area drains, or name municipality if drains to an MS4:	Fore River
Does site drain to an Impaired Waterbody (C)? If so, give name:	No
Detailed directions to site, including address if available:	1 Thompson's Point Road - Portland, Maine
Description of project and its purpose:	

The construction is associated with an overall plan to develop Thompson's Point with a mixed use development.

The development is subject to a Site Location of Development Permit as approved by the City of Portland through the delegated review authority.

I am filing notice of my intent to carry out work which meets the requirements of the Construction General Permit (effective 3/10/03). I have a copy of the Construction General Permit. I have read and will comply with all of the standards. I have attached all the required submittals. *Notification forms cannot be accepted without the necessary attachments.*

- ☒ ALL: A check (non-refundable) made payable to: "Treasurer, State of Maine." **See DEP fee schedule for correct fee**. You must know # of acres being permitted to determine the fee.
- ☒ ALL: A U.S.G.S. topo map or Maine Atlas & Gazetteer map with the project site clearly marked. (previously submitted)
- ☒ ALL: Drawing of the proposed activity (site plan). (previously submitted)
- ☒ ALL: An ESC plan. (Interim Plan enclosed)
- ☒ IF this form is not being signed by the landowner or lessee of the property, attach documentation showing authorization to sign.
- ☐ IF any construction activity will occur in essential habitat, attach written approval from the Dept. of Inland Fisheries & Wildlife.

I authorize staff of the Departments of Environmental Protection to access the project site for the purpose of determining compliance with the general permit. I also understand that ***this permit is not valid until approved by the Department or 14 days after receipt by the Department, whichever is less.***

Signature of Applicant:	Bo Thompson	**Date:**	6/18/14

Keep the bottom copy as a record of permit. Send the form with attachments via certified mail to the Maine Dept. of Environmental Protection **at the appropriate regional office.** The DEP will send a copy to the Town Office as evidence of the DEP's receipt of notification. No further authorization by DEP will be issued after receipt of notice. Check with DEP Staff to determine the expiration date on this permit . **Work carried out in violation of any standard is subject to enforcement action.**

OFFICE USE ONLY	Ck.# 1190	Date 6/18/2014	Staff MR	Staff	
NOI # 58116	FP 130.00		Acc. Date 6.23.14	Def. Date	After Photos

615 ✓

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

March 6, 2013

Christopher Thompson
Forefront Partners I, LP
55 Lisbon Street, Suite 2400
Lewiston, Maine 04240

Re: The Forefront at Thompson's Point, Portland:
Voluntary Response Action Program- No Action Assurance Letter

Dear Mr. Thompson:

The Maine Department of Environmental Protection (Department) has received and reviewed an application submitted in June 2012, by your environmental consultant Credere Associates, LLC (Credere) to the Department's Voluntary Response Action Program (VRAP) for the Thompson's Point property located at 1 Thompson's Point in Portland, Maine. The following reports were compiled for this site as part of the Greater Portland Council of Government's (GPCOG) Brownfields Program and were reviewed along with this application: A Phase One Environmental Site Assessment (ESA) for the Thompson's Point property prepared by Credere, dated December 5, 2011, a Phase II ESA for Thompson's Point, prepared by Credere dated July 11, 2012, as well as a Voluntary Response Action Program Work Plan, Revision 2 dated February 27, 2013 (Work Plan). Additional documentation submitted to MDEP previously for review included two Phase I ESAs prepared by Gemini Geotchnical Associates (GGA) dated February 6, 1991 and May 16, 2006, a December 15, 1998 Test Pit Investigation report prepared by GGA, and a February 26, 1999 No Further Action Assurance Letter issued by MEDEP VRAP to a previous applicant. The current application was submitted to the Department with the request that the site participate in the VRAP and that Forefront Partners I, LP (Forefront Partners), as the applicant to the VRAP, receive the protections provided by the VRAP Law.

The Thompson's Point Property (the site) is composed of five City of Portland tax map lots (Map 201 Lots A-5, A-8, and A-10, and Map 202 Lots A-1 and A-4) totaling approximately 27.5 acres located on a peninsula along the Fore River in Portland. Land use in the area is currently primarily commercial. The site has been used historically for the following activities: a train car maintenance yard, automobile repair facilities, utility distributors (natural gas and propane), building supply retailers, metal working, concrete block manufacturing, bomb shell casing manufacturing (ordinance plant), textile manufacturing, various construction contractor offices, paperboard production, trailer storage, trucking facilities, and warehousing. The Credere Phase ESA identified the past commercial/industrial use of the property as an environmental concern and identified eight specific Recognized Environmental Concerns for further Phase II

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PRESQUE ISLE, MAINE 04679-2094
(207) 764-0477 FAX: (207) 760-3143

web site: www.maine.gov/dep

investigation. The Phase II investigation concluded that there is soil and groundwater contaminated with petroleum and hazardous substances, and that other universal and special wastes are located on the site, including building materials.

Based on the information presented in the above listed reports, the Department agrees with the following recommended actions as proposed in the Work Plan:

1. Known and/or potentially contaminated soils that are disturbed during redevelopment of the site will be managed according to the Work Plan and associated December 12, 2012 Soil Management Plan (SMP). Contaminated soils that are within 12 inches of the developed ground surface or removed and replaced onsite will be covered with a marker layer and a minimum of 12 inches of clean fill, and/or 6 inches of clean sand and gravel over the contaminated soil and at least 3 inches of asphalt/concrete or brick. If excess contaminated soil is generated that cannot be re-used onsite, the material will be disposed offsite at an appropriate facility as special waste.

2. Known and/or potentially contaminated groundwater that is encountered during site redevelopment work will be managed in accordance with the Work Plan and associated December 12, 2012, Groundwater Management Plan.

3. Universal, special, and hazardous waste will be properly managed and removed from the site and disposed at an appropriate facility.

4. PCB containing building materials will be characterized and managed in an appropriate manner and in accordance with the applicable provisions of the Toxic Substances Control Act 40 CFR 761 et seq. Plans for such characterization and management shall be submitted concurrently to USEPA Region 1 and the Department for review and approval.

5. Asbestos abatement and/or management activities in onsite buildings will be conducted in accordance with all applicable State and Federal rules and regulations.

6. Lead based paint abatement/management issues shall be conducted as discussed in the Work Plan and in accordance with all applicable state and federal regulations.

7. A soil screening program will be conducted after the demolition of the site buildings and removal of the concrete slabs as discussed in the Work Plan. Activities that will be completed based on the results of the screening program are discussed in the Work Plan.

8. A deed restriction will be recorded at the Cumberland County Registry of Deeds that:
    1) Prohibits excavation/disturbance of soils onsite without notification of the Department, and references the existence of an Environmental Management Plan that will be developed for the site and submitted for approval by the Department prior to deed restriction recording.
    2) Prohibits withdrawal of groundwater without notification of the Department, and references the existence of an Environmental Management Plan that will be developed for the site and submitted for approval by the Department prior to deed restriction recording.

These restrictions will be placed as Declaration of Environmental Covenants consistent with this letter and in a manner that is acceptable to the Department.

Provided that the actions described above are completed to the satisfaction of the Department, Forefront Partners I, LP and its successors and/or assigns, as well as those persons identified in 38 M.R.S.A. § 343-E(6), will be granted the liability protection provided by 38 M.R.S.A. § 343-E(1) for the property located at 1 Thompson's Point, in Portland, Maine identified as Map 201 Lots A-5, A-8, and A-10, and Map 202 Lots A-1 and A-4. The Department will take no action against Forefront Partners I, LP, its successors and assigns, and all those persons identified in 38 M.R.S.A. § 343-E(6).

Once the proposed and recommended remedial measures at the property have been implemented to the satisfaction of the Department, a report demonstrating the successful completion of the tasks must be forwarded to the VRAP. A report may be submitted when all of the remedial activities have been completed for the entire property or in stages as portions of the property are remediated and ready for redevelopment. Upon determining successful conclusion of the remedial tasks, the Department will issue a Commissioner's Certificate(s) of Completion to Forefront Partners I, LP for those portions of the property where remedial activities have been completed.

If you have any questions, please call me at 207-287-4853.

Sincerely,

Gordon Fuller
Voluntary Response Action Program
Division of Remediation

cc: Nick Hodgkins--MEDEP
Jedd Steinglass, Credere
David L. Galgay, Jr—Verrill Dana LLP.

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

January 11, 2018

Christopher Thompson
Forefront Partners I, LP
501 Danforth Street
Portland, ME 04101

Re: Thompson's Point, Portland: Revised Voluntary Response Action
No Action Assurance Letter-Revised January 11, 2018*

Dear Mr. Thompson:

At your request, the Maine Department of Environmental Protection (MEDEP) is issuing this revised No Action Assurance (NAA) letter for Thompson's Point in Portland, Maine. This letter amends the original NAA letter issued by the Department on March 6, 2013.

The MEDEP has received and reviewed an application submitted in June 2012, by your environmental consultant Credere Associates, LLC (Credere) to the Department's Voluntary Response Action Program (VRAP) for the Thompson's Point property located at 1 Thompson's Point in Portland, Maine. The following reports were compiled for this site as part of the Greater Portland Council of Government's (GPCOG) Brownfields Program and were reviewed along with this application: A Phase One Environmental Site Assessment (ESA) for the Thompson's Point property prepared by Credere, dated December 5, 2011, a Phase II ESA for Thompson's Point, prepared by Credere dated July 11, 2012, as well as a Voluntary Response Action Program Work Plan, Revision 2 dated February 27, 2013 (Work Plan). Additional documentation submitted to MDEP previously for review included two Phase I ESAs prepared by Gemini Geotechnical Associates (GGA) dated February 6, 1991 and May 16, 2006, a December 15, 1998 Test Pit Investigation report prepared by GGA, and a February 26, 1999 No Further Action Assurance Letter issued by MEDEP VRAP to a previous applicant. The current application was submitted to the Department with the request that the site participate in the VRAP and that Forefront Partners I, LP (Forefront Partners), as the applicant to the VRAP, receive the protections provided by the VRAP Law.

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The Thompson's Point Property (the Site) is composed of five City of Portland tax map lots (Map 20 1 Lots A-5, A-8, and A-10, and Map 202 Lots A-1 and A-4) totaling approximately 27.5 acres located on a peninsula along the Fore River in Portland. Land use in the area is currently primarily commercial. The site has been used historically for the following activities: a train car maintenance yard, automobile repair facilities, utility distributors (natural gas and propane), building supply retailers, metal working, concrete block manufacturing, bombshell casing manufacturing (ordinance plant), textile manufacturing, various construction contractor offices, paperboard production, trailer storage, trucking facilities, and warehousing. The Credere Phase ESA identified the past commercial/industrial use of the property as an environmental concern and identified eight specific Recognized Environmental Concerns for further Phase II investigation. The Phase II investigation concluded that there is soil and groundwater contaminated with petroleum and hazardous substances, and that other universal and special wastes are located on the site, including building materials.

Based on the information presented in the above listed reports, the Department agrees with the following recommended actions as proposed in the Work Plan:

1. Known and/or potentially contaminated soils that are disturbed during redevelopment of the site will be managed according to the Work Plan and associated December 12, 2012 Soil Management Plan (SMP) and/or subsequent Department approved revisions.* Contaminated soils that are within 12 inches of the developed ground surface or removed and replaced onsite will be covered with a marker layer and a minimum of 12 inches of clean fill, and/or 6 inches of clean sand and gravel over the contaminated soil and at least 3 inches of asphalt/concrete or brick. If excess contaminated soil is generated that cannot be re-used onsite, the material will be disposed offsite at an appropriate facility as special waste.

2. Known and/or potentially contaminated groundwater that is encountered during site redevelopment work will be managed in accordance with the Work Plan and associated December 12, 2012 Groundwater Management Plan and/or subsequent Department approved revisions.*

3. Universal, special, and hazardous waste will be properly managed and removed from the site and disposed at an appropriate facility.

4. PCB containing building materials will be characterized and managed in an appropriate manner and in accordance with the applicable provisions of the Toxic Substances Control Act 40 CFR 761 et seq. Plans for such characterization and management shall be submitted concurrently to USEPA Region 1 and the Department for review and approval.

5. Asbestos abatement and/or management activities in onsite buildings will be conducted in accordance with all applicable State and Federal rules and regulations.

6. Lead based paint abatement/management issues shall be conducted as discussed in the Work Plan and in accordance with all applicable state and federal regulations.

7. A soil screening program will be conducted after the demolition of the site buildings and removal of the concrete slabs as discussed in the Work Plan. Activities that will be completed based on the results of the screening program are discussed in the Work Plan and/or in subsequent Department approved revisions.*

8. A deed restriction will be recorded at the Cumberland County Registry of Deeds that:
    1) Prohibits excavation/disturbance of soils onsite without notification of the Department, and references the existence of an Environmental Management Plan that will be developed for the site and submitted for approval by the Department prior to deed restriction recording.
    2) Prohibits withdrawal of groundwater without notification of the Department, and references the existence of an Environmental Management Plan that will be developed for the site and submitted for approval by the Department prior to deed restriction recording.

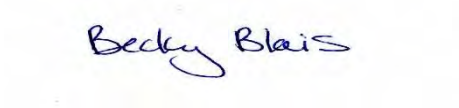
These restrictions will be placed as Declaration of Environmental Covenants consistent with this letter and in a manner that is acceptable to the Department.

Provided that the actions described above are completed to the satisfaction of the Department, Forefront Partners I, LP and its successors and/or assigns, as well as those persons identified in 38 M.R.S.A. § 343-E (6), will be granted the liability protection provided by 38 M.R.S.A. § 343- E(l) for the property located at 1 Thompson's Point, in Portland, Maine identified as Map 201 Lots A-5, A-8, and A- 10, and Map 202 Lots A-1 and A-4. The Department will take no action against Forefront Partners I, LP, its successors and assigns, and all those persons identified in 38 M.R.S.A. § 343-E (6).

Once the proposed and recommended remedial measures at the property have been implemented to the satisfaction of the Department, a report demonstrating the successful completion of the tasks must be forwarded to the VRAP. A report may be submitted when all of the remedial activities have been completed for the entire property or in stages as portions of the property are remediated and ready for redevelopment. Upon determining successful conclusion of the remedial tasks, the Department will issue a Commissioner's Certificate(s) of Completion to Forefront Partners I, LP for those portions of the property where remedial activities have been completed.

If you have any questions, please call me at 207-446-2564.

Sincerely,



Becky Blais
Maine Department of Environmental Protection
Voluntary Response Action Program

cc: Nick Hodgkins--MEDEP
Allison Drouin, Credere
David L. Galgay, Jr-Verrill Dana, LLP.

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

December 13, 2017

Credere Associates, LLC
Attn: Allison Drouin
776 Main Street
Westbrook, ME 04092

Re: Voluntary Response Action Program
Brick North property-No Revised No Action Assurance Letter

Dear Ms. Drouin:

As we discussed in email correspondence on December 11, 2017, the Department did not issue a revised No Action Assurance (NAA) letter upon receipt of the revised VRAP application, which was submitted to the Department on January 25, 2017 and included the addition of Lots 14 & 15 (the Suburban Propane lots). The Department accepted the revised application and included these additional lots under the existing March 6, 2013 NAA, which covers the overall Site.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Becky Blais

Becky Blais
Division of Remediation
Brownfields and Voluntary Response Action Programs
207-446-2564
Becky.Blais@maine.gov

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STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

FOREFRONT PARTNERS I LP	) NATURAL RESOURCES PROTECTION ACT
Portland, Cumberland County	) COASTAL WETLAND ALTERATION
GRADING, LANDSCAPING,	) SIGNIFICANT WILDLIFE HABITAT
STORMWATER OUTFALLS, GRANITE	)
STAIRS, LANDSCAPING, PIER SYSTEM	)
L-25672-4P-H-N	)
L-25672-FS-I-N	) WATER QUALITY CERTIFICATION
L-25672-2G-J-N	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S. §§ 480-A–480-JJ, Section 401 of the Clean Water Act (33 U.S.C. § 1341), and Chapters 310, 315, and 335 of Department rules, the Department of Environmental Protection (Department) has considered the application of FOREFRONT PARTNERS I LP (applicant) with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. History of Project: Thompson's Point is an approximately 27.5-acre peninsula of land extending into the Fore River that has a 150-year history of industrial development. In the early part of the twentieth century the site was used primarily as a railroad maintenance facility. It was later used by the federal government for war-related activities such as munitions production. Subsequent uses included the operation of a concrete products manufacturing facility and other commercial activities, and the staging and stockpiling of construction materials. In Department Order #L-25672-2G-A-N/L-25672-FS-B-N, dated July 27, 2012, the Department approved a number of activities on the site located within 75 feet of the highest annual tide (HAT) line, including: clean up and removal of existing debris, stockpiles, and solid waste; building demolition; clearing and grubbing in advance of new topsoil for soil stabilization, landscaping, and trails; access drive and parking area construction; new buildings; installation or replacement of stormwater outfalls; installation of utilities; installation of a pier system at the south end of the peninsula; and a public access ramp. In Department Order #L-25672-4P-F-N/L-25672-FS-G-N, dated June 30, 2014, the Department approved relocation and reconfiguration of the approved pier system. Both licenses expired because the authorized activities were not undertaken within the time frames specified in the licenses.

B. Summary: The applicant proposes to complete the activities authorized in the previous licenses. The pier/boat launch system will consist of a six-foot wide by 16-foot long pier, a four-foot wide by 50-foot long gangway, a gangway landing float, and a 10-foot wide by 60-foot long seasonal float that will be located parallel to the shoreline. Approximately 386 square feet of freshwater wetlands adjacent to a coastal wetland will be altered by the construction of a new stormwater outfall. Other activities will include

landscaping; grading; trail construction; installation of granite block stairs for water access extending to, but not beyond, the HAT line; access drive and parking area construction; new buildings; installation or replacement of stormwater outfalls; and installation of utilities. Some of these activities will occur within 75 feet of the HAT line. Activity below the HAT line will be limited to installation of the gangway and floats for the pier system.

The proposed activities are shown on plans submitted with the 2012 and 2014 applications, included with the application by reference, and supplemented with the following: a plan titled "The Forefront at Thompson's Point Building B2 and Dock – Grading Plan," and "The Forefront at Thompson's Point Building B2 and Dock – Erosion Control and Construction Management Plan," both prepared by Placemaker Partners, LLC dated December 2022, with a latest revision date of March 17, 2023; and a plan titled "The Forefront at Thompson's Point Building B2 and Dock – Planting Plan," prepared by Carroll Associates Landscape Architects and dated December 2022, with a latest revision date of May 4, 2023.

The applicant submitted a Notice of Intent (NOI) to comply with the standards and requirements of the Maine Construction General Permit. NOI #77187 was accepted by the Department on June 13, 2023.

C. Current Use of the Site: Thompson's Point is located adjacent to Interstate 295 and is accessed by the Thompson's Point Connector Road. The parcel is identified as Lots 1, 5, 10/6, and 8 through 23 on Maps 201 and 202 of the City of Portland's tax maps. The area of the proposed project is currently a mix of urban filled land with compacted surfaces and grassed area.

2. EXISTING SCENIC, AESTHETIC, RECREATIONAL OR NAVIGATIONAL USES:

The Natural Resources Protection Act (NRPA), in 38 M.R.S. § 480-D(1), requires the applicant to demonstrate that the proposed project will not unreasonably interfere with existing scenic, aesthetic, recreational and navigational uses.

In accordance with Chapter 315, *Assessing and Mitigating Impacts to Scenic and Aesthetic Uses* (06-096 C.M.R. ch. 315, effective June 29, 2003), the applicant previously submitted a copy of the Department's Visual Evaluation Field Survey Checklist as Appendix A to the application along with a description of the property and the proposed project. The applicant previously submitted photographs of the project site and surroundings including an aerial photograph of the project site. Department staff visited the project site several times during previous application reviews involving the project site.

The proposed project is located in and adjacent to the Fore River, which is a scenic resource visited by the general public, in part, for the use, observation, enjoyment and appreciation of its natural and cultural visual qualities. The project site has been undergoing redevelopment over the last approximately ten years from a completely

developed industrial site with buildings in disrepair, construction staging areas, a wood salvage operation, and semi-trailer box storage to a mixed-use development that includes renovated buildings and an integrated landscape plan. The proposed activities are expected to further improve the visual appeal of the site from the resource.

The Department staff utilized the Department's Visual Impact Assessment Matrix in its evaluation of the proposed project and the Matrix showed an acceptable potential visual impact rating for the proposed project. Based on the information submitted in the application, the visual impact rating, and the previous site visits, the Department determined that the location and scale of the proposed activity is compatible with the existing visual quality and landscape characteristics found within the viewshed of the scenic resource in the project area.

The Department determined that based on the nature of the proposed project and its location, there are no existing recreational or navigational uses of the resource that would be unreasonably impacted.

3. SOIL EROSION:

The NRPA, in 38 M.R.S. § 480-D(2), requires the applicant to demonstrate that the proposed project will not cause unreasonable erosion of soil or sediment nor unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

The applicant submitted the erosion control plan referenced in Finding 1, which includes measures to prevent erosion such as inlet protection, riprap outlet protection, erosion control blanket and mesh, and reinforced turf. Activities associated with installation of the ramp and floats is not expected to cause significant erosion into the resource.

The Department finds that the activity will not cause unreasonable erosion of soil or sediment nor unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

4. HABITAT CONSIDERATIONS:

The NRPA, in 38 M.R.S. § 480-D(3), requires the applicant to demonstrate that the proposed project will not unreasonably harm significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life.

In previous Department reviews of the site, the Maine Department of Inland Fisheries and Wildlife (MDIFW) commented that the mudflats and riparian areas below the HAT line are a valuable shorebird feeding area on the west side of the peninsula and a roosting area on the east side of the peninsula, both of which are significant wildlife habitats as defined in the NRPA. As a result of MDIFW site visits and multiple revisions to the delineation of the roosting area and the feeding area buffers based on onsite conditions, MDIFW

determined that neither buffer extends onto the project site more than 50 feet from mean high water.

In its previous review, MDIFW commented that the applicant's efforts to relocate the proposed pier system would result in less disruption to the shorebird habitats, and recommended that the applicant reiterate its commitment to installing interpretive signage in the vicinity of the pier structure and a viewing platform overlooking the salt marsh and mudflat communities in the northwest portion of the site. The applicant confirmed that it intends to comply with the findings in Department Order #L-25672-4P-F-N/L-25672-FS-G-N, dated June 30, 2014, that required the installation of a viewing platform and educational placards.

The Department finds that the applicant has avoided and minimized Significant Wildlife Habitat impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project.

The Department further finds that the activity will not unreasonably harm any freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life.

5. WATER QUALITY CONSIDERATIONS:

The applicant proposes to use lumber treated with chromated copper arsenate (CCA) to construct the pier. To protect water quality, all CCA-treated lumber must be cured on dry land in a manner that exposes all surfaces to the air for 21 days prior to the start of construction.

As discussed in Finding 3, the applicant proposes to use erosion and sediment control measures during construction to minimize impacts to water quality from siltation.

Provided that CCA-treated lumber is cured as described above, the Department finds that the proposed project will not violate any state water quality law, including those governing the classification of the State's waters.

6. WETLANDS AND WATERBODIES PROTECTION RULES:

The applicant proposes to directly alter 386 square feet of freshwater wetland of special significance to construct a stormwater outfall. The wetland is considered significant because of its proximity to the coastal wetland. Approximately 1,028 square feet of coastal wetland will be indirectly altered due to shading effects from the gangway and floats. Coastal wetlands are wetlands of special significance.

The *Wetlands and Waterbodies Protection Rules*, 06-096 C.M.R. ch. 310 (last amended November 11, 2018), interpret and elaborate on the Natural Resources Protection Act (NRPA) criteria for obtaining a permit. The rules guide the Department in its

determination of whether a project's impacts would be unreasonable. A proposed project would generally be found to be unreasonable if it would cause a loss in wetland area, functions and values and there is a practicable alternative to the project that would be less damaging to the environment. Each application for a NRPA permit that involves a coastal wetland alteration must provide an analysis of alternatives in order to demonstrate that a practicable alternative does not exist.

A. Avoidance. An applicant must submit an analysis of whether there is a practicable alternative to the project that would be less damaging to the environment, and this analysis is considered by the Department in its assessment of the reasonableness of any impacts. Additionally, for activities proposed in, on, or over wetlands of special significance, the activity must be among the types listed in Chapter 310, § 5(A) or a practicable alternative less damaging to the environment is considered to exist and the impact is unreasonable. A pier is a water dependent use and its proposed construction is among the activities specifically provided for in Chapter 310, § 5(A)(1)(c). The stormwater outfall is associated with the expansion of an existing development and its proposed construction is among the activities specifically provided for in Chapter 310, § 5(A)(1)(d).

The applicant submitted an alternatives analysis for the proposed project in previous Department reviews. Because the proposed project is a transit-oriented development, the applicant selected the project site due to its proximity to the highway, passenger rail service, and bus service, all within a short distance to the Portland Jetport. There are currently no other sites in Portland that can offer the amount of land availability and the location required for this type of project, which will offer a range of activities integrating office, hospitality, and cultural uses with a focus on sustainability. Additionally, the overall project constitutes redevelopment and reuse of a former industrial site. The proposed layout includes approximately 386 square feet of wetland fill within the northwesterly "panhandle" of the site associated with a drainage outfall and grading. This alteration was determined to be unavoidable.

The pier system as approved in Department Order #L-25672-4P-F-N/L-25672-FS-G-N was relocated to a different location on the peninsula to minimize impacts to significant wildlife habitat but was also increased in size to accommodate local rowing organizations that desired access. Because of the nature of the proposed pier system, some impact to the coastal wetland is unavoidable.

B. Minimal Alteration. In support of an application and to address the analysis of the reasonableness of any impacts of a proposed project, an applicant must demonstrate that the amount of coastal wetland to be altered will be kept to the minimum amount necessary for meeting the overall purpose of the project. For the pier system, the applicant designed the size of the floats to facilitate the launch of eight oar crew boats, or shells, which are approximately 60 feet long, out into the bay. The increased pier length from the pier system approved in Department Order #L-25672-2G-A-N/L-25672-FS-B-N is needed to walk the shell down the gangway and launch it into the water and is designed at the minimum length necessary to launch rowing shells.

Regarding the wetland fill proposed in the panhandle of the project site, this alteration is necessary to manage stormwater runoff from existing and proposed developed areas on the site and has been minimized to the greatest practicable extent.

C. Compensation. In accordance with Chapter 310, § 5(C)(6)(b), compensation may be required to achieve the goal of no net loss of coastal wetland functions and values. This project will not result in over 500 square feet of fill in either the freshwater wetland of special significance or the coastal wetland, which is the threshold over which compensation is generally required. Further, the proposed project will not have an adverse impact on marine resources or wildlife habitat as determined by the Department. For these reasons, the Department determined that compensation is not required.

The Department finds that the applicant has avoided and minimized coastal wetland impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project.

7. OTHER CONSIDERATIONS:

The Department finds, based on the design, proposed construction methods, and location, the proposed project will not inhibit the natural transfer of soil from the terrestrial to the marine environment, will not interfere with the natural flow of any surface or subsurface waters, and will not cause or increase flooding. The proposed project is not located in a coastal sand dune system, is not a crossing of an outstanding river segment, and does not involve dredge spoils disposal or the transport of dredge spoils by water.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S. §§ 480-A–480-JJ and Section 401 of the Clean Water Act (33 U.S.C. § 1341):

A. The proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses.

B. The proposed activity will not cause unreasonable erosion of soil or sediment.

C. The proposed activity will not unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

D. The proposed activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life.

E. The proposed activity will not unreasonably interfere with the natural flow of any surface or subsurface waters.

F. The proposed activity will not violate any state water quality law including those governing the classifications of the State's waters provided that CCA-treated lumber is cured as described in Finding 5.

G. The proposed activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties.

H. The proposed activity is not on or adjacent to a sand dune.

I. The proposed activity is not on an outstanding river segment as noted in 38 M.R.S. § 480-P.

THEREFORE, the Department APPROVES the above noted application of FOREFRONT PARTNERS I, LP to install drainage outfalls, perform grading and landscaping, install granite block stairs, install a pier/boat launch system, and perform other related activities, all as described in Finding 1, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

1. Standard Conditions of Approval, a copy attached.

2. The applicant shall take all necessary measures to ensure that its activities or those of its agents do not result in measurable erosion of soil on the site during the construction of the project covered by this approval.

3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

4. All CCA-treated lumber shall be cured on dry land in a manner that exposes all surfaces to the air for 21 days prior to the start of construction.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 15th DAY OF JUNE, 2023.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
For: Melanie Loyzim, Commissioner

FILED
June 15th, 2023
State of Maine
Board of Environmental Protection

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.
MR/L25672HN/L25672IN/L25672JN/ATS91011&90970&91090

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

June 2014

Forefront Partners I, LP
55 Lisbon St., Suite 2400
Lewiston, ME 04240

RE: Natural Resources Protection Act Application, Portland
DEP #L-25672-4P-F-N/L-25672-FS-G-N

Dear Applicant:

Please find enclosed a signed copy of your Department of Environmental Protection land use permit. You will note that the permit includes a description of your project, findings of fact that relate to the approval criteria the Department used in evaluating your project, and conditions that are based on those findings and the particulars of your project. Please take several moments to read your permit carefully, paying particular attention to the conditions of the approval. The Department reviews every application thoroughly and strives to formulate reasonable conditions of approval within the context of the Department's environmental laws. You will also find attached some materials that describe the Department's appeal procedures for your information.

If you have any questions about the permit or thoughts on how the Department processed this application please get in touch with me directly. I can be reached at (207) 592-1692 or at Marybeth.richardson@maine.gov.

Sincerely,

Marybeth Richardson
Division of Land Resource Regulation
Bureau of Land and Water Quality

pc: File

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

web site: www.maine.gov/dep

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

FOREFRONT PARTNERS I, LP	) NATURAL RESOURCES PROTECTION ACT
Portland, Cumberland County	) COASTAL WETLAND ALTERATION
PIER SYSTEM	) SIGNIFICANT WILDLIFE HABITAT
L-25672-4P-F-N (approval)	) WATER QUALITY CERTIFICATION
L-25672-FS-G-N (approval)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S.A. Sections 480-A et seq. and Section 401 of the Federal Water Pollution Control Act, the Department of Environmental Protection has considered the application of FOREFRONT PARNTERS I, LP with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. History of Project: Thompson's Point is an approximately 27.5-acre peninsula of land extending into the Fore River that has a 150-year history of industrial development. In the early part of the twentieth century the site was used primarily as a railroad maintenance facility. It was later used by the federal government for war-related activities such as munitions production. Subsequent uses included the operation of a concrete products manufacturing facility and other commercial activities, and the staging and stockpiling of construction materials.

In Department Order #L-25672-2G-A-N/L-25672-FS-B-N, dated July 27, 2012, the Department approved a number of activities on the site that will occur within 75 feet of the highest annual tide (HAT) line, including: clean up and removal of existing debris, stockpiles, and solid waste; building demolition; clearing and grubbing in advance of new topsoil for soil stabilization, landscaping, and trails; access drive and parking area construction; new buildings; installation or replacement of stormwater outfalls; installation of utilities; installation of a pier system at the south end of the peninsula; and a public access ramp.

B. Summary: The applicant proposes to shift the location of the pier system to the west from its previously-approved location at the southerly tip of the Thompson's Point peninsula to align better with the proposed master plan pedestrian access. The proposed pier system will include a longer float than the previously-approved pier system that will be large enough to accommodate crew boats, or rowing shells, and will be positioned so that water access will be available during all-tide conditions. The system will consist of a permanent six-foot wide by 16-foot long timber pier located at the top of the bank, which will serve as the top/landing approach to a four-foot wide by 50-foot long seasonal gangway and a seasonal, 10-foot wide by 60-foot long float.

The proposed pier system is shown on two plans, the first titled "The Forefront at Thompson's Point Seasonal Dock System," prepared by Fay, Spofford & Thorndike and dated March 13, 2014, and the second titled "Layout Concept for Portland Rowing," prepared by Custom Float Services, Inc. and dated March 6, 2014.

C. Current Use of the Site: A realigned combined sewer overflow has been constructed along the westerly side of the peninsula. A walking trail along the "panhandle" area of the site has also been constructed. The majority of the approximately 4,100 linear feet of shoreline at the site was previously armored with riprap. Approximately five acres of the site lie below the HAT line. There are several buildings on the site that will be demolished.

2. EXISTING SCENIC, AESTHETIC, RECREATIONAL OR NAVIGATIONAL USES:

In accordance with Chapter 315, Assessing and Mitigating Impacts to Scenic and Aesthetic Uses, the applicant submitted a copy of the Department's Visual Evaluation Field Survey Checklist as Appendix A to the application along with a description of the property and the proposed project. The applicant also submitted several photographs of the proposed project site including aerial photographs. Department staff visited the project site in July 2011.

The proposed project is located adjacent to the Fore River, which is a scenic resource visited by the general public, in part, for the use, observation, enjoyment and appreciation of its natural and cultural visual qualities. The project site is currently almost completely developed with paved areas, gravel areas, and a number of buildings and foundations. Some of the buildings are functional and contain commercial space and others are in various stages of disrepair. The developed areas extend to the top of the slope down to the river, which is armored with riprap. Existing wooded areas are limited to the far northwest corner of the site.

Overall, the existing site is heavily developed with little visual appeal. Current uses include construction staging, a wood salvage operation, and semi-trailer box storage. Most of the existing structures appear to be marginally maintained and are in average to poor condition. The proposed project is not expected to significantly change the visual impact of the redeveloped site as approved in Department Order #L-25672-2G-A-N/ L-25672-FS-B-N.

The proposed project was evaluated using the Department's Visual Impact Assessment Matrix and was found to have an acceptable potential visual impact rating. Based on the information submitted in the application, the visual impact rating, and the site visit, the Department determined that the location and scale of the proposed activity is compatible with the existing visual quality and landscape characteristics found within the viewshed of the scenic resource in the project area.

The Department did not identify any issues involving existing recreational and navigational uses.

The Department finds that the proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational or navigational uses of the protected natural resource.

3. SOIL EROSION:

Construction of the proposed project is expected to take several weeks. The float systems will be prefabricated and the permanent pier section will be constructed onsite and set into place. The permanent pier section will be supported on concrete foundations. Construction will be accomplished by excavating small holes that will be backfilled with concrete. The seasonal floats will be anchored with moorings. These activities are not anticipated to cause any significant source of sedimentation.

The Department finds that the activity will not cause unreasonable erosion of soil or sediment nor unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

4. HABITAT CONSIDERATIONS:

The Department of Marine Resources (DMR) reviewed the project approved in Department Order #L-25672-2G-A-N/L-25672-FS-B-N and stated that it should not cause any significant adverse impact to marine resources.

The Maine Department of Inland Fisheries and Wildlife (MDIFW) reviewed the project approved in Department Order #L-25672-2G-A-N/L-25672-FS-B-N and stated that the mudflats and riparian areas below the HAT line are a valuable shorebird feeding area on the west side of the peninsula and a roosting area on the east side of the peninsula. MDIFW commented that the proposed project includes activities within the associated upland buffer areas that may have the potential to adversely affect shorebirds using the mudflats in the area. As a result of two site visits and multiple revisions to the delineation of the roosting area and the feeding area buffers based on onsite conditions, neither buffer extends onto the project site more than 50 feet from mean high water.

During the Department's review of the original application in 2012, MDIFW expressed concerns about the initial design of the project because it proposed rowing floats at the northeasterly corner of the site, directly adjacent to the shorebird roosting area and its associated upland buffer. This float system was subsequently deleted from the plan, and the plan that was approved by the Department included a small hand carry boat/kayak launch float at the southern tip of the site as described in Finding 1. MDIFW did not express concerns about this seasonal structure and stated that the project when complete would not result in any significant adverse impact to the habitat.

The applicant now proposes to relocate the pier and float structure from the southernmost tip of Thompson's Point to a point on the shoreline approximately 108 feet west of the previously approved pier system, further from the shorebird roosting area, but still within

the shorebird feeding area. MDIFW reviewed the proposed project and stated in a review memorandum dated June 25, 2014, that the pier system has been relocated to an area that will be less disruptive to wildlife than the original location. MDIFW recommended that the applicant reiterate its commitment to installing interpretive signage in the vicinity of the pier structure and a viewing platform overlooking the salt marsh and mudflat communities in the northwest portion of the site. The applicant confirmed that it intends to comply with the previous permit conditions that required the installation of a viewing platform and educational placards.

The Department finds that the activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life.

5. WATER QUALITY CONSIDERATIONS:

The applicant proposes to use lumber treated with chromated copper arsenate (CCA) to construct the pier system. To protect water quality, all CCA-treated lumber must be cured on dry land in a manner that exposes all surfaces to the air for 21 days prior to the start of construction.

Provided that CCA-treated lumber is cured as described above, the Department finds that the proposed project will not violate any state water quality law, including those governing the classification of the State's waters.

6. WETLANDS AND WATERBODIES PROTECTION RULES:

The applicant proposes to indirectly alter a total of 1,028 square feet of coastal wetland as a result of shading from the proposed pier system. The permanent pier section's supports will be located above the HAT line; therefore, no direct wetland impacts are proposed. The pier system as originally approved in Department Order #L-25672-2G-A-N/L-25672-FS-B-N included 513 square feet of indirect wetland alteration due to shading.

The Wetland Protection Rules interpret and elaborate on the Natural Resources Protection Act (NRPA) criteria for obtaining a permit. The rules guide the Department in its determination of whether a project's impacts would be unreasonable. A proposed project would generally be found to be unreasonable if it would cause a loss in wetland area, functions and values and there is a practicable alternative to the project that would be less damaging to the environment. Each application for a NRPA permit that involves a coastal wetland alteration must provide an analysis of alternatives in order to demonstrate that a practicable alternative does not exist.

A. Avoidance. No activity may be permitted if there is a practicable alternative to the project that would be less damaging to the environment. The applicant submitted an alternatives analysis for the proposed project completed by Fay, Spofford & Thorndike and dated May 27, 2014 and June 12, 2014. When the project was first proposed in 2012,

the site in question was contemplated as water access for small personal kayaks, canoes and a water shuttle/taxi. The applicant stated that the purpose of the revised configuration, location, and increase in float size is to allow water access for local rowing organizations. The applicant proposes to increase the size of the floats in order to launch eight oar crew boats, or shells, which are approximately 60 feet long, out into the bay. The increased pier length is needed to walk the shell down the gangway and launch it into the water. The pier system is not intended for boats to be anchored or moored for extended periods. Because of the nature of the project purpose, some increase in impact to the coastal wetland is unavoidable.

B. Minimal Alteration. The amount of coastal wetland to be altered must be kept to the minimum amount necessary for meeting the overall purpose of the project. A permanent pier has been added to the system, but will be located above the HAT line. The gangway will be 10 feet longer than originally proposed, and the float size has been expanded to accommodate a local rowing club as descried above. The proposed 60-foot long float is the minimum size necessary to safely launch rowing shells.

C. Compensation. In accordance with Chapter 310 Section 5(C)(6)(b), compensation is not required to achieve the goal of no net loss of coastal wetland functions and values since the project will not result in over 500 square feet of fill in the resource, which is the threshold over which compensation is generally required. Further, the proposed project will not have an adverse impact on marine resources or wildlife habitat as determined by DMR and MDIFW. For these reasons, the Department determined that compensation is not required.

The Department finds that the applicant has avoided and minimized wetland impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project.

7. OTHER CONSIDERATIONS:

The Department did not identify any other issues involving existing scenic, aesthetic, or navigational uses, soil erosion, habitat or fisheries, the natural transfer of soil, natural flow of water, water quality, or flooding.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S.A. Sections 480-A et seq. and Section 401 of the Federal Water Pollution Control Act:

A. The proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses.

B. The proposed activity will not cause unreasonable erosion of soil or sediment.

C. The proposed activity will not unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

D. The proposed activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life.

E. The proposed activity will not unreasonably interfere with the natural flow of any surface or subsurface waters.

F. The proposed activity will not violate any state water quality law including those governing the classifications of the State's waters provided that CCA-treated lumber is cured as described in Finding 5.

G. The proposed activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties.

H. The proposed activity is not on or adjacent to a sand dune.

I. The proposed activity is not on an outstanding river segment as noted in Title 38 M.R.S.A. Section 480-P.

THEREFORE, the Department APPROVES the above noted application of FOREFRONT PARTNERS I, LP to relocate and enlarge a previously approved pier system at Thompson's Point as described in Finding 1, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

1. Standard Conditions of Approval, a copy attached.

2. The applicant shall take all necessary measures to ensure that its activities or those of its agents do not result in measurable erosion of soil on the site during the construction of the project covered by this approval.

3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

4. All CCA-treated lumber shall be cured on dry land in a manner that exposes all surfaces to the air for 21 days prior to the start of construction.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 30th DAY OF June, 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Filed
JUN 30 2014
State of Maine
Board of Environmental Protection

BY: Michael Kuhn
For: Patricia W. Aho, Commissioner

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES...

MR/L25672FNGN/ATS#77793, 77794

Natural Resources Protection Act (NRPA)
Standard Conditions

THE FOLLOWING STANDARD CONDITIONS SHALL APPLY TO ALL PERMITS GRANTED UNDER THE NATURAL RESOURCE PROTECTION ACT, TITLE 38, M.R.S.A. SECTION 480-A ET.SEQ. UNLESS OTHERWISE SPECIFICALLY STATED IN THE PERMIT.

A. Approval of Variations From Plans. The granting of this permit is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation.

B. Compliance With All Applicable Laws. The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.

C. Erosion Control. The applicant shall take all necessary measures to ensure that his activities or those of his agents do not result in measurable erosion of soils on the site during the construction and operation of the project covered by this Approval.

D. Compliance With Conditions. Should the project be found, at any time, not to be in compliance with any of the Conditions of this Approval, or should the applicant construct or operate this development in any way other the specified in the Application or Supporting Documents, as modified by the Conditions of this Approval, then the terms of this Approval shall be considered to have been violated.

E. Time frame for approvals. If construction or operation of the activity is not begun within four years, this permit shall lapse and the applicant shall reapply to the Board for a new permit. The applicant may not begin construction or operation of the activity until a new permit is granted. Reapplications for permits may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.

F. No Construction Equipment Below High Water. No construction equipment used in the undertaking of an approved activity is allowed below the mean high water line unless otherwise specified by this permit.

G. Permit Included In Contract Bids. A copy of this permit must be included in or attached to all contract bid specifications for the approved activity.

H. Permit Shown To Contractor. Work done by a contractor pursuant to this permit shall not begin before the contractor has been shown by the applicant a copy of this permit.

Revised (12/2011/DEP LW0428)

DEPLW0386 A2012

DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: March 2012 **Contact: (207) 287-2811**

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's ("DEP") Commissioner: (1) in an administrative process before the Board of Environmental Protection ("Board"); or (2) in a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S.A. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S.A. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S.A. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

This INFORMATION SHEET, in conjunction with a review of the statutory and regulatory provisions referred to herein, can help a person to understand his or her rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

The laws concerning the DEP's *Organization and Powers*, 38 M.R.S.A. §§ 341-D(4) & 346, the *Maine Administrative Procedure Act*, 5 M.R.S.A. § 11001, and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 CMR 2 (April 1, 2003).

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written appeal within 30 days of the date on which the Commissioner's decision was filed with the Board. Appeals filed after 30 calendar days of the date on which the Commissioner's decision was filed with the Board will be rejected.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by the Board's receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner a copy of the appeal documents and if the person appealing is not the applicant in the license proceeding at issue the applicant must also be sent a copy of the appeal documents. All of the information listed in the next section must be submitted at the time the appeal is filed. Only the extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

Appeal materials must contain the following information at the time submitted:

1. *Aggrieved Status*. The appeal must explain how the person filing the appeal has standing to maintain an appeal. This requires an explanation of how the person filing the appeal may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions or conditions objected to or believed to be in error.* Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.
3. *The basis of the objections or challenge.* If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.
5. *All the matters to be contested.* The Board will limit its consideration to those arguments specifically raised in the written notice of appeal.
6. *Request for hearing.* The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing on the appeal is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.
7. *New or additional evidence to be offered.* The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered by the Board in an appeal only when the evidence is relevant and material and that the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2.

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide opportunity for photocopying materials. There is a charge for copies or copying services.
2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer questions regarding applicable requirements.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed the license normally remains in effect pending the processing of the appeal. A license holder may proceed with a project pending the outcome of an appeal but the license holder runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge receipt of an appeal, including the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, and any materials submitted in response to the appeal will be sent to Board members with a recommendation from DEP staff. Persons filing appeals and interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, a license holder, and interested persons of its decision.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court, see 38 M.R.S.A. § 346(1); 06-096 CMR 2; 5 M.R.S.A. § 11001; & M.R. Civ. P 80C. A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. Failure to file a timely appeal will result in the Board's or the Commissioner's decision becoming final.

An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S.A. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board's Executive Analyst at (207) 287-2452 or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.

STATE OF MAINE

Department of Environmental Protection

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

July 2012

Forefront Partners I, LP
55 Lisbon St., Suite 2400
Lewiston, ME 04240
ATTN: Chris Thompson

RE: Natural Resources Protection Act Application, Portland
DEP #L-25672-2G-A-N / #L-25672-FS-B-N

Dear Mr. Thompson:

Please find enclosed a signed copy of your Department of Environmental Protection land use permit. You will note that the permit includes a description of your project, findings of fact that relate to the approval criteria the Department used in evaluating your project, and conditions that are based on those findings and the particulars of your project. Please take several moments to read your permit carefully, paying particular attention to the conditions of the approval. The Department reviews every application thoroughly and strives to formulate reasonable conditions of approval within the context of the Department's environmental laws. You will also find attached some materials that describe the Department's appeal procedures for your information.

If you have any questions about the permit or thoughts on how the Department processed this application please get in touch with me directly. I can be reached at (207) 592-1692 or at Marybeth.richardson@maine.gov.

Sincerely,

Marybeth Richardson, Project Manager
Division of Land Resource Regulation
Bureau of Land and Water Quality

pc: File

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST

BANGOR
106 HOGAN ROAD
BANGOR ME 04401
(207-941-4570 FAX 207-941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 764-3143

WEB SITE: WWW.MAINE.GOV/DEP

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION
AUGUSTA, ME 04333

DEPARTMENT ORDER

IN THE MATTER OF

FOREFRONT PARTNERS I, LP	) NATURAL RESOURCES
PROTECTION	
Portland, Cumberland County	) COASTAL WETLAND ALTERATION
THE FOREFRONT AT THOMPSON'S POINT	) SIGNIFICANT WILDLIFE HABITAT
L-25672-2G-A-N (approval)	) WATER QUALITY CERTIFICATION
L-25672-FS-B-N (approval)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S.A. Sections 480-A et seq. and Section 401 of the Federal Water Pollution Control Act, the Department of Environmental Protection has considered the application of FOREFRONT PARTNERS I, LP with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. History of Project: Thompson's Point is an approximately 27.5-acre peninsula of land extending into the Fore River that has a 150-year history of industrial development. In the early part of the twentieth century the site was used primarily as a railroad maintenance facility. It was later used by the federal government for war-related activities such as munitions production. Subsequent uses included the operation of a concrete products manufacturing facility and other commercial activities, and the staging and stockpiling of construction materials.

B. Summary: The applicant proposes to demolish existing structures and redevelop almost the entire project site with a number of buildings, including an events center and concert hall, outdoor amphitheater, hotel, sports medicine and athletic performance lab, parking structure, office building, surface parking, trails, public space, and small boat/kayak access. Activities contemplated by the applicant that require Natural Resources Protection Act review are those that will occur within 75 feet of the highest annual tide (HAT) line, including clean up and removal of existing debris, stockpiles, and solid waste; building demolition; clearing and grubbing in advance of new topsoil for soil stabilization, landscaping, and trails; access drive and parking area construction; new buildings; installation or replacement of stormwater outfalls; installation of utilities; installation of a seasonal dock at the south end of the peninsula; a small hand carry boat/kayak launch; and a public access ramp. Within 25 feet of the HAT line, the only proposed activities will be grading for new landscaping and drainage work.

The proposed project will result in approximately 386 square feet of freshwater wetland fill within the northwesterly "panhandle" of the site associated with a drainage outfall and grading. Under current conditions, the shoreline is riprapped around the majority of the project site. In areas not containing riprap currently, the shoreline is naturally vegetated. No significant disturbance is proposed within these areas. A total of ten drainage outfalls

are proposed and the total extent of riprap enhancement associated with the drainage work is approximately 100 linear feet.

The proposed project is shown on a set of plans, the first of which is titled "The Forefront at Thompson's Point," prepared by DeLuca-Hoffman Associates, Inc. and dated August 2011, with a latest revision date on any sheet of July 12, 2012. The project site is located on Thompson's Point, off Congress Street, in the City of Portland.

The proposed project is subject to review under the Site Location of Development Act. Pursuant to M.R.S.A. Section 489-A, the City of Portland has delegated review authority and is conducting that review.

C. Current Use of the Site: A portion of the project site is utilized as storage for refrigerated dairy trailers. Various other commercial tenants lease space throughout the remaining site. There are currently nine structures and at least several additional foundations located on the site. The majority of the approximately 4,100 linear feet of shoreline at the site has been armored with riprap. Approximately five acres of the site lie below the HAT line.

2. EXISTING SCENIC, AESTHETIC, RECREATIONAL OR NAVIGATIONAL USES:

In accordance with Chapter 315, Assessing and Mitigating Impacts to Scenic and Aesthetic Uses, the applicant submitted a copy of the Department's Visual Evaluation Field Survey Checklist as Appendix A to the application along with a description of the property and the proposed project. The applicant also submitted several photographs of the proposed project site including an aerial photograph of the project site. Department staff visited the project site in July of 2011.

The proposed project is located adjacent to the Fore River, which is a scenic resource visited by the general public, in part, for the use, observation, enjoyment and appreciation of its natural and cultural visual qualities. The project site is currently almost completely developed with paved areas, gravel areas, and a number of buildings and foundations. Some of the buildings are functional and contain commercial space and others are in various stages of disrepair. The developed areas extend to the top of the slope down to the river, which is armored with riprap. Existing wooded areas are limited to the far northwest corner of the site.

Overall, the existing site is heavily developed with little visual appeal. Current uses include construction staging, a wood salvage operation, and semi-trailer box storage. Most of the existing structures appear to be marginally maintained and are in average to poor condition. The proposed project is expected to increase the visual appeal of the site by introducing new buildings and implementing an integrated landscape enhancement plan.

The proposed project was evaluated using the Department's Visual Impact Assessment Matrix and was found to have an acceptable potential visual impact rating. Based on the information submitted in the application, the visual impact rating, and the site visit, the Department determined that the location and scale of the proposed activity is compatible with the existing visual quality and landscape characteristics found within the viewshed of the scenic resource in the project area.

The Department did not identify any issues involving existing recreational and navigational uses.

The Department finds that the proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational or navigational uses of the protected natural resource.

3. SOIL EROSION:

The applicant submitted an erosion control report and supporting plans for the proposed project, dated March 2012. Based on its review of this information, the Department finds that the activity will not cause unreasonable erosion of soil or sediment nor unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

4. HABITAT CONSIDERATIONS:

The Department of Marine Resources (DMR) stated that the proposed project should not cause any significant adverse impact to marine resources, navigation or recreation.

The Maine Department of Inland Fisheries and Wildlife (MDIFW) reviewed the proposed project and stated that the mudflats and riparian areas below the HAT line are valuable shorebird feeding area on the west side of the peninsula and roosting area on the east side of the peninsula. MDIFW commented that the proposed project includes activities within the associated upland buffer areas that may have the potential to adversely affect shorebirds using the mudflats in the area. As a result of two site visits and multiple revisions to the delineation of the roosting area and the feeding area buffers based on onsite conditions, neither buffer extends onto the project site more than 50 feet from mean high water.

In response to MDIFW's concerns, the applicant revised the layout of the project to avoid and minimize potential impacts within the buffer areas, and worked with MDIFW to develop a landscape plan (revision dated July 12, 2012) that provides adequate vegetative screening of the mapped shorebird feeding area between the shoreline and proposed pedestrian trail, and limits vegetation within the shorebird roosting area buffer to lower profile shrubs that are expected to maintain visibility for the shorebirds and minimize the threat of increased raptor predation. The applicant has agreed to install interpretive signage at the proposed south end boat launch. The signage will identify the presence and significance of shorebird habitat and will be designed with MIDFW's input. Additionally, the applicant has agreed to install a raised viewing platform overlooking the salt marsh and mudflat communities in the northwest portion of the site.

In a review memorandum dated July 13, 2012, MDIFW commented: "Given the steps that the applicant has taken to maintain and enhance mapped Significant Wildlife Habitats at this site we do not feel that project completion will result in any significant adverse impact to the resource."

Based on MDIFW's review, the Department finds that the activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life.

5. WATER QUALITY CONSIDERATIONS:

The applicant may use lumber treated with chromated copper arsenate (CCA) to construct the floats. To protect water quality, any CCA treated lumber must be cured on dry land in a manner that exposes all surfaces to the air for 21 days prior to the start of construction. Provided any CCA treated lumber is cured as described above, the Department finds that the proposed project will not violate any state water quality law, including those governing the classification of the State's waters.

The Department does not anticipate that the proposed project will violate any state water quality law, including those governing the classification of the State's waters.

6. WETLANDS AND WATERBODIES PROTECTION RULES:

The applicant proposes to alter 386 square feet of an emergent freshwater wetland in the northwestern portion of the site to regrade an area and install a stormwater outfall pipe. Other proposed impacts below the HAT line include less than 100 square feet of alteration associated with the installation of multiple drainage outfalls, most of which will replace existing outfalls. Additionally, approximately 513 square feet of coastal wetland will be altered, through shading, as a result of the seasonal installation of floats at the south end of the peninsula.

The Department's Wetlands and Waterbodies Protection Rules, Chapter 310, require that the applicant meet the following standards:

A. Avoidance. No activity may be permitted if there is a practicable alternative to the project that would be less damaging to the environment. Each application for a coastal wetland alteration permit must provide an analysis of alternatives in order to demonstrate that a practicable alternative does not exist. The applicant submitted an alternatives analysis for the proposed project completed by DeLuca-Hoffman Associates, Inc. Because the proposed project is a transit-oriented development, the applicant selected the project site due to its proximity to the highway, passenger rail service, and bus service, all within a short distance to the Portland Jetport. There are currently no other sites in Portland that can offer the amount of land availability and the location required for this type of project, which will offer a range of activities integrating office, hospitality, and cultural uses with a focus on sustainability. The proposed layout includes approximately 386 square feet of wetland fill within the northwesterly "panhandle" of the site associated with a drainage outfall and grading. This alteration was determined to be unavoidable.

B. Minimal Alteration. The amount of wetland to be altered must be kept to the minimum amount necessary for meeting the overall purpose of the project. The site is currently almost completely developed and the proposed project offers opportunities to improve the scenic character of the area as well as the water quality of runoff from the site. The applicant incorporated a number of measures into the project design and layout to minimize potential impacts to shorebird roosting and feeding areas as described in Finding 4.

C. Compensation. In accordance with Chapter 310 Section 5(C)(6)(b), compensation is not required to achieve the goal of no net loss of coastal wetland functions and values since the project will not result in over 500 square feet of fill in the resource, which is the threshold over which compensation is generally required. Further, the proposed project will not have an adverse impact on marine resources or wildlife habitat as determined by DMR and MDIFW. For these reasons, the Department determined that compensation is not required.

The Department finds that the applicant has avoided and minimized wetland impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project.

7. OTHER CONSIDERATIONS:

The Department did not identify any other issues involving existing scenic, aesthetic, or navigational uses, soil erosion, habitat or fisheries, the natural transfer of soil, natural flow of water, water quality, or flooding.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S.A. Sections 480-A et seq. and Section 401 of the Federal Water Pollution Control Act:

A. The proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses.

B. The proposed activity will not cause unreasonable erosion of soil or sediment.

C. The proposed activity will not unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

D. The proposed activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life.

E. The proposed activity will not unreasonably interfere with the natural flow of any surface or subsurface waters.

F. The proposed activity will not violate any state water quality law including those governing the classifications of the State's waters provided any CCA treated lumber used for the project is cured on dry land as described in Finding 5.

G. The proposed activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties.

H. The proposed activity is not on or adjacent to a sand dune.

I. The proposed activity is not on an outstanding river segment as noted in Title 38 M.R.S.A. Section 480-P.

THEREFORE, the Department APPROVES the above noted application of FOREFRONT PARTNERS I, L.P. to alter coastal wetlands and adjacent areas as described in Finding 1, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

1. Standard Conditions of Approval, a copy attached.

2. The applicant shall take all necessary measures to ensure that its activities or those of its agents do not result in measurable erosion of soil on the site during the construction of the project covered by this approval.

3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

4. Any CCA treated lumber shall be cured on dry land in a manner that exposes all surfaces to the air for 21 days prior to the start of construction.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 27th DAY OF July, 2012.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Filed
JUL 30 2012
State of Maine
Board of Environmental Protection

BY: Michael Kuhns for
Patricia W. Aho, Commissioner

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES...

MR/L25672AN&BN/ATS#74653&74756

Natural Resource Protection Act (NRPA)
Standard Conditions

THE FOLLOWING STANDARD CONDITIONS SHALL APPLY TO ALL PERMITS GRANTED UNDER THE NATURAL RESOURCE PROTECTION ACT, TITLE 38, M.R.S.A. SECTION 480-A ET.SEQ. UNLESS OTHERWISE SPECIFICALLY STATED IN THE PERMIT.

A. Approval of Variations From Plans. The granting of this permit is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation.

B. Compliance With All Applicable Laws. The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.

C. Erosion Control. The applicant shall take all necessary measures to ensure that his activities or those of his agents do not result in measurable erosion of soils on the site during the construction and operation of the project covered by this Approval.

D. Compliance With Conditions. Should the project be found, at any time, not to be in compliance with any of the Conditions of this Approval, or should the applicant construct or operate this development in any way other the specified in the Application or Supporting Documents, as modified by the Conditions of this Approval, then the terms of this Approval shall be considered to have been violated.

E. Time frame for approvals. If construction or operation of the activity is not begun within four years, this permit shall lapse and the applicant shall reapply to the Board for a new permit. The applicant may not begin construction or operation of the activity until a new permit is granted. Reapplications for permits may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.

F. No Construction Equipment Below High Water. No construction equipment used in the undertaking of an approved activity is allowed below the mean high water line unless otherwise specified by this permit.

G. Permit Included In Contract Bids. A copy of this permit must be included in or attached to all contract bid specifications for the approved activity.

H. Permit Shown To Contractor. Work done by a contractor pursuant to this permit shall not begin before the contractor has been shown by the applicant a copy of this permit.

Revised (12/2011/DEP LW0428)

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION, AUGUSTA, MAINE 04333

Erosion Control for Homeowners

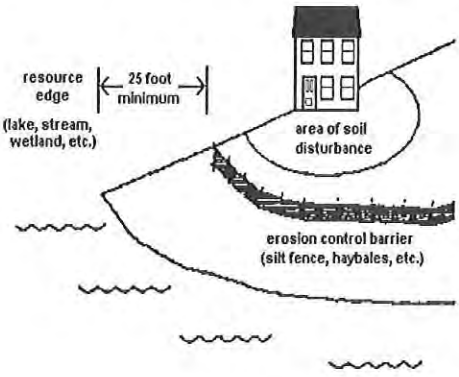
Before Construction

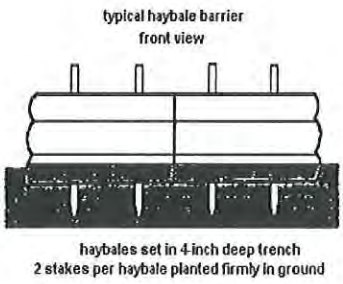
1. If you have hired a contractor, make sure you discuss your permit with them. Talk about what measures they plan to take to control erosion. Everybody involved should understand what the resource is, and where it is located. Most people can identify the edge of a lake or river. However, the edges of wetlands are often not so obvious. Your contractor may be the person actually pushing dirt around, but you are both responsible for complying with the permit.

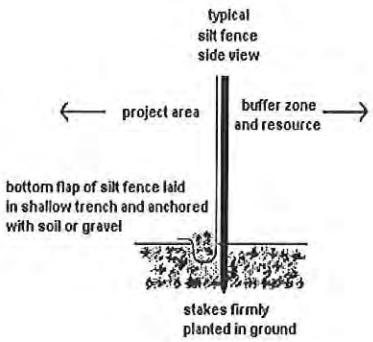
2. Call around to find where erosion control materials are available. Chances are your contractor has these materials already on hand. You probably will need silt fence, hay bales, wooden stakes, grass seed (or conservation mix), and perhaps filter fabric. Places to check for these items include farm & feed supply stores, garden & lawn suppliers, and landscaping companies. It is not always easy to find hay or straw during late winter and early spring. It also may be more expensive during those times of year. Plan ahead -- buy a supply early and keep it under a tarp.

3. Before any soil is disturbed, make sure an erosion control barrier has been installed. The barrier can be either a silt fence, a row of staked hay bales, or both. Use the drawings below as a guide for correct installation and placement. The barrier should be placed as close as possible to the soil-disturbance activity.

4. If a contractor is installing the erosion control barrier, double check it as a precaution. Erosion control barriers should be installed "on the contour", meaning at the same level or elevation across the land slope, whenever possible. This keeps stormwater from flowing to the lowest point along the barrier where it can build up and overflow or destroy the barrier.







During Construction

1. Use lots of hay or straw mulch on disturbed soil. The idea behind mulch is to prevent rain from striking the soil directly. It is the force of raindrops hitting the bare ground that makes the soil begin to move downslope with the runoff water, and cause erosion. More than 90% of erosion is prevented by keeping the soil covered.

2. Inspect your erosion control barriers frequently. This is especially important after a rainfall. If there is muddy water leaving the project site, then your erosion controls are not working as intended. You or your contractor then need to figure out what can be done to prevent more soil from getting past the barrier.

3. Keep your erosion control barrier up and maintained until you get a good and healthy growth of grass and the area is permanently stabilized.

After Construction

1. After your project is finished, seed the area. Note that all ground covers are not equal. For example, a mix of creeping red fescue and Kentucky bluegrass is a good choice for lawns and other high-maintenance areas. But this same seed mix is a poor selection for stabilizing a road shoulder or a cut bank that you don't intend to mow. Your contractor may have experience with different seed mixes, or you might contact a seed supplier for advice.

2. Do not spread grass seed after September 15. There is the likelihood that germinating seedlings could be killed by a frost before they have a chance to become established. Instead, mulch the area with a thick layer of hay or straw. In the spring, rake off the mulch and then seed the area. Don't forget to mulch again to hold in moisture and prevent the seed from washing away or being eaten by birds or other animals.

3. Keep your erosion control barrier up and maintained until you get a good and healthy growth of grass and the area is permanently stabilized.

Why Control Erosion?

To Protect Water Quality

When soil erodes into protected resources such as streams, rivers, wetlands, and lakes, it has many bad effects. Eroding soil particles carry phosphorus to the water. An excess of phosphorus can lead to explosions of algae growth in lakes and ponds called blooms. The water will look green and can have green slime in it. If you are near a lake or pond, this is not pleasant for swimming, and when the soil settles out on the bottom, it smothers fish eggs and small animals eaten by fish. There many other effects as well, which are all bad.

To Protect the Soil

It has taken thousands of years for our soil to develop. It usefulness is evident all around us, from sustaining forests and growing our garden vegetables, to even treating our septic wastewater! We cannot afford to waste this valuable resource.

To Save Money ($$)

Replacing topsoil or gravel washed off your property can be expensive. You end up paying twice because State and local governments wind up spending your tax dollars to dig out ditches and storm drains that have become choked with sediment from soil erosion.

DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: March 2012 **Contact: (207) 287-2811**

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's ("DEP") Commissioner: (1) in an administrative process before the Board of Environmental Protection ("Board"); or (2) in a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S.A. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S.A. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S.A. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

This INFORMATION SHEET, in conjunction with a review of the statutory and regulatory provisions referred to herein, can help a person to understand his or her rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

The laws concerning the DEP's *Organization and Powers*, 38 M.R.S.A. §§ 341-D(4) & 346, the *Maine Administrative Procedure Act*, 5 M.R.S.A. § 11001, and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 CMR 2 (April 1, 2003).

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written appeal within 30 days of the date on which the Commissioner's decision was filed with the Board. Appeals filed after 30 calendar days of the date on which the Commissioner's decision was filed with the Board will be rejected.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by the Board's receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner a copy of the appeal documents and if the person appealing is not the applicant in the license proceeding at issue the applicant must also be sent a copy of the appeal documents. All of the information listed in the next section must be submitted at the time the appeal is filed. Only the extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

Appeal materials must contain the following information at the time submitted:

1. *Aggrieved Status.* The appeal must explain how the person filing the appeal has standing to maintain an appeal. This requires an explanation of how the person filing the appeal may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions or conditions objected to or believed to be in error.* Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.
3. *The basis of the objections or challenge.* If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.
5. *All the matters to be contested.* The Board will limit its consideration to those arguments specifically raised in the written notice of appeal.
6. *Request for hearing.* The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing on the appeal is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.
7. *New or additional evidence to be offered.* The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered by the Board in an appeal only when the evidence is relevant and material and that the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2.

Other Considerations in Appealing a Decision to the Board

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide opportunity for photocopying materials. There is a charge for copies or copying services.
2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer questions regarding applicable requirements.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed the license normally remains in effect pending the processing of the appeal. A license holder may proceed with a project pending the outcome of an appeal but the license holder runs the risk of the decision being reversed or modified as a result of the appeal.

What to Expect Once You File a Timely Appeal with the Board

The Board will formally acknowledge receipt of an appeal, including the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, and any materials submitted in response to the appeal will be sent to Board members with a recommendation from DEP staff. Persons filing appeals and interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, a license holder, and interested persons of its decision.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court, see 38 M.R.S.A. § 346(1); 06-096 CMR 2; 5 M.R.S.A. § 11001; & M.R. Civ. P 80C. A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. Failure to file a timely appeal will result in the Board's or the Commissioner's decision becoming final.

An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S.A. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board's Executive Analyst at (207) 287-2452 or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.

Comments - Environmental Project Review
Maine Department of Inland Fisheries and Wildlife

Wildlife Division Comments – Region A	
Applicant's Name: Forefront Partners I, LP (Forefront at Thompson's Point)	
Project: L-25672-2G-A-N	Regulatory Agency: MDEP
Project Type: NRPA	Project Manager: Richardson
Comments Due Date:	Date Comments Sent: 7/13/12
Project Location	
Town: Portland	County: Cumberland
Waterbody: Fore River	
Wildlife Biologist(s): Camuso, Tudor, Walker	

After review of the application and consideration of the proposal's probable effect on the environment, and on our agency's programs and responsibilities, we provide the following comments:

I. Project Description/Resource Affected: Forefront Partners I, LP proposes to develop the 22.5 +/- acre Thompson's Point as a mixed use commercial and entertainment development to include an events center and concert hall, outdoor amphitheater, hotel, sports medicine facility, office complex, parking garage and surface parking for 780 vehicles. Additionally, the proposed development includes public amenities such as trails and a water access site. A seasonal rowing facility has also been suggested in the northeast corner of the site. It is our understanding that this last element has been removed from the current proposal and will potentially be reconsidered at a future date.

MDIF&W has mapped two Significant Wildlife Habitats in this portion of the Fore River, both of which include upland buffers that extend into the proposed development area. The mapped habitats include a Significant Shorebird Feeding Area along the western side of the peninsula and a Significant Shorebird Roosting Area along the eastern shoreline. Shorebirds that frequent Maine during the spring on their way to breeding grounds in the open tundra of northern Canada, and again in mid to late summer on their return trip south are dependent on open mudflats for feeding and, at times of high tide, require specific shoreline conditions that provide secure areas for roosting. Upland buffers associated both habitat types are critical in minimizing disturbance to migratory shorebirds by proximate human activities. Additionally, the vegetated condition of buffers associated with roosting habitat is an important factor in determining viability of the roost. Shorebirds will abandon roosts where tall woody vegetation that provides cover for raptors becomes established. Several of the shorebird species that frequent Maine during their migrations have shown long-term populations declines. These declines are, in part, due to significant losses of both migratory feeding and roosting stop over habitats.

II. Comments/Recommended Considerations or Conditions:

Wildlife Considerations:
MDIFW originally mapped Shorebird Significant Wildlife Habitats and associated buffers in 2006. At that time, shorebird roosting areas were digitized with a 250-foot associated upland

buffer based on scientific literature that documented human disturbance effects. Similarly, feeding areas were digitized with a 100-foot buffer intended to minimize unnecessary disturbance to shorebird activity on the mudflats. Where roosts occur proximate to developed areas, development was clipped out of the original buffers by GIS staff to account for existing disturbances. In the case of Thompson's Point, the originally mapped roost habitat buffer varied from 25-feet offset from mean high water to 150-feet offset from mean high water based on best available aerial photos at the time. As a result of two recent site walks and multiple revisions of the delineation of the roost area and the feeding area buffers based on on-the-ground conditions, neither buffer now extends into the site more than 50-feet from mean high water.

The applicant has adjusted the initially submitted project site plan to avoid and minimize impacts within these revised buffers and has worked closely with our Department to develop a landscape plan that at once creates adequate vegetative screening of the mapped shorebird feeding area between the shoreline and proposed pedestrian trail, and limits vegetation within the shorebird roost area buffer to shrubs that will likely not exceed 4-feet in height and thereby maintain visibility for the shorebirds and minimize the threat of increased predator activity. Additionally, the applicant has agreed to install interpretive signage at the proposed south end boat launch. The signage will identify the presence of shorebird habitat and explain the significance of these habitats. Our Department will assist the applicant in designing the signage to be installed. The applicant has also agreed to install a raised viewing platform overlooking the saltmarsh and mudflat communities in the northwestern portion of the site. This structure will serve as both an attractive amenity for the project and help to build local awareness of and appreciation for local bird life.

Given the steps that the applicant has taken to maintain and enhance mapped Significant Wildlife Habitats at this site we do not feel that project completion will result in any significant adverse impact to the resource.

Should the rowing club be constructed during a subsequent phase of development, we do feel that the structure extending into the roost and resulting presence of shells passing along the frontage of the roost will eliminate existing habitat values. With the proposed placement of the facility, it is unlikely that any mitigation for the loss of the roost could take place on-site. We would therefore recommend mitigation for the loss of this Significant Wildlife Habitat feature in the form of a contribution to the Maine Natural Resource Conservation Program for future shorebird roost protection and monitoring. The total square footage of the revised roosting habitat is 63,764sf. Should the rowing club locate in this area, the Department feels that a contribution to the MNRCP fund of $90,544 (63,764x0.71x2 per MDEP guidance) would be appropriate.



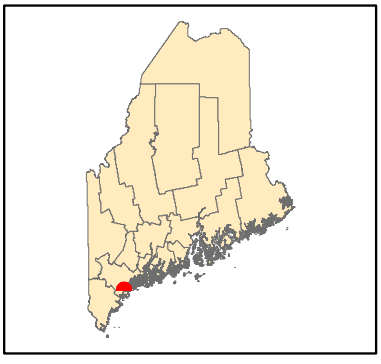
Draft II Revised Thompson's Point Shorebird Habitats

Maine Department of
Inland Fisheries and Wildlife

0 125 250 500 750 1,000 Feet

Projection: UTM, NAD83, Zone 19N

Date: 6/22/2012



Portland, Maine — Yes. Life's good here.

Planning & Urban Development Department

ZONING ANALYSIS Relevant Zone(s) B-5

All Projects:

	Required	Proposed
Lot Size	None	4.67
Area Per Dwelling Unit	None	799 Sq. Ft
Minimum Street Frontage	None	138.68
Front Yard Minimum	None	35.22
Front Yard Maximum	None	35.22
Rear Yard	None	71
Yard Right	None	51
Yard Left	None	10
Side Street Setback	None	N/A
Step Back	None	N/A
Maximum Lot Coverage	100%	63%
Minimum Lot Coverage	N/A	N/A
Maximum Height	120 ft	69.1'
Open Space	N/A	N/A
Maximum Impervious Area	N/A	N/A
Pavement Setback	N/A	N/A
Floor Area Ratio	N/A	N/A
Off Street Parking Spaces	N/A	498
Loading Bays	N/A	1
Other 1		
Other 2		
Other 3		

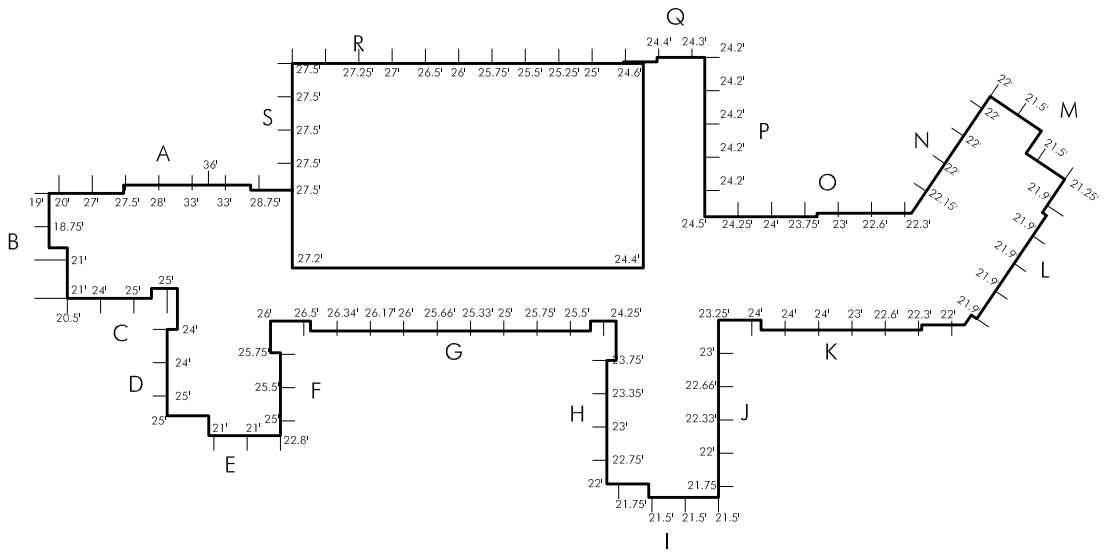
1

Planned Residential Unit Developments (PRUD) Requirements

	Required	Proposed
Minimum Lot Size	N/A	N/A
Minimum Lot Area per Dwelling	N/A	N/A
Maximum # Units per Building	N/A	N/A
Maximum Building Length	N/A	N/A
Maximum Accessory Building Length	N/A	N/A
Minimum Setbacks	N/A	N/A
Minimum Building Separation	N/A	N/A
Minimum Open Space	N/A	N/A

Affordable Housing Density Bonuses (if applicable)

	Bonus Increase or Decrease	Maximum Allowable With Bonus	Proposed
Density	N/A	N/A	N/A
Height	N/A	N/A	N/A
Setback Reduction	N/A	N/A	N/A
Recreation Space	N/A	N/A	N/A
Maximum Accessory Building Length	N/A	N/A	N/A
Minimum Setbacks	N/A	N/A	N/A
Minimum Building Separation	N/A	N/A	N/A
Minimum Open Space	N/A	N/A	N/A
Explanatory Text 1 (optional):			
Explanatory Text 2 (optional):			
Explanatory Text 3 (optional):			



BUILDING HEIGHT CALCULATIONS

Pre-development spot grades are based on site survey prepared by Sebago Technics titled "Alta/ACSM Land Title Survey" May 27, 2011, revised Nov. 23, 2011.

The pre-development average grade has been calculated by dividing the total area between elev. 0' and the 2011 grade against the proposed building by the length of the proposed building's perimeter.

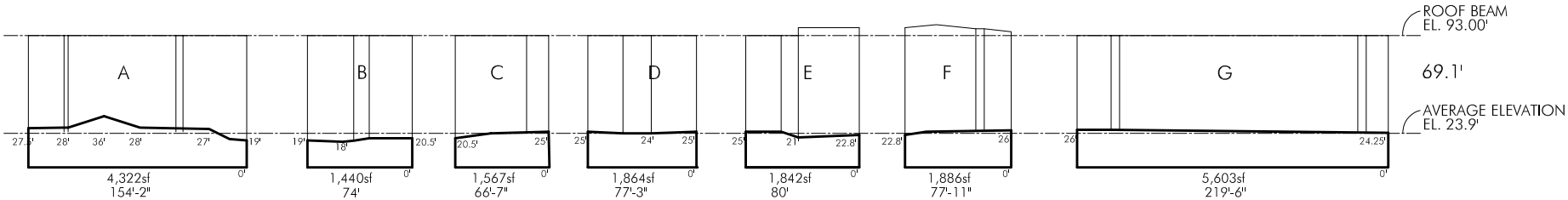
Building height has been calculated from highest roof beam elevation to the pre-development average grade per City of Portland Land Use Code, Section 7, Dimensional Standards.

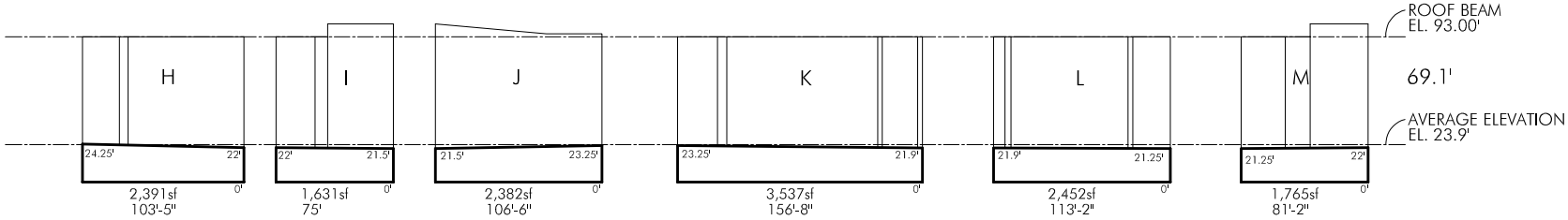
TOTAL AREA ABOVE ELEV. 0' TO PRE-DEVELOPMENT GRADE:
48,438 sf

TOTAL BUILDING PERIMETER:
2,026 linear ft

$$\frac{48{,}438 \text{ sf}}{2{,}026 \text{ linear ft}} = 23.9' \text{ average elevation}$$

ROOF BEAM ELEV:	EL. 93.00'
AVERAGE GRADE:	EL. 23.9'
BUILDING HEIGHT:	69.1'





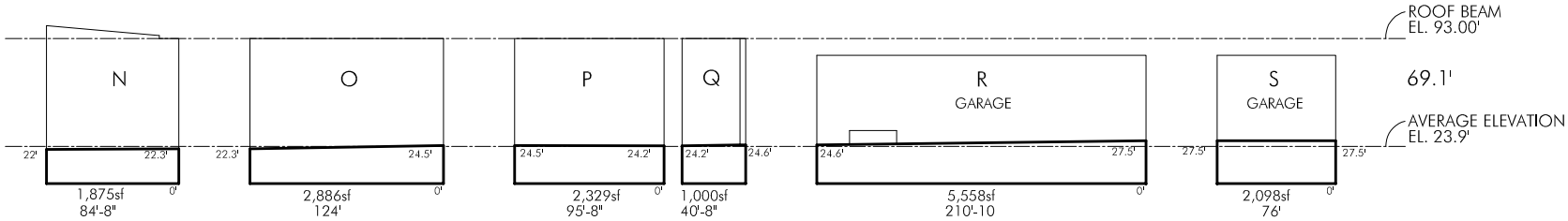


TABLE 7-E: MIXED-USE ZONE DIMENSIONAL STANDARDS

		B-1/B-1b	B-2/B-2b/B-2c	B-3/B-3b/B-3c	B-4	B-5/B-5b	B-6	B-7
Lot area (min.)	**School**	20,000 SF			10,000 SF			
	Place of assembly	10,000 SF						
Lot area per dwelling unit (min.)	**On-peninsula**	435 SF	435 SF					
	Off-peninsula	1,000 SF	1,000 SF, except 435 SF if active street frontage[3]					
Lot area per rooming unit (min.)	**On-peninsula**	150 SF	150 SF					
	Off-peninsula	350 SF	350 SF					
Street frontage (min.)		20 ft.	20 ft.	15 ft.	60 ft.			
Front setback (from all street frontages) (max.)		10 ft., or the average front yard depth of nearest developed lots if < 10 ft.	10 ft.	5 ft.	20 ft.	None, except 10 ft. in B-5b	10 ft.[7]	10 ft.
Rear setback (min.)	**Principal**	None, except 10 ft. if abutting a residential zone	10 ft.		20 ft.			
	Accessory	None, except 5 ft. if abutting a residential zone	5 ft.		7 ft.			
Side setback (min.)	**Principal**	None, except 5 ft. if abutting residential zone	None		10 ft.			
	Accessory		5 ft.		5 ft.			
Stepbacks (above 35 ft. when property line abuts a residential zone) (min.)		Side: 10 ft.	Side: 5 ft.					
		Rear: 15 ft.	Rear: 15 ft.					
Length of building wall at maximum setback (min.)							70% of street frontage or 25% of building perimeter[8]	75% of street frontage or 25% of building perimeter[9]
Length of undifferentiated blank wall along publicly accessible way (max.)				30 ft., except 15 ft. within PAD Overlay				
Floor area (max.)		Non-residential uses on first floor: 10,000 SF total[1]	Laboratory and research facilities, warehousing, 10,000 SF	None, except 15,000 SF for each floor above 125 ft.			Laboratory and research facilities and warehousing: 15,000 SF	
		Restaurants (public area): 2,000 SF					Exhibition and meeting halls: 20,000 SF	
		Clinics: 3,000 SF						

TABLE 7-E (CONT.): MIXED-USE ZONE DIMENSIONAL STANDARDS

	B-1/B-1b	B-2/B-2b/B-2c	B-3/B-3b/B-3c	B-4	B-5/B-5b	B-6	B-7
Structure height (max.)	On-Peninsula: 45 ft., except 50 ft. along Congress Street if commercial first floor and residential above[2] Off-Peninsula: 35 ft.	45 ft., except 50 ft. if first floor is in commercial use, 65 ft. in B-2 and B-2c on lots >5 ac. if required side and rear setbacks are increased by 1 foot for each foot of height over 45 ft., or as otherwise governed by the Bayside Height Overlay Map	See Downtown and Bayside Height Overlay Maps	65 ft.	65 ft., except in B-5b along W. Commercial St. south of Danforth St.[5] and 120 ft. on Thompson's Point[6]	65 ft. or as otherwise governed by the B-6 Building Height Overlay Map	See Bayside Height Overlay Map
Lot coverage (max.)			25% of lot area for portions of structures exceeding 125 ft. in height[4]				
Impervious surface ratio (max.)	90%	Residential: None Other uses in B-2 and B-2c: 80% Other uses in B-2b: 90%		80%			

[1] Uses in structures which existed prior to the date of enactment of the B-1/B-1b zones are exempt.
[2] The commercial first floor uses shall utilize at least 75 % of the first-floor frontage along Congress Street and shall have an average depth of at least 20 ft.
[3] A building will be determined to have an active street frontage upon meeting the following guidelines to the greatest extent practicable: the primary building façade shall be within 10 ft. feet of the front lot line; there shall be no parking on the lot within 35 ft. of the front lot line; no more than 25% of the first floor primary façade shall consist of access to garages, unutilized space, service entrances, storage or mechanicals and the remaining minimum 75% shall have an average depth of a minimum of 20 ft. for residential or commercial uses; and all primary ground floor entries to multi-family buildings must orient to street, not to interior blocks or parking lots.
[4] Except that no floor area shall be required to be less than 10,500 SF, gross.
[5] For parcels of land in the B-5b zone located along W. Commercial St. south of Danforth St.: West of the projection of the centerline of the Fletcher St. right-of-way, the maximum building height shall be 45 ft.; and, east of the projection of the centerline of the Fletcher St. right-of-way and west of the projection of the centerline of the Emery St. right-of-way, the maximum building height shall be 55 ft. A projection of the centerline of a street is defined by extending the centerline of the referenced street right-of-way along its most southerly block to the centerline of W. Commercial St. Furthermore, notwithstanding Subsection 7.5.1, no rooftop structure located between the projections of the centerlines of Emery St. and Fletcher St., as described above. shall exceed a height of 62 ft as measured from average grade of the building at its foundation.
[6] Applies only to parcels subject to an approved master development plan. Thompson's Point is defined as the contiguous parcels of upland occupying the peninsula bounded on the east by Route 295, on the north by the Mountain Division Rail right-of-way, and on the south and west by the Fore River and its associated wetlands. Nearby lands accessed from Hobart and Osgood Streets are not included.
[7] Does not apply to parking garages and public transportation facilities. Notwithstanding required setbacks, new structures located in the blocks located south of Fore Street and north of Commercial Street and its extension shall build to the key building envelopes shown on the B6 Building Height Overlay & Building Envelopes map. Buildings located in the area east of the Fore Street Connector shall not have a maximum front setback and shall not be required to build to the key building envelope perimeter. Parking structures and the buildings for public transportation facilities may, however, be set back beyond the key building envelopes (toward the interior of blocks), but may not occupy the land between the key building envelope and the street right-of-way.
[8] For buildings fronting on two or more streets, the minimum building wall on one street may be decreased so long as the frontage is proportionally increased on other streets in so far that the building wall on the secondary street is not reduced to less than 25 ft. Buildings in the area east of the Fore Street Connector shall not be subject to this requirement.
[9] Does not apply to additions to or relocations of designated historic structures or structures determined to be eligible by the Historic Preservation Board.

CONFORMITY WITH APPLICABLE DESIGN STANDARDS
(Site Plan and Zoning)

The following statement is made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use, Section 14.6 – Site Plan Review Standards.

OVERVIEW

This project conforms with all the applicable design standards of Section 14.6, Site Standards as demonstrated in the following narrative.

Section 14.6.1 Transportation Standards

A. Impact on Surrounding Street Systems:

The applicant has obtained a Traffic Movement Permit which addresses impacts on surrounding street systems. A summary of calculated site trip generation with the proposed use is enclosed with this application.

B. Access and Circulation:

1) Site Access and Circulation.

a. Thompson's Point development site is accessed via Thompson's Point Road at the intersection of Fore River Parkway. The applicant has worked with fire safety and city officials to make access and circulation safe for all vehicular and pedestrian users. The proposed development includes an on-site two-way dead-end driveway with (498) four hundred ninety-eight parking stalls and a turn around hammer head. The driveway utilizes an existing 22ft curb cut and has been designed to accommodate a fire truck apparatus, emergency vehicles, small to mid-sized moving trucks, trash vehicles, and passenger vehicles.

b. Proposed pedestrian circulation connects the residences to both the adjacent public trail system and paved multi-use trail on Thompson's Point Road. The closest transit stop is 665 ft (0.13 miles) barrier free walking distance from the front door.

c. Access to the site has been designed to separate and reduce conflict between pedestrian and vehicular access.

d. The site is designed to have both visitor/short term parking near the front entrance and private long term residential parking in the parking garage. The entrance to the garage is internal to the site by several hundred feet providing ample stacking capacity for vehicles waiting to access the parking structure.

2) Loading and Servicing.

a. A short-term loading area is proposed to be at finished grade near the building utility corridor. The area of the building includes a service elevator and trash room with the ability to drive a vehicle up to an internal trash room. The loading area is designed to be separate and not interfere with site circulation of traffic, pedestrians, or bicycle access.

3) Sidewalks.

a. A 6 ft wide sidewalk and a vegetated esplanade atop 6" high curb is proposed on the front side of the residential building which connects to the existing campus sidewalk network on Thompson's Point Road.

b. The development sidewalk improvements are relatively new, and the existing sidewalks are in good working condition.

c. The development provides pedestrian access and is not requesting a waiver from this standard.

C. Public Transit access

1) The new development does not require, nor does it propose the construction of a new transit shelter along its frontage. Thompson's Point has worked closely with METRO to coordinate public transit services to and from the City of Portland in an efficient and convenient way for METRO and their riders. This includes local and regional bus service on Thompson's point.

a. The development is not located on a lot having frontage on a federally classified arterial roadway

b. The residential development will be served by (2) two existing transit stops on Thompson's Point, both of which access downtown Portland via the Number 1 Bus as well as fast regional service to Brunswick via the Breeze. The closest and most convenient stop is located at the Portland Transportation Center. This transit stop is 1/8th (665 ft) of mile from the front door. The second stop on Thompson's point, near the intersection of Resurgam Place and Thompson's Point Road is just over ¼ of a mile (1504 ft) from the front door. Both locations are accessible via barrier -free routes and benefit from a transit shelter.

2) The transit stops on Thompson's point are connected to public sidewalk system.

3) The development meets the standard for public transit access and does not request any waivers from this standard.

D. Parking:

1) Vehicular parking:

a. The Forefront at Thompson's Point Master Development Plan and Subdivision was approved ***without*** a minimum parking requirement based on the completed parking study per the Technical Manual. The development is required to be consistent with the principles of the approved parking study. The current site plan proposes (498) four hundred ninety-eight permanent paved onsite spaces for residents, visitors, and Thompson's Point managed supply. Of which, 463 parking stalls are located in a 6-story parking structure,

b. Forefront has prepared a TDM strategy report approved in 2011, updated in 2015, and March 30, 2018. The Thompson's Point TDM Coordinator has provided subsequent annual progress updates to the city in accordance with the City's reporting protocol for all sites participating in TDM strategies. Thompson's Point is proud to be a very proactive member of the TDM program and is always seeking to improve their TDM initiatives. Thompson's Point was named "Best Workplace for Commuters Site" by the Center for Urban Transportation Research in 2019. This honor was in large part to their execution of

the TDM Strategies. Copies of the TDM materials are on file with the city and are available upon request.

Specifically, the applicant of the residential development includes several TDM initiatives such as promoting safe and convenient bicycle access routes and secure inside storage. The bike storage room in the parking structure and second room inside the building amenity space that can hold a total of 90 bicycles in addition to the 12 exterior bicycle parking spaces near the main entrance. Site selection close to a multi-modal transportation center was a significant factor in the construction of a large-scale residential development on Thompson's Point. The applicant's management team will communicate with the designated Thompson's Point TDM coordinator to work on initiatives, strategies, and reporting updates

c. N/A

d. The site layout plan shows compliant parking stall and drive aisle dimensions. Combined on-site parking garage and surface spaces total 498 parking spaces and consist of 378 standard parking stalls, 94 compact parking stalls, and 26 ADA parking stalls pursuant the dimensional standards described in Section 1 – Transportation Systems and Street Design Standards of the City's Technical Manual.

2) Bicycle Parking:

a. Section 19 of the LUC Minimum off-street parking requirements does not apply to Thompson's Point because it is in the B-5 Zone. However, the applicant values the importance of secured and user-friendly bicycle storage for their tenants and provided the 2 bikes/5 units typically required (255units/5units=51*2 = 102 Bikes). Specifically, (66) sixty-six bicycle stalls for the residents are provided in the secured bike room of the garage. The bike room can be accessed from inside the parking structure or directly from the outside sidewalk system. An additional (24) twenty-four bicycle stalls for the residents are provided in the secured bike room off the amenity area of the residential building. The bike room can be accessed from inside the common area hallway or directly from the outside sidewalk system near the main entrance. A combined total of (12) twelve exterior bike stalls are in two locations near the front of the site; (4) four exterior bicycle stalls (2 Dero bicycle hitching posts or approved equal) are proposed near the main entrance and (8) (4 Dero bicycle hitching posts or approved equal) adjacent to the sidewalk near the entrance to the visitors parking area.

b. Motorcycles and Scooter Parking.

(i) The proposed structured parking does not have special provisions for motorcycles or scooters. They are anticipated to use the standard spaces designated to the unit.

3) Snow Storage
a. Snow storage will primarily be managed by removing temporary small on-site stockpiles to other designated areas of the campus or hauled off campus.
b. The garage will be plowed and utilize a shoot apparatus as required.

4) Electric Vehicle (EV) Charging

a. The City's Technical Manual cites a goal for 20 % of the parking spaces having Level 2 chargers (or higher) to meet the estimated EV Charging demand; however, given the applicant's directly applicable experience in similar real estate markets and regulatory

latitude given to structured parking structures of greater than 100 spaces, the applicant has prepared a practical EV Charging approach aimed to meet the intent of Technical Manual's section 1.14 – Electrical Vehicle Infrastructure. The proposal outlined below is believed to more than satisfy today's demand as well as future ready the parking infrastructure for years to come.

Based on the applicant's experience with owning and operating multifamily properties (currently combined for a total management of 620 units and nearly 1000 spaces) they have observed EV charging demand substantially below 20% of parking spaces, with electric vehicle (EV) chargers often unused. In the parking garages and surface lots they own and manage; they have provided Level 2 EV chargers for 1% of the parking spaces and made another 1% of the spaces EV-ready. Despite these preparations, there has been insufficient demand to justify converting these EV-ready spaces into fully operational charging stations. The applicant recognizes the EV industry is expected to continue to grow and with that in mind proposes several charging solutions to prepare for growth.

The proposed garage at Thompson's Point is primarily being used for residential use; therefore, we believe that longer-term or overnight charging solutions are more appropriate. Designing for the end user, of the 463 spaces inside the garage, we propose the following solution for 10% of the spaces (46 spaces):

- **2% +/- or (9) nine of the spaces will be equipped with Level 2 chargers**.
- **3% +/- or (14) fourteen of the spaces will be equipped with Level 1 chargers**.
- **5% +/- or (23) of the spaces will be made EV-ready for future demand.**

This proposal reflects the actual demand experienced and aligns with the nature of our primarily residential garage. We are confident that this approach will effectively meet the needs of our residents while ensuring the efficient use of resources.

Whereas, the bulk of remaining surface parking spaces are designated for Thompson's Point managed parking supply, EV charging is largely accounted for in the proximity of the building generating the parking demand rather than in these remote spaces. It is paramount to install EV infrastructure in a location where the vehicle owner will have access to the vehicle. Therefore, EV charging solutions for the surface spaces proposed for this phase take place in other areas of the shared use parking supply across the campus.

E. Transportation Demand Management (TDM):

1) The applicant has developed a campus-wide TDM Plan pursuant to the City of Portland's Code of Ordinances.

2) The TDM Plan incorporates the City goals by integrating elements described in the Technical Manual. Specifically, Thompson's Point operations team has a history of promoting and implementing TDM strategies for their employees and visitors. The Cathartes management staff will coordinate with the Thompson's Point TDM Coordinator to strategize, implement, and set SOV reduction goals. The Cathartes asset management team uses several programs in other properties that will be implemented upon opening the building here on Thompson's Point. TDM initiatives are further outlined in Attachment P.

Section 14.6.2 Environmental Quality Standards

A. Preservation of Significant Natural Features:

1) The project site is a previously developed suburban site. The applicant has preserved the very limited significant natural features to the extent practicable.

a. There are no known populations of trees or plants present on the site that have been classified as Endangered and Threatened in Maine.
b. There are no known habitats/communities, present that appear on the state or federal endangered or threatened animal list.
c. The project will not impact any moderate or high value waterfowl or wading bird habitat, nesting or feeding areas due to setbacks from such
d. No aquifers are present
e. Some wetland impact will occur but will be minimized. The project received approvals from the Army Corps of Engineer and Maine DEP to fill 386 SF of coastal wetland for the purpose of a stormwater outfall.

2) The proposed buildings are located in an area of the site that was previously developed and designed to complement, enhance, and preserve the adjacent significant natural features. Some additional clearing must occur for development but it is minor and not areas set aside for preservation or part of continuous habitat blocks.

3) The applicant is not requesting a waiver from this standard.

B. Landscaping Preservation:

1) Limited tree removal is required due to the previously developed nature of the site.

2) Fencing will be located around the dripline of individual trees and larger clusters of trees to remain. These areas will be preserved and protected from construction activities. There are a handful of significant oaks along the southern property line that had previously been requested for preservation by the former City Arborist. These are shown on the plans.

3) The significant trees for preservation had previously been identified by the City Arborist and are shown on the plans. The remaining vegetation is either non-native, invasive or scrub.

4) Not applicable. No waiver is being requested

5) The project is proposing to plant 93 new trees along with hundreds of plants on the project site

C. Site Landscaping and Buffers.

1) The combination of 93 proposed trees and hundreds of shrubs, new fencing and existing vegetation to remain should more than satisfy this requirement.
2) Buffers

a. Trash and utility service rooms are located within the building. The service portion of the building is heavily screened with trees, shrubs and ornamental grasses. All ground mounted utility structures are located within the core of the site so not visible from the public sidewalk due to distance and proposed landscaping.

b. Not applicable. Project is residential.

c. The project proposes significant plantings and also proposes to preserve existing vegetation wherever possible in the areas where detrimental impacts on the site may occur.

3) Parking Lot Landscaping

a. The project proposes significant landscaping around vehicular travel and parking areas.

b. Landscape islands are proposed to meet the standard.
c. Not applicable. No waiver is being requested.

4) Street Trees

a. Street trees have been proposed in location and quantities where possible. The project frontage along Sewall Street Extension is full of significant underground utilities so a limited number of trees can be planted in this zone. However, the rest of the site is heavily planted. Selected trees are of species that have been historically accepted/approved by the City.
b. Site constraints along the project frontage / right-of-way prevent the installation of street trees so have been located on-site but within view from the public way. The applicant understands the likely need to pay into the street tree fund due to the limited frontage and tree per dwelling unit requirement.

D. Water Quality, Stormwater Management and Erosion Control:

1) The Forefront at Thompson's Point has been designed to meet all City and State Stormwater management standards for Site Location of Development projects as part of the Subdivision Application. A supplemental stormwater management memorandum detailing how this portion of the project complies with the overall stormwater management plan has been prepared and included in this application in Attachment J.

a. All stormwater draining onto the site from adjacent properties will be directed in such a way to prevent the creation of ponding or flooding.

b. All stormwater runoff is proposed to discharge directly to the Fore River. The project will not adversely impact adjacent lots.

c. All stormwater runoff is proposed to discharge directly to the Fore River. The project will not adversely impact adjacent lots.

2) The Stormwater Management Plan demonstrates the project meets the requirements and goals of the Technical Manual.

3) The stormwater management system includes groundwater protection measures. All proposed inlets or filters are self-contained isolated from groundwater infiltration.

Section 14.6.3 Public Infrastructure and Community Safety Standards.

A. Consistency with City Master Plans:

1. The project has been designed to be consistent with the City's Zoning Ordinance and off-site infrastructure.

2. The Thompson's Point overall site proposed the conveyance of land to the City for the sole purpose of public access to the site. The City has successfully petitioned for a Public Railroad Crossing at the entrance to the site.

B. Public Safety and Fire Prevention:

1. The project aims to incorporate CPTED

a. The site has been designed to promote safe and inviting public meeting and gathering spaces.

b. The proposed development allows for emergency response vehicles to access multiple sides of the proposed building with controlled access.

c. The public gathering spaces and private patios are landscaped, fenced, and otherwise designed to create a feeling of backyard privacy and ownership one would protect as their own.

2. The site plan provides multiple points of clear access to and around the building.

C. Public Utilities:

1) The newly installed private infrastructure has been sized to accommodate the proposed residential units (255) and will tie into public infrastructure previously reviewed for compatibility with the entire subdivision.

2) The primary power electrical service will extend underground to/from a proposed pad mounted transformer sized to accommodate this new load.

3) New separate sanitary and storm infrastructure has been sized and installed in accordance with the City's technical manual.

4) The existing site sanitary sewer system is connected to the Thompson's Point sanitary pump station owned and operated by the Portland Water District. All sanitary waste discharge will be tied into the existing public wastewater system. Onsite wastewater treatment is not proposed.

5) The project will use interior dumpsters to store trash and recyclables temporarily until a contracted waste management company can pick up and dispose of the solid waste. The project proposes to remove all temporary trash receptacles at regularly scheduled intervals.

Section 14.6.4 Site Design Standards.

A. Massing, Ventilation and Wind Impact:

1) The new building will have been designed to not result in adverse impacts to other buildings or abutting properties. The proposed building is a standalone structure standing a significant distance from other existing or proposed buildings such that no unsafe wind conditions will be created.

2) The new building will have been designed to not result in adverse impacts to other buildings or abutting properties.

3) All HVAC venting is located on the roof or vented in an area that will not affect any public spaces or adjacent properties.

B. Shadows:

a. The development is located in the B5 Zone and this standard is not applicable.

C. Snow and Ice Loading:

a. The proposed roof is a flat roof and will store snow and ice until running off to adjacent areas. The roof is designed to store snowfall and not create dangerous falling snow conditions onto adjacent sidewalks, balconies, or public spaces.

D. View Corridors:

a. This standard is not applicable, the project site is located outside the Downtown Vision View Corridor Protection Plan.

E. Historic Resources:

1) This standard is not applicable, the development is not located in a historic district, historic landscape district or City designated landmark.

2) This standard is not applicable, the development is not located adjacent to or within 100 feet of a designated landmark, historic district, or historic landscape district.

3) There are no known archaeological resources on the site.

F. Exterior Lighting:

1) Site Lighting.
   a. All permanent exterior site and building mounted lighting has full cut off fixtures. Proposed site lighting is consistent with other lighting installed on the site and consists of LED cut off fixtures mounted a maximum of 20 ft high.
   a. Specialty ground bollard lighting has been added in gathering areas and shown on the enclosed Photometrics and lighting design plan.

G. Noise and Vibration:

a. HVAC and Mechanical Equipment.
   (i) All equipment will be located on the interior portion of the roof (centrally located to the site) and naturally screened from ground view due to the height of the building. All venting and emissions will meet applicable state and federal emission requirements.
   (ii) If applicable, the generator will be limited to one hour of routine maintenance per week.

H. Signage and Way finding:

1) All building signage and specialty wayfinding signage will be submitted under a separate application package. The project will include building address and modest identification signage above the main entrance canopy as well as on a freestanding monument sign near the entrance driveway.
   a. The size of signage will be complimentary in nature and not compete with architecture of the building while providing emergency response identification consistent with 911 requirements.
   b. The size of signage will be complimentary in nature and fit the scale of the building as not to detract from the building.
   c. The freestanding sign will be set back about 50 ft from the driveway intersection due to existing underground utilities and will not affect visibility at the intersection
   d. Sign Lighting will meet city standards to avoid glare and upward lighting.
   e. Signage is not proposed above the 1st floor.

2) Standard traffic signage is shown on the enclosed Site Layout Plan and designed to meet MUTCD recommendations.

I. Zoning Related Design Standards:

1) The proposed residential building is a permitted use in the B-5 Zone. The development meets all Zoning Dimensional standards as summarized in the table below:

Summary of Zoning Dimensional Requirements:		
Requirement Description	**Required**	**Provided**
Minimum Lot Size	None	4.637 acres
Minimum Frontage	None	139 +/- Ft
Yard Dimensions:		
Front	None	34 +/- FT
Side	None	10 FT
Rear	None	39 FT
Maximum Lot Coverage:	100%	63%
Maximum Building Height	120 FT	69.1’

The following statement is made in accordance with the City of Portland Design Manual Zone B-5 Urban Commercial Business Zone.

Design Manual Design Standards:

a. Shared Infrastructure: The proposed lot 17 development is part of an integrated subdivision which shares utilities and stormwater infrastructure, public transportation, pedestrian and vehicular circulation, and loading/waste facilities with other lots with-in the development.
b. The proposed building is located as close to the street as possible. Due to the presence of significant public infrastructure along the frontage of the development lot the building cannot be any closer to the street. The building shape takes advantage of the lot, views, and visibility of the main entry from the road onto Thompson’s Point.
c. The proposed building has a main entrance easily visible from the street; however, the small frontage of the lot compared to its depth prevents the bulk of the building being oriented towards the street. The residential wing adjacent to the street includes windows and façade consistent with architecture of the rest of the building.
d. On-site parking is centrally located on the site and almost entirely provided in a structure hidden from the street view. Shared parking with residences and campus parking managed supply is an integral part of the proposal. A very small amount of short-term parking is located at the front entrance to support visitors and prospective tenants.

ATTACHMENT G
TECHNICAL AND FINANCIAL CAPACITY

OVERVIEW

The applicant has retained a highly-qualified team of professionals to undertake planning, permitting and design tasks on this project. Services will be provided by the following companies and their respective team leaders.

CONSULTANT TEAM

Discipline	Common Area Road (Phase I)
Civil Engineer	Bo E. Kennedy P.E. Placemaker Partners, LLC 18 Van Aken Way Portland, ME 04102 (207) 747-5288 – Work bo@placemakerpartners.com
Surveyor	Chris LaMotte, PLS Sebago Technics, Inc. 75 John Roberts Road So. Portland, ME 04106 (207) 200.2100 – Work clamotte@sebagotechnics.com
Architect	Robert Del Savio, RA Embarc Design 500 Harrison Ave Suite 2W, Boston, MA 02118 1(617) 765-8000 – Work rdelsavio@embarcdesign.com
Landscape Architect	Patrick Carroll Carroll Associates 217 Commercial Street, Suite 204 Portland, ME 04101 Pcarroll@carroll-assoc.com
Geotechnical Consultant	Craig Coolidge, PE SUMMIT GEOENGINEERING SERVICES 210 Maine Ave Farmingdale, Maine 04344 PO Box 515 Gardiner, Maine 04345 (207) 318-7761 ccoolidge@summitgeoeng.com
Environmental Engineer	Rip Patten Credere Associates, Inc. 776 Main Street Westbrook, ME 04092 (207) 828-1272 – Work Crederellc.com

EXPERIENCE OF PROJECT TEAM

All members of the project team have significant expertise and experience on the project site. Resumes for key personnel can be provided upon request.

FINANCIAL CAPACITY

The applicant has adequate financial resources to undertake this project at Thompson's Point. A reference letter on behalf of Cathartes speaking to their good financial standing and project backing is enclosed in this Attachment G.

CONSTRUCTION COST ESTIMATE

A breakdown of the preliminary project cost estimates includes the following:

- Construction Cost: $70 million (Building, Garage, and Site Work)
- Soft Costs: $1 million
- **Total Costs: $71 million**

M&T Bank

July 24th, 2024

Planning and Urban Development
City of Portland, Maine
389 Congress Street
Portland, ME 04101

Re: Thompson's Point Residential
Developer Qualifications and Financial Capacity

By way of introduction, I am Executive Vice President and Maine Regional President, and Senior Group Manager for the Maine, New Hampshire and Vermont Commercial Real Estate divisions for M&T, a strong Super Regional Bank with a significant presence in and commitment to the Greater Portland Region, including our offices in Westbrook and downtown Portland.

For more than ten years, I have done business with Cathartes and its principals James Goldenberg and Jeff Johnston and I am pleased to have the opportunity to provide information to you regarding the longstanding banking relationships that I, personally, and that M&T Bank, have enjoyed with this company and its principals.

During the course of our relationship with Cathartes, the Bank has provided approximately $200,000,000 in construction and permanent financing for seven properties, which have included a variety of property types, such as mixed-use multifamily, hotels, and condominiums, and the principals have always performed as agreed. Throughout these years, the principals have consistently exhibited a savvy knowledge of their markets, an impressive ability to attract and maintain high quality tenants, strong property repositioning and construction expertise, and always a high level of integrity.

Cathartes is highly regarded in the commercial real estate industry, and the firm has been recognized as the developer responsible for transforming Portsmouth's former underutilized Parade Office Mall in the city's Northern Tier into Portwalk Place, creating a destination that includes 149 apartment units, 379 hotel rooms and nearly 50,000 SF of ground floor retail and restaurant activity, which has served to reconnect the area to downtown Portsmouth and further spur additional investment in the neighborhood following its success, and more recently has spurred additional private investment into the downtown area of historic riverfront city Dover, NH by redeveloping a significantly sized underutilized parcel in the core of the downtown into 130 Class A residential units. M&T is proud to have financed multiple phases of the Portwalk project, including one of the hotels and the mixed-use multifamily component, as well as the aforementioned Dover project.

We have had preliminary discussions regarding the proposed Thompson's Point site with Cathartes, and M&T Bank would be very interested in reviewing the opportunity to finance the proposed 255-unit $100 million project for the team. This project will provide additional housing inventory within Portland's Thompson's Point district and provide further economic development for the City and its residents, and Cathartes is a highly qualified team well-suited to execute.

(M&T Bank is a $210+ billion bank, following its acquisition of People's United Bank, the largest regional bank headquartered in New England, providing substantial lending capacity.)

I'm happy to provide any additional information that would be helpful to you as you move through the review process for this proposed project.

Sincerely,



Philip C. Cohen
Executive Vice President | Maine Regional President
M&T Bank
350 Fore Street
Portland, ME 04101
(207) 828-3030
pcohen@mtb.com

Construction Management Plan

Cathartes – Multi-Family Residential Building at 125 Thompson's Point Road

A. Construction Management Principles

The following narrative provides an overview of the construction management principles that the Cathartes and Placemaker Partners, LLC has identified to minimize impacts from the construction, such as noise, vibrations, ground movement, truck traffic, and other construction related factors to the surrounding building and communities.

B. Development Review of Construction Management Plan

Cathartes and Placemaker Partners, LLC submits this construction management plan that provides a comprehensive logistics and safety program for the construction project, which will be reviewed and approved as part of the site plan review process. Minimizing impacts to areas surrounding the building/construction site will be primary considerations in the process.

C. Performance Guarantees, Inspection Fees, Preconstruction Meeting, and Permits

Prior to scheduling a preconstruction meeting and the issuance of any city required permits, the general contractor (TBD) will meet all of the requirements contained in Section 14-530, Development Review Fees and post approval requirements and 14-532, General requirements and enforcement of Portland's Land Use Code.

Other permits, as applicable, include

1. **Street Opening and Street Occupancy Permits:** These permits will be filed at the time of construction.
2. **Blasting:** Blasting will not be required.
3. **Building Code:** Employ the best practices, as applicable, of Chapter 33 Safeguards During Construction, from the 2009 International Building Code.

D. Construction Administration and Communication

Cathartes or its assigned will work diligently to implement a communication strategy as outlined below. The communication strategy is intended to ensure that all construction operations are performed in accordance with all agreements, ordinances and special permits applicable to this project. The Construction Manager will work closely with adjacent abutters, businesses and all parties informed, as far in advance as possible, of scheduled work, particularly work anticipated to cause significant noise, vibrations, or dust. The final construction management plan shall provide for the following:

1. Contact Person for Cathartes or its assigned is the designated construction owner's representative. Owner's Representative is Rob Simmons (Ph. 617-840-4778) robs@cathartes.com.
2. Construction Signage will be posted on the site with Contact Information for Cathartes assigned construction manager.
3. The assigned construction manager site project manager will be in constant contact via email or phone with the Owner's Representative. The Owner's Rep will provide weekly and additional as need construction updates to neighboring business to inform them of any work that could possibly impact their day to day operations.
4. All construction site signage is temporary and will be removed at project completion.

E. Construction Schedule

1. The project is anticipated to break ground approximately Q4 2025 and be completed Q4 2027. This project will not be phased. See the preliminary construction schedule in Attachment 1.
2. Hours of Construction. Construction will occur during the daytime hours as defined in Section 17-18. Construction Activities for Building permit (Attachment 2) and Section 25-129, Noise, dust and debris (Attachment 3).
3. Extended Hours or Night Work: Pursuant to Section 17-18, this section not apply to emergency utility work or "Situations where the public works authority or the office of building inspections determines that the construction activity is of a unique character which cannot reasonably be completed or performed during the permitted hours and which is not of a recurring nature, provided that prior to engaging in such activity the contractor or his representatives gives notice of the time and scope of such proposed activity, the notice to be given in a manner approved by the public works authority."
4. Material Deliveries: Deliveries will take place between 7:00 a.m. and 5:00 p.m. Deliveries will be received in the designated laydown areas as shown on the Construction Management Plan.

F. Security & Public Safety

1. The Construction Management Plan (Attachment 4) depicts proposed construction fencing and access gates. Gates will have City of Portland Knox locking devices. Fencing separates the construction site from all other surrounding uses.
2. There are no existing structures being altered or demolished under this contract. Construction of the new structure will comply with NFPA 1 Chapter 16.
3. Fire Safety Program.
    - Good Housekeeping: All contractors and subcontractors are required per contract to clean up after their work on a daily basis.
    - On-site security: Chain link fence system (where required) with locked gates will be installed around the perimeter of the construction site.
    - Installation of new fire protection systems as construction progresses: Fire extinguishers will be located on each floor per OSHA standards and IBC 2009. A standpipe system per IBC Section 3311.1 will be provided concurrent with building construction.
    - Preservation of existing systems during demolition: There are no existing systems.
    - General Contractor will meet with local fire department prior to construction and develop a pre-fire plan.
    - The General Contractor will have a published contact list and chain of command for all rapid communication strategies that are in place.
    - Consideration of special hazards resulting from previous occupancies: There are no special hazards from previous occupancies. The site contractor will follow all Maine DEP VRAP work plan requirements for soil and groundwater handling. Trained personnel and appropriate PPE will be supplied while all sitework is being performed.
4. Blasting will not be required
5. Temporary on-site security lighting will be provided upon the request of the owner. All exterior security lighting will be pointed downward and be full cut off fixtures.

G. Construction Permitting and Traffic Control Plans

1. Construction Activity in Public Streets: There will be limited in-street utility work. All lane closures will always maintain access to Thompson's Point campus and be coordinated with the City Public Works with a documented and approved traffic control plan meeting the City's Technical Manual.
2. Sewer and Stormwater: Sewer connections are controlled by Chapters 24 of the City Code of Ordinance. There will be two new connections to the City of Portland Sanitary System currently connected to the Sewall Street Pump Station. Required permits for new connections to the existing private line have been obtained through the City Site Plan review process. Two of three Stormwater connections will discharge directly to the Fore River in a private outfall. One stormwater connection is proposed in Thompson's Point Road and discharged to the Fore River pursuant to city and state permits previously approved. The Stormwater system has been designed to meet Chapter 32 of the City Code of Ordinance.
3. Traffic Control Plans: Construction activity in the existing public street will have a traffic control plan meeting the City's MOT plan requirements. This will be submitted at the time of final Construction Management Plan approval.

H. Site Management and Controls

The final Construction Management Plan will address maintaining the site in a safe condition and will include the following:

1. Trash and debris removal management will be provided by separating recyclable and non-recyclable wastes into multiple construction dumpsters. Trash will be separated, disposed of in a proper waste facility.
2. Street cleaning and damage controls: This project will have erosion control construction entrances at the entrances to the project site. All sediment tracked off the project site and onto public streets will be swept daily and disposed of onsite in accordance with the approved erosion and sediment control plan. A truck washdown station may be required at the discretion of the owner or its assigned personnel.
3. Dust controls: The construction will comply with Portland's requirements under Section 25-129 on Noise, dust and debris (Attachment 3).
4. Noise: The construction will comply with Portland's requirements under Section 17-18 of the City Code (Attachment 2) and Section 25-129 on Noise, dust and debris Attachment 3).
5. Rodent Control will not be needed as this is new construction.
6. Snow Removal: Pursuant to Section 25-173 Contractors to ensure a safe means of travel within the work zone.
    1) Snow/ice removal or commence automatically from (1" of snow and up) or Ice
    2) Remove snow as needed within the work zone, including parking spaces & not to block any driveways or sight lines with the piles of snow.
    3) Clear all walks & ramps with the work zone
    4) Sand or Salt as needed
    5) Clear all basin or drainage to help snow melt
    6) This would include Monday-Friday Sat/Sunday/Holidays

I. Erosion Control and Preservation of Trees

1. Site Contractor will install all erosion and sedimentation controls as depicted on the approved erosion and sedimentation control plan prior to the pre-construction meeting for inspection by the City. Site Contractor will regularly inspect the control measures, no less than weekly and after significant storm events, and maintain any installed temporary or permanent stormwater management systems in working order. The Site Contractor will document all inspection activities and corrective actions and be prepared to provide these documents for inspection by the City, Maine Department of Environmental Protection or the U.S. Environmental Protection Agency upon request.
2. There is currently minimal small trees and landscaping within the limits of construction which will be removed. Trees of significance requiring protection will be protected as shown on the landscape architectural plans.
3. Storage areas are indicated on the Construction Management Plan (Attachment 4).

J. Construction Staging Area

1. The Construction Management Plan depicts location of the material staging areas, the location on onsite temporary construction trailers, the location on onsite truck delivery holding areas, the location onsite truck washing stations, masonry mixing stations, the general location of the construction security fence and the general location of temporary construction dumpsters. An open storage areas is shown on the plan.
2. Delivery Truck Holding Areas On-Site: The delivery holding area is shown on the plan and will not be blocked during construction. On days when the construction activities require multiple truck deliveries, these deliveries will be carefully scheduled so that there is always adequate on-site area for the holding of the trucks until they can be unloaded. Once at Thompson's Point all vehicles will be brought within the fence line. There will be no queueing on public streets or common area (privately owned) roadways without prior notice and coordination with the owner. Construction truck traffic will not alter normal traffic patterns or emergency vehicle access to or around the Thompson's Point Campus.
3. Delivery Truck Holding Areas Off-Site: An offsite holding area may be designated by the owner with prior approval from the owner. Offsite holding areas shall be minimized to short term parking only and will not prevent the normal operations of the site.

K. Parking During Construction

1. Construction Parking: Adequate parking for construction workers will be provided on site. The parking areas have been indicated on the Construction Management Plan.
2. Parking: There are no existing parking spaces available to the public within the construction limits that will remain operational during construction.
3. Truck Routes and Volumes: The Construction Management Plan indicates the designated truck routes. Truck volume is expected to be approximately 5-6 trucks per week.

L. Special Measures as Necessary

Construction will take approximately 22 months. Construction is not located near sensitive uses (e.g. medical care facilities, schools). Construction activity is not expected to impact the adjacent railroad operations or property; however, if a temporary condition arises the Contractor will take appropriate measures and communication to address impacts.

ATTACHMENT 1

Preliminary Construction Schedule (Subject to Change)

ATTACHMENT 2

Sec. 17-18. Construction activities.

(a) Within the R-zones, from September 1st to May 31st, no person shall engage in construction activities generating noise exceeding fifty (50) decibels, between the hours of 7:00 p.m. and 7:00 a.m., of the following day within five hundred (500) feet of any building used for residential, hospital or nursing home purposes. From June 1st to August 31st construction activity may continue until 8:00 p.m. Any other language notwithstanding, no construction activity shall begin before 8:00 a.m. on a Saturday, Sunday or legal holiday.

(b) Construction activities shall include, but not be limited to, the following:

(1) The use or operation of power or heavy equipment in connection with road, street, or bridge construction, reconstruction or repair;
(2) The use or operation of power or heavy equipment in connection with the installation or repair of utility lines, pipes, wires or cables;
(3) The use or operation of power or heavy equipment in connection with the construction of buildings, including specifically excavation for foundations or landscaping work of any kind;
(4) The renovation, repair, remodeling or demolition of the exterior or foundation of any building or structure

(c) This section shall not apply in the following situations:

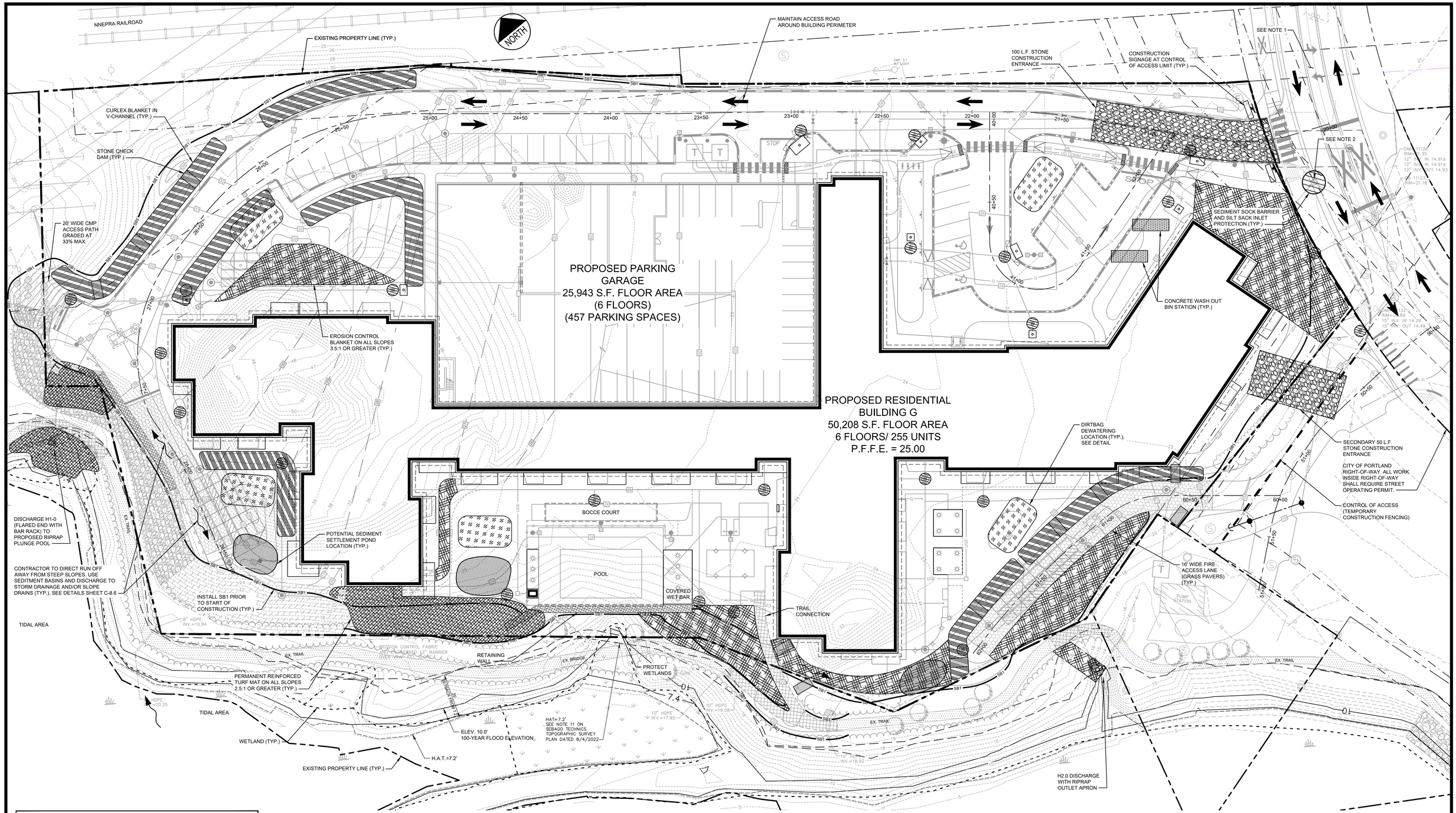
(1) Emergency repair work on any utility line, pipe, wire or cable required to restore normal utility service;

(2) Situations where the public works authority or the office of building inspections determines that the construction activity is of a unique character which cannot reasonably be completed or performed during the permitted hours and which is not of a recurring nature, provided that prior to engaging in such activity the contractor or his representatives gives notice of the time and scope of such proposed activity, the notice to be given in a manner approved by the public works authority.

ATTACHMENT 3

Sec. 25-129. Noise, dust and debris. Each permittee shall conduct and carry out excavation work in such manner as to avoid unnecessary inconvenience and annoyance to the general public and occupants of neighboring property. To the fullest extent practicable, the permittee shall take appropriate measures to reduce noise, dust and unsightly debris in the performance of the excavation work. Excavation work, including the use of any tool, appliance, or equipment, shall be performed between the hours of 7:00 a.m. and 10;00 p.m. only, exclusive of emergency work. Time waiver requests may be submitted to the public works authority for work outside of this time period and will be subject to neighborhood concerns. Excavation work shall not occur on Sundays, holidays or on major holiday weekends, unless expressly authorized by the public works authority or as a result of emergency need.

ATTACHMENT 4
Plan Sheet C-6.0 Erosion Control and Construction Management Plan



LEGEND

- INLET PROTECTION (STONE OR HAY SEDIMENT BARRIER)
- FILTERRA INLET PROTECTION (PER MANUFACTURERS REQUIREMENTS)
- RIPRAP OUTLET PROTECTION
- CURLEX BLANKET
- PERMANENT REINFORCED TURF MAT
- EROSION CONTROL BLANKET
- WASH DOWN AREA
- STONE CONSTRUCTION ENTRANCE
- DIRTBAG DEWATERING
- POTENTIAL SEDIMENT SETTLEMENT POND
- STONE CHECK DAM

Summary of Storm Water Discharges

Discharge ID	Approximate Drainage Area (Ac)	Full Build Out 25 Yr Peak Flow (CFS)	Outlet Pipe Size (In)	Description	*Minimum Required Riprap D50 (IN)
HB-0	1.86	8.89	24	RCP Flared End W/ Bar Rack, Riprap Slope Apron	12
HC-0	0.87	4.62	15	RCP Flared End W/ Bar Rack, Riprap Slope Apron	12

* D50 is a median rock size. Riprap should be a well graded mix of angular rock from about 1.5 to 0.25 times the size of the D50. The contractor shall protect existing riprap slope or replace rock to the meet the minimum required D50 stone size.

SCHEDULE OF SILT BARRIER REQUIREMENTS

SILT BARRIER	TYPE PURPOSE	TIME OF INSTALLATION
SB1 TYPE 1 SILT BARRIER	TO TRAP SEDIMENT ALONG THE GRADING EDGE WHERE THE NEW CONTOURS NEARLY PARALLEL THE EXISTING CONTOURS	AT INITIAL SITE PREPARATION; PRIOR TO OTHER WORK

NOTES:

1. EXISTING PAVEMENT TO REMAIN AS TRACKING PAD. SWEEP CLEAN DAILY OR MORE FREQUENTLY AS REQUIRED TO PREVENT TRACKING SEDIMENT ALONG THOMPSON'S POINT ROAD. SHOULD SEDIMENT BE TRACKED OFFSITE, CONTRACTOR IS RESPONSIBLE FOR SWEEPING/CLEARING PAVEMENT AS NECESSARY TO PROTECT EXISTING STORMWATER COLLECTION INLETS. CONTRACTOR MAY BE REQUIRED TO INSTALL WASHING STATION OR OTHER TRACKING PREVENTATIVE MEASURE AT NO ADDITIONAL COST TO OWNER.
2. DISCHARGE OF EXCAVATION DEWATERING MAY BE DIRECTED TO EXISTING DRAINAGE STRUCTURES IF ALL TREATMENT REQUIREMENTS ARE MET. REFER TO ENVIRONMENTAL ASSESSMENT REPORT BY CREDERE ASSOCIATES, LLC AND PROJECT SPECIFICATIONS FOR ALL DEWATERING REQUIREMENTS.
3. ALL RUNOFF FROM DISTURBED AREAS SHALL BE DIRECTED TO A FILTERING DEVICE DESIGNATED TO LIMIT TURBIDITY IN ALL DISCHARGE TO THE FORE RIVER. THE FILTERING DEVICE MAY BE BUT IS NOT LIMITED TO SAND FILTERS, EROSION CONTROL MIX, STRAW WHATTLES, FLOCCULATION CHEMICALS, DIRT GLUE AND SILT FENCE.
4. ALL CATCH BASINS TO HAVE 4" UNDERDRAIN PER DETAIL 'L' ON SHEET C-8.5.
5. ALL SUBSURFACE DETENTION AREAS ARE NOT TO BE PLACED "ON-LINE" UNTIL TRIBUTARY AREA IS STABILIZED WITH PAVEMENT OR 75% VEGETATION COVERAGE
6. STOCKPILES TO BE TEMPORARILY SEEDED AND MULCHED AS REQUIRED BY THE PROJECT SPECIFICATIONS.
7. THE CONTRACTOR SHALL TREAT DISTURBED AREAS AND CONSTRUCTION HAUL PATH WITH DUST CONTROL BMPS TO LIMIT ALL FUGITIVE DUST.
8. ALL EXCESS COMMON BORROW SHALL BE PLACE IN DESIGNATED STOCKPILE ON PANHANDLE DETAILS INCLUDED IN SEPARATE PLAN SET BY REFERENCE.

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 inch = 20 ft.

PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY No. 11994 — LICENSED PROFESSIONAL ENGINEER — 9/9/2024

P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

SHEET TITLE
EROSION CONTROL AND CONSTRUCTION MANAGEMENT PLAN

CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN: DB	DATE: AUGUST 2024
DESIGNED: BEK	SCALE: 1" = 20'
FILE NAME: PANHANDLE-EROSION.dwg	
SHEET C-6.0	

C:\Users\diana\Dropbox\DCS-Projects\Placemaker\Thompson's Point\Panhandle\Plans\Site Plan\CAD\PANHANDLE-EROSION.dwg diana 9/19/2024 4:03 PM

GORRILL PALMER
An LJB Engineering Company

300 Southborough Drive, Suite 200, South Portland, ME 04106
(207) 772-2515|GorrillPalmer.com

Trip Generation and Parking Demand Summary
Thompson's Point
September 2024 – (Revised 12-10-24)

Date: September 4, 2024 (Revised 12-10-24)
Subject: Updated Trip Generation and Parking Demand
Thompson's Point
To: Bo Kennedy, Placemaker Partners, LLC
From: Randy Dunton / Kyle Brennan, Gorrill Palmer (JN 4346)

Gorrill Palmer (GP) has prepared this updated trip generation and parking demand summary for the Thompson's Point development in Portland, Maine. The full build out of the project received a MaineDOT Traffic Movement Permit (TMP) in 2012 (Reg. 01-00155-A-N) for 734 trip ends during the AM peak hour and 1,091 trip ends during the PM peak hour. The Traffic Movement Permit received an extension in 2024 out to March 1, 2027. The documentation for the extension is attached. The project is being constructed in phases and each phase must be evaluated to ensure that the total site trip generation does not exceed the permitted trip generation. The following is a summary of the forecast trip generation and parking demand for the existing and previously approved uses, and the proposed residential development on site. A site plan is attached showing the location of each building.

Existing and Previously Evaluated Trip Generation Summary

The trip generation for the existing Thompson's Point site is based on discussions with Bo Kennedy, project manager/engineer for the site. The trip generation was calculated using the same methodology as that used in previous trip generation evaluations for the site, including using the Institute of Transportation Engineers' publication, *Trip Generation*, 7th Edition, except where otherwise noted, and applying a 10% reduction to the total site trip generation to account for other modes of transportation and shared uses on the site. The following table summarizes the trip generation for the existing site:

Existing and Approved Site Trip Generation

Building	Description	Size	AM Peak Hour	PM Peak Hour
Building A Brick North				
	Halo (Event Space) – Previously approved	400 attendees	16	31
	Office Space – 7 Emp.	7 Employees	7	7
	Brewery & Sit-Down Restaurant – LUC 932 + 7 Emp.	14,644 sf (4,624 sf Rest. & 10,020 sf Brewery)	7	49 (42+7)
	Brewery Tap Room – LUC 932 + 5 Emp.	5,284 sf	16 (11+5)	16 (11+5)
	Color Me Mine – Previously Approved	2,136 sf	2	6
	International Cryptozoology Museum – Previously approved (doubled in size)	1919 sf	2	2
	Leisure Time Cocktails – LUC 975	1725 sf	N/A	20

	Coffee Roasting – Assumed (Employee only)	675 sf	1	1
	Brick North Total		**51**	**132**
Building C Brick South				
	Event/Assembly Space – Previously approved	2,500 Seats	100	195
	Annex	7,384 sf	--*	--*
	Brick South Total		**100**	**195**
Building F1				
	Warehouse – Previously approved	14,200 sf	11	9
	Building F1 Total		**11**	**9**
Building F2				
	Artist Studio Space – Previously approved	1,940 sf	3	4
	Building F2 Total		**3**	**4**
Building L				
	Office Space – Previously forecasted potential future development	4,000 sf	7	9
	Event Space – Previously forecasted potential future development	100 Attendees	4	8
	Existing Storage – Previously forecasted potential future development	1,760 sf	0**	0**
	Existing Office Space (Credit)	4,000 sf	(-7)	(-9)
	Building L Total		**4**	**8**
Building B2				
	Concession Building – Previously approved	960 sf	4	4
	Building B2		**4**	**4**
Building D				
	Proposed Hotel (2024 Construction Start) – Previously proposed development	148 Rooms	68	87
	Hotel Total		**68**	**87**
Building I Children's Museum and Theatre of Maine (CMTM)				
	CMTM– Previously approved	29,096 sf	33	33
	Children's Museum Total		**33**	**33**
Existing Subtotal			**274**	**472**

*Maximum of 2,500 people in the building for events. Highest trip generation would be an event in the Event space, not the Annex.
**Trip generation assumed to be negligible.

Since initially approved, there have been some minor changes to the uses. The "Rosemont Market" (2,724 sf) and Brewery & Sit-Down Restaurant (11,920 sf) have been combined and identified as "Brewery & Sit-Down Restaurant" (14,644 sf). For the purposes of this evaluation, the previously individual square footages have been combined. Trip generation for the "Brewery & Sit-Down Restaurant" was based on previously accepted "Bissell Brewery & Restaurant" methodology, where the restaurant trip generation is based on LUC 932 – High Turnover (Sit Down) Restaurant (4,624 SF) and trip generation for the brewery portion

(10,020 SF) is based on the 7 employees.

The previously approved coffee shop "Rwanda Bean" (2,400 sf) has been split with "Leisure Time Cocktails". "Rwanda Bean" (675 sf) is still occupying part of the space for coffee roasting, but the remaining space is now occupied by "Leisure Time Cocktails" (1725 sf).

The previously approved "Big Room Studios" (3,461 sf) has been replaced with an "Office Space". The square footage of the area is the same, but because the office space only has 7 employees, trip generation was based on employee trips.

The previously approved "Distillery" (5,284 sf) has been replaced with a "Brewery Tap Room" (5,284 sf). For the purposes of this evaluation due to similar use the previously approved individual square footage and trip generation will be used for the "Brewery Tap Room". Trip generation for the "Brewery Tap Room" is based on 1,200 SF of restaurant space (LUC 932) and 4,084 SF of brewery space (5 employees).

The previously approved "International Cryptozoology Museum" (993 sf) has doubled in size. Due to the "International Cryptozoology Museum" (1919 sf) doubling in size the trip generation will double from the previous report.

The site has moved onto its next phase of development, which includes Building's L, B2, and D. Building's L and B2 were identified as proposed development in the previous report. Building D was identified as potential future development in the previous report. Building's L, B2, and D will contribute 76 & 99 trip ends in the AM & PM peak hours respectively.

As shown in the table, the existing site is forecast to generate 274 trip ends during the AM peak hour and 472 trip ends during the PM peak hour.

Proposed Site Trip Generation

Our understanding is that the site is now moving into its next phase of development, which will include a 255-unit six story apartment building (identified as Building G on the enclosed site plan).

Trip generation for the proposed use has been based on the following:

- 255 Units of Residential Development – New Construction

The trip generation for the proposed use was calculated using the updated Institute of Transportation Engineers' publication, *Trip Generation*, 11th Edition (LUC 221 – Mid-Rise Apartment). It should be noted that LUC 221 provides two different trip generations, "not close to rail transit" and "close to rail transit". It is our understanding that ITE refers "close to rail transit" as more local transit, such as subways. The Amtrak located near Thompson's point, in our opinion, does not meet the intent for "close to rail transit". The following table summarizes the trip generation for the proposed uses:

Forecast Trip Generation

Building	Description	Size	AM Peak Hour	PM Peak Hour
Building G Residential				
	Apartments – LUC 221	255 Units	101	100
Forecast Trip Generation			**101**	**100**

As shown in the table, the proposed residential use is forecast to generate an additional 101 trip ends and 100 trip ends during the AM and PM peak hours of the adjacent street, respectively.

Site Trip Generation

The trip generation for the existing site has been combined with the trip generation for the proposed new and remodeled buildings to yield the total site trip generation.

Total Site Trip Generation Summary

Site	Building	AM Peak Hour	PM Peak Hour
Existing			
	Building A – Mixed Used (Brick North)	51	137
	Building C – Events (Brick South)	100	195
	Building F1 – Warehouse	11	9
	Building F2 – Artist Studio	3	4
	Building L – Office	4	8
	Building B2 – Concessions	4	4
	Building D – Hotel	68	87
	Building I – Children's Museum and Theatre of Maine	33	33
	Existing Total	**274**	**472**
Proposed			
	Market Rate Apartments	101	100
	Forecast Total	**101**	**100**
Site Subtotal		**375**	**572**
Reduction (10%) for Bus / Train / Shared Use		(-37)	(-57)
Proposed Site Trip Generation		**338**	**515**
Permitted Trip Ends		734	1091
Difference Between Permitted and Proposed Site		**396**	**576**

As shown in the table, the site inclusive of the proposed residential development is forecast to generate 338 trip ends during the AM peak hour and 515 trip ends during the PM peak hour. This yields an overall trip generation that is 396 trip ends **less** than the permitted trip generation during the AM peak hour and 576 trip ends **less** than the permitted trip generation during the PM peak hour.

Parking Demand

Proposed Apartments: Parking for the new apartments is based on the ITE Parking Generation Manual, 5th Edition. The parking demand rate (1.31 spaces/unit) is based on Land Use Code (LUC) 221 – Multifamily

Housing (Mid-Rise). Because of the nature of the housing use, the peak parking demand (334 spaces) occurs overnight with the lowest parking demand (164 spaces) occurring during the day (1:00 – 2:00 PM). This complements the other uses on site well, since they will have the highest demand around noon time, with little to no demand (approximately 26-70 spaces) overnight.

Overall Site: The overall site parking demand is based on a combination of shared and designated parking methodologies. The shared methodology (majority of the site) assumes there are parking spaces not designated for specific uses and can be shared between the uses. There are some spaces on site such as the panhandle/residential garage that are proposed to use designated parking and be specifically residential or non-public Thompson's Point managed supply spaces. The attached parking demand calculations show the detailed time of day distribution for each use and the forecast demand. Based on the calculations the peak parking demand is between 6:00 PM and 10:00 PM for the overall site. The peak parking demand (without an event in Brick South or Halo) is 475 spaces and is anticipated to occur at 10:00 PM, of which 405 is the parking demand for the hotel and apartments which have designated spaces. Excluding the hotel and apartments, the peak parking demand is 165 spaces and occurs around noon. As identified in the approval for the master development plan, when special events of a certain attendance threshold occur, additional parking measures will be implemented on an as needed basis.

Conclusions

The following is a summary of the conclusions:

1. The site (including existing and proposed uses) is forecast to generate a total of 338 trip ends during the AM peak hour and 515 trip ends. This trip generation is 396 trip ends less than the permitted trip generation during the AM peak hour and 576 trip ends less than the permitted trip generation during the PM peak hour.

2. The peak parking demand for the proposed apartments (334 spaces) occurs overnight after 10:00 PM, when there is little to no demand from the other on-site uses, with the exception of the hotel demand (110 spaces). Excluding the hotel and apartments, the overall site parking demand peaks around noon, when the hotel and apartments are near their lowest parking demand.

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Supplemental Package
12-10-2024

The following attachments are provided as previous information that has been submitted to the City in support of the Thompson's Point development.

A. TMP Extension – Dated 3/1/24 & 3/12/24
B. Trip Generation Evaluation & Summary – June 2022
C. Trip Generation and Parking Demand Summary – April 2020
D. MaineDOT Traffic Movement Permit - Thompson's Point Development Company Inc. – Signed 6/13/12

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GORRILL PALMER
An LJB Engineering Company

Attachment A

TMP Extension – Dated 3/1/24 & 3/12/24

Planning and Urban Development
Christine Grimando, AICP
Director

City of portland

Applicant:	Chris Thompson Forefront Partners I, LP 501 Danforth Street Portland, Maine 04102
Project Location:	1 Thompson's Point Rd. Portland, Maine 04102
Parcel #	201 A005001
Project:	Thompson's Point/Mixed-use Development
Identification #:	Reg. 01-00155-A-N
Permit Category:	200 Plus PCE
Traffic Engineer:	Thomas Gorrill/Randy Dunton Gorrill-Palmer Consulting Engineers 300 Southborough Dr., #200 South Portland, ME 04106

Pursuant to the provision of 23 M.R.S.A. § 704-A and Chapter 305 of the Maine Department of Transportation's (MaineDOT) Regulations, the City of Portland and MaineDOT have determined that a one-time extension of the Traffic Movement Permit issued for Thompson's Point is warranted. The permit will be considered expired if construction of the project has not been completed by March 1, 2027, unless a modification is approved prior to this date.

In the event the permit expires prior to construction being completed by the end of the one-time extension date, the Applicant shall submit a new permit, with information pertaining to Sections 1 thru 6 of the General Submission Requirements and a Notice of Intent to File, as outlined in Chapter 305, and address any changes in facts since the initial analysis and approval. Consistent with Section 8 of Chapter 305, in the event the Applicant completes all mitigation required for the Development, but cannot complete the Project within the one-time extension date, the Developer will be required to submit a TMP Modification that includes any programmatic changes to the Development for review and approval. An applicant may be required to provide additional mitigation of permitted trips as a result of changes to the Development program increase beyond the initial approval. Additionally, the Developer may be required to attend a Scoping Meeting, unless the Maine Department of Transportation waives this requirement.

389 Congress Street, Portland, Maine 04101 | ph: 207.874.8608 | cdg@portlandmaine.gov

All required terms and mitigation of the original TMP approval remain in effect.

Christine Grimando, AICP
Director, Department of Planning & Urban Development
City of Portland

Date: March 1, 2024

Stephen Landry, P.E.
State Traffic Engineer
Maine Department of Transportation

Date: 3/12/24

GORRILL PALMER
An LJB Engineering Company

Attachment B

Trip Generation Evaluation & Summary – June 2022

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

Trip Generation Evaluation & Summary
Thompson's Point
June 13, 2022

Date: June 13, 2022
Subject: Updated Trip Generation
Thompson's Point
To: Bo Kennedy, P.E. - Placemaker Partners, LLC
From: Randy Dunton, P.E., PTOE

Gorrill Palmer (GP) has prepared this updated trip generation summary for the Thompson's Point development in Portland, Maine. The full build out of the project received a MaineDOT Traffic Movement Permit (TMP) in 2012 (Reg. 01-00155-A-N) for 734 trip ends during the AM peak hour and 1,091 trip ends during the PM peak hour. The project is being constructed in phases and each phase must be evaluated to ensure that the total site trip generation does not exceed the permitted trip generation. The following is a summary of the forecast trip generation for the existing and previously approved uses, currently proposed and potential future development and the total site trip generation. A Thompsons Point Campus Directory is attached showing the location of each building for the existing conditions. Exact location of proposed and potential future buildings is still being refined.

Existing Trip Generation Summary

The trip generation for the existing Thompson's Point site has been based on discussions with your office and previously approved uses. Where relevant, trip generation that was previously approved was maintained in this evaluation. Trip generation for change in tenants permitted under current approvals is based on ITE Trip Generation, 11th Edition or through observations at the site. As previously approved for this site, a 10% reduction has been applied to the total site trip generation to account for other modes of transportation and shared uses on the site. The following tables summarize the trip generation for the existing site:

Table 1 – Existing Site – Trip Generation

Building	Description	Size	AM Peak Hour	PM Peak Hour
Brick North				
	Rosemont Market – Based on observations	2,724 sf	0	29
	Rwanda Bean – Based on observations	2,400 sf	18	21
	Halo (Event Space) – 3.5 people / car – Night Event	400 attendees	16	31
	Big Room Studios – LUC 712	3,461 sf	6	7
	Bissell Brewery & Restaurant – LUC 932 + 7 Emp.	11,920 sf	25 (18+7)	24 (17+7)
	Distillery – LUC 932 + 5 Emp.	5,284 sf	16 (11+5)	16 (11+5)
	Color Me Mine – previously approved	2,136 sf	2	6
	International Cryptozoology Museum - assumed	993 sf	1	1
	Brick North Total		**84**	**135**

Brick South				
	Event/Assembly Space – 3.5 people / car – Night Event	2,500 Seats	100	195
	Annex	7,384 sf	--*	--*
	Brick South Total		**100**	**195**
Building F1				
	Warehouse – LUC 110	14,200 sf	11	9
	Building F1 Total		**11**	**9**
Building F2				
	Proposed Artist Studio – LUC 712	1,940 sf	3	4
	Building F2 Total		**3**	**4**
Satellite Building				
	Children's Museum – provided by Museum – previously approved	29,096 sf	33	33
	Satellite Building Total		**33**	**33**
	Existing Site Subtotal		**228**	**376**
	Reduction for Existing Site Shared Trips		**(-23)**	**(-38)**
Total			**205**	**338**

*Maximum of 2,500 people in the building for events. Highest trip generation would be an event in the Event space, not the Annex.

Since initially approved, there has been some minor changes to the uses. The "Locally Sauced (formerly Big J's Chicken) and the Bissell "Brewery" have been combined and identified above as "Bissell Brewery & Restaurant". For the purposes of this evaluation, the previously approved individual square footages and trip generations have been combined.

The previously approved Cellardoor "Winery" (5,890 sf) has been replaced with a Rosemont Market with wine bar (2,724 SF) and a Rwanda Bean (2,400 SF). The difference between the square footages is a bathroom area that is shared between the two uses. The Rosemont Market and Rwanda Bean are described in more detail as follows:

Rosemont Market – this is a boutique type store with approximately 12 seats in the café area and 15 seats at the wine bar. The store hours during a weekday are 10AM – 8PM for the store & café area and 2PM-8PM for the wine bar. Since the use is unique, it does not fit into a typical ITE category for the purpose of determining trip generation. Since the use is not open during the AM peak hour of adjacent street traffic, the trip generation for the AM peak hour was assumed to be none. To estimate the PM peak hour of adjacent street traffic, the use was counted on Thursday, April 21, 2022 from 4PM – 6PM. Both of the accesses to the facility were observed, and it was estimated who may have arrived in their own car. Based on our observations, the peak hour occurred from 4PM – 5PM with an estimated total of 11 vehicles entering and 18 vehicles exiting, for a total of 29 vehicles.

Rwanda Bean – similar to the market, this is a boutique type store with approximately 25 seats, with areas for both cooking goods and a relatively large area for the roasting and packaging of the coffee. The store hours during a weekday are 8AM – 4PM. Since the use is unique, it does not fit into a typical ITE category. The use was counted on Thursday, April 21, 2022 from 7AM – 9AM and again from 3:30PM – 4:30 PM. Similar to the market, all of the accesses to the facility were observed, and it was estimated who may have arrived in their own car. Based on our observations, the AM peak hour occurred from 8AM – 9AM. There was only one hour counted for the PM since they close at 4PM. Based on our observations, the AM experienced a total of 18 vehicles (11 entering and 7 exiting) and the PM experienced a total of 21 vehicles (11 entering and 10 exiting). Even though the PM adjacent street peak hour typically occurs between 4PM – 6PM, to be conservative we used the 3:30PM – 4;30PM counts.

As shown in the table, the existing site subtotal is forecast to generate 228 trip ends during the AM peak hour and 376 trip ends during the PM peak hour. Based on observations at the site, there are significant shared trips between the activities on site (such as Children's Museum) and the food establishments such as Rwanda Bean & Rosemont Market. Additional significant shared trips would also be expected between activities on site and Bissell Brewery & Restaurant and potentially the Distillery. Although a 10% reduction is applied to the site as a whole, that 10% also includes those taking other modes of transportation, so only a portion of that reduction is shared trips. Given the significant shared use that has been observed on site, an additional 10% was subtracted from the existing site traffic to reflect the existing shared use. Therefore, the resulting trip generation for the existing site is forecast to be 205 trip ends during the AM peak hour and 338 trips ends during the PM peak hour.

Proposed Site Trip Generation

Our understanding is that the site is now moving into its next phase of development, which will include an approximately 148 room hotel and a concession building (Building B2). A smaller Hotel (125 room) was included in the original TMP with a trip generation of 70 and 74 trips ends during the AM & PM peak hours of adjacent street traffic respectively. We understand that the final number of rooms is still being refined and may be something less than the 148.

The currently proposed concession building is intended to supplement existing uses on site and not generate significant trips from off-site. For the purposes of this evaluation, we have considered trip generation to be 4 employees during both the AM and PM peak hours.

The following Table 2 summarizes the forecast trip generation for the hotel and concession building.

Table 2 - Currently Proposed Development - Trip Generation

Building	Description	Size	AM Peak Hour	PM Peak Hour
Hotel				
	Hotel – LUC 310	148 Rooms	68	87
	Hotel Total		**68**	**87**
Building B2				
	Concession Building	960 sf	4	4
	Building B2 Total		**4**	**4**
Currently Proposed Development Trip Generation			**72**	**91**

As shown in the Table 2, the proposed uses are forecast to generate an additional 72 trip ends and 91 trip ends during the AM and PM peak hours of the adjacent street, respectively.

Potential Future Development Trip Generation

In addition to the existing and currently proposed development, there is potential future development that could occur on-site and bring the site to its full potential as envisioned in the Master Development Plan. Those potential future uses were also described in the previous May 14, 2020 evaluation and are repeated here:

"Building K – New Construction
- *Proposed Inn: 61 rooms + potential 22 room expansion*
- *The Inn is proposed to include a bar that is intended to serve primarily hotel guests and potentially guests of other Thompson's Point uses. However, it is not anticipated to draw significant outside traffic, so the trip generation for the bar is forecast to be negligible."*

"Building L – Renovation
- *Existing Office: 4,000 sf*
- *Existing Storage: 1,760 sf*
- *Proposed Office: 5,760 sf"*

The 344 apartments that are currently identified as potential future development were originally approved in the "Revised Master Plan" as J1-(160 units), J2-(160 units) and 24 units on the top of the hotel. The trip generation for the apartments is based on the ITE Trip Generation 11th Edition for Land Use Code 221 – Multifamily Housing (Mid-Rise) – between 4 & 10 stories.

The following table summarizes the trip generation for the potential future development uses:

Table 3 - Potential Future Development - Trip Generation

Building	Description	Size	AM Peak Hour	PM Peak Hour
Building K				
	Inn – LUC 310	61 Rooms	28	36
	Inn Expansion – LUC 310	22 Rooms	10	13
	Building K Total		**38**	**49**
Building L				
	Proposed Office – LUC 712	4,000 sf	7	9
	Proposed Event Space	100 attendees	4	8
	Existing Office (Credit)	4,000 sf	(-7)	(-9)
	Existing Storage	1,760 sf	0*	0*
	Building L Total		**4**	**8**
Apartments				
	Market Rate Apartments – LUC 221	344 Units	127	134
	Apartments		**127**	**134**
Potential Future Development Trip Generation			**169**	**191**

*Trip generation assumed to be negligible.

Site Trip Generation

The trip generation for the existing site has been combined with the trip generation for the currently proposed development and the potential future development to yield the site trip generation upon full development of the uses identified herein. The total site trip generation has been compared to the permitted trip generation to identify remaining available permitted trips for other approved uses within the master plan.

Table 4 - Total Site Trip Generation Summary

Condition	AM Peak Hour	PM Peak Hour
Existing Site	205	338
Currently Proposed Development	72	91
Potential Future Development	169	191
Site Subtotal	446	620
Reduction (10%) for Bus / Train / Shared Use	(-45)	(-62)
Revised Site Trip Generation	**401**	**558**
Permitted Trip Ends (2012 TMP – Reg. 01-00155-A-N)	734	1091
Difference Between Permitted and Proposed Site	**333**	**533**

As shown in Table 4, the total site uses after consideration of other modes of transportation are forecast to generate 401 trip ends during the AM peak hour and 558 trip ends during the PM peak hour. This yields an overall site trip generation that is 333 trip ends less than the permitted trip generation during the AM peak hour and 533 trip ends less than the permitted trip generation during the PM peak hour.

Attachments:
- Campus Directory
- Trip Generation

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LEGEND

1. PORTLAND TRANSPORTION CENTER
2. PORTLAND TRAILS - Multi-Use
   Connection to Fore River Parkway and Sewall Street
3. PORTLAND TRAILS - Fore River Trailhead
4. BRICK NORTH - Mixed Use
   - 4A. Halo At The Point - Event Space
   - 4B. Big Room Studios
   - 4C. Color Me Mine
   - 4D. Stroudwater Distillery
   - 4E. International Cryptozoology Museum
   - 4F. Bissell Brothers Kitchen
   - 4G. Bissell Brothers Brewing
   - 4H. Rosemont Market & Wine Bar
   - 4I. Rwanda Bean Coffee
5. THE GROVE
   Featuring "Tree Of 40 Fruit"
6. CHILDREN'S MUSEUM & THEATRE OF MAINE
7. BRICK SOUTH - Event Venue
   - 7A. Brick South Beer Garden
8. DEPOT PAVILION & CONCESSIONS
   - 8A. Seasonal Warming Hut & Bar
   - 8B. Portland Trails Parklet
   - 8C. Outdoor Event Lawn
9. METRO BUS STOP
   - 9A. SHELTER

FORE RIVER

STAY OFF TRACKS

THOMPSON'S POINT RD

RESURGAM PLACE

VAN AKEN WAY

8A 8B 8C 7A 4A 4B 4C 4D 4E 4F 4G 4H 4 I

PAY & DISPLAY KIOSK
Enforcement Rules In Effect 24/7

PASSPORT PARKING ZONE # 1213
Enforcement Rules In Effect 24/7

THOMPSON'S POINT

THOMPSON'S POINT CAMPUS DIRECTORY

PORTLAND, ME

Big Room Studios

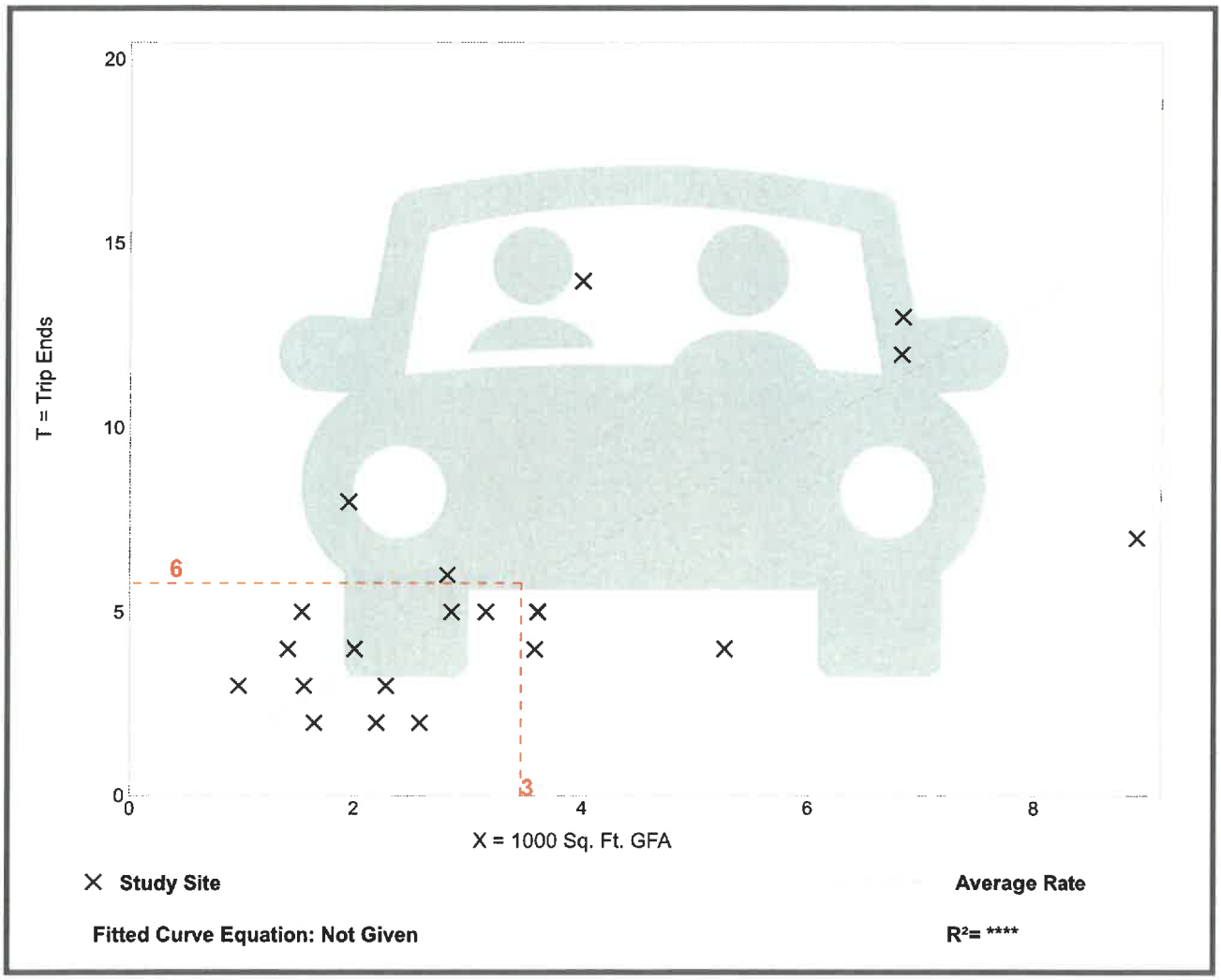
Small Office Building
(712)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 21
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 82% entering, 18% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.67	0.76 - 4.12	0.88

Data Plot and Equation



Trip Gen Manual, 11th Edition • Institute of Transportation Engineers

Big Room Studios

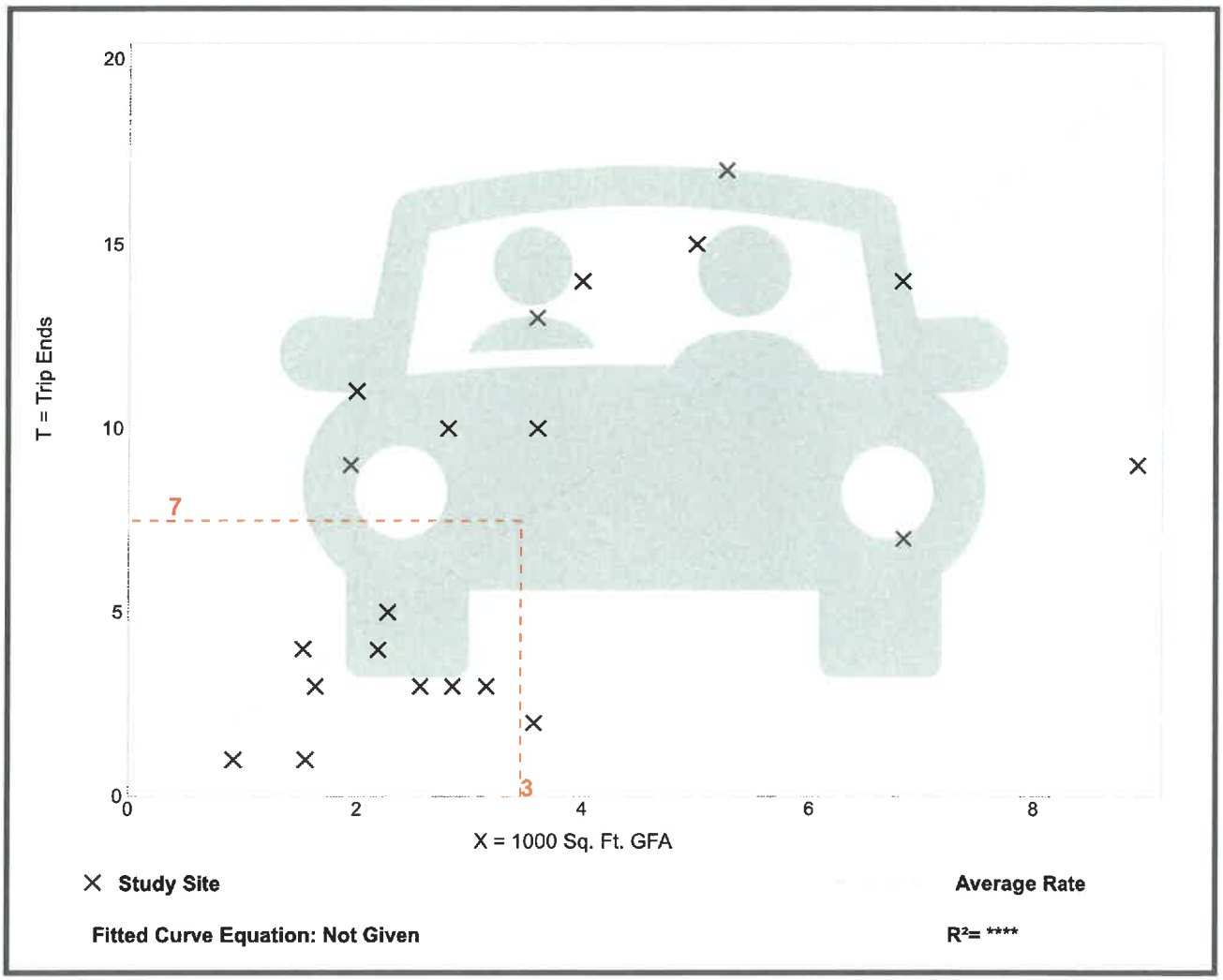
Small Office Building
(712)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	21
Avg. 1000 Sq. Ft. GFA:	3
Directional Distribution:	34% entering, 66% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.16	0.56 - 5.50	1.26

Data Plot and Equation



Trip Gen Manual, 11th Edition • Institute of Transportation Engineers

Bissell
(1900# + 7 Emp)

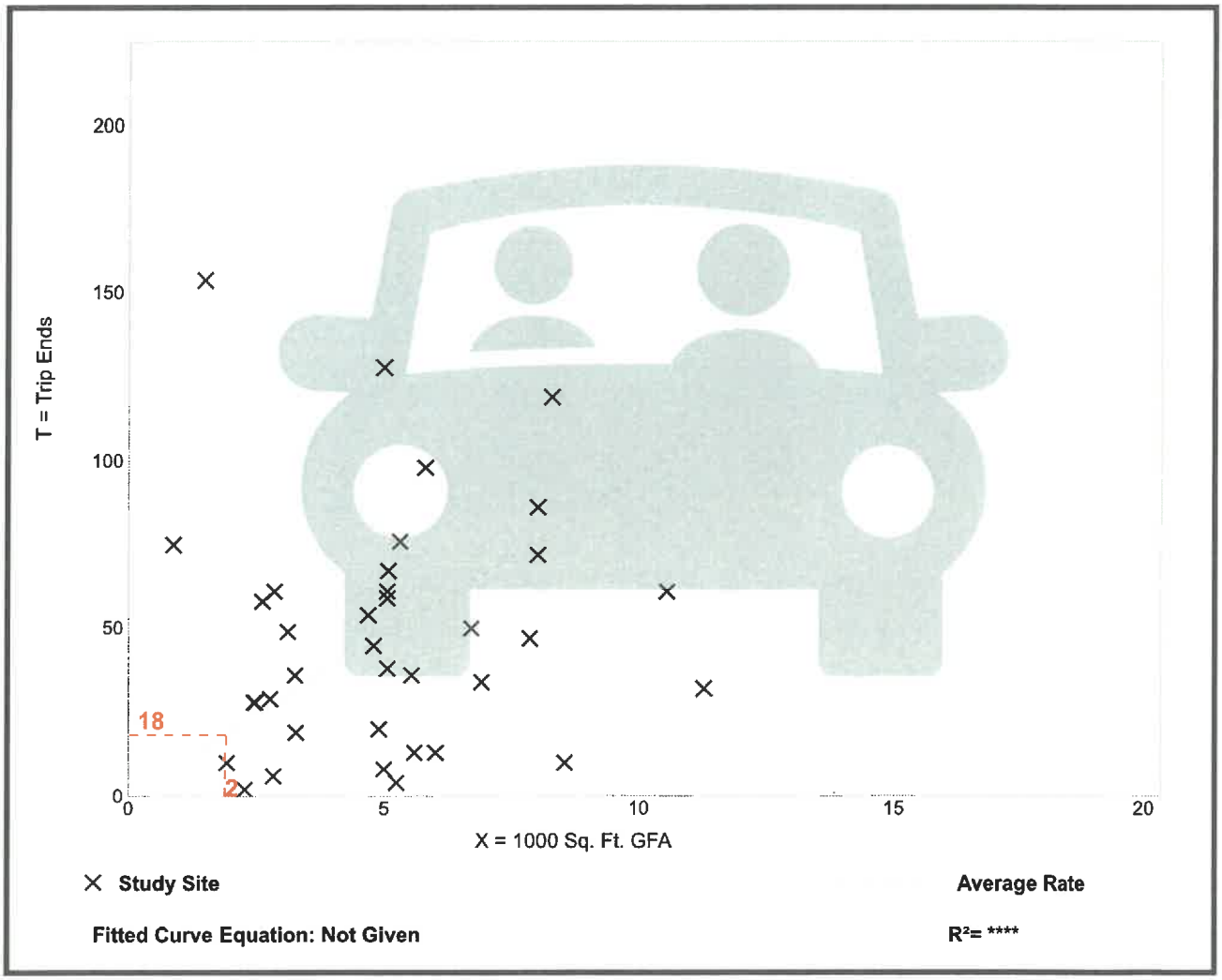
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	37
Avg. 1000 Sq. Ft. GFA:	5
Directional Distribution:	55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.57	0.76 - 102.39	11.61

Data Plot and Equation



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Bissell
(1900# + 7 EMP)

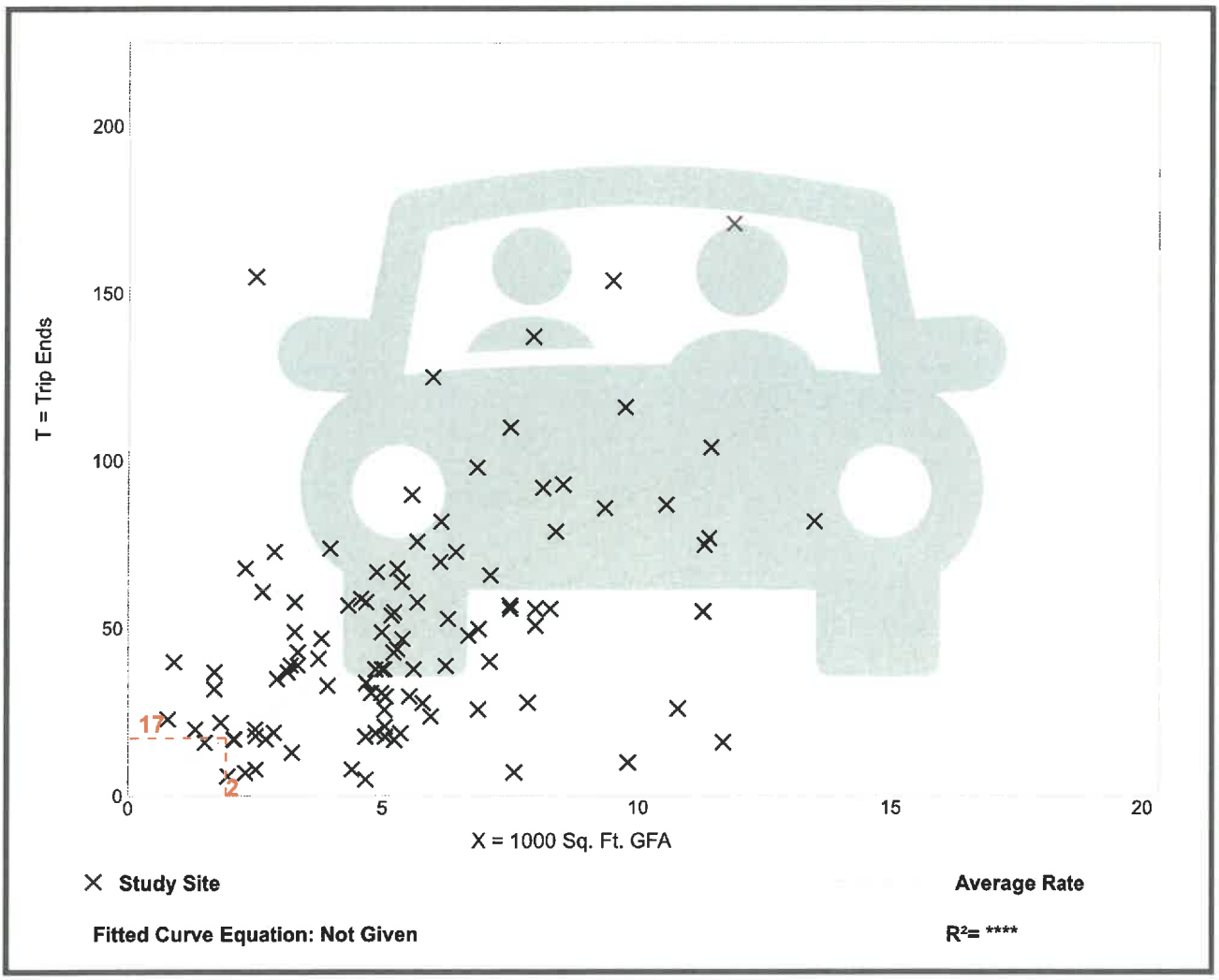
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	104
Avg. 1000 Sq. Ft. GFA:	6
Directional Distribution:	61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18

Data Plot and Equation



Distillery
(1200# +5)

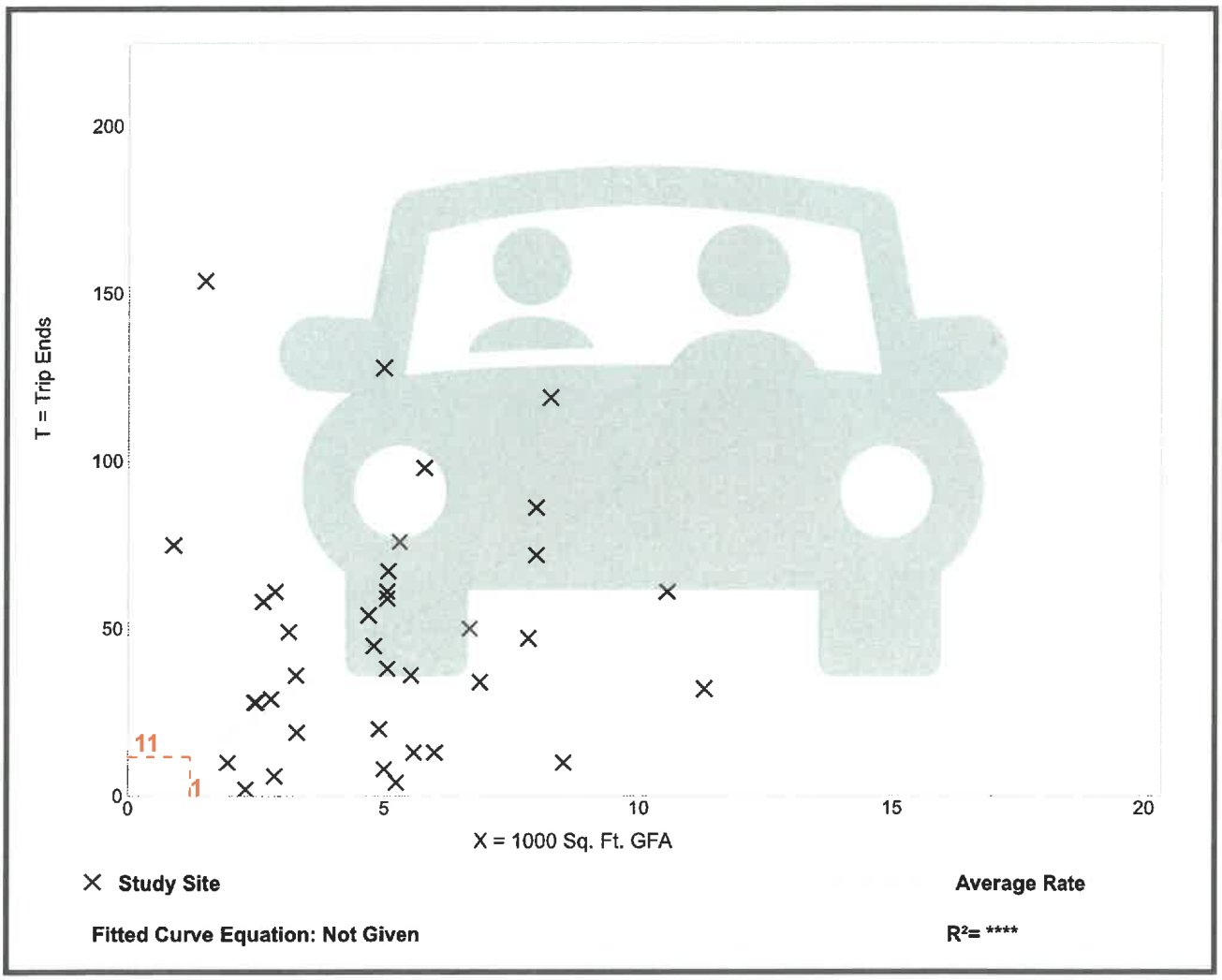
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	37
Avg. 1000 Sq. Ft. GFA:	5
Directional Distribution:	55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.57	0.76 - 102.39	11.61

Data Plot and Equation



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Distillery
(1200# +5)

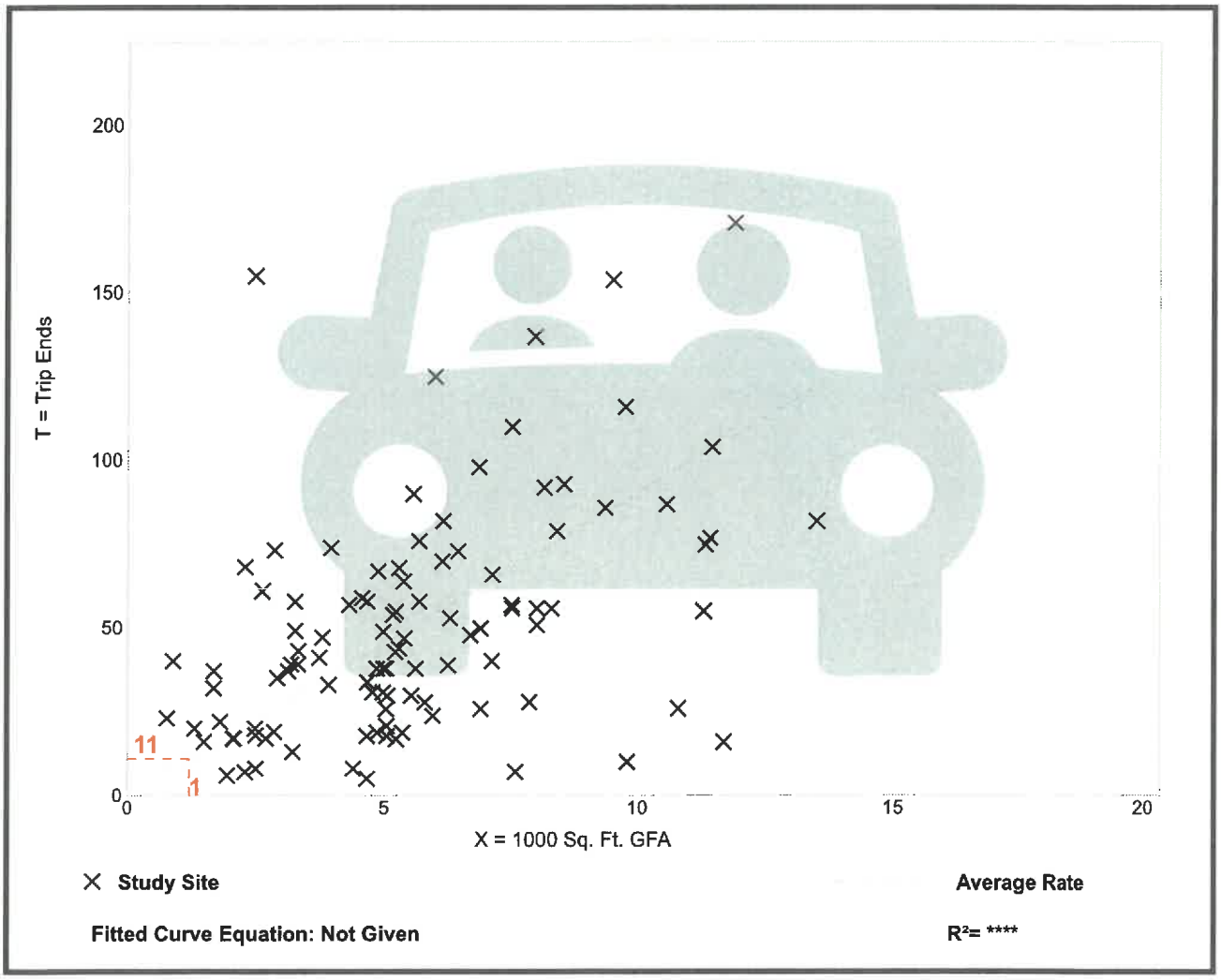
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 104
Avg. 1000 Sq. Ft. GFA: 6
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18

Data Plot and Equation



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Building F1

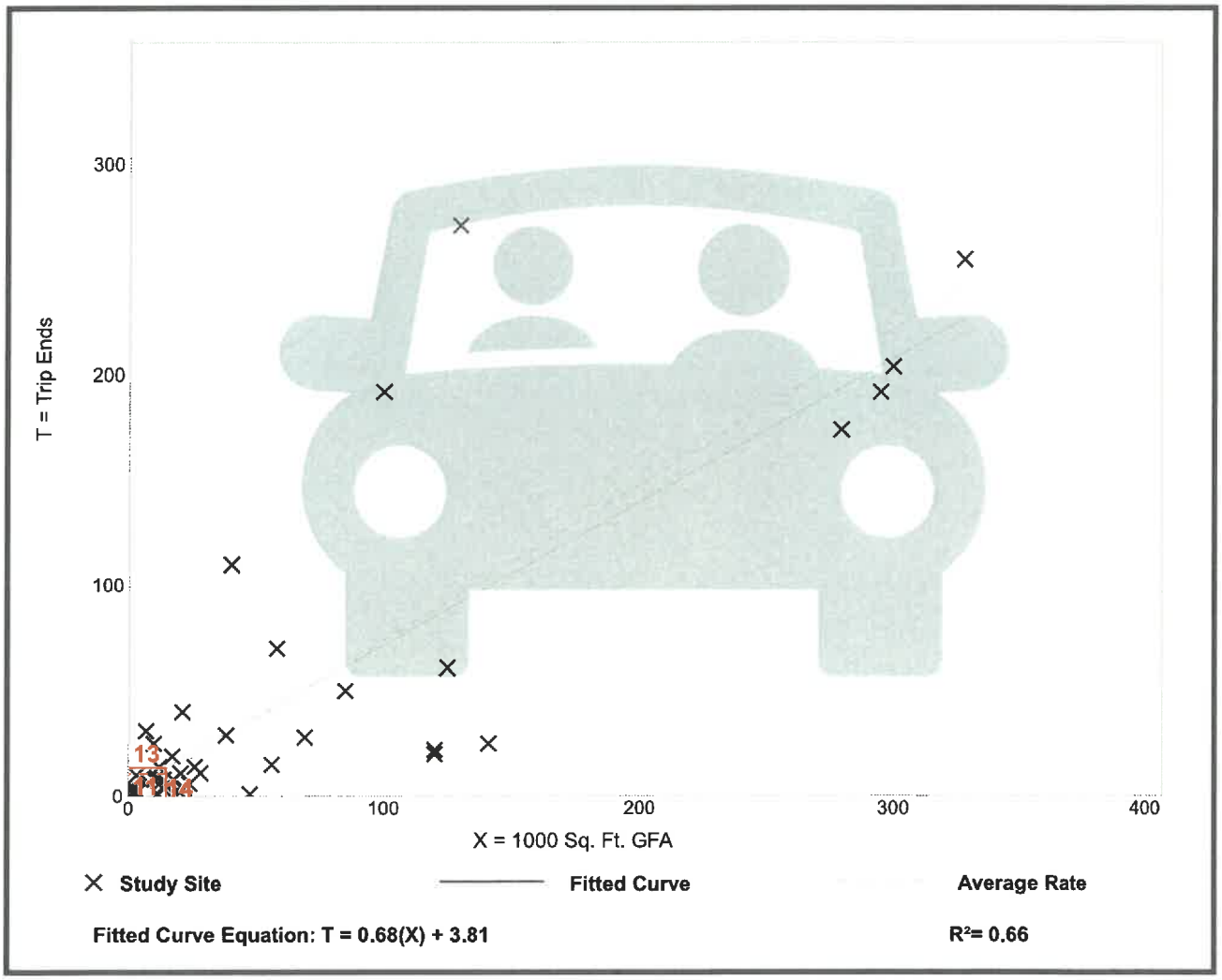
General Light Industrial
(110)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 41
Avg. 1000 Sq. Ft. GFA: 65
Directional Distribution: 88% entering, 12% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.74	0.02 - 4.46	0.61

Data Plot and Equation



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Building F1

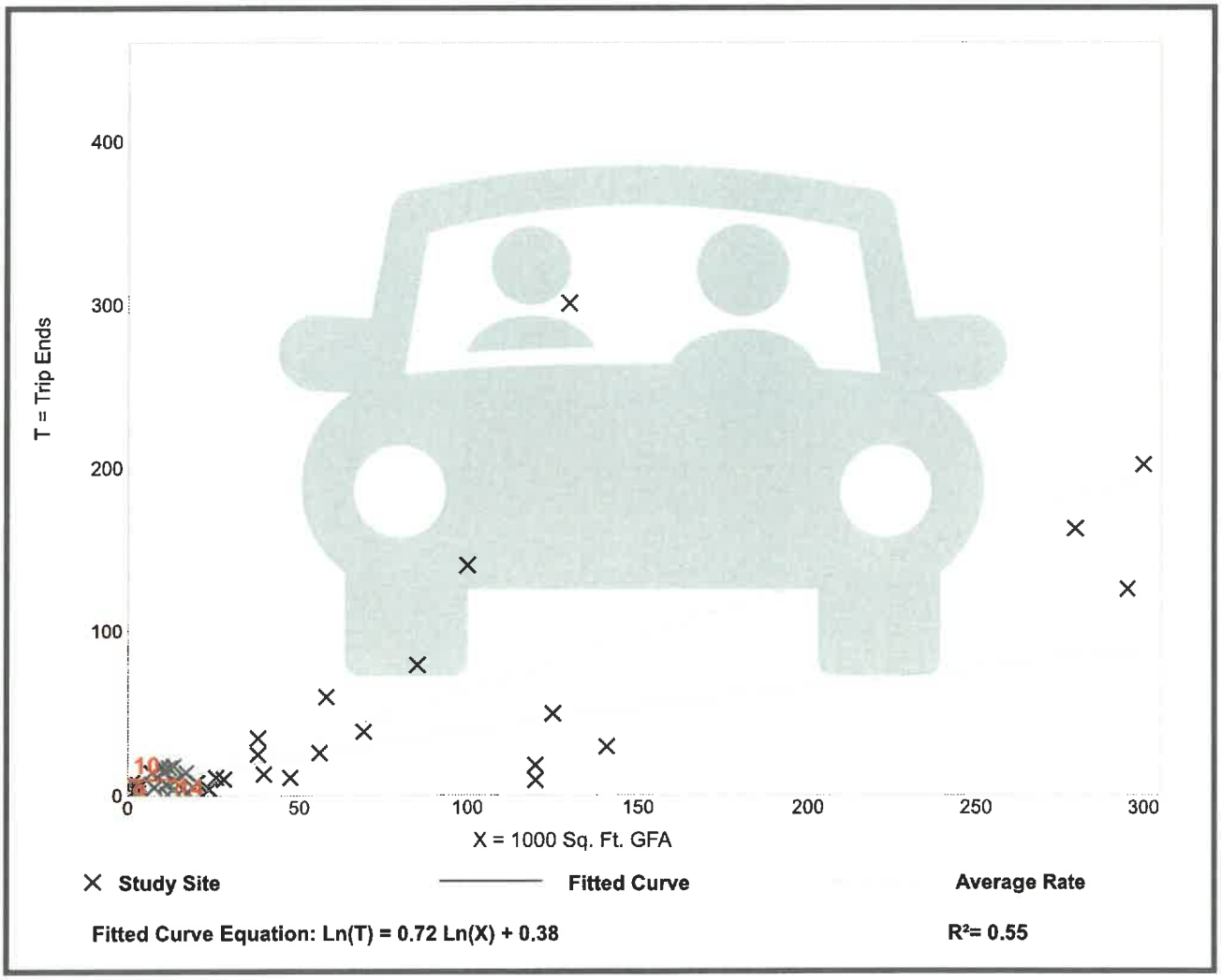
General Light Industrial
(110)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 40
Avg. 1000 Sq. Ft. GFA: 58
Directional Distribution: 14% entering, 86% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.65	0.07 - 7.02	0.56

Data Plot and Equation



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Building F2

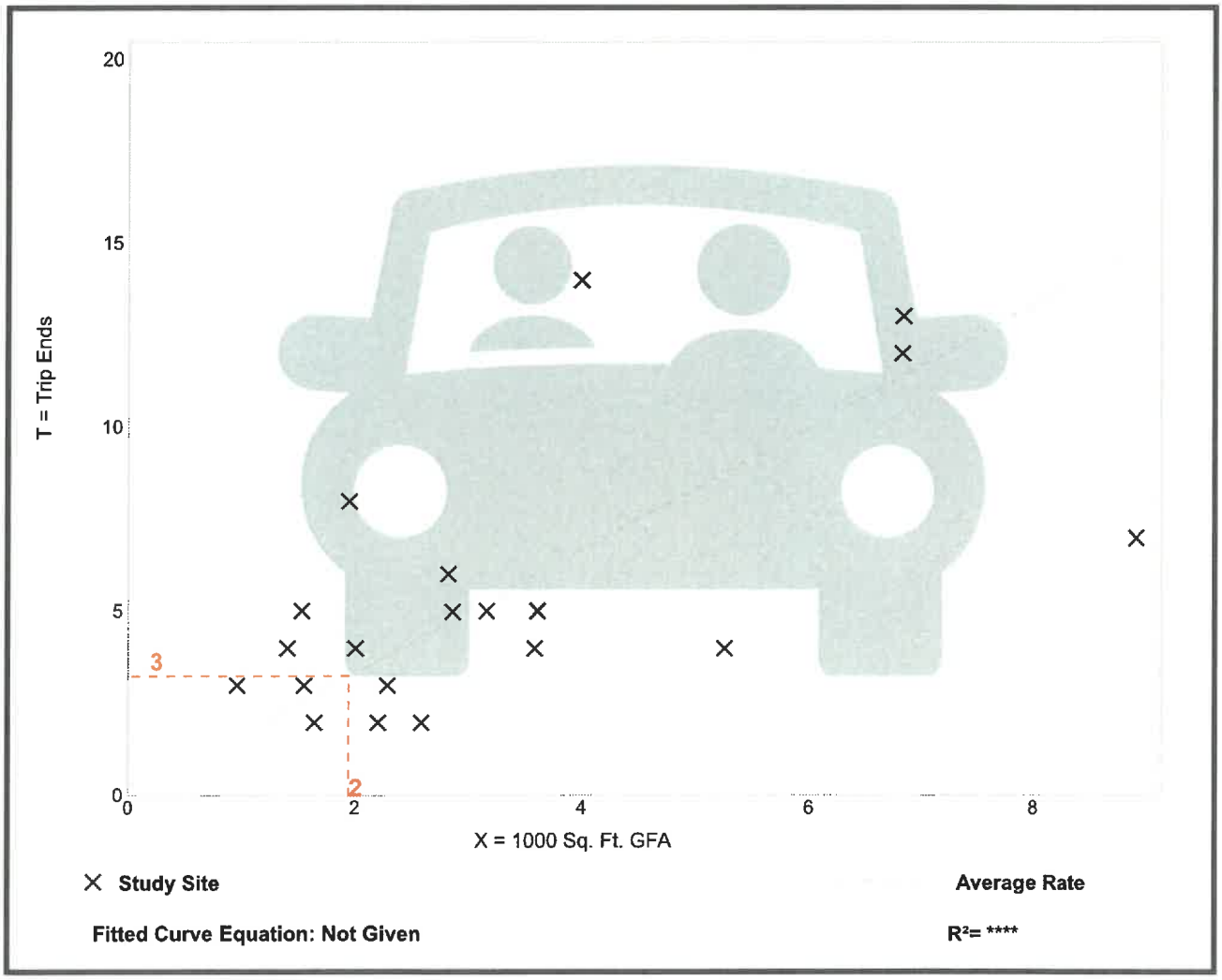
Small Office Building
(712)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 21
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 82% entering, 18% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.67	0.76 - 4.12	0.88

Data Plot and Equation



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Building F2

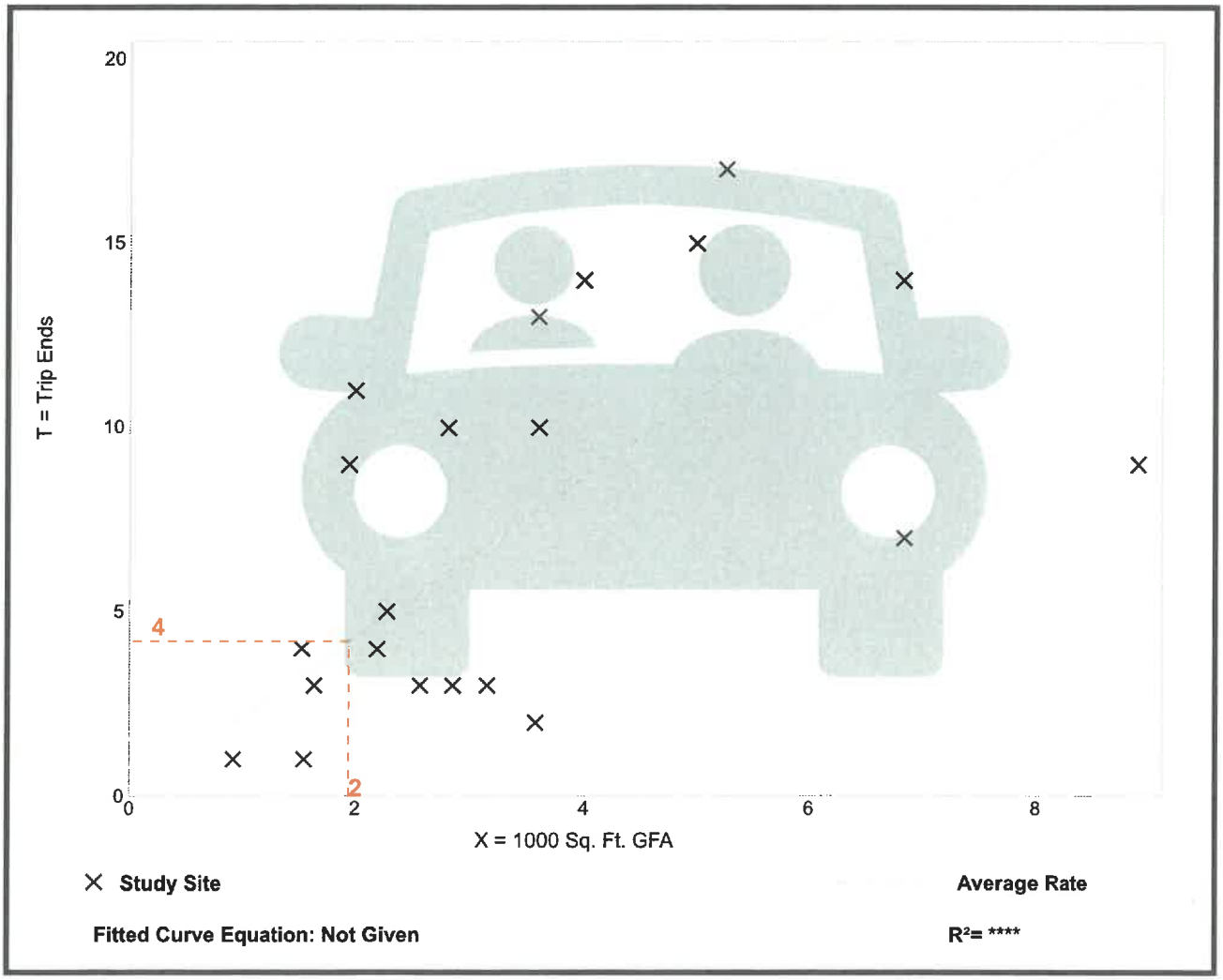
Small Office Building
(712)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 21
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 34% entering, 66% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.16	0.56 - 5.50	1.26

Data Plot and Equation



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Building D & K

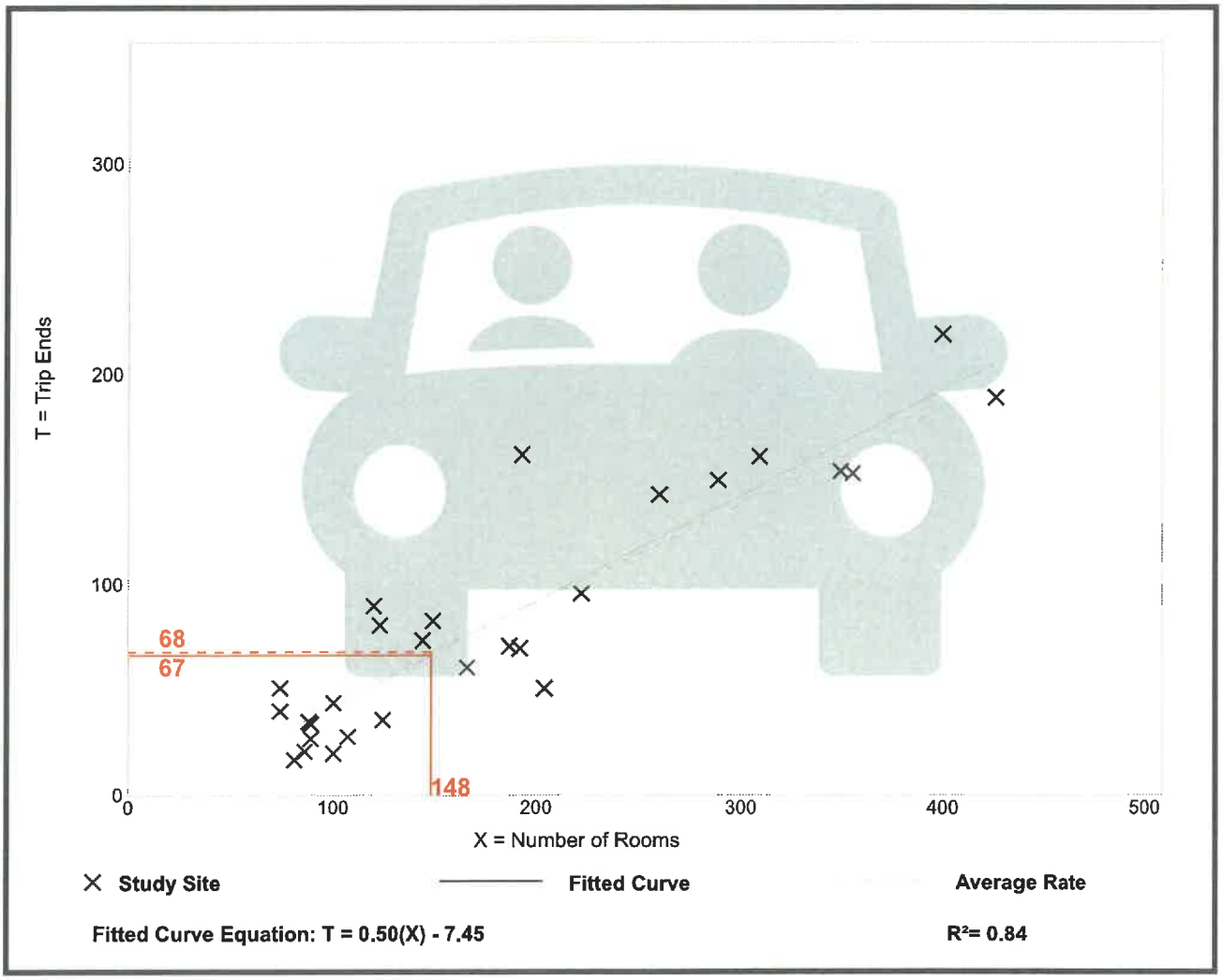
Hotel
(310)

Vehicle Trip Ends vs:	**Rooms**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	28
Avg. Num. of Rooms:	182
Directional Distribution:	56% entering, 44% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
0.46	0.20 - 0.84	0.14

Data Plot and Equation



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Building D & K

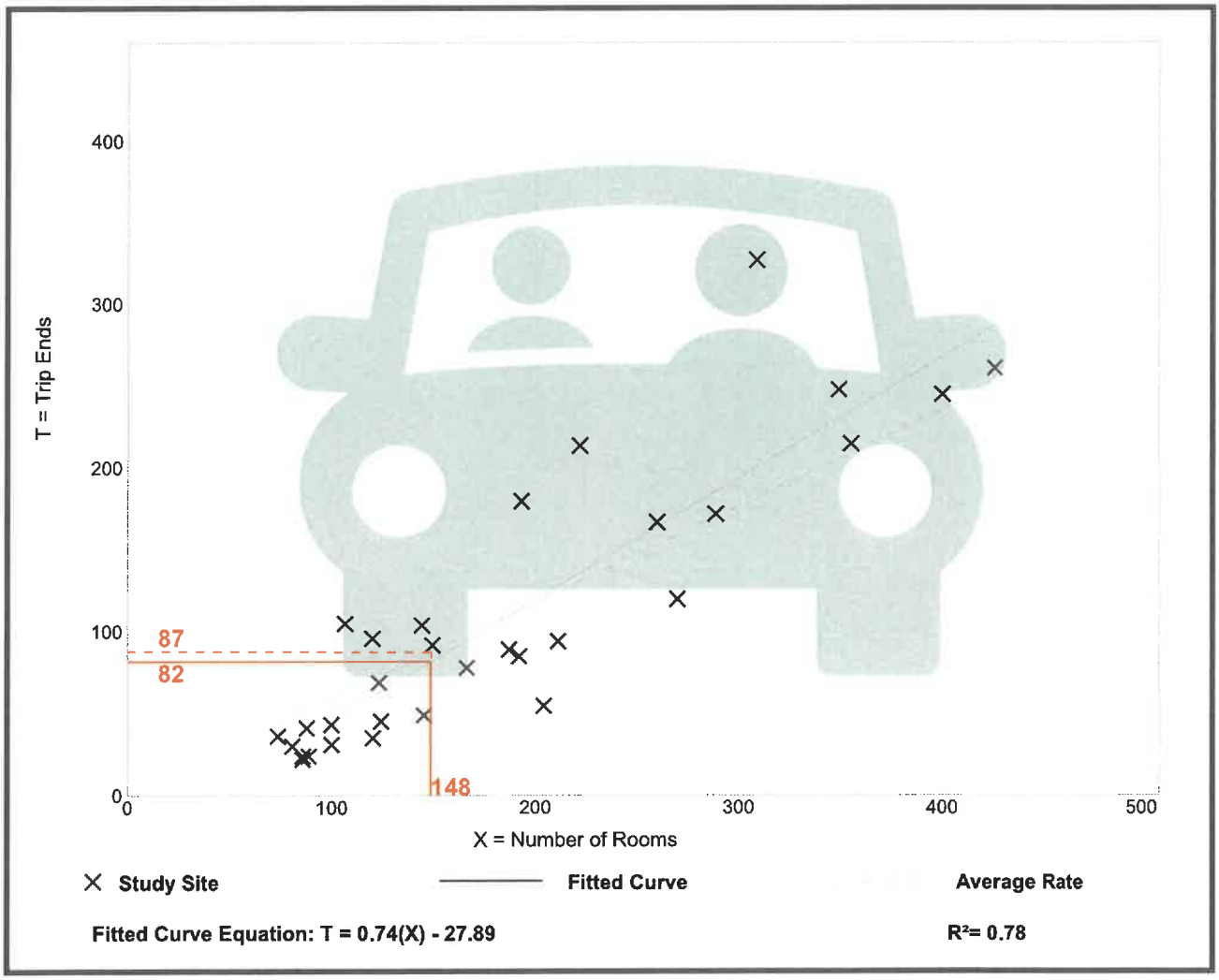
Hotel
(310)

Vehicle Trip Ends vs:	**Rooms**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	31
Avg. Num. of Rooms:	186
Directional Distribution:	51% entering, 49% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
0.59	0.26 - 1.06	0.22

Data Plot and Equation



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Apartments

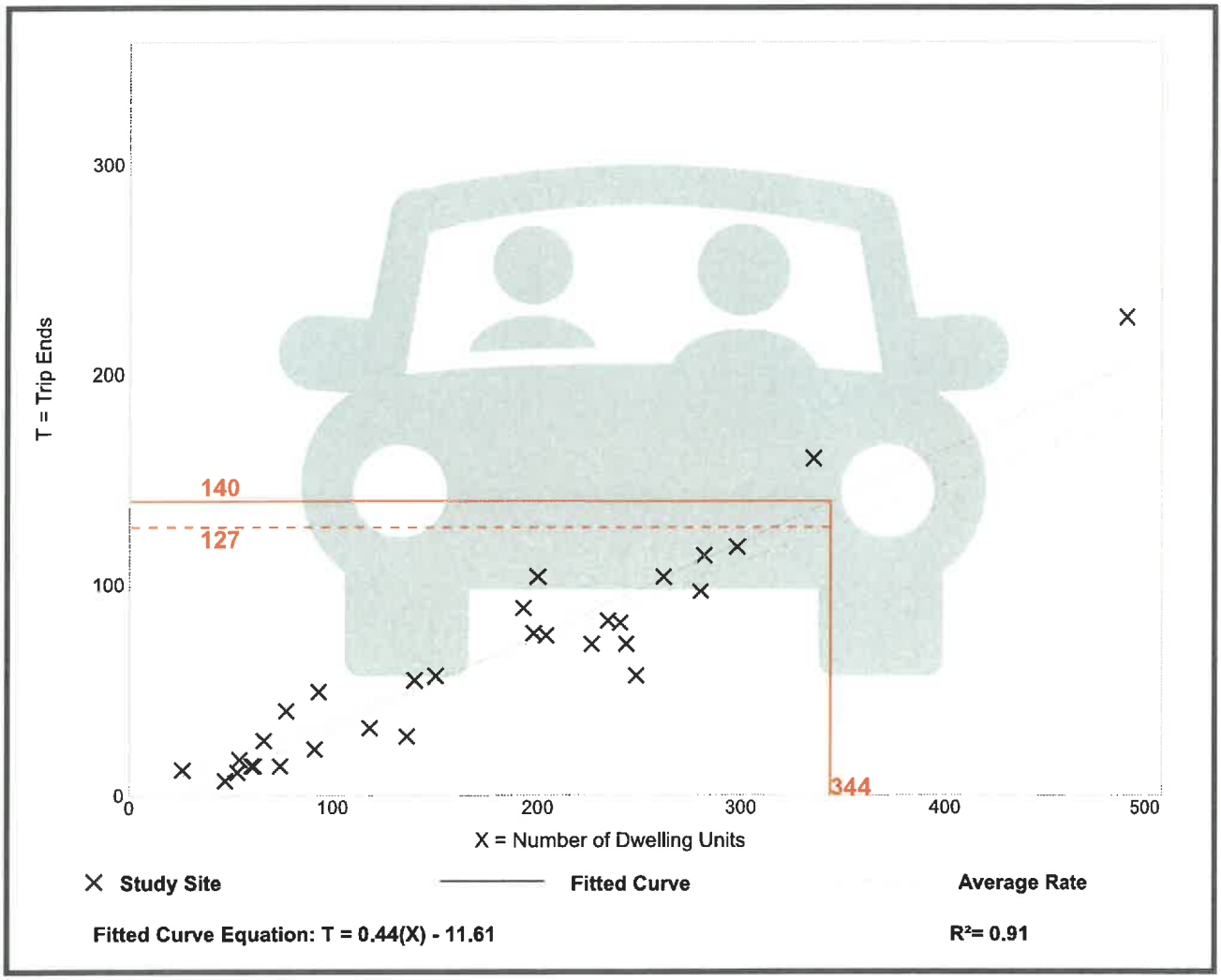
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	30
Avg. Num. of Dwelling Units:	173
Directional Distribution:	23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.37	0.15 - 0.53	0.09

Data Plot and Equation



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Apartments

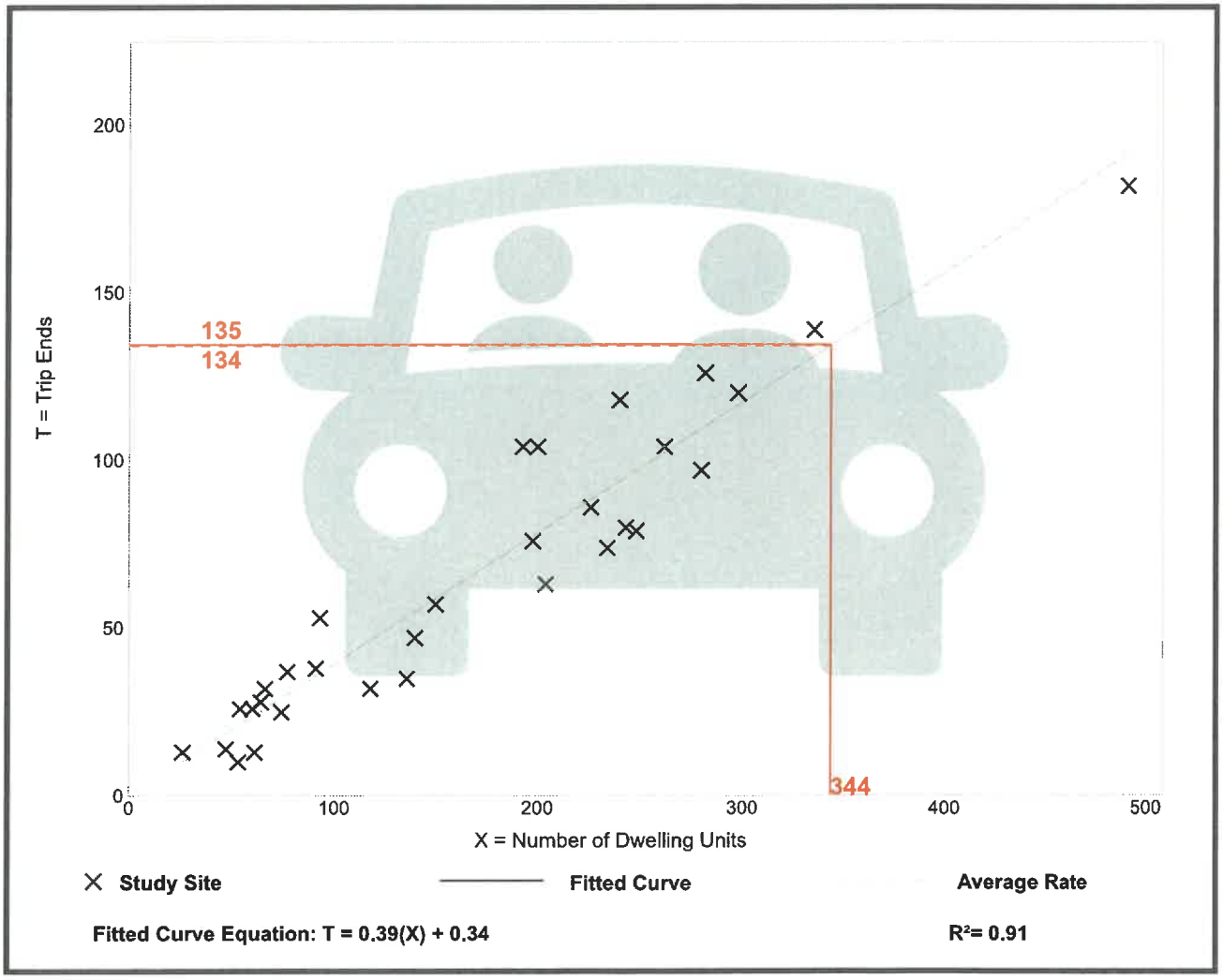
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 31
Avg. Num. of Dwelling Units: 169
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.19 - 0.57	0.08

Data Plot and Equation



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GORRILL PALMER
An LJB Engineering Company

Attachment C

Trip Generation and Parking Demand Summary – April 2020

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

Trip Generation and Parking Demand Summary
Thompson's Point
April 2020

Date: May 14, 2020
Subject: Updated Trip Generation and Parking Demand
Thompson's Point
To: Bo Kennedy, Placemaker Partners, LLC
From: Randy Dunton / Emily Leighton, Gorrill Palmer (JN 3646)

Gorrill Palmer (GP) has prepared this updated trip generation and parking demand summary for the Thompson's Point development in Portland, Maine. The full build out of the project received a MaineDOT Traffic Movement Permit (TMP) in 2012 (Reg. 01-00155-A-N) for 734 trip ends during the AM peak hour and 1,091 trip ends during the PM peak hour. The project is being constructed in phases and each phase must be evaluated to ensure that the total site trip generation does not exceed the permitted trip generation. The following is a summary of the forecast trip generation and parking demand for the existing and previously approved uses, the proposed Buildings K and F1, the renovation of Buildings L and F2, and the proposed Building B2 that replaces existing mobile stations. A site plan is attached showing the location of each building. Additionally, the following includes a comparison of the total trip generation to the permitted trip generation.

Existing and Previously Evaluated Trip Generation Summary

The trip generation for the existing Thompson's Point site has been based on information provided by Bo Kennedy in an email dated August 22, 2017. The trip generation was calculated using the same methodology as that used in previous trip generation evaluations for the site, including using the Institute of Transportation Engineers' publication, *Trip Generation*, 7th Edition and applying a 10% reduction to the total site trip generation to account for other modes of transportation and shared uses on the site. The following table summarizes the trip generation for the existing site:

Existing Site Trip Generation

Building	Description	Size	AM Peak Hour	PM Peak Hour
Brick North				
	Winery	5,890 sf	4	16
	Halo (Event Space)	400 attendees	16	31
	Big Room Studios	3,461 sf	13	20
	Locally Sauced (formerly Big J's Chicken)	1,852 sf	21	20
	Brewery	10,068 sf	7	7
	Distillery	5,284 sf	4	4
	Color Me Mine	2,136 sf	2	6
	International Cryptozoology Museum	993 sf	1	1
	Brick North Total		**68**	**105**

Brick South				
	Event/Assembly Space	2,500 Seats	100	195
	Annex	7,384 sf	--*	--*
	Brick South Total		**100**	**195**
Hotel				
	Hotel	148 Rooms	83	87
	Proposed Total		**83**	**87**
Under Construction				
	Children's Museum	29,096 sf	33	33
	Under Construction Total		**33**	**33**
Approved Subtotal			**284**	**420**

*Maximum of 2,500 people in the building for events. Highest trip generation would be an event in the Event space, not the Annex.

As shown in the table, the existing site is forecast to generate 284 trip ends during the AM peak hour and 420 trip ends during the PM peak hour.

Proposed Site Trip Generation

The trip generation for the proposed uses has been based on the following:

- Building K – New Construction
  - Proposed Inn: 61 rooms + potential 22 room expansion
- Building F1 – New Construction
  - Proposed Warehouse: 14,200 sf
- Building L – Renovation
  - Existing Office: 4,000 sf
  - Existing Storage: 1,760 sf
  - Proposed Office: 4,000 sf
  - Proposed Event Space: 1,760 sf / 100 attendees maximum
- Building F2 – Renovation
  - Existing Garage Workspace: 1,940 sf
  - Proposed Artist Studio Space: 1,940 sf
- Building B2 – Replacement of Temporary Structures
  - Existing: Seasonal concession stands
  - Proposed Concession Building: 2,800 sf

The trip generation has also been based on the following assumptions:

- Building K:
  - The Inn is proposed to include a bar that is intended to serve primarily guests of the inn and potentially guests of other Thompson's Point uses. However, it is not anticipated to draw significant outside traffic, so the trip generation for the bar is forecast to be negligible.
- Building F2:
  - The proposed artist studio space in Building F2 is anticipated to operate most similarly to a shared office space, although this is likely a conservative assumption, since all users are not expected to enter and exit the site during the AM and PM peak hours and are more likely to be distributed throughout the day. It may be used as meeting or assembly space for less than 100 people, however the trip generation as an event space would be less than the trip generation forecast as an office.

- Building B2:
    - This building replaces existing temporary facilities and is intended to supplement existing uses on site. The proposed building will be open daily independently of the licensed seasonal uses. The building as proposed is consistent, albeit slightly smaller, than the building included in the approved Master Development Plan. For the purposes of trip generation and parking demand, it has been assumed that this use will often serve as a supplemental use to the existing activity on site, that will generate its own site traffic and parking demand.

The trip generation for the proposed uses was calculated using the same methodology as that used to calculate the trip generation in the original master plan. It should be noted that MaineDOT allows trip generation credit to be taken for existing uses on the site that have been operational within the last 10 years, so the trip generation for the existing building uses has been subtracted from the trip generation for the proposed building uses. The following table summarizes the trip generation for the proposed uses:

Proposed Site Addition Trip Generation

Building	Description	Size	AM Peak Hour	PM Peak Hour
Building K				
	Inn	61 Rooms	34	36
	Inn Expansion	22 Rooms	12	13
	Building K Total		**46**	**49**
Building F1				
	Warehouse	14,200 sf	6	7
	Building F1 Total		**6**	**7**
Building F2				
	Proposed Artist Studio	1,940 sf	8	8
	Existing Garage Space (Credit)	1,940 sf	(-6)	(-7)
	Building F2 Total		**2**	**1**
Building L				
	Proposed Office	4,000 sf	14	13
	Proposed Event Space	100 attendees	4	8
	Existing Office (Credit)	4,000 sf	(-14)	(-13)
	Existing Storage	1,760 sf	0*	0*
	Building L Total		**0**	**0**
Building B2				
	Concession Building	2,800 sf	32	31
	Building B2 Total		**32**	**31**
Proposed Addition Trip Generation			**90**	**96**

*Trip generation assumed to be negligible.

As shown in the table, the proposed uses are forecast to generate an additional 90 trip ends and 96 trip ends during the AM and PM peak hours of the adjacent street, respectively.

Site Trip Generation

The trip generation for the existing site has been combined with the trip generation for the proposed new and remodeled buildings to yield the site trip generation. The total site trip generation after the construction of the Inn has been compared to the permitted trip generation to identify the remaining available permitted trips.

Site Trip Generation Summary

Site	Building	AM Peak Hour	PM Peak Hour
Existing			
	Brick North	68	105
	Brick South	100	195
	Hotel	83	87
	Children's Museum	33	33
	Existing Total	**284**	**420**
Proposed			
	Building K (Including Future Expansion)	46	49
	Building F1	6	7
	Building F2	2	1
	Building L	4	8
	Building B2	32	31
	Proposed Total	**90**	**96**
Proposed Site Subtotal		**374**	**516**
Reduction (10%) for Bus / Train / Shared Use		(-37)	(-52)
Proposed Site Trip Generation		**337**	**464**
Permitted Trip Ends		734	1091
Difference Between Permitted and Proposed Site		**397**	**627**

As shown in the table the proposed site uses are forecast to generate 337 trip ends during the AM peak hour and 464 trip ends during the PM peak hour. This yields an overall trip generation that is 397 trip ends less than the permitted trip generation during the AM peak hour and 627 trip ends less than the permitted trip generation during the PM peak hour.

Parking Demand

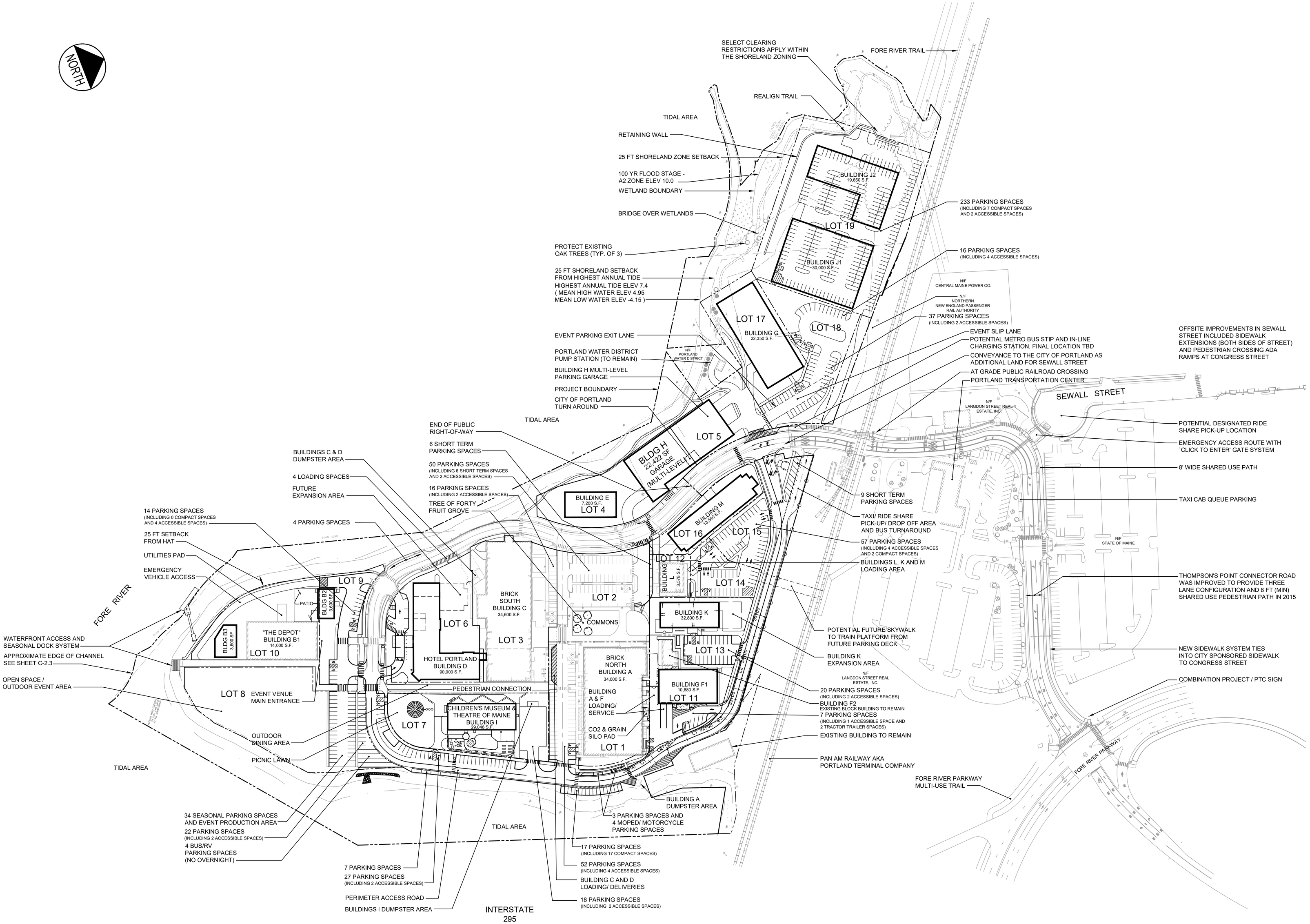
The parking demand for the site with the proposed additions added has been calculated using the same methodology as that used in the Master Development Plan. The parking demand is based on shared parking methodology, which assumes that parking spaces are not designated for specific uses or businesses, and can be used by any vehicles visiting the site. This methodology is very beneficial for mixed use developments with complementary uses such as office, whose parking demand is higher during the day, and hotel, whose parking demand is higher overnight. The attached parking demand calculations show the detailed time of day distribution for each use and the forecast shared demand. Based on the calculations the peak parking demand for the site (without an event in Brick South or Halo) is 193 spaces and is anticipated to occur at 5:00 PM. As identified in the approval for the master development plan, when special events of a certain attendance threshold occur, additional parking measures will be implemented on an as needed basis.

Conclusions

The following is a summary of the conclusions:

1. The site (including existing and proposed uses) is forecast to generate a total of 337 trip ends during the AM peak hour and 464 trip ends. This trip generation is 397 trip ends less than the permitted trip generation during the AM peak hour and 627 trip ends less than the permitted trip generation during the PM peak hour.

2. The peak parking demand for the site after the additional development is forecast to be 193 parking spaces and is forecast to occur at 5:00 PM.



PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
1	10/09/2019	UPDATES TO BUILDINGS F, K AND B

REVISIONS

XX.XX.XX
P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MASTER PLAN

SHEET TITLE
OVERALL MASTER PLAN

CLIENT
FOREFRONT PARTNERS I, LP

PLACEMAKER PARTNERS, LLC
501 DANFORTH STREET
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN: DB	DATE: MARCH 2018
DESIGNED: BEK	SCALE: 1" = 80'
FILE NAME: MASTER_SITE LAYOUT.dwg	
SHEET C-3.0	

JN: 3646
Project Description: Thompson's Point Update
Project Location: Portland, Maine
Date: 3/17/2020
Calculated By: EAL
Checked By:

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Hotel - Inn Building K
Land Use Code (LUC) 310

Rooms: 61

Average Rate

Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split*		Directional Distribution		R^2
				IN	OUT	IN	OUT	
Weekday	T = 8.17 (X)	10	498	50%	50%	249	249	-
AM Peak Adjacent Street	T = 0.56 (X)	20	34	60%	40%	20	14	-
PM Peak Adjacent Street	T = 0.59 (X)	25	36	55%	45%	20	16	-
AM Peak Hour of Generator	T = 0.52 (X)	32	32	55%	45%	17	15	-
PM Peak Hour of Generator	T = 0.61 (X)	35	37	60%	40%	22	15	-
Saturday	T = 8.19 (X)	8	500	50%	50%	250	250	-
Saturday Peak Hour of Gen.	T = 0.72 (X)	9	44	55%	45%	24	20	-

* Percentages rounded to nearest 5%

Fitted Curve Equation

Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split*		Directional Distribution		R^2
				IN	OUT	IN	OUT	
Weekday	T = 8.95 (X) - 373.16	10	173	50%	50%	87	86	0.98
AM Peak Hour of Adjacent Street Traffic	Ln(T) = 1.24 Ln(X) - 2.00	20	22	60%	40%	13	9	0.75
PM Peak Hour of Adjacent Street Traffic	--	25	--	55%	45%	--	--	--
AM Peak Hour of Generator	Ln(T) = 0.87 Ln(X) + 0.02	32	36	55%	45%	20	16	0.54
PM Peak Hour of Generator	Ln(T) = 1.00 Ln(X) - 0.58	35	34	60%	40%	20	14	0.64
Saturday	T = 9.62 (X) - 294.56	8	292	50%	50%	146	146	0.93
Saturday Peak Hour of Gen.	T = 0.69 (X) + 4.32	9	46	55%	45%	25	21	0.80

* Percentages rounded to nearest 5%

JN: 3646
Project Description: Thompson's Point Update
Project Location: Portland, Maine
Date: 3/17/2020
Calculated By: EAL
Checked By:

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Hotel - Inn Building K Expansion
Land Use Code (LUC) 310

Rooms: 22

Average Rate

Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split*		Directional Distribution		R^2
				IN	OUT	IN	OUT	
Weekday	T = 8.17 (X)	10	180	50%	50%	90	90	-
AM Peak Adjacent Street	T = 0.56 (X)	20	12	60%	40%	7	5	-
PM Peak Adjacent Street	T = 0.59 (X)	25	13	55%	45%	7	6	-
AM Peak Hour of Generator	T = 0.52 (X)	32	11	55%	45%	6	5	-
PM Peak Hour of Generator	T = 0.61 (X)	35	13	60%	40%	8	5	-
Saturday	T = 8.19 (X)	8	180	50%	50%	90	90	-
Saturday Peak Hour of Gen.	T = 0.72 (X)	9	16	55%	45%	9	7	-

* Percentages rounded to nearest 5%

Fitted Curve Equation

Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split*		Directional Distribution		R^2
				IN	OUT	IN	OUT	
Weekday	T = 8.95 (X) - 373.16	10	-176	50%	50%	-88	-88	0.98
AM Peak Hour of Adjacent Street Traffic	Ln(T) = 1.24 Ln(X) - 2.00	20	6	60%	40%	4	2	0.75
PM Peak Hour of Adjacent Street Traffic	--	25	--	55%	45%	--	--	--
AM Peak Hour of Generator	Ln(T) = 0.87 Ln(X) + 0.02	32	15	55%	45%	8	7	0.54
PM Peak Hour of Generator	Ln(T) = 1.00 Ln(X) - 0.58	35	12	60%	40%	7	5	0.64
Saturday	T = 9.62 (X) - 294.56	8	-83	50%	50%	-42	-41	0.93
Saturday Peak Hour of Gen.	T = 0.69 (X) + 4.32	9	20	55%	45%	11	9	0.80

* Percentages rounded to nearest 5%

JN: 3646
Project Description: Thompson's Point Update
Project Location: Portland, Maine
Date: 3/17/2020

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Warehousing - Building F1
Land Use Code (LUC) 150

Gross Floor Area (ft^2): 14,200

Fitted Curve

Time Period	ITE Trip Rate	Trip Ends	Sample Size	Directional Split* IN	Directional Split* OUT	Directional Distribution IN	Directional Distribution OUT	R^2
Weekday	T = 3.68 (X) + 350.27	403	16	50%	50%	202	201	0.82
AM Peak Adjacent Street	Ln(T) = 0.71 Ln(X) + 1.15	21	19	80%	20%	17	4	0.79
PM Peak Adjacent Street	Ln(T) = 0.79 Ln(X) + 0.54	14	26	25%	75%	4	10	0.75
AM Peak of Generator	T = 0.39(X) + 63.12	69	19	60%	40%	41	28	0.86
PM Peak of Generator	T = 0.46(X) + 53.12	60	18	10%	90%	6	54	0.88
Saturday	---	---	2	50%	50%	---	---	---
Saturday Peak Hour of Gen.	---	---	2	65%	35%	---	---	---

*Percentages rounded to nearest 5%

Average Rate

Time Period	ITE Trip Rate	Trip Ends	Sample Size	Directional Split* IN	Directional Split* OUT	Directional Distribution IN	Directional Distribution OUT	R^2
Weekday	T = 4.96 (X)	70	16	50%	50%	35	35	---
AM Peak Adjacent Street	T = 0.45 (X)	6	19	80%	20%	5	1	---
PM Peak Adjacent Street	T = 0.47 (X)	7	26	25%	75%	2	5	---
AM Peak of Generator	**T = 0.57 (X)**	**8**	**19**	**60%**	**40%**	**5**	**3**	**---**
PM Peak of Generator	**T = 0.61 (X)**	**9**	**18**	**10%**	**90%**	**1**	**8**	**---**
Saturday	**T = 1.22 (X)**	**17**	**2**	**50%**	**50%**	**9**	**8**	**---**
Saturday Peak Hour of Gen.	**T = 0.12 (X)**	**2**	**2**	**65%**	**35%**	**1**	**1**	**---**

*Percentages rounded to nearest 5%

JN: 3646
Project Description: Thompson's Point Update
Project Location: Portland, Maine
Date: 3/17/2020

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

General Office Building - Building L
Land Use Code (LUC) 710

Square Feet 4,000

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R^2
				IN	OUT	IN	OUT	
Weekday	Ln (T) = 0.77 Ln (X) + 3.65	112	78	50%	50%	56	56	0.80
AM Peak Hour	**Ln (T) = 0.80 Ln (X) + 1.55**	**14**	**217**	**90%**	**10%**	**13**	**1**	**0.83**
PM Peak Hour	**T = 1.12 (X) + 78.81**	**83**	**235**	**15%**	**85%**	**12**	**71**	**0.82**
Saturday	T = 2.14 (X) + 18.47	27	17	50%	50%	14	13	0.66
Peak Hour of Generator	Ln (T) = 0.81 Ln (X) - 0.12	3	10	55%	45%	2	1	0.59

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R^2
				IN	OUT	IN	OUT	
Weekday	T = 11.01 (X)	44	78	50%	50%	22	22	---
AM Peak Hour	T = 1.55 (X)	6	217	90%	10%	5	1	---
PM Peak Hour	T = 1.49 (X)	6	235	15%	85%	1	5	---
Saturday	T = 2.37 (X)	9	17	50%	50%	5	4	---
Saturday Peak Hour of Gen.	**T = 0.41 (X)**	**2**	**10**	**50%**	**50%**	**1**	**1**	**---**

* Percentages rounded to nearest 5%

PM Peak Hour:	T = 1.49/1.55 (AM Peak)	13		15%	85%	2	11	0.82

JN: 3646
Project Description: Thompson's Point Update
Project Location: Portland, Maine
Date: 3/17/2020

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

General Office Building - Building F2
Land Use Code (LUC) 710

Square Feet 1,940

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R^2
				IN	OUT	IN	OUT	
Weekday	Ln (T) = 0.77 Ln (X) + 3.65	64	78	50%	50%	32	32	0.80
AM Peak Hour	**Ln (T) = 0.80 Ln (X) + 1.55**	**8**	**217**	**90%**	**10%**	**7**	**1**	**0.83**
PM Peak Hour	**T = 1.12 (X) + 78.81**	**81**	**235**	**15%**	**85%**	**12**	**69**	**0.82**
Saturday	T = 2.14 (X) + 18.47	23	17	50%	50%	12	11	0.66
Peak Hour of Generator	Ln (T) = 0.81 Ln (X) - 0.12	2	10	55%	45%	1	1	0.59

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R^2
				IN	OUT	IN	OUT	
Weekday	T = 11.01 (X)	21	78	50%	50%	11	10	---
AM Peak Hour	T = 1.55 (X)	3	217	90%	10%	3	0	---
PM Peak Hour	T = 1.49 (X)	3	235	15%	85%	0	3	---
Saturday	T = 2.37 (X)	5	17	50%	50%	3	2	---
Saturday Peak Hour of Gen.	**T = 0.41 (X)**	**1**	**10**	**50%**	**50%**	**1**	**0**	**---**

* Percentages rounded to nearest 5%

PM Peak Hour:	T = 1.49/1.55 (AM Peak)	8		15%	85%	1	7	0.82

JN:	3646	Gorrill Palmer
Project Description:	Thompson's Point Update	707 Sable Oaks Drive
Project Location:	Portland, Maine	Suite 30
Date:	3/17/2020	South Portland, Maine 04106

Auto Service - Existing Garage F2
Land Use Code (LUC) 942

: Gross Leasable Floor Area (ft^2): 1,940

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Directional Split *		Directional Distribution	
			IN	OUT	IN	OUT
PM Peak Adjacent Street	Ln(T) = 0.94 Ln(X) + 1.33	7	50%	50%	4	3

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Directional Split *		Directional Distribution	
			IN	OUT	IN	OUT
AM Peak Adjacent Street	T = 2.94 (X)	6	65%	35%	4	2
PM Peak Adjacent Street	T = 3.38 (X)	7	50%	50%	3	4
AM Peak of Generator	T = 3.22 (X)	6	60%	40%	4	0
PM Peak of Generator	T = 4.01 (X)	8	50%	50%	4	0

* Percentages rounded to nearest 5%

JN: 3646
Project Description: TP
Project Location: Portland, Maine
Date: May 5, 2020

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

High Turnover (Sit Down) Restaurant
Land Use Code (LUC) 932

Gross Floor Area (ft^2): 2,800

Time Period	ITE Trip Rate (Average Rate)	# of Sources	Trip Ends	Directional Split IN	Directional Split OUT	Directional Distribution IN	Directional Distribution OUT	R^2
Weekday	T = 127.15 (X)	14	356	50%	50%	178	178	N/A
AM Peak Adjacent Street	T = 11.52 (X)	18	**32**	50%	50%	16	16	N/A
PM Peak Adjacent Street	T = 10.92 (X)	38	**31**	60%	40%	19	12	N/A
AM Peak of Generator	**T = 13.53 (X)**	**21**	**38**	**50%**	**50%**	**19**	**19**	**N/A**
PM Peak of Generator	**T = 18.80 (X)**	**27**	**53**	**55%**	**45%**	**29**	**24**	**N/A**
Saturday	T = 158.37 (X)	2	443	50%	50%	222	221	N/A
Saturday Peak Hour of Gen.	T = 20.00 (X)	3	**56**	65%	35%	36	20	N/A

	Previously Approved																		Currently Proposed																					
Building Letter	Brick North																Total for Brick North	Brick South		Building D				Building K		Building F1		Building F2		Building L						Building B2		Total	Total without Brick South Event	Total without Brick South Event or Halo Event
	Winery (Specialty Retail (5))		Halo (Event Space)		Big Room Studios (Office)		Locally Sauced (Restaurant (3))		Manufacturing (4)		Manufacturing (4)		Specialty Retail (1)		Cultural Center			Event Space (2)		Hotel		Childrens Museum		Inn		Light Industrial / Warehouse (4)		Office		Office		Event Space		Concession Building (Restaurant)				
Rate	200	1 / 200 sf	3.5	3.5 persons per vehicle		1/400 sf	13.56	13.56/1000	1.020	1.02 / 1000 sf	1.020	1.02 / 1000 sf	200	1 / 200 sf	1.34	Based on Client Info		3.5	3.5 persons per vehicle	1	1 per 4 guests	1.34	Based on Client Info	1	1 per 4 guests	1.19	1.19/1000 sf	400	1/400 sf	400	1/400 sf	3.5	3.5 persons per vehicle	6.5	6.5 / 10			
Monthly Adjustment				1										1		1			1		1		1		1						1		1.000				
SQF or Unit	5890	5,890 sf	400	400 people	3461	3,461 sf	1852	1,852 sf	10068	10,068 sf	5890	5,890 sf	2136	2,136 sf	0.993	993 sf		2500	2500 person	148	148 Rooms	40.00	40,000 sf	83	83 Rooms	14200	14,200 sf	1.94	1,940 sf	4.00	4,000 sf	100	100 person	2.80	2800 sf			
6:00AM	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0.00	0	1.00	37	0.00	0	1.00	21	1.00	17	0.00	0	0.00	0	0.00	0	0.00	0	75	75	75
7:00AM	0.00	0	0.01	1	0.20	2	0.10	3	0.55	6	0.55	3	0.20	2	0.48	1	17	0.01	4	1.00	37	0.48	26	1.00	21	1.00	17	0.20	1	0.20	2	0.01	0	0.10	2	125	122	121
8:00AM	0.00	0	0.01	1	0.64	6	0.10	3	0.69	7	0.69	4	0.64	7	0.50	1	27	0.01	4	1.00	37	0.50	27	1.00	21	1.00	17	0.64	3	0.64	6	0.01	0	0.10	2	144	140	140
9:00AM	0.00	0	0.01	1	0.93	8	0.20	5	0.74	8	0.74	4	0.93	10	0.44	1	36	0.01	4	0.75	28	0.44	24	0.75	16	1.00	17	0.93	5	0.93	9	0.01	0	0.20	4	141	138	137
10:00AM	0.20	6	0.01	1	1.00	9	0.30	8	0.75	8	0.75	5	1.00	11	0.50	1	46	0.01	4	0.50	19	0.50	27	0.50	10	1.00	17	1.00	5	1.00	10	0.01	0	0.30	5	143	139	139
11:00AM	0.64	19	0.01	1	1.00	9	0.90	23	0.75	8	0.75	5	1.00	11	0.52	1	75	0.01	7	0.40	15	0.52	28	0.40	8	1.00	17	1.00	5	1.00	10	0.01	0	0.90	16	181	174	173
12:00PM	0.90	27	0.01	1	0.90	8	1.00	25	0.73	7	0.73	4	0.90	10	0.55	1	83	0.01	7	0.35	13	0.55	29	0.35	7	1.00	17	0.90	4	0.90	9	0.01	0	1.00	18	188	181	180
1:00PM	0.93	27	0.01	1	0.90	8	0.90	23	0.97	10	0.97	6	0.90	10	0.63	1	85	0.01	7	0.35	13	0.63	34	0.35	7	1.00	17	0.90	4	0.90	9	0.01	0	0.90	16	193	186	185
2:00PM	1.00	29	0.02	2	1.00	9	0.65	16	1.00	10	1.00	6	1.00	11	0.77	1	84	0.02	11	0.35	13	0.77	41	0.35	7	1.00	17	1.00	5	1.00	10	0.02	0	0.65	12	200	190	188
3:00PM	1.00	29	0.03	3	1.00	9	0.35	9	0.95	10	0.95	6	1.00	11	0.96	1	78	0.03	21	0.40	15	0.96	51	0.40	8	1.00	17	1.00	5	1.00	10	0.03	1	0.35	6	213	191	188
4:00PM	0.93	27	0.10	11	0.93	8	0.35	9	0.77	8	0.77	5	0.93	10	1.00	1	79	0.10	71	0.50	19	1.00	54	0.50	10	1.00	17	0.93	5	0.93	9	0.10	3	0.35	6	273	202	190
5:00PM	0.64	19	0.55	63	0.64	6	0.60	15	0.62	6	0.62	4	0.64	7	0.89	1	120	0.55	393	0.60	22	0.89	48	0.60	12	1.00	17	0.64	3	0.64	6	0.55	16	0.60	11	649	256	193
6:00PM	0.20	6	0.85	97	0.20	2	0.90	23	0.00	0	0.00	0	0.20	2	0.69	1	130	0.85	607	0.70	26	0.69	37	0.70	15	1.00	17	0.20	1	0.20	2	0.85	24	0.90	16	876	268	171
7:00PM	0.00	0	1.00	114	0.10	1	1.00	25	0.00	0	0.00	0	0.00	0	0.43	1	141	1.00	714	0.80	30	0.43	23	0.80	17	1.00	17	0.10	0	0.10	1	1.00	29	1.00	18	990	275	161
8:00PM	0.00	0	1.00	114	0.10	1	1.00	25	0.00	0	0.00	0	0.00	0	0.00	0	140	1.00	714	0.90	33	0.00	0	0.90	19	1.00	17	0.10	0	0.10	1	1.00	29	1.00	18	972	257	143
9:00PM	0.00	0	1.00	114	0.10	1	1.00	25	0.00	0	0.00	0	0.00	0	0.00	0	140	1.00	714	0.95	35	0.00	0	0.95	20	1.00	17	0.10	0	0.10	1	1.00	29	1.00	18	975	260	146
10:00PM	0.00	0	1.00	114	0.10	1	0.75	19	0.00	0	0.00	0	0.00	0	0.00	0	134	1.00	714	1.00	37	0.00	0	1.00	21	1.00	17	0.10	0	0.10	1	1.00	29	0.75	14	967	252	138

1. Specialty Retail = Color Me Mine
2. Assumes Evening Event
3. Restaurant changes from 6.5/1,000 SF to 10/1,000SF at 4:00 PM
4. Factors based on previously approved parking demand rates for Industrial Uses
5. Factors adjusted to reflect a 11:00AM opening time

Attachment D

MaineDOT Traffic Movement Permit - Thompson's Point Development Company Inc. – Signed 6/13/12

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Paul R. LePage
GOVERNOR

David Bernhardt
COMMISSIONER

Applicant:	Thompson's Point Development Company Inc.
Project Location:	Thompson's Point Rd, Portland, ME Portland Tax Map 201Lot(s) 8, 9 and 10 and Map 202 Lots 2, 4 and 5
Project:	Mixed use Development
Identification #:	Reg. 01-00155-A-N
Permit Category:	200 Plus PCE
Traffic Engineer:	Thomas Gorrill Gorrill-Palmer Consulting Engineers PO Box 1237 15 Shaker Rd. Gray, ME 04039

Pursuant to the provision of 23 M.R.S.A. § 704-A and Chapter 305 of the Department's Regulations, the Maine Department of Transportation (MaineDOT) has considered the application of Thompson's Point Development Company Inc with supportive data, agency review and other related materials on file.

PROJECT DESCRIPTION

The applicant proposes to construct a 97,697 sf event center/convention hall/exhibit hall; 32,000 sf concert hall plus outdoor venue for up to 4,800 attendees; 378,000 sf of office space; 4,000 sf of medical office space; 20,000 sf gym and rehabilitation center; 125 room hotel; 6,000 sf of restaurant space (high-turnover sit down). The site is forecast to generate 734 AM and 1,091 PM weekday peak hour trip ends.

Findings

Based on a review of the files and related information, MaineDOT approves the Traffic Movement Permit Application of Thompson's Point Development Company Inc. subject to the following conditions:

MITIGATION

On-Site Mitigation

All Site Entrances

All entrances shall have overhead illumination provided, if not existing, to illuminate the intersections per MaineDOT standards at a minimum. Overhead lighting shall have an average of

0.6 to 1.0 foot candles, with the maximum to minimum lighting ratio of not more than 10:1 and an average to minimum light level of not more than 4:1.

Thompson's Point Road

Thompson's Point Road shall be widened to accommodate an 8 foot shared bike/pedestrian path, a 3 foot wide grass esplanade, a 3 foot shoulder with granite curb, an 11 foot wide outbound lane, and 11 foot wide flush concrete median, an 11 foot wide inbound lane and a 3 foot shoulder with granite curb. This section will be constructed from the site driveway to the Fore River Parkway. The 250 feet of flush median closest to Fore River Parkway shall be designated as an exclusive left turn lane outbound. The shared bike/pedestrian path shall have a crossing built at the Sewall Street cul de sac and the path extended to the existing sidewalk on Sewall Street. Another pedestrian crossing shall be installed where the current pedestrian crossing is at the bus/train station. Both crossings shall have solar powered/radio interconnected pedestrian activated rectangular rapid flashing beacon lights installed.

Thompson's Point Development

No sporting events or concerts shall begin between 4 pm and 7pm Monday through Friday.

During large sporting and concert events, the applicant shall ensure that there are flaggers and uniformed police officers present to ensure that there will be two inbound lanes prior to the event and two exit lanes after the event. Flaggers/uniformed police officers shall be stationed to ensure that pedestrians are able to cross at either of the two crosswalks, at the Transportation Center Entrance to let busses in or out and also at the transportation center parking lot entrances to ensure that transportation center patrons leaving the parking lots are merged into the out-bound flow. Uniformed police officers shall be present after an event to direct traffic at the Thompson's Point Road/Fore River Parkway intersection. Retro-reflective traffic cones shall be used by the development to create the reversible lane. Flaggers will direct vehicles into the proper lanes.

Off-Site Mitigation

Fore River Parkway/Thompson's Point Road/I-295 Exit 5A off-ramp

The Southbound off ramp at Exit 5 A shall be reconstructed to have a separate 13 foot wide left turn lane and 13 foot wide through lane. The widths include the

required curb offset. The left lane shall extend back 200 feet. Install Queue detector at the ramp gore area to act as pre-emption for the signal should the queue spill back that far.

Modify traffic signal timing and phasing accordingly.

Fore River Parkway/Congress St/I-295 Exit 5 B off-ramp

Widen the southbound off-ramp to accommodate a 5 foot wide right shoulder, two 12 foot wide right turn lanes and a 2 foot curb offset for a distance of 125 feet with an appropriate taper. Install Queue detector at the ramp gore area to act as pre-emption for the signal should the queue spill back that far.

Re-stripe Congress Street Westbound to accommodate a longer westbound left turn lane, extend back to the end of the island (to the slip lane from Park Ave to Congress St).

Modify traffic signal timing and phasing accordingly.

Congress St/Stevens Ave

Restripe Steven's Avenue to an exclusive left and a shared left/thru/right and modify traffic signal timing and phasing accordingly.

The developer shall pay an impact fee in the amount of $15,000 for inlaid thermoplastic paint skips, retro-reflective back plates and overhead lane usage signage. This money will be put towards improvements funded by PIN 19078.00.

Congress St/Westbrook St

The developer shall pay an impact fee in the amount of $15,000 for inlaid thermoplastic paint skips, retro-reflective back plates and overhead lane usage signage. This money will be put towards improvements funded by PIN 19078.00.

Congress/Frost St

The developer shall pay an impact fee in the amount of $15,000 for inlaid thermoplastic paint skips, retro-reflective back plates and overhead lane usage signage. This money will be put towards improvements funded by PIN 19078.00.

Transportation Demand Management

In lieu of additional mitigation, Transportation Demand Management shall be used to offset the traffic impacts on the roadway network. The City has implemented a Transportation Oriented Development Tax Increment Financing District for the Thompson's Point Development. This development would benefit from some increased transit connections to the airport and Old Port, funding for handicap accessible taxis or for increase in parking at the Transportation Center.

Overall

A. Provide all necessary auxiliary signs, striping and pavement markings to implement the improvements described herein according to State of Maine and/or National standards.

B. All plantings and signs (existing and/or proposed; permanent and/or temporary) shall be placed and maintained such that they do not block available sight distances and do not violate the State's "Installations and Obstructions" law. No signage or plantings shall be allowed within the "clear zone" if they constitute a deadly fixed object as determined by MaineDOT. All signs shall meet MRSA Title 23, Chapter 21, Section 1914: "On-Premise Signs".

C. If any of the supporting data or representations for which this permit is based changes in any way or is found to be incorrect / inaccurate, the applicant shall request in writing from MaineDOT a decision of what impacts those changes will have on the permit. The applicant will then be required to submit those changes for review and approval and additional mitigation as a result of those changes may be required at the expense of the applicant.

D. Because the proposed project affects the state highway and drainage systems and requires improvement to that system, the applicant must obtain approval of the design plans and coordinate work through MaineDOT's State Traffic Engineer, who can be reached at (207)-624-3620 in Augusta.

By:

Stephen Landry, P.E.
Assistant State Traffic Engineer

Date: 6/13/12

SUPPLEMENTAL STORMWATER MANAGEMENT REPORT FOR MULTI-FAMILY RESIDENTIAL (LOT 17) MAJOR SITE PLAN APPLICATION (GENERAL AND BASIC STANDARDS)

THE FOREFRONT AT THOMPSON'S POINT
FOREFRONT PARTNERS I, LP
PORTLAND, ME

PREPARED FOR:

CATHARTES
11 PORTWALK PLACE
PORTSMOUTH, NH 03801
(617) 840-4778

PREPARED BY:

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, MAINE 04102
(207) 747-5288

SEPTEMBER 2024

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List of Appendices

Appendix A – Filterra Approval and Sizing letter from MeDEP
Appendix B – Miscellaneous Sizing Calculations
Appendix C – JellyFish™ HydroCAD Model Summary
Appendix D – Summary of Water Quality Treatment Zones H
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SUPPLEMENTAL STORMWATER MANAGEMENT REPORT

1.0 Introduction

The proposed Multi-Family Residential Building is depicted on the Master Development Plan (approved Jan. 2015) and more specifically referenced on the Overall Subdivision Plan (approved January 12, 2016, last revised March, 2020) in a twin tower configuration on development lots 18 and 19. The currently proposed Residential Building as presented here-in is configured in an a long linear shape with two residential wings extending southerly on development lot 17 (consolidated Lots 17-19) in place of the previously contemplated office and residential building cluster. The Multi-Family Building plans contained in a standalone City of Portland Major Site Plan Application dated September 20, 2024 provides additional construction details and refines another area of the evolving Master Development Plan.

This supplemental report relies upon assumptions and design approaches previously discussed and approved as part of previous Stormwater Management Reports associated with The Forefront at Thompson's Point Master Development Plan Application, Subdivision Application, and Level II or III Site Plan applications (Now referred to as Minor and Major, respectively). Some of these assumptions pertinent to this report include but are not limited the following list:

- A waiver from the Flooding Standards was previously approved;
- A waiver from Channel Protection requirements (such as isolator row requirements associated with Filterra Treebox filters) was previously approved; and
- Prorated treatment credits for treatment of stormwater runoff from on-site existing impervious surfaces (MeDEP Chapter 500 rules dated 2010) that have been retained (primarily consisting of renovated buildings) are applicable to the overall treatment percentage computation.

This supplemental report details the stormwater management systems proposed for the site plan improvements associated with the construction of a Multi-Family Residential with amenities at Thompson's Point as well as demonstrates the integration of stormwater treatment and conveyance infrastructure approved under the Master Development and Subdivision Plans Stormwater Management Strategy. The enclosed computations show that this phase of the project has been designed to meet the Portland Stormwater Management Standards adopted 7/19/10, General Stormwater Standards of MeDEP (revised 2015), and Maine Stormwater Management Design Manual Technical Design Manual (Dated May 2016) and are consistent with the overall goals presented in previous Stormwater Reports. The intent and principals of the stormwater management design, erosion and sediment control, and Inspection and Maintenance Manual have remained the same as approved on June 5, 2012 and include full compliance with Chapter 32 of the City's Technical Manual Stormwater rules and Chapter 500 of the MeDEP Stormwater law.

This phase of the project will have a cumulative redeveloped area of 4.51 acres of which 2.85 acres are re-developed impervious surfaces.

2.0 Stormwater Management Zone Revisions

This supplemental report summarizes the changes to the water quality treatment zones and provides detailed land cover computations of development tributary to the respective stormwater management systems sized to convey and treat stormwater runoff from the proposed re-development.

The previously approved Stormwater Management approach combined sub catchments and treatment areas labeled as 200, 201, and 202 to a single Zone H Discharge outfall as shown on the approved Overall Stormwater Management Sheet C-4.1 dated September 2014 and last revised 2016.09.16. Due to the size and linear nature of the proposed residential building footprint a single treatment and outlet (Zone H) approach is no longer feasible as originally contemplated under the original plan. The new site plan maintains three treatment areas; however, divided into three drainage discharge zones identified as Zone Ha, Hb, and Hc on the Overall Stormwater Management Plan C-5.1 dated August 2024 last revised 09.06.2024. The Stormwater Management Zones are organized and labeled based on tributary treatment area and discharge location.

A northeasterly portion of the property will be the driveway entrance and main access drive to the development lot and includes an entrance loop with short term parking. The drainage infrastructure from this subcatchment Zone Ha (formerly a portion of 200 and 201) will be connected to an existing 12" storm drain system, and the upper end of a main storm drainage trunk line installed in the Thompson's Point Road ROW as part of the roadway constructed during the summer of 2017. This trunk line follows Thompson's Point Road onto the Thompson's Point private road and ultimately discharging to the Fore River through an existing 36" SD pipe labeled as D0.

The bulk of the new building, parking structure, central courtyard, and northerly courtyards will drain to a series of roof drains, catch basin inlets, and storm drain piping to convey runoff to a treatment system shown as Zone Hb (formerly zones 201 and 202). Zone Hb discharges to the far southwesterly corner of the development and directly to the adjacent coastal wetland and Fore River inlet branch.

Runoff from the easterly portion of the new building and the southerly courtyard are collected in roof drains and series of catch basin inlets and storm drain piping shown as Zone Hc (formerly a portion of 200). Zone Hc is tributary to a treatment system and discharges to an existing drainage channel directly connected to the Fore River inlet branch.

The area of proposed development included with this application affects the zones and subzones identified on the Overall Stormwater Management Plan as Zone H and summarized in Table 1 below:

TABLE 1 – Summary of Changes to Stormwater Management Zones

Subdivision Plan Discharge Zone ID	CB Inlet ID	Description of Change
H-200(north half)	Ha2 thru Ha9	This subcatchment (Ha) has split into two distinct areas separated north and south at the building line. This drainage area includes the northerly site developed areas only and drains towards the street. Rather than combine with Hb it will discharge to the street storm drainage system.
H-200 (south half)	Hc4 thru Hc8	This subcatchment (Hc) has split into two distinct areas separated north and south at the building line. This drainage area includes the building roof and southerly courtyard. Rather than combine with Hb it will have its own discharge.
H-201 and H-202	Hb7 thru Hb 23	This subcatchment (Hb) is similar to the previous drainage area in land cover and development area and

		continues to discharge in a single combined location; however, the discharge outfall has been shifted to the westerly side of the site from its more centrally located

The C-5.1 and C-5.2 Stormwater Management Plans show the updated stormwater management zones and proposed stormwater infrastructure and attached in Appendix E. An updated Water Quality Treatment table is shown on Plan Sheet C-5.4 Stormwater Management Plan-3 and enclosed in Appendix D.

3.0 Stormwater Quality Treatment (General Standards)

Stormwater treatment strategies have changed from the prior Subdivision approval which contemplated subsurface underdrained sand filters. The new treatment strategy for each distinct portion of Zone H is described below.

3.1 Zone Ha (Front Entrance, Visitor Parking, and Drive Aisle):

Zone Ha – Areas Ha2, 4, 5,6,7,8,9, and 10
The stormwater treatment approach to these subcatchments utilizes a proprietary high-performance bio-filtration system known as Filterra manufactured and distributed by Contech Engineered Solutions. The owner reserves the right to use an or equal system by another manufacture provided it holds the same MeDEP proprietary preapproval and is sized per the approved criteria. The proposed Filterra system has been sized and configured in accordance with the preapproval letter from Maine DEP to Contech Engineered Solutions dated February 2, 2017 and enclosed for reference in Appendix A. A Filterra system is required to be sized based on table listed in the aforementioned letter.

The resultant sizing computations are detailed in Appendix D and conclude two types of Filterra form factors will be used.

- Ha-2– Requires a 4’x8’ box with tree grate and adequate for up to 0.202 Ac of tributary area
- Ha-4– Requires a 4’x6’ box with tree grate and adequate for up to 0.151 Ac of tributary area
- Ha-5 – Requires a 6’x10’ box with tree grate and adequate for up to 0.378 Ac of tributary area
- Ha-6 – Requires a 4’x8’ box with tree grate and adequate for up to 0.202 Ac of tributary area
- Ha-7, 8, and 9 – Requires a 4’x4’ box with no top (bioscapes configuration) and adequate for up to 0.1 Ac of tributary area

The Filterra (or equal) filters are considered adequate to meet and exceed the Chapter 500 General Standards for water quality treatment in this zone.

3.2 Zone Hb (Garage, Building Roof, Westerly Portion of Site):

Zone Hb - Areas Hb – 21 and 22
The stormwater treatment approach to these subcatchments (surface runoff from the northerly courtyard) utilizes a proprietary high-performance bio-filtration system known as Filterra manufactured and distributed by Contech Engineered Solutions.

The resultant sizing computations are detailed in Appendix D and conclude the following Filterras will be used.

- Hb-21 and 22 – Requires a 4’x4’ box with no top (bioscapes configuration) and adequate for up to 0.1 Ac of tributary area.

The discharge from these two units will combine downstream with the effluent of the Zone Hb Jellyfish treatment unit and discharge at the same outfall Hb-0

Zone Hb - Areas H-Gr,Hb-5,7,9,17,19,20, H-R4, and HR5

The Zone Hb subcatchment areas numbered H-Gr, Hb-5,7,9,17,19,20, H-R4, and HR5 associated with the building, parking structure, and courtyards are tributary to a Contech Jellyfish™ Treatment Unit.

Jellyfish™ units are precast concrete manholes that utilize membrane filtration treatment cartridges. Flow enters the Jellyfish™ from an upstream pretreatment and storage chamber system and flows into a settling tank portion of the unit. Once the settling tank is filled with water, flow from the bottom of the tank is forced up through hi-flow cartridges and continues to the outlet on the by-pass conveyance trunk line. A baffle wall is located between the inlet and outlet compartments to ensure that un-treated flow from small storm events is not mixed with treated flow. When the hi-flow treatment cartridge has filled, a drain down cartridge(s) is activated treating the remaining water quality volume. A vertical orifice drilled into the cap on the Jellyfish inlet pipe will control the outflow of the pretreatment storage system. As stipulated by the MeDEP in the proprietary letter of approval, the outlet orifice has been sized to drawdown the water quality volume at a rate not to exceed a maximum drain down time of 48 hours or minimum of 24 hours. This drawdown time restriction regulates the flow to far less than the maximum flow rate each Jellyfish™ cartridge unit is designed to discharge with an approved flow rate of 80 GPM/cartridge out of the Hi-flo cartridges and 40 GPM/cartridge from the low flow drain down cartridges.

To meet Chapter 500, the Water Quality/Channel Protection Volume when provided with-in a Jellyfish™ System should be equal to or greater than the following:

1”/12 x impervious area plus 0.4”/12 x landscaped area = Water Quality/Channel Protection Volume (cubic feet)

Computations of Water Quality/Channel Protection Volume for Zone Hb can be found in Appendix D. It is noted that the project has received prior waivers from the Channel Protection Volume because the collected runoff does not impact any downstream channels and discharges directly to a coastal tidal river. The applicant reserves the right to apply this waiver to the water quality/channel protection volume provided the Jellyfish system is adequately sized to meet the flow demand.

The water quality/channel protection volume is provided in a subsurface arched chamber storage system. This portion of the design is identical to the system installed as part of the Brick North and Brick South, Hotel, and Children’s Museum and Theatre of Maine development projects on Thompson’s Point.

Jellyfish™ units are designed based on a mass sediment loading calculation. Each treatment hi-flow cartridge has a mass capacity of 125 1bs and each low-flow (draindown) cartridge has a capacity of 63 lbs. The mass loading for each zone was determined by Maine DEP sediment loading standards, assuming a 50% sediment removal from a designed pre-treatment StormTech® Isolator row.

Discharge from larger storm events are controlled over a broad crested weir housed in a precast concrete outlet control structure set above the water quality volume. The overflow piping network is sized to handle runoff from a 25-year storm event. A rain event exceeding the storm

drainage network would likely flood the catch basin inlet, into the courtyard and over the sloped bank to the river.

Pretreatment for flow entering from all inlet pipes to the storage area will be provided via the installation of a StormTech® Isolator row(s) and deep sump catch basins with hooded outlets.

Therefore, water quality goals for the Jellyfish™ Proprietary Systems meet the General Stormwater Standards of the November 2005 Chapter 500 Rules of MeDEP (rev. January 2015).

The Jellyfish™ treatment system and Filterra® are considered adequate to meet the Chapter 500 General Standards in this zone.

3.3 Zone Hc (Building Roof, Southeast Portion of Site):

Zone Hc - Areas Hc-3 and 4, H-R1, R2, and R3
The Zone Hc subcatchment areas numbered Hc-3 and 4, H-R1, R2, and R3 associated with the easterly portion of the building, and southerly courtyard are tributary to a Contech Jellyfish™ Treatment Unit.

Jellyfish™ units for Zone Hc are designed to the same standards used in Zone Hb.

Computations of Water Quality Volume for Zone Hc can be found in Appendix D.

The Jellyfish™ treatment system is considered adequate to meet the Chapter 500 General Standards in this zone.

3.4 Zone H (Landscaped slope around perimeter of the development area):

Zone H – Landscaped Slope
The proposed development area has significant topography differences from west to east and the design team has designed a stepped building approach to limit the amount of earthwork required to construct a suitable building pad to the extent practicable. The proposed site grading creates a fill slope around the southerly perimeter of the development that extends to an existing trail at the toe edge, limiting the development area. The fill slope will be covered with a geotextile net, planted with meadow seed mix, and landscaped to prevent erosion and function as a planted buffer before runoff passes under the trail in existing culverts and to the coastal tidal wetland. The fill slope is included in the redevelopment area calculations as untreated and factored into the overall treatment percentage.

4.0 Conclusion

The stormwater management strategies for this phase of the project presented herein are consistent with the Master Development Plan and Subdivision Plan Strategies. The overall Thompson's Point stormwater management strategy provides a blueprint for treating a minimum of 95% of the net new redeveloped impervious area and 80% of the net new developed area. This phase of the amended site plan treats 80.8% or 3.64 ac of the 4.51 ac. redeveloped area, and 96.87% or 2.86 ac. of the 2.96 ac. redeveloped impervious area.

When this phase of the amended site plan is added to the portion of the overall subdivision developed to date the cumulative treatment computes to be 86.21% or 12.35 ac of the 14.32 ac. redeveloped area and 95.51% or 9.64 ac. of the 10.10 ac. redeveloped impervious area.

The individual systems have been adjusted to accommodate current detailed site plan revisions but ultimately the design strategies continue to be consistent with that of the approved plans and meets or exceeds the City of Portland Stormwater Management Requirements.

5.0 Appendices

Appendix A – Filterra Approval and Sizing letter from MeDEP
Appendix B – Miscellaneous Sizing Calculations
Appendix C – JellyFish™ HydroCAD Model Summary
Appendix D – Summary of Water Quality Treatment Zone H
Appendix E – Stormwater Management Plans-1 through 3

APPENDIX A

Filterra and Jellyfish Approval and Sizing letter from MeDEP

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

February 2, 2017

Derek Berg
Filterra Bioretention Systems
Contech Engineered Solutions LLC
71 US Route 1, Suite F
Scarborough, ME 04074

Dear Mr. Berg:

This letter replaces the April 19, 2016 approval from the Department of Environmental Protection (Department) that authorized the use of the Filterra Bioretention System. The Filterra Bioretention System (FBS) was permitted for use by the Department of Environmental Protection (Department) on November 12, 2009, as part of a stormwater treatment train that included the use a StormTech Isolator Row following the structure as an approved alternative to the General Standards (Section 4.C) of the Stormwater Management Rules (Chapter 500). Based on new testing data, the installation of FBS structures without the StormTech Isolator Row was approved on an interim use by the Department on January 21, 2015.

The FBS structures sizing criteria must be revised based on data you provided of an appropriate rainfall intensity rate that would allow for the full treatment of 90% of an average annual runoff volume. Therefore, the Department will review and approve, on a case-by-case basis, the use of the FBS when the system is sized, installed and maintained in accordance with the following provisions:

1. The structure may be a standard concrete box or a soft shell system that is filled with the Filterra engineered filter media, provided it is sized to meet the requirements of the General Standards (Section 4.C) and is installed, operated and maintained in accordance with the manufacturer's specifications.

2. The FBS must be sized in accordance with the manufacturer's standard New England testing results and revised sizing guidelines outlined in the following table to treat 90% of the annual runoff volume:

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

website: www.maine.gov/dep

Filterra Model Number	*Area in Acres*	*Treatment Flow Rate at 140"/hr (cfs)*	*Outlet Pipe Size*
4x4	0.100	0.05	4"
4x6	0.151	0.08	4"
4x8	0.202	0.10	4"
6x6	0.227	0.12	4"
6x8 / 4x12	0.301	0.16	4"
6x10	0.378	0.19	6"
6x12	0.454	0.23	6"
7x13	0.573	0.29	6"

Alternatively, the runoff from the entire contributing drainage area, including all pervious areas, may be modelled to provide treatment of the 0.95" storm at the approved hydraulic loading rate of 140" per hour.

3. When designed with the standard curb inlet design, the FBS must be configured "off-line" with the surface elevation at the FBS unit being up gradient of an overflow inlet. When designed with the grated inlet design, the FBS must incorporate an internal bypass and will not require an overflow inlet. The applicant must demonstrate that the proposed design meets all the manufacturer's specifications prior to submission for Department approval. Review and approval of the proposed design by the manufacturer will be sufficient to demonstrate conformance with the manufacturer's specifications.

4. The treated flow and bypass flow must be combined and directed to a detention system/structure that will store the water quality/channel protection volume (WQv) consisting of the first 1.0 inch of runoff from impervious areas and 0.4 inch of runoff from lawns and landscaped areas. An external outlet control structure must control the flow out of the system and the WQv must be detained between 24 hours and 48 hours.

5. When a boxed structure is proposed, the FBS must be delivered to the site with the engineered filter media and plumbing fully installed. The concrete box must be sealed to prevent debris and sediment from entering the system during construction. The activation of the FBS and opening of the protective mesh cover, installation of plant(s) and mulch layers as necessary, can be performed only by the supplier (Contech or its authorized dealer). The activation process must not commence until the project site is fully stabilized and cleaned (i.e., full landscaping, grass cover, final paving and street sweeping completed), minimizing the risk of construction materials contaminating the FBS system.

6. When a soft shell structure is proposed, the FBS(s) must be built on site and must include all the components of a boxed structure. The FBS must be designed per the manufacturer's specifications and must be installed on-site by the manufacturer's representative.

7. Prior to construction, a five-year binding inspection and maintenance contract must be provided for review and approval by the Department, and must be renewed before contract expiration. The contract will be with a professional with knowledge of erosion and stormwater control, including a detailed working knowledge of the proposed system. The first year's maintenance must be provided by the manufacturer to ensure that the system is operating according to the established specifications.

8. The overall stormwater management design must meet all Department criteria and sizing specifications and shall be reviewed and approved by the Department prior to use.

9. Each project must be reviewed and approved by the manufacturer for proposed use, layout and sizing of the system and for conformance with their design specifications. The system must be installed under the manufacturer's representative supervision.

10. This approval is conditional to on-the-ground experience confirming that the FBS's pollutant removal efficiency and sizing are appropriate. The "permit shield" provision (Section 14) of the Chapter 500 rules will apply, and the Department will not require the replacement of the system if, with proper maintenance, pollutant removals do not satisfy the General Standard Best Management Practices.

We look forward to working with you as these stormwater management structures are installed on new projects. Questions concerning this decision should be directed to Jeff Dennis at (207) 215-6376.

Sincerely,

Mark Bergeron, P.E.
Director
Bureau of Land Resources

cc: Don Witherill, Maine DEP

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

January 21, 2015

CONTECH Engineered Solutions LLC
71 US Route 1, Suite F
Scarborough, ME 04074
ATTN: Derek Berg

Dear Mr. Berg:

This letter is to inform you that the Department of Environmental Protection (Department) will review and approve, on a case-by-case basis, applicants' requests to use the Jellyfish Filter, manhole or vault housing, a cartridge deck supporting membrane filtration cartridges, as a low flow rate filter meeting the requirements of the General Standards (Section 4.B.) of the Stormwater Management Rules (Chapter 500) when sized, installed and maintained in accordance with the following provisions:

1. The Jellyfish Filter must be sized in accordance with the tested hydraulic loading rate, and is approved for a maximum rate of 80 gallons per minute (gpm) for each 54-inch long membrane filter cartridge (1.48 gpm per inch of cartridge length). The structure must include at least one draindown cartridge, which is approved for a hydraulic loading rate of 40 gpm per 54" cartridge (0.74 gpm per inch of cartridge length).
2. Upstream storage must be provided for the water quality/channel protection volume (WQv) consisting of the first 1.0 inch of runoff from impervious areas and 0.4 inch of runoff from lawns and landscaped areas. The WQv should be hydraulically isolated from any additional storage provided onsite by weirs or other means so that only the WQv is routed through the Jellyfish Filter. Additionally, the WQv must be detained for a minimum of 24 hours and a maximum of 48 hours (emptying time). Storage can typically be provided in an underground facility such as corrugated metal pipe, polypropylene chambers, concrete vaults or similar means.
3. All storage systems must include sufficient maintenance access for the removal of accumulated sediment and debris. It is desirable that a pretreatment structure be located upstream of the WQv storage to facilitate capture of coarse solids and trash.
4. The Jellyfish Filter must be delivered to the site and installed under the supervision of the manufacturer's representative.
5. The system must be inspected at least once every six months, and the filters maintained yearly per the manufacturer's guidelines to maintain the established efficiency for pollutant removal. A five-year binding inspection and maintenance contract must be provided prior to review and approval by the Department, and must be renewed before contract expiration.
6. The overall stormwater management design must meet all Department criteria and sizing specifications and shall be reviewed and approved by the Department prior to use.
7. Review and approval by the manufacturer for the proposed use and sizing of the Jellyfish Filter at each specific project is required to ensure conformance with the manufacturer's design specifications.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
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PORTLAND
312 CANCO ROAD
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PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

web site: www.maine.gov/dep

8. This approval is conditional to on-the-ground experience confirming that the Jellyfish Filter's pollutant removal efficiency and sizing are appropriate. The "permit shield" provision (Section 14) of the Chapter 500 rules will apply, and the Department will not require the replacement of the system if pollutant removals do not satisfy the General Standard Best Management Practices.

We look forward to working with you as these stormwater management structures are installed on new projects. And, we hope that this stormwater BMP will be included in our manual in the near future.

Questions concerning this decision should be directed to Marianne Hubert at (207) 215-6485 or Jeff Dennis at (207) 215-6376.

Sincerely,

Mark Bergeron, P.E.
Director, Division of Land Resource Regulation
Bureau of Land & Water Quality

C: Don Witherill, Maine DEP

APPENDIX B

Miscellaneous Sizing Calculations

Rational Method Flow Computations										
ZONE	ZONE ID	IMPERVIOUS (SF)	PERVIOUS (SF)	TOTAL AREA (SF)	TOTAL AREA (ACRES)	WEIGHTED C	25-YEAR FLOW	10-YEAR FLOW	2-YEAR FLOW	1-Year Flow
Zone H	Ha-9	0.00	1,607.00	1,607.00	0.04	0.20	0.05	0.04	0.03	0.02
	Ha-2	6,683.00	1,473.00	8,156.00	0.19	0.81	0.95	0.84	0.61	0.43
	Ha-6	6,585.00	847.00	7,432.00	0.17	0.86	0.92	0.81	0.59	0.41
	Ha-7	0.00	1,036.00	1,036.00	0.02	0.20	0.03	0.03	0.02	0.01
	Ha-8	667.00	1,147.00	1,814.00	0.04	0.48	0.12	0.11	0.08	0.06
	Ha-4	4,748.00	814.00	5,562.00	0.13	0.84	0.67	0.59	0.43	0.30
	Ha-5	12,313.40	1,513.60	13,827.00	0.32	0.87	1.72	1.52	1.10	0.77
	Zone Ha - Total	**30,996.40**	**8,437.60**	**39,434.00**	**0.91**	**0.79**	4.47	**3.93**	**2.86**	**2.00**
	Hb-R5 north (split in half for different Isolator rows)	7,222.00	0.00	7,222.00	0.17	0.95	0.98	0.87	0.63	0.44
	Hb-13	1,469.00	259.00	1,728.00	0.04	0.84	0.21	0.18	0.13	0.09
	Hb-12	1,209.00	346.00	1,555.00	0.04	0.78	0.17	0.15	0.11	0.08
	Hb-5 Isolator Subtotal	**9,900.00**	**605.00**	**10,505.00**	**0.24**	**0.91**	1.37	**1.20**	**0.87**	**0.61**
	Hb-R5 South (split in half for different Isolator rows)	7,222.00	0.00	7,222.00	0.17	0.95	0.98	0.87	0.63	0.44
	Hb-14	225.00	724.00	949.00	0.02	0.38	0.05	0.05	0.03	0.02
	Hb-15	1,146.00	2,657.00	3,803.00	0.09	0.43	0.23	0.20	0.15	0.10
	Hb-R4	7,038.00	0.00	7,038.00	0.16	0.95	0.96	0.84	0.61	0.43
	Hb-16	586.00	3,935.00	4,521.00	0.10	0.30	0.19	0.17	0.12	0.09
	Hb-17	3,056.00	179.00	3,235.00	0.07	0.91	0.42	0.37	0.27	0.19
	Hb-18	716.00	1,298.00	2,014.00	0.05	0.47	0.13	0.12	0.09	0.06
	Hb-9	1,246.00	1,622.00	2,868.00	0.07	0.53	0.22	0.19	0.14	0.10
	Hb-19	1,093.00	461.00	1,554.00	0.04	0.73	0.16	0.14	0.10	0.07
	Hb-20	601.00	506.00	1,107.00	0.03	0.61	0.10	0.08	0.06	0.04
	Hb-5 Isolator Subtotal	**22,929.00**	**11,382.00**	**34,311.00**	**0.79**	**0.70**	3.45	**3.04**	**2.21**	**1.55**
	Hb-5 Storage Subtotal	**32,829.00**	**11,987.00**	**44,816.00**	**1.03**	**0.75**	4.82	**4.24**	**3.08**	**2.16**
	Hb-GR	25,934.00	0.00	25,934.00	0.60	0.95	3.53	3.11	2.26	1.58
	Hb-11 Storage/Isolator Subtotal	**25,934.00**	**0.00**	**25,934.00**	**0.60**	**0.95**	3.53	**3.11**	**2.26**	**1.58**
	Hb-3.1 Jellyfish Total	**58,763.00**	**11,987.00**	**70,750.00**	**1.62**	**0.82**	8.35	**7.35**	**5.35**	**3.74**
	Hb-21	1,522.00	2,257.00	3,779.00	0.09	0.50	0.27	0.24	0.17	0.12
	Hb-22	682.00	6,048.00	6,730.00	0.15	0.28	0.27	0.23	0.17	0.12
	Hb-Filterra Subtotal	**2,204.00**	**8,305.00**	**10,509.00**	**0.24**	**0.36**	0.54	**0.47**	**0.34**	**0.24**
	Hc-R1	15,256.00	0.00	15,256.00	0.35	0.95	2.08	1.83	1.33	0.93
	Hc-R2	4,904.00	0.00	4,904.00	0.11	0.95	0.67	0.59	0.43	0.30
	Hc-R3	8,572.00	0.00	8,572.00	0.20	0.95	1.17	1.03	0.75	0.52
	Hc-5	2,495.00	1,852.00	4,347.00	0.10	0.63	0.39	0.35	0.25	0.18
	Hc-7	1,587.00	2,781.00	4,368.00	0.10	0.47	0.30	0.26	0.19	0.13
	Hc-6	0.00	460.00	460.00	0.01	0.20	0.01	0.01	0.01	0.01
	Hc-4 Storage/Isolator Subtotal	**32,814.00**	**5,093.00**	**37,907.00**	**0.87**	**0.85**	4.62	**4.06**	**2.96**	**2.07**
	Hb-23	520.00	262.00	782.00	0.02	0.70	0.08	0.07	0.05	0.04
	Ha-10	317.00	5,778.00	6,095.00	0.14	0.24	0.21	0.18	0.13	0.09
	Ha-City	1,296.60	768.40	2,065.00	0.05	0.67	0.20	0.17	0.13	0.09

Assumptions		
Pervious C	**0.2**	
Impervious C	**0.95**	
I-1 Year	**2.8**	**in/hr**
I -2 Year Storm	**4**	**in/hr**
I-10 Year Storm	**5.5**	**In/Hr**
I-25 Year Storm	**6.25**	**In/Hr**
Notes:		
1. Rainfall intensity based on Cumberland County IDF curve using a TC of 5 min.		

Zone Hb Required StormTech Chamber Storage Computation

North Storage (Hb-11)

Weir Wall Height	20.5	EL	
Bottom of Chamber Elevation	18	EL	
Total Chamber Height	30	Inches	30 (max chamber height)
Total Storage per chamber	61.38	CF	
Total WQV for Zone G	2,161.17	CF	
Total Chambers Required	35.2	#	
Total Chambers Provided	35	#	
Total Storage Provided	2148.3	CF	* This excludes excess storage in distribution pipes, and oversized stone on perimeter.
Total Storage Provided Per Hydro cad	2699	CF	*This includes stone around perimeter of system and base stone

South Storage (Hb-5)

Weir Wall Height	20.5	EL	
Bottom of Chamber Elevation	18	EL	
Total Chamber Height	30	Inches	30 (max chamber height)
Total Storage per chamber	61.38	CF	
Total WQV for Zone G	3,135.32	CF	
Total Chambers Required	51.1	#	
Total Chambers Provided	40	#	
Total Storage Provided	2628.2	CF	* This excludes excess storage in inlet distribution pipes, and oversized stone on perimeter. This includes volume of 55' 15" dia. outlet pipe.
Total Storage Provided	3042	CF	*This includes stone around perimeter of system and base stone

Resi Project Water Quality Volume (CF) - North Hb-11	2,161.17
Resi Project Water Quality Volume (CF) - South Hb-5	3,135.32

1. Height of weir wall based on WQv. See sheet "rational method flow computations". Structure Hb-3 in which weir wall is located was modeled using HydroCad. See attached computations.

	Impervious Area	Pervious Area	1 yr Peak Flow (CFS)	25 yr Peak Flow (CFS)	Flow Per SC-740 Chamber	Required Isolator Row Chambers	Provided Isolator Row Chambers
Trib. To North Inlet	25,934	0	1.58	3.53	0.2	7.92	8
Trib. To South Inlet 1	9,900	605	0.61	1.37	0.2	3.06	6
Trib. To South Inlet 2	22,929	11,382	1.55	3.45	0.2	7.73	8
			2.16	4.82		10.79	

Zone Hc Required StormTech Chamber Storage Computation

Weir Wall Height	20	EL	
Bottom of Chamber Elevation	17.5	EL	
Total Chamber Height	30	Inches	30 (max chamber height)
Total Storage per chamber	61.38	CF	
Total WQV for Zone HC	2,904.27	CF	
Total Chambers Required	47.3	#	
Total Chambers Provided	40	#	
Total Storage Provided	2455.2	CF	
Total Storage Provided as shown in Hydrocad	2938	CF	*This includes stone around perimeter of system and base stone

Resi Project Water Quality Volume (CF) - Zone Hc 2,904.27

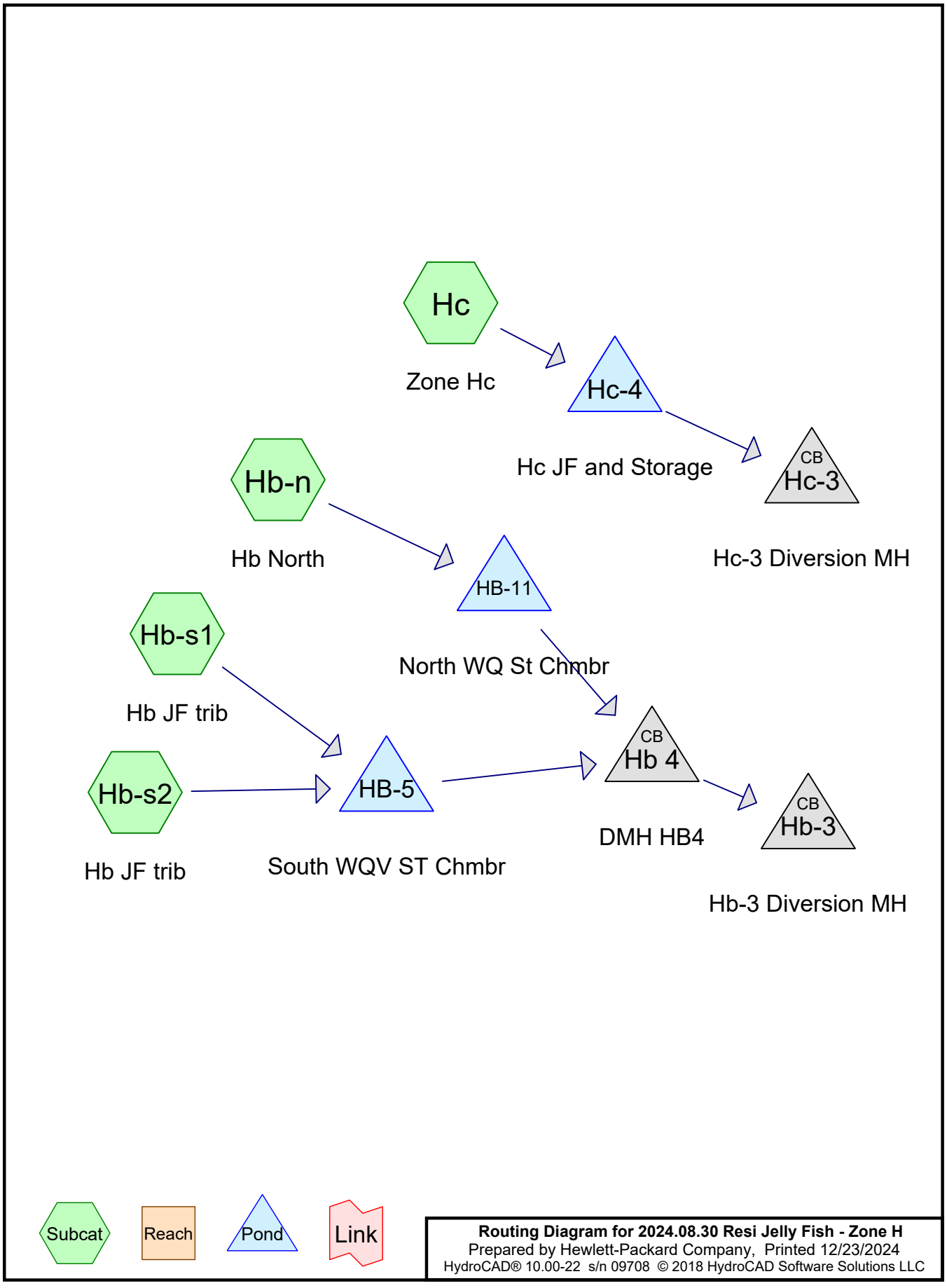
Notes:

1. Height of weirwall based based on WQv. See sheet "rational method flow compuations". Structure Hc-3 in which weir wall is located was modeled using HydroCad. See attached computations.

	Impervious Area	Pervious Area	1 yr Peak Flow (CFS)	25 yr Peak Flow (CFS)	Flow Per SC-740 Chamber	Required Isolator Row Chambers	Provided Isolator Row Chambers
Trib. To West Inlet	32,814	5,093	2.07	4.62	0.2	10.35	16
			2.07	4.62			

APPENDIX C

JellyFish™ HydroCAD Model Summary



Routing Diagram for 2024.08.30 Resi Jelly Fish - Zone H
Prepared by Hewlett-Packard Company, Printed 12/23/2024
HydroCAD® 10.00-22 s/n 09708 © 2018 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
45,810	74	>75% Grass cover, Good, HSG C (Hb-s1, Hb-s2, Hc)
28,732	98	Building (Hc)
25,934	98	Impervious Pavement & Roofs, HSG C (Hb-n)
21,127	98	Paved parking, HSG C (Hb-s1, Hb-s2, Hc)
14,260	98	Roof (Hb-s2)
7,222	98	roof (Hb-s1)
143,085	**90**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
92,871	HSG C	Hb-n, Hb-s1, Hb-s2, Hc
0	HSG D	
50,214	Other	Hb-s1, Hb-s2, Hc
143,085		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
0	0	45,810	0	0	45,810	>75% Grass cover, Good
0	0	0	0	28,732	28,732	Building
0	0	25,934	0	0	25,934	Impervious Pavement & Roofs
0	0	21,127	0	0	21,127	Paved parking
0	0	0	0	14,260	14,260	Roof
0	0	0	0	7,222	7,222	roof
0	**0**	**92,871**	**0**	**50,214**	**143,085**	**TOTAL AREA**

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	Hb 4	16.50	16.40	12.0	0.0083	0.012	18.0	0.0	0.0
2	HB-11	17.00	16.60	56.0	0.0071	0.012	15.0	0.0	0.0
3	Hb-3	15.70	15.10	11.0	0.0545	0.012	18.0	0.0	0.0
4	HB-5	17.00	16.60	50.0	0.0080	0.012	15.0	0.0	0.0
5	Hc-3	16.60	16.50	11.0	0.0091	0.012	15.0	0.0	0.0
6	Hc-4	17.50	17.40	12.0	0.0083	0.012	15.0	0.0	0.0

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment Hb-n: Hb North Runoff Area=25,934 sf 100.00% Impervious Runoff Depth=0.79"
Tc=6.0 min CN=98 Runoff=0.53 cfs 1,709 cf

Subcatchment Hb-s1: Hb JF trib Runoff Area=11,110 sf 94.55% Impervious Runoff Depth=0.71"
Tc=6.0 min CN=97 Runoff=0.21 cfs 653 cf

Subcatchment Hb-s2: Hb JF trib Runoff Area=34,311 sf 66.83% Impervious Runoff Depth=0.32"
Tc=6.0 min CN=90 Runoff=0.28 cfs 916 cf

Subcatchment Hc: Zone Hc Runoff Area=71,730 sf 52.85% Impervious Runoff Depth=0.22"
Tc=6.0 min CN=87 Runoff=0.37 cfs 1,339 cf

Pond Hb 4: DMH HB4 Peak Elev=16.84' Inflow=0.46 cfs 2,643 cf
18.0" Round Culvert n=0.012 L=12.0' S=0.0083 '/' Outflow=0.46 cfs 2,643 cf

Pond HB-11: North WQ St Chmbr Peak Elev=17.28' Storage=610 cf Inflow=0.53 cfs 1,709 cf
15.0" Round Culvert n=0.012 L=56.0' S=0.0071 '/' Outflow=0.34 cfs 1,410 cf

Pond Hb-3: Hb-3 Diversion MH Peak Elev=19.57' Inflow=0.46 cfs 2,643 cf
Outflow=0.46 cfs 2,643 cf

Pond HB-5: South WQV ST Chmbr Peak Elev=17.20' Storage=580 cf Inflow=0.49 cfs 1,569 cf
15.0" Round Culvert n=0.012 L=50.0' S=0.0080 '/' Outflow=0.18 cfs 1,233 cf

Pond Hc-3: Hc-3 Diversion MH Peak Elev=20.01' Inflow=0.07 cfs 1,022 cf
Outflow=0.07 cfs 1,022 cf

Pond Hc-4: Hc JF and Storage Peak Elev=17.63' Storage=468 cf Inflow=0.37 cfs 1,339 cf
15.0" Round Culvert n=0.012 L=12.0' S=0.0083 '/' Outflow=0.07 cfs 1,022 cf

Total Runoff Area = 143,085 sf Runoff Volume = 4,617 cf Average Runoff Depth = 0.39"
32.02% Pervious = 45,810 sf 67.98% Impervious = 97,275 sf

Summary for Subcatchment Hb-n: Hb North

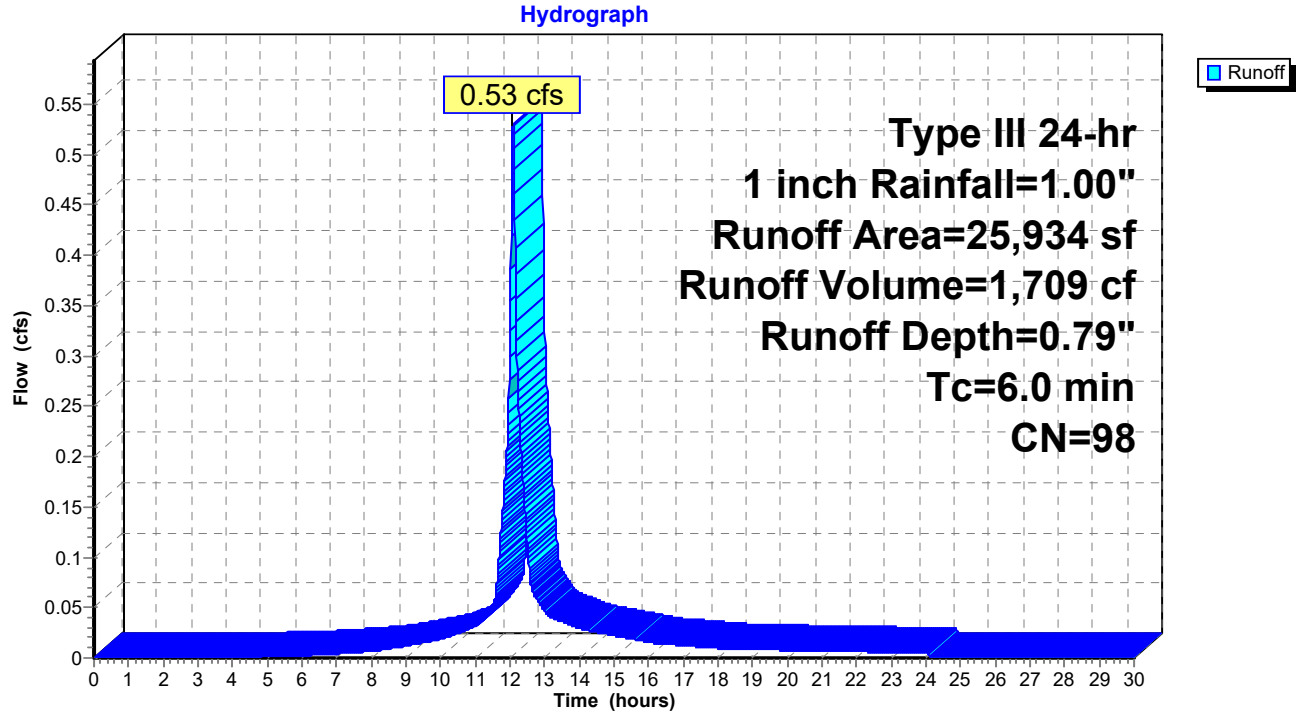
Runoff = 0.53 cfs @ 12.08 hrs, Volume= 1,709 cf, Depth= 0.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 1 inch Rainfall=1.00"

	Area (sf)	CN	Description
*	25,934	98	Impervious Pavement & Roofs, HSG C
	25,934		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc - Min**

Subcatchment Hb-n: Hb North



Summary for Subcatchment Hb-s1: Hb JF trib

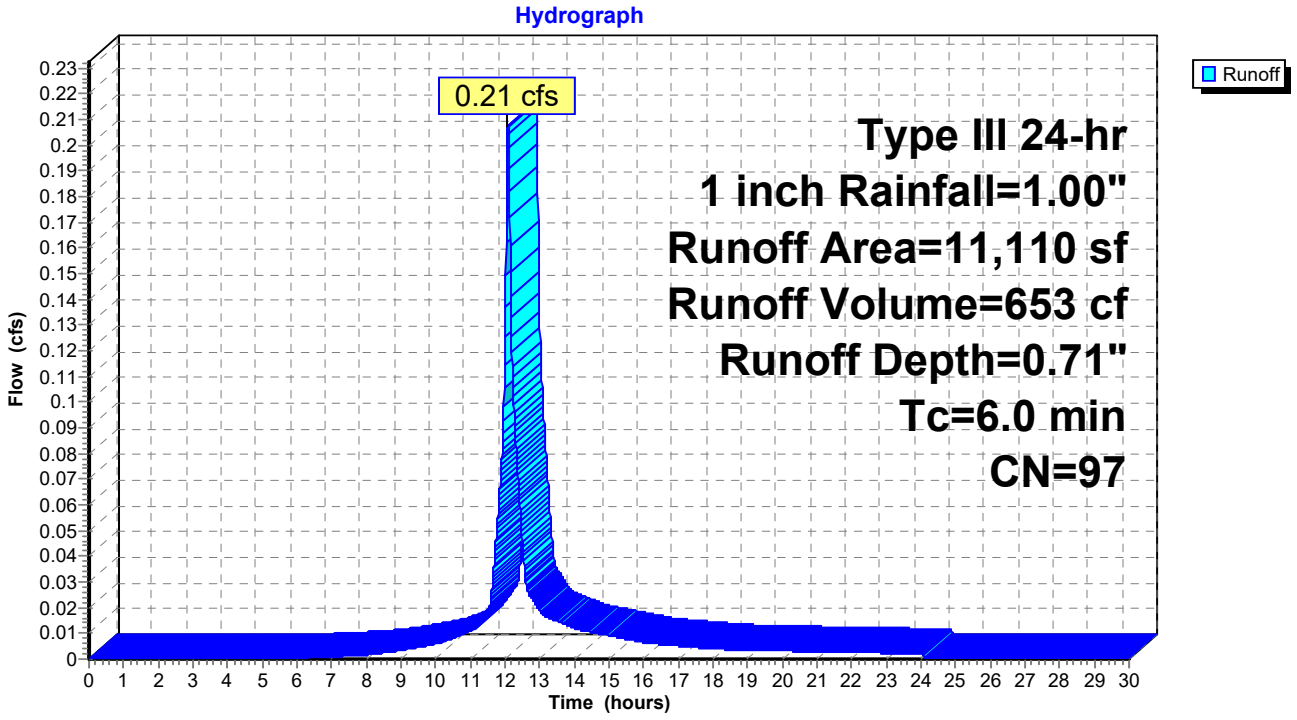
Runoff = 0.21 cfs @ 12.09 hrs, Volume= 653 cf, Depth= 0.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 1 inch Rainfall=1.00"

	Area (sf)	CN	Description
*	7,222	98	roof
	3,283	98	Paved parking, HSG C
	605	74	>75% Grass cover, Good, HSG C
	11,110	97	Weighted Average
	605		5.45% Pervious Area
	10,505		94.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc - min**

Subcatchment Hb-s1: Hb JF trib



Summary for Subcatchment Hb-s2: Hb JF trib

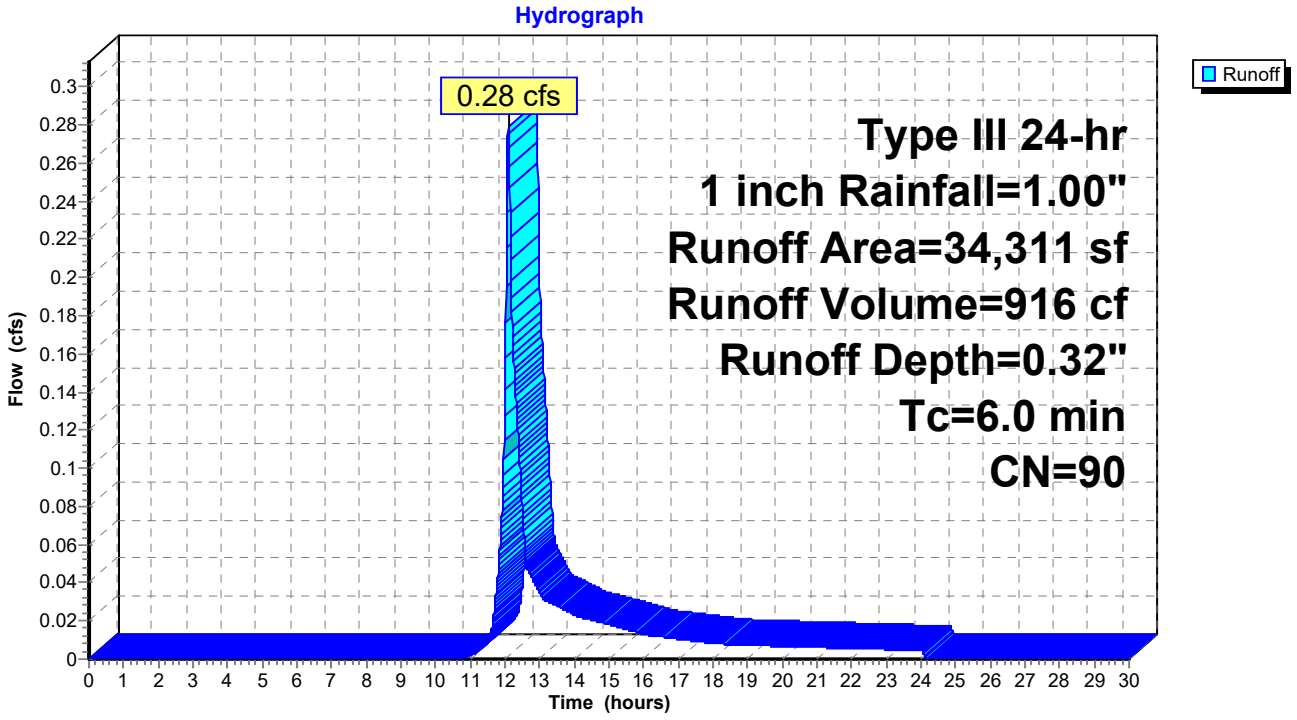
Runoff = 0.28 cfs @ 12.10 hrs, Volume= 916 cf, Depth= 0.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 1 inch Rainfall=1.00"

	Area (sf)	CN	Description
*	14,260	98	Roof
	8,669	98	Paved parking, HSG C
	11,382	74	>75% Grass cover, Good, HSG C
	34,311	90	Weighted Average
	11,382		33.17% Pervious Area
	22,929		66.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc - min**

Subcatchment Hb-s2: Hb JF trib



Summary for Subcatchment Hc: Zone Hc

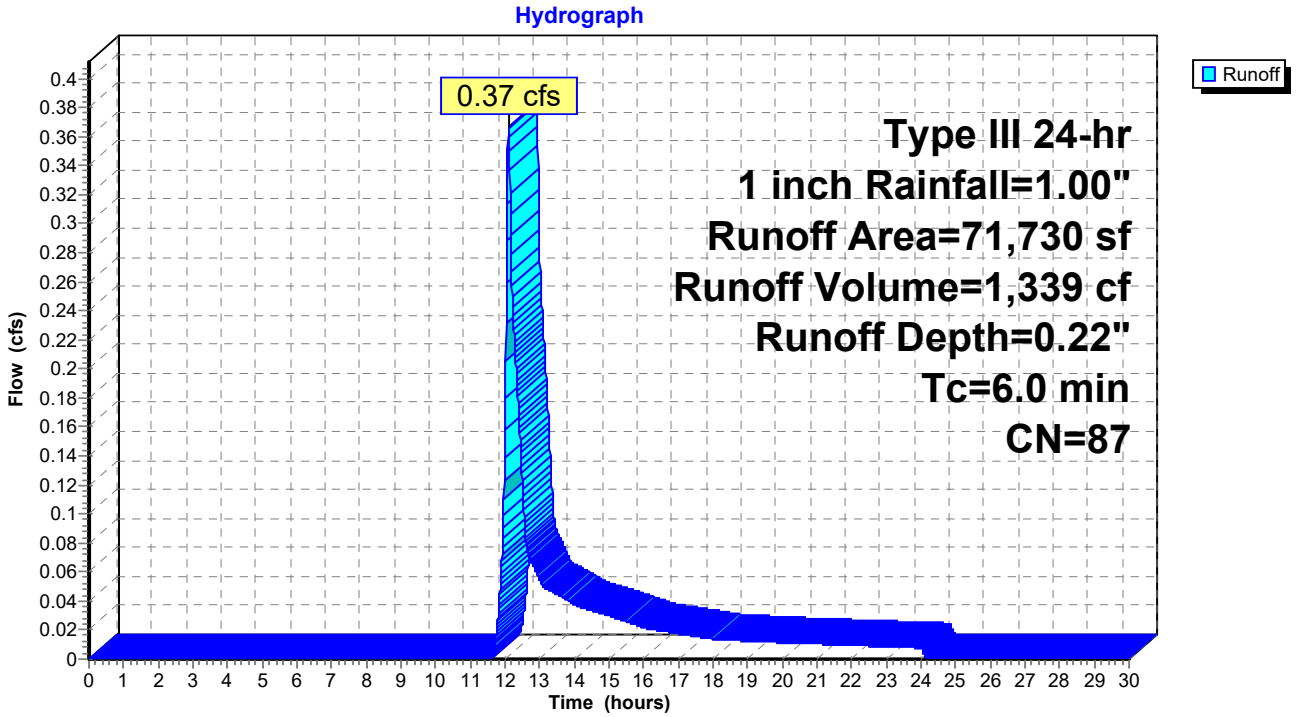
Runoff = 0.37 cfs @ 12.10 hrs, Volume= 1,339 cf, Depth= 0.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 1 inch Rainfall=1.00"

	Area (sf)	CN	Description
*	15,256	98	Building
*	4,904	98	Building
*	8,572	98	Building
	9,175	98	Paved parking, HSG C
	33,823	74	>75% Grass cover, Good, HSG C
	71,730	87	Weighted Average
	33,823		47.15% Pervious Area
	37,907		52.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment Hc: Zone Hc



Summary for Pond Hb 4: DMH HB4

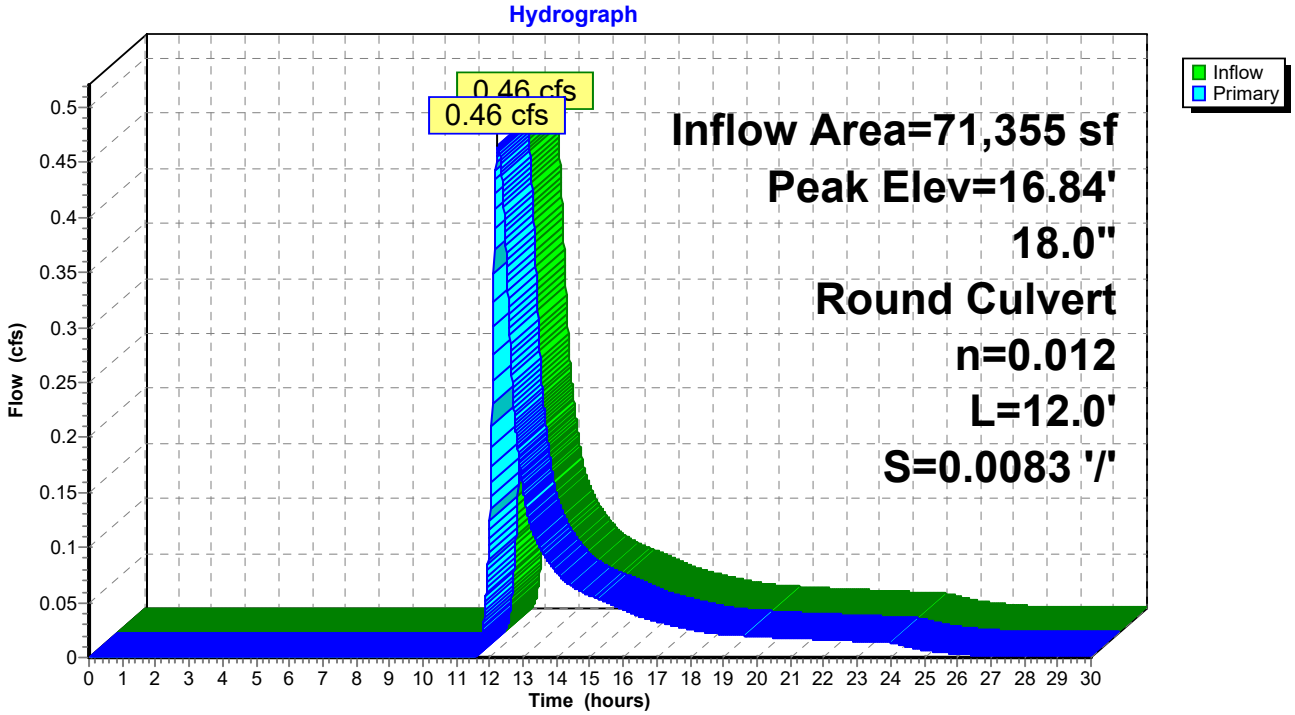
Inflow Area = 71,355 sf, 83.20% Impervious, Inflow Depth > 0.44" for 1 inch event
Inflow = 0.46 cfs @ 12.25 hrs, Volume= 2,643 cf
Outflow = 0.46 cfs @ 12.25 hrs, Volume= 2,643 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.46 cfs @ 12.25 hrs, Volume= 2,643 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 16.84' @ 12.25 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	16.50'	**18.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 16.50' / 16.40' S= 0.0083 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=0.46 cfs @ 12.25 hrs HW=16.84' (Free Discharge)
1=Culvert (Barrel Controls 0.46 cfs @ 2.37 fps)

Pond Hb 4: DMH HB4



Summary for Pond HB-11: North WQ St Chmbr

Inflow Area = 25,934 sf,100.00% Impervious, Inflow Depth = 0.79" for 1 inch event
Inflow = 0.53 cfs @ 12.08 hrs, Volume= 1,709 cf
Outflow = 0.34 cfs @ 12.18 hrs, Volume= 1,410 cf, Atten= 35%, Lag= 5.5 min
Primary = 0.34 cfs @ 12.18 hrs, Volume= 1,410 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 17.28' @ 12.18 hrs Surf.Area= 1,445 sf Storage= 610 cf

Plug-Flow detention time= 151.0 min calculated for 1,410 cf (82% of inflow)
Center-of-Mass det. time= 81.2 min (869.0 - 787.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	16.50'	1,068 cf	**15.75'W x 67.70'L x 3.67'H Field A** 3,909 cf Overall - 1,240 cf Embedded = 2,669 cf x 40.0% Voids
#2A	17.00'	1,240 cf	**ADS_StormTech SC-740 +Cap** x 27 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 3 Rows of 9 Chambers
#3B	16.50'	408 cf	**6.25'W x 60.58'L x 3.67'H Field B** 1,388 cf Overall - 368 cf Embedded = 1,021 cf x 40.0% Voids
#4B	17.00'	368 cf	**ADS_StormTech SC-740 +Cap** x 8 Inside #3 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap
		3,084 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	17.00'	**15.0" Round Culvert** L= 56.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 17.00' / 16.60' S= 0.0071 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.34 cfs @ 12.18 hrs HW=17.28' (Free Discharge)
1=Culvert (Barrel Controls 0.34 cfs @ 2.45 fps)

Pond HB-11: North WQ St Chmbr - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

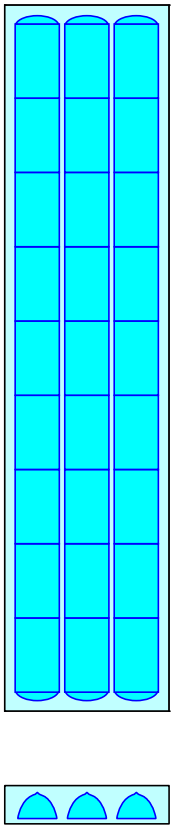
9 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 65.70' Row Length +12.0" End Stone x 2 = 67.70' Base Length
3 Rows x 51.0" Wide + 6.0" Spacing x 2 + 12.0" Side Stone x 2 = 15.75' Base Width
6.0" Base + 30.0" Chamber Height + 8.0" Cover = 3.67' Field Height

27 Chambers x 45.9 cf = 1,240.4 cf Chamber Storage

3,909.5 cf Field - 1,240.4 cf Chambers = 2,669.1 cf Stone x 40.0% Voids = 1,067.6 cf Stone Storage

Chamber Storage + Stone Storage = 2,308.0 cf = 0.053 af
Overall Storage Efficiency = 59.0%
Overall System Size = 67.70' x 15.75' x 3.67'

27 Chambers
144.8 cy Field
98.9 cy Stone



Pond HB-11: North WQ St Chmbr - Chamber Wizard Field B

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

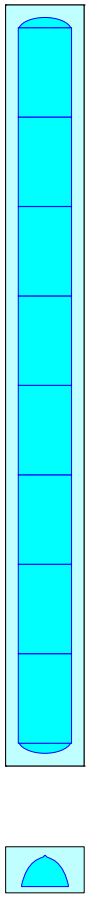
8 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 58.58' Row Length +12.0" End Stone x 2 = 60.58' Base Length
1 Rows x 51.0" Wide + 12.0" Side Stone x 2 = 6.25' Base Width
6.0" Base + 30.0" Chamber Height + 8.0" Cover = 3.67' Field Height

8 Chambers x 45.9 cf = 367.5 cf Chamber Storage

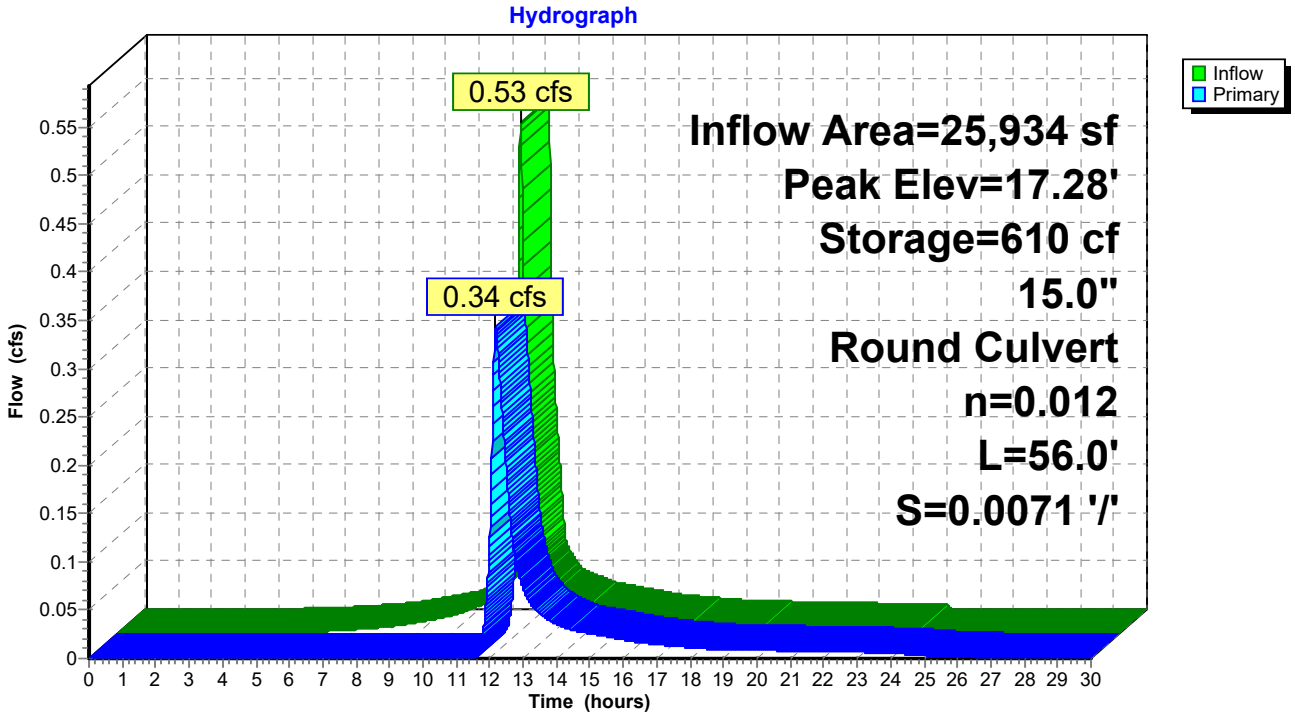
1,388.2 cf Field - 367.5 cf Chambers = 1,020.7 cf Stone x 40.0% Voids = 408.3 cf Stone Storage

Chamber Storage + Stone Storage = 775.8 cf = 0.018 af
Overall Storage Efficiency = 55.9%
Overall System Size = 60.58' x 6.25' x 3.67'

8 Chambers
51.4 cy Field
37.8 cy Stone



Pond HB-11: North WQ St Chmbr



Summary for Pond Hb-3: Hb-3 Diversion MH

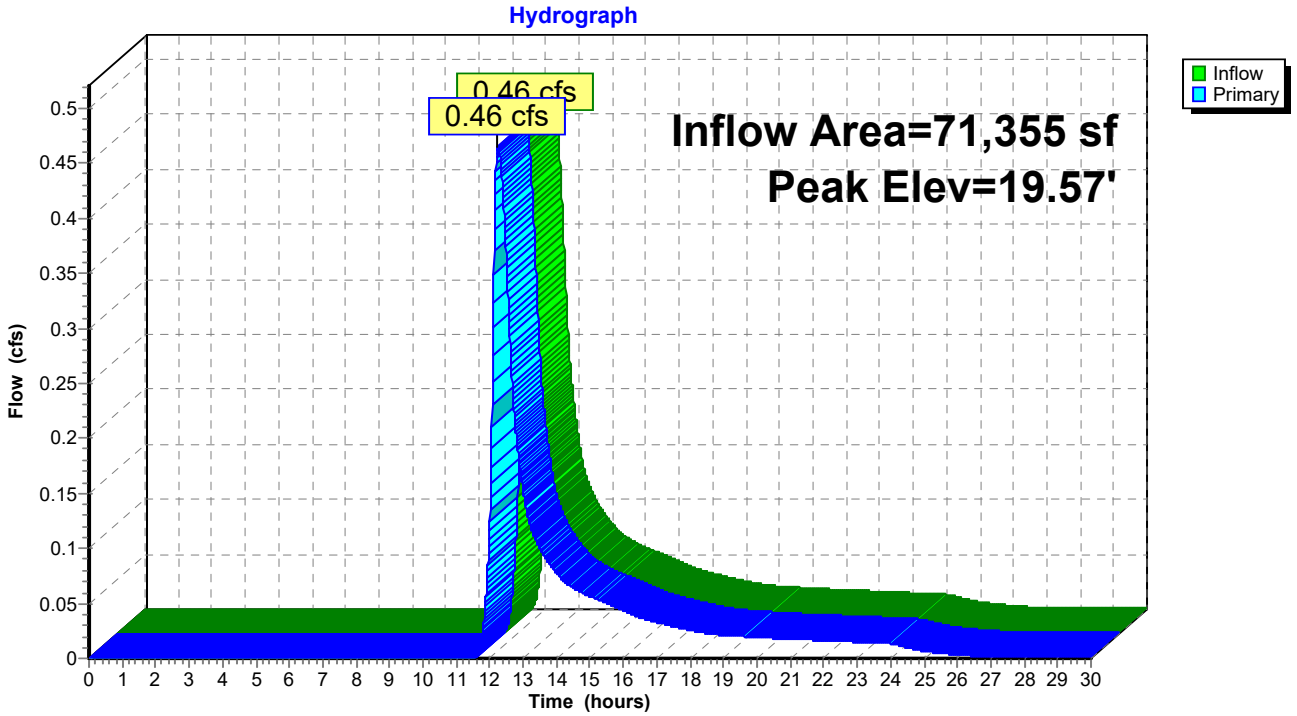
Inflow Area = 71,355 sf, 83.20% Impervious, Inflow Depth > 0.44" for 1 inch event
Inflow = 0.46 cfs @ 12.25 hrs, Volume= 2,643 cf
Outflow = 0.46 cfs @ 12.25 hrs, Volume= 2,643 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.46 cfs @ 12.25 hrs, Volume= 2,643 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 19.57' @ 12.25 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	15.70'	**18.0" Round Culvert** L= 11.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 15.70' / 15.10' S= 0.0545 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	16.30'	**1.4" Vert. Orifice/Grate** C= 0.600
#3	Device 1	19.50'	**7.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.46 cfs @ 12.25 hrs HW=19.57' (Free Discharge)
└**1=Culvert** (Passes 0.46 cfs of 15.03 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.09 cfs @ 8.63 fps)
└**3=Broad-Crested Rectangular Weir** (Weir Controls 0.37 cfs @ 0.74 fps)

Pond Hb-3: Hb-3 Diversion MH



Summary for Pond HB-5: South WQV ST Chmbr

Inflow Area = 45,421 sf, 73.61% Impervious, Inflow Depth = 0.41" for 1 inch event
Inflow = 0.49 cfs @ 12.09 hrs, Volume= 1,569 cf
Outflow = 0.18 cfs @ 12.39 hrs, Volume= 1,233 cf, Atten= 63%, Lag= 18.1 min
Primary = 0.18 cfs @ 12.39 hrs, Volume= 1,233 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 17.20' @ 12.39 hrs Surf.Area= 1,616 sf Storage= 580 cf

Plug-Flow detention time= 174.4 min calculated for 1,232 cf (79% of inflow)
Center-of-Mass det. time= 90.7 min (928.4 - 837.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	16.50'	683 cf	**11.00'W x 60.58'L x 3.67'H Field A** 2,443 cf Overall - 735 cf Embedded = 1,708 cf x 40.0% Voids
#2A	17.00'	735 cf	**ADS_StormTech SC-740 +Cap** x 16 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 2 Rows of 8 Chambers
#3B	16.50'	952 cf	**20.50'W x 46.34'L x 3.67'H Field B** 3,483 cf Overall - 1,103 cf Embedded = 2,380 cf x 40.0% Voids
#4B	17.00'	1,103 cf	**ADS_StormTech SC-740 +Cap** x 24 Inside #3 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 4 Rows of 6 Chambers
		3,473 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	17.00'	**15.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 17.00' / 16.60' S= 0.0080 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.18 cfs @ 12.39 hrs HW=17.20' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 0.18 cfs @ 2.13 fps)

Pond HB-5: South WQV ST Chmbr - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

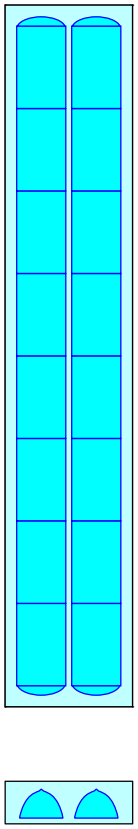
8 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 58.58' Row Length +12.0" End Stone x 2 = 60.58' Base Length
2 Rows x 51.0" Wide + 6.0" Spacing x 1 + 12.0" Side Stone x 2 = 11.00' Base Width
6.0" Base + 30.0" Chamber Height + 8.0" Cover = 3.67' Field Height

16 Chambers x 45.9 cf = 735.0 cf Chamber Storage

2,443.3 cf Field - 735.0 cf Chambers = 1,708.2 cf Stone x 40.0% Voids = 683.3 cf Stone Storage

Chamber Storage + Stone Storage = 1,418.3 cf = 0.033 af
Overall Storage Efficiency = 58.1%
Overall System Size = 60.58' x 11.00' x 3.67'

16 Chambers
90.5 cy Field
63.3 cy Stone



Pond HB-5: South WQV ST Chmbr - Chamber Wizard Field B

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

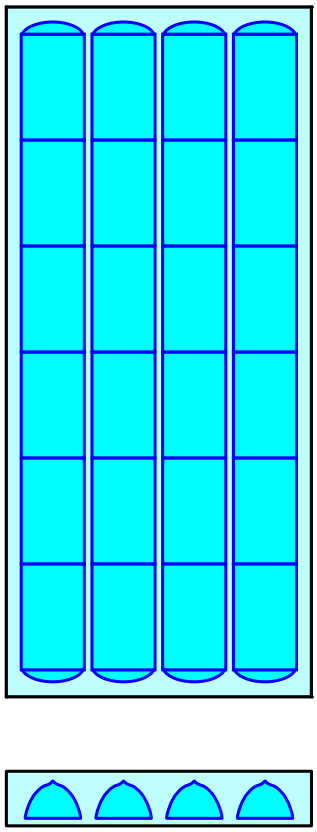
6 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 44.34' Row Length +12.0" End Stone x 2 = 46.34' Base Length
4 Rows x 51.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 20.50' Base Width
6.0" Base + 30.0" Chamber Height + 8.0" Cover = 3.67' Field Height

24 Chambers x 45.9 cf = 1,102.6 cf Chamber Storage

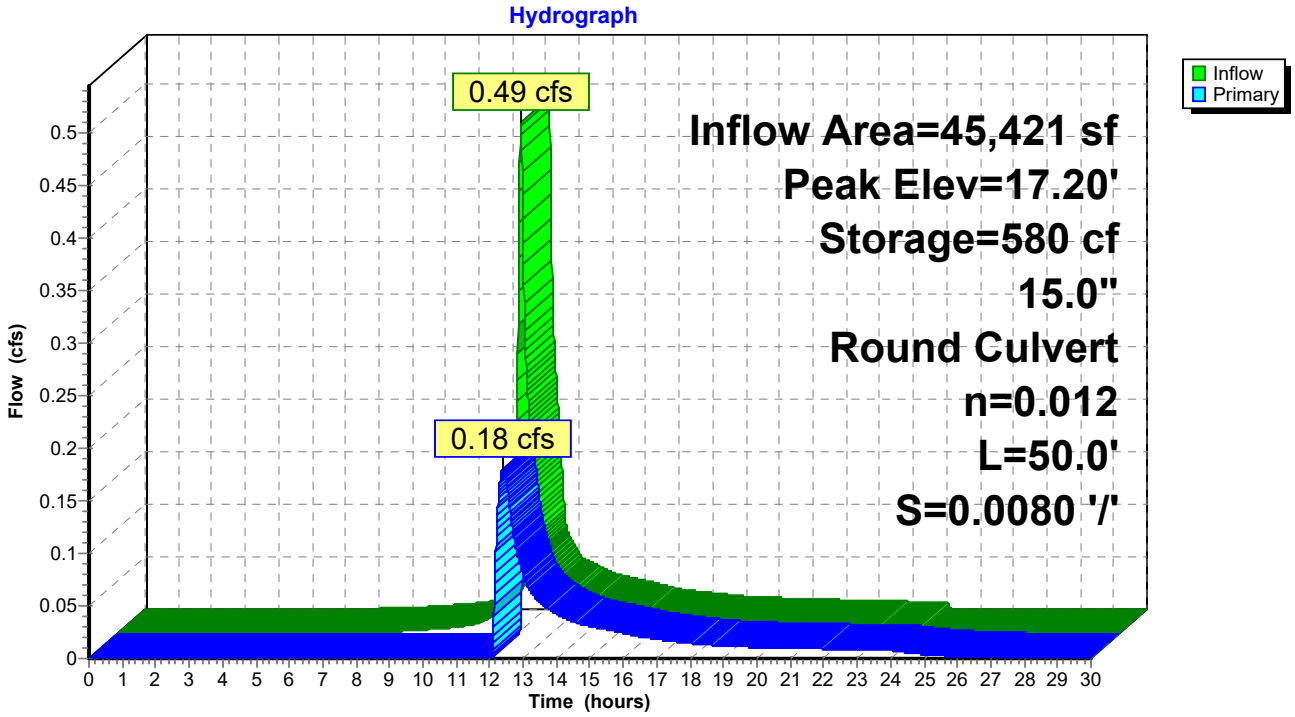
3,483.0 cf Field - 1,102.6 cf Chambers = 2,380.4 cf Stone x 40.0% Voids = 952.2 cf Stone Storage

Chamber Storage + Stone Storage = 2,054.7 cf = 0.047 af
Overall Storage Efficiency = 59.0%
Overall System Size = 46.34' x 20.50' x 3.67'

24 Chambers
129.0 cy Field
88.2 cy Stone



Pond HB-5: South WQV ST Chmbr



Summary for Pond Hc-3: Hc-3 Diversion MH

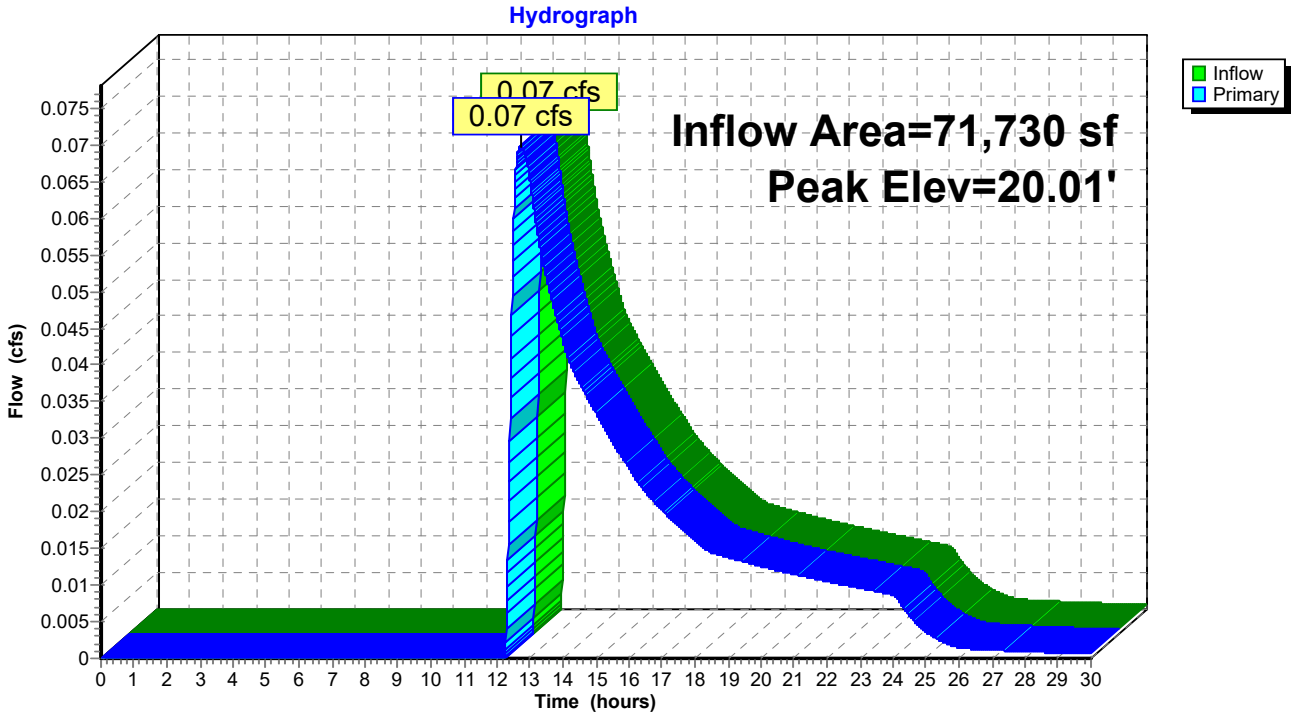
Inflow Area = 71,730 sf, 52.85% Impervious, Inflow Depth > 0.17" for 1 inch event
Inflow = 0.07 cfs @ 12.72 hrs, Volume= 1,022 cf
Outflow = 0.07 cfs @ 12.72 hrs, Volume= 1,022 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.07 cfs @ 12.72 hrs, Volume= 1,022 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 20.01' @ 12.72 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	16.60'	**15.0" Round Culvert** L= 11.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 16.60' / 16.50' S= 0.0091 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	17.30'	**1.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	20.00'	**7.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.06 cfs @ 12.72 hrs HW=20.01' (Free Discharge)
↑ **1=Culvert** (Passes 0.06 cfs of 9.86 cfs potential flow)
↑ **2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 7.86 fps)
↑ **3=Broad-Crested Rectangular Weir** (Weir Controls 0.01 cfs @ 0.24 fps)

Pond Hc-3: Hc-3 Diversion MH



Summary for Pond Hc-4: Hc JF and Storage

Artificial stone cover thickness to fix storage warning and calculate correct Peak elevation over weir. (6" installed per details not 8" as specified)

Inflow Area = 71,730 sf, 52.85% Impervious, Inflow Depth = 0.22" for 1 inch event
Inflow = 0.37 cfs @ 12.10 hrs, Volume= 1,339 cf
Outflow = 0.07 cfs @ 12.72 hrs, Volume= 1,022 cf, Atten= 81%, Lag= 36.8 min
Primary = 0.07 cfs @ 12.72 hrs, Volume= 1,022 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 17.63' @ 12.72 hrs Surf.Area= 1,530 sf Storage= 468 cf
Flood Elev= 21.00' Surf.Area= 1,530 sf Storage= 3,346 cf

Plug-Flow detention time= 200.1 min calculated for 1,021 cf (76% of inflow)
Center-of-Mass det. time= 106.5 min (991.0 - 884.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	17.00'	1,508 cf	**25.25'W x 60.58'L x 3.67'H Field A** 5,608 cf Overall - 1,838 cf Embedded = 3,771 cf x 40.0% Voids
#2A	17.50'	1,838 cf	**ADS_StormTech SC-740 +Cap** x 40 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 5 Rows of 8 Chambers
		3,346 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	17.50'	**15.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 17.50' / 17.40' S= 0.0083 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=0.07 cfs @ 12.72 hrs HW=17.63' (Free Discharge)
1=Culvert (Barrel Controls 0.07 cfs @ 1.55 fps)

Pond Hc-4: Hc JF and Storage - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

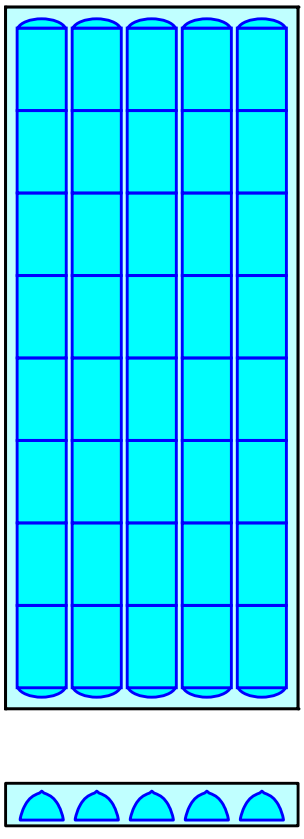
8 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 58.58' Row Length +12.0" End Stone x 2 = 60.58' Base Length
5 Rows x 51.0" Wide + 6.0" Spacing x 4 + 12.0" Side Stone x 2 = 25.25' Base Width
6.0" Base + 30.0" Chamber Height + 8.0" Cover = 3.67' Field Height

40 Chambers x 45.9 cf = 1,837.6 cf Chamber Storage

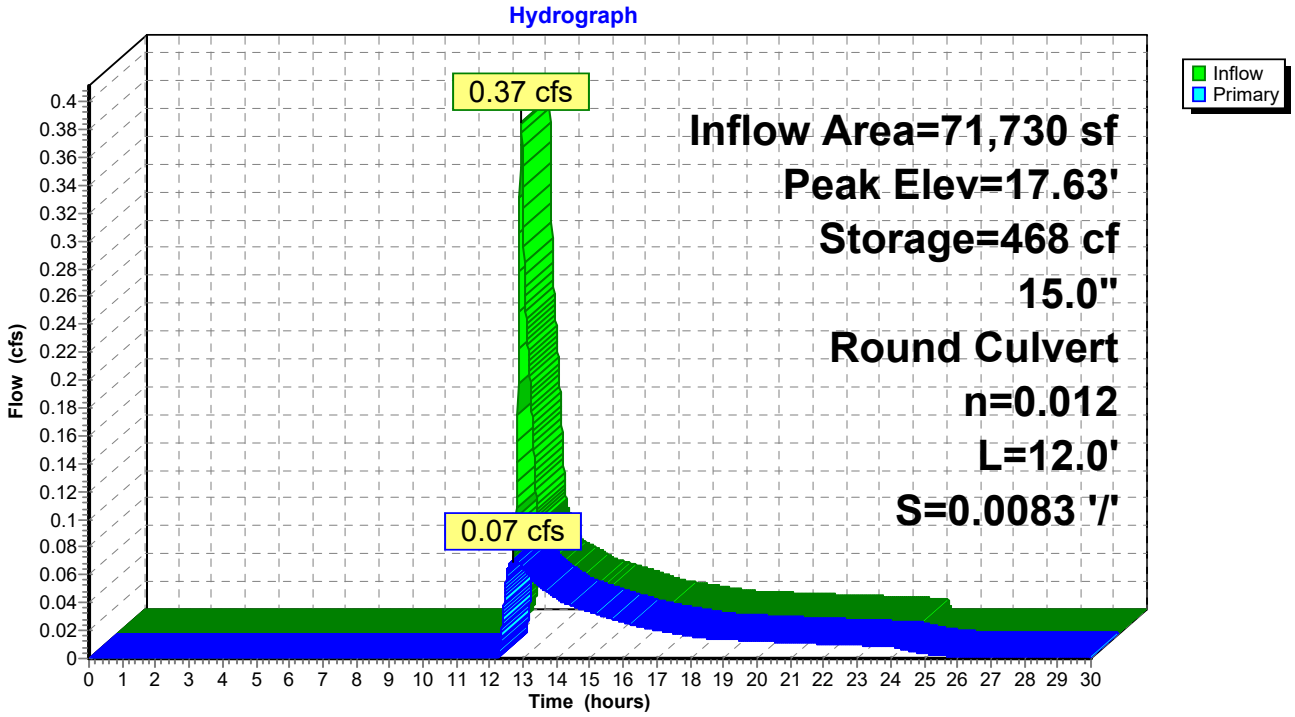
5,608.4 cf Field - 1,837.6 cf Chambers = 3,770.8 cf Stone x 40.0% Voids = 1,508.3 cf Stone Storage

Chamber Storage + Stone Storage = 3,345.9 cf = 0.077 af
Overall Storage Efficiency = 59.7%
Overall System Size = 60.58' x 25.25' x 3.67'

40 Chambers
207.7 cy Field
139.7 cy Stone



Pond Hc-4: Hc JF and Storage



Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment Hb-n: Hb North Runoff Area=25,934 sf 100.00% Impervious Runoff Depth=2.39"
Tc=6.0 min CN=98 Runoff=1.51 cfs 5,165 cf

Subcatchment Hb-s1: Hb JF trib Runoff Area=11,110 sf 94.55% Impervious Runoff Depth=2.28"
Tc=6.0 min CN=97 Runoff=0.63 cfs 2,113 cf

Subcatchment Hb-s2: Hb JF trib Runoff Area=34,311 sf 66.83% Impervious Runoff Depth=1.64"
Tc=6.0 min CN=90 Runoff=1.51 cfs 4,685 cf

Subcatchment Hc: Zone Hc Runoff Area=71,730 sf 52.85% Impervious Runoff Depth=1.41"
Tc=6.0 min CN=87 Runoff=2.73 cfs 8,441 cf

Pond Hb 4: DMH HB4 Peak Elev=17.44' Inflow=2.92 cfs 11,325 cf
18.0" Round Culvert n=0.012 L=12.0' S=0.0083 '/' Outflow=2.92 cfs 11,325 cf

Pond HB-11: North WQ St Chmbr Peak Elev=17.56' Storage=918 cf Inflow=1.51 cfs 5,165 cf
15.0" Round Culvert n=0.012 L=56.0' S=0.0071 '/' Outflow=1.21 cfs 4,865 cf

Pond Hb-3: Hb-3 Diversion MH Peak Elev=19.77' Inflow=2.92 cfs 11,325 cf
Outflow=2.92 cfs 11,325 cf

Pond HB-5: South WQV ST Chmbr Peak Elev=17.67' Storage=1,174 cf Inflow=2.14 cfs 6,798 cf
15.0" Round Culvert n=0.012 L=50.0' S=0.0080 '/' Outflow=1.71 cfs 6,460 cf

Pond Hc-3: Hc-3 Diversion MH Peak Elev=20.23' Inflow=2.18 cfs 8,121 cf
Outflow=2.18 cfs 8,121 cf

Pond Hc-4: Hc JF and Storage Peak Elev=18.36' Storage=1,350 cf Inflow=2.73 cfs 8,441 cf
15.0" Round Culvert n=0.012 L=12.0' S=0.0083 '/' Outflow=2.18 cfs 8,121 cf

Total Runoff Area = 143,085 sf Runoff Volume = 20,404 cf Average Runoff Depth = 1.71"
32.02% Pervious = 45,810 sf 67.98% Impervious = 97,275 sf

Summary for Subcatchment Hb-n: Hb North

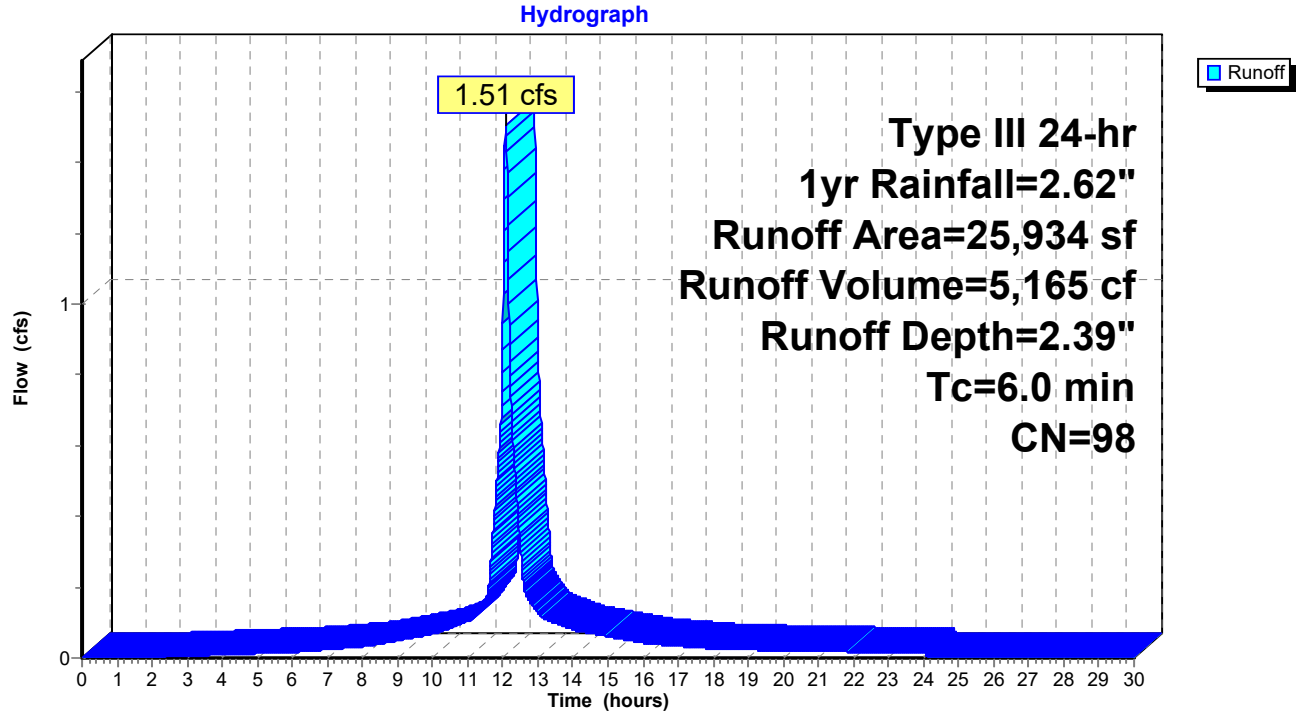
Runoff = 1.51 cfs @ 12.08 hrs, Volume= 5,165 cf, Depth= 2.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 1yr Rainfall=2.62"

	Area (sf)	CN	Description
*	25,934	98	Impervious Pavement & Roofs, HSG C
	25,934		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc - Min**

Subcatchment Hb-n: Hb North



Summary for Subcatchment Hb-s1: Hb JF trib

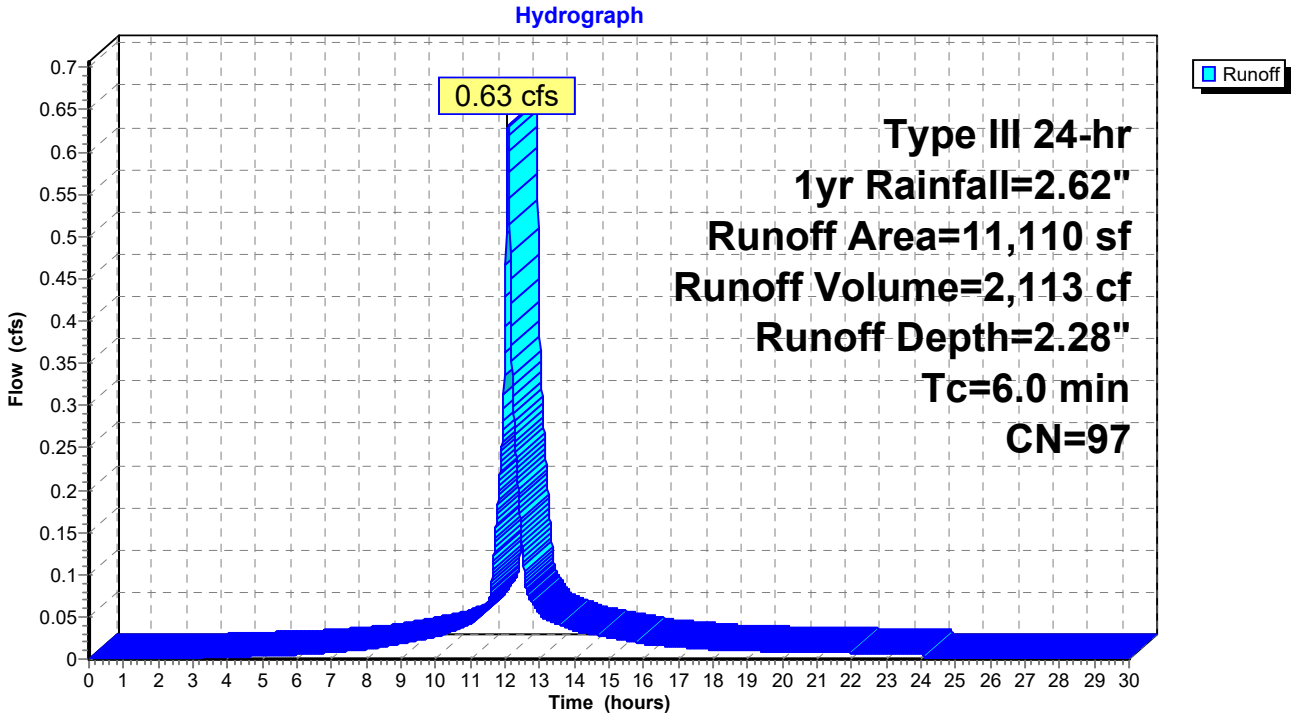
Runoff = 0.63 cfs @ 12.08 hrs, Volume= 2,113 cf, Depth= 2.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 1yr Rainfall=2.62"

	Area (sf)	CN	Description
*	7,222	98	roof
	3,283	98	Paved parking, HSG C
	605	74	>75% Grass cover, Good, HSG C
	11,110	97	Weighted Average
	605		5.45% Pervious Area
	10,505		94.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc - min**

Subcatchment Hb-s1: Hb JF trib



Summary for Subcatchment Hb-s2: Hb JF trib

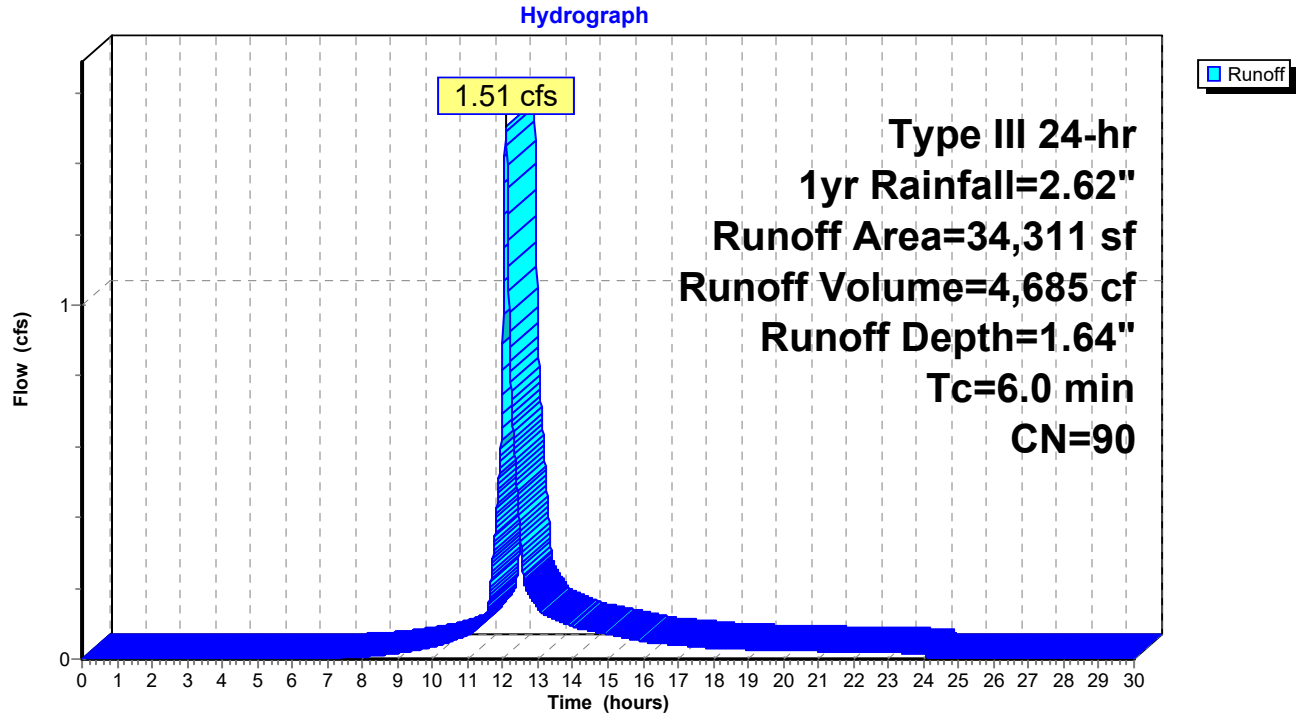
Runoff = 1.51 cfs @ 12.09 hrs, Volume= 4,685 cf, Depth= 1.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 1yr Rainfall=2.62"

	Area (sf)	CN	Description
*	14,260	98	Roof
	8,669	98	Paved parking, HSG C
	11,382	74	>75% Grass cover, Good, HSG C
	34,311	90	Weighted Average
	11,382		33.17% Pervious Area
	22,929		66.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc - min**

Subcatchment Hb-s2: Hb JF trib



Summary for Subcatchment Hc: Zone Hc

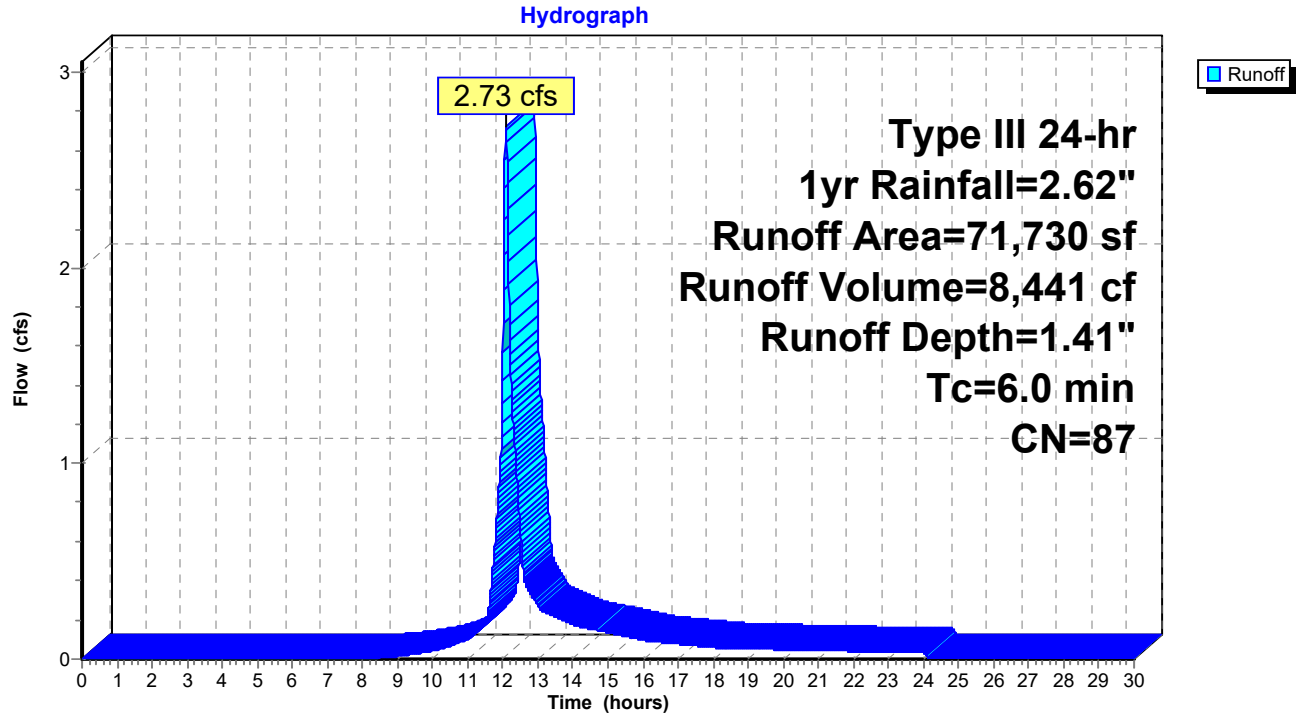
Runoff = 2.73 cfs @ 12.09 hrs, Volume= 8,441 cf, Depth= 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 1yr Rainfall=2.62"

	Area (sf)	CN	Description
*	15,256	98	Building
*	4,904	98	Building
*	8,572	98	Building
	9,175	98	Paved parking, HSG C
	33,823	74	>75% Grass cover, Good, HSG C
	71,730	87	Weighted Average
	33,823		47.15% Pervious Area
	37,907		52.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment Hc: Zone Hc



Summary for Pond Hb 4: DMH HB4

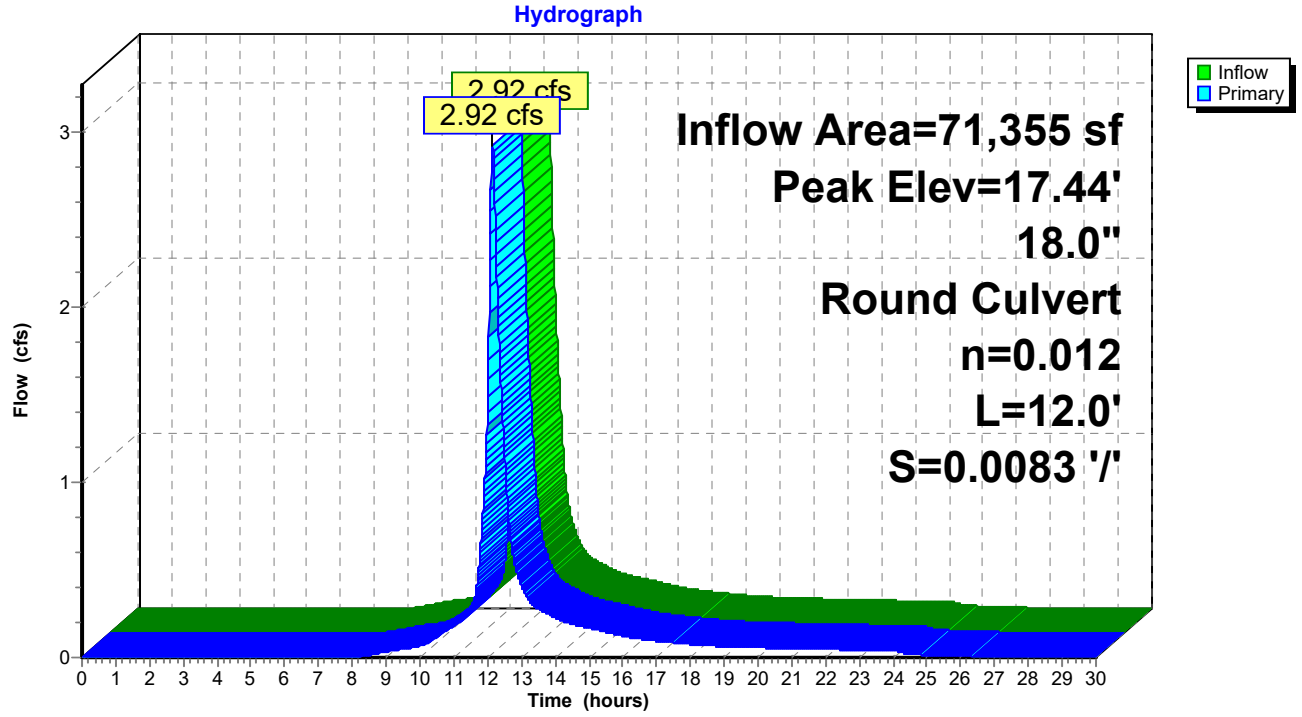
Inflow Area = 71,355 sf, 83.20% Impervious, Inflow Depth > 1.90" for 1yr event
Inflow = 2.92 cfs @ 12.14 hrs, Volume= 11,325 cf
Outflow = 2.92 cfs @ 12.14 hrs, Volume= 11,325 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.92 cfs @ 12.14 hrs, Volume= 11,325 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 17.44' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	16.50'	**18.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 16.50' / 16.40' S= 0.0083 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=2.92 cfs @ 12.14 hrs HW=17.44' (Free Discharge)
1=Culvert (Barrel Controls 2.92 cfs @ 3.57 fps)

Pond Hb 4: DMH HB4



Summary for Pond HB-11: North WQ St Chmbr

Inflow Area = 25,934 sf,100.00% Impervious, Inflow Depth = 2.39" for 1yr event
Inflow = 1.51 cfs @ 12.08 hrs, Volume= 5,165 cf
Outflow = 1.21 cfs @ 12.14 hrs, Volume= 4,865 cf, Atten= 20%, Lag= 3.5 min
Primary = 1.21 cfs @ 12.14 hrs, Volume= 4,865 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 17.56' @ 12.14 hrs Surf.Area= 1,445 sf Storage= 918 cf

Plug-Flow detention time= 82.2 min calculated for 4,865 cf (94% of inflow)
Center-of-Mass det. time= 49.5 min (810.3 - 760.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	16.50'	1,068 cf	**15.75'W x 67.70'L x 3.67'H Field A** 3,909 cf Overall - 1,240 cf Embedded = 2,669 cf x 40.0% Voids
#2A	17.00'	1,240 cf	**ADS_StormTech SC-740 +Cap** x 27 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 3 Rows of 9 Chambers
#3B	16.50'	408 cf	**6.25'W x 60.58'L x 3.67'H Field B** 1,388 cf Overall - 368 cf Embedded = 1,021 cf x 40.0% Voids
#4B	17.00'	368 cf	**ADS_StormTech SC-740 +Cap** x 8 Inside #3 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap
		3,084 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	17.00'	**15.0" Round Culvert** L= 56.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 17.00' / 16.60' S= 0.0071 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.21 cfs @ 12.14 hrs HW=17.56' (Free Discharge)
1=Culvert (Barrel Controls 1.21 cfs @ 3.33 fps)

Pond HB-11: North WQ St Chmbr - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

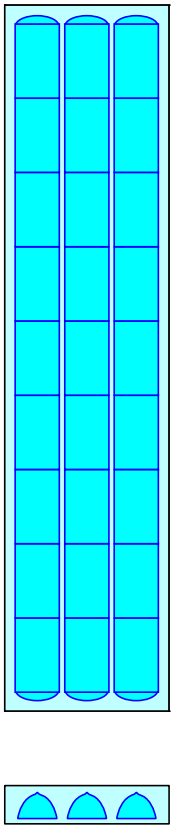
9 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 65.70' Row Length +12.0" End Stone x 2 = 67.70' Base Length
3 Rows x 51.0" Wide + 6.0" Spacing x 2 + 12.0" Side Stone x 2 = 15.75' Base Width
6.0" Base + 30.0" Chamber Height + 8.0" Cover = 3.67' Field Height

27 Chambers x 45.9 cf = 1,240.4 cf Chamber Storage

3,909.5 cf Field - 1,240.4 cf Chambers = 2,669.1 cf Stone x 40.0% Voids = 1,067.6 cf Stone Storage

Chamber Storage + Stone Storage = 2,308.0 cf = 0.053 af
Overall Storage Efficiency = 59.0%
Overall System Size = 67.70' x 15.75' x 3.67'

27 Chambers
144.8 cy Field
98.9 cy Stone



Pond HB-11: North WQ St Chmbr - Chamber Wizard Field B

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

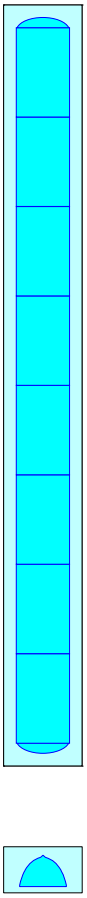
8 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 58.58' Row Length +12.0" End Stone x 2 = 60.58' Base Length
1 Rows x 51.0" Wide + 12.0" Side Stone x 2 = 6.25' Base Width
6.0" Base + 30.0" Chamber Height + 8.0" Cover = 3.67' Field Height

8 Chambers x 45.9 cf = 367.5 cf Chamber Storage

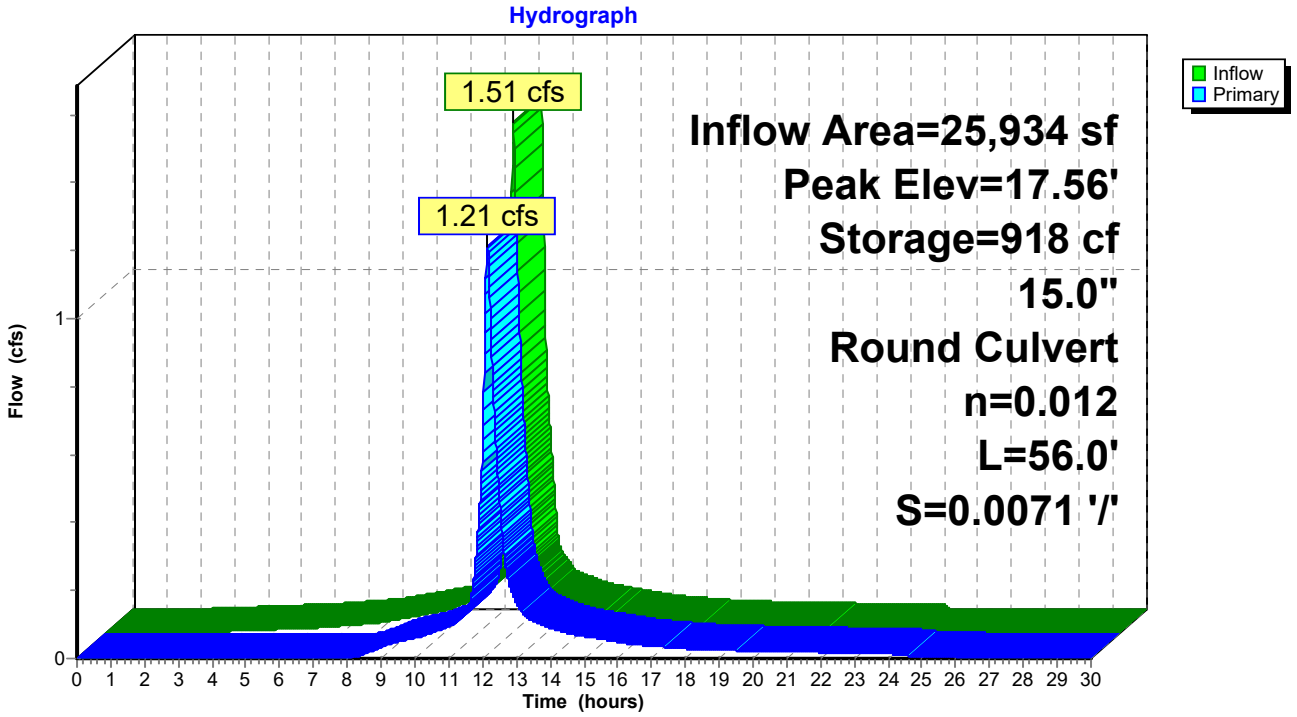
1,388.2 cf Field - 367.5 cf Chambers = 1,020.7 cf Stone x 40.0% Voids = 408.3 cf Stone Storage

Chamber Storage + Stone Storage = 775.8 cf = 0.018 af
Overall Storage Efficiency = 55.9%
Overall System Size = 60.58' x 6.25' x 3.67'

8 Chambers
51.4 cy Field
37.8 cy Stone



Pond HB-11: North WQ St Chmbr



Summary for Pond Hb-3: Hb-3 Diversion MH

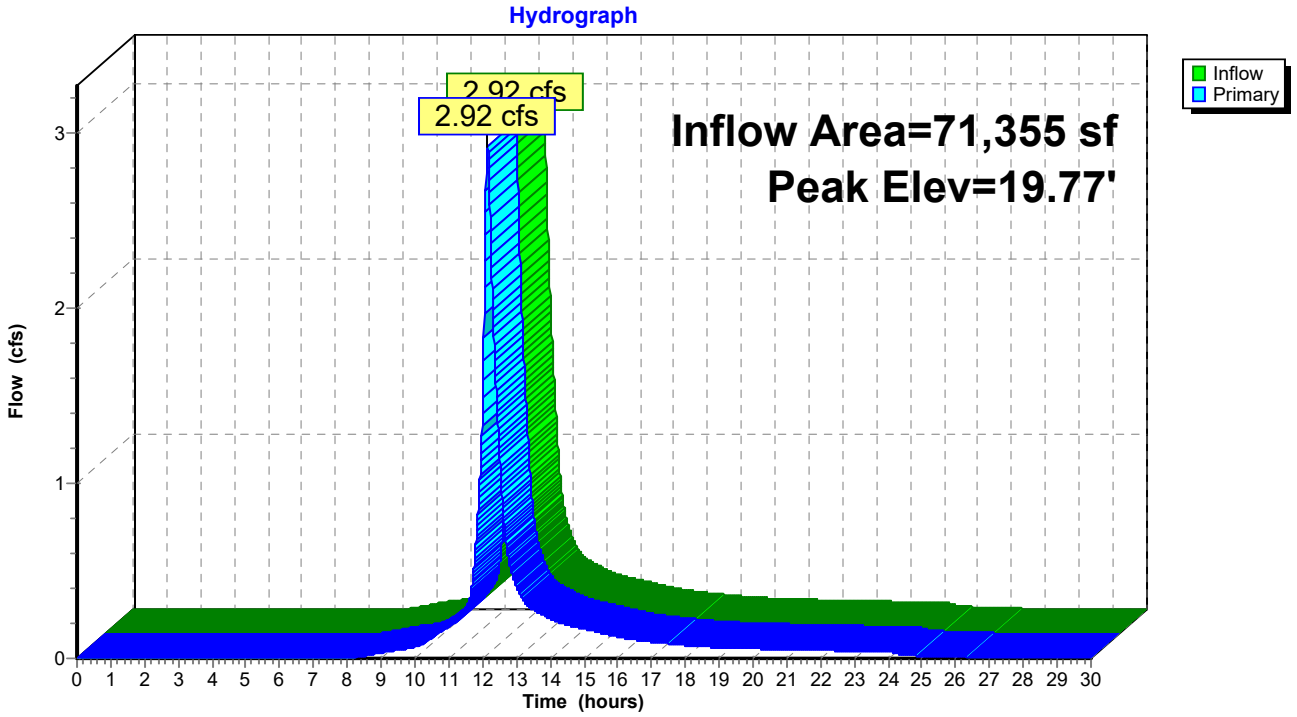
Inflow Area = 71,355 sf, 83.20% Impervious, Inflow Depth > 1.90" for 1yr event
Inflow = 2.92 cfs @ 12.14 hrs, Volume= 11,325 cf
Outflow = 2.92 cfs @ 12.14 hrs, Volume= 11,325 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.92 cfs @ 12.14 hrs, Volume= 11,325 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 19.77' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	15.70'	**18.0" Round Culvert** L= 11.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 15.70' / 15.10' S= 0.0545 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	16.30'	**1.4" Vert. Orifice/Grate** C= 0.600
#3	Device 1	19.50'	**7.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=2.92 cfs @ 12.14 hrs HW=19.77' (Free Discharge)
└**1=Culvert** (Passes 2.92 cfs of 15.51 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.10 cfs @ 8.90 fps)
└**3=Broad-Crested Rectangular Weir** (Weir Controls 2.82 cfs @ 1.48 fps)

Pond Hb-3: Hb-3 Diversion MH



Summary for Pond HB-5: South WQV ST Chmbr

Inflow Area = 45,421 sf, 73.61% Impervious, Inflow Depth = 1.80" for 1yr event
Inflow = 2.14 cfs @ 12.09 hrs, Volume= 6,798 cf
Outflow = 1.71 cfs @ 12.15 hrs, Volume= 6,460 cf, Atten= 20%, Lag= 3.6 min
Primary = 1.71 cfs @ 12.15 hrs, Volume= 6,460 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 17.67' @ 12.15 hrs Surf.Area= 1,616 sf Storage= 1,174 cf

Plug-Flow detention time= 66.3 min calculated for 6,460 cf (95% of inflow)
Center-of-Mass det. time= 38.6 min (839.9 - 801.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	16.50'	683 cf	**11.00'W x 60.58'L x 3.67'H Field A** 2,443 cf Overall - 735 cf Embedded = 1,708 cf x 40.0% Voids
#2A	17.00'	735 cf	**ADS_StormTech SC-740 +Cap** x 16 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 2 Rows of 8 Chambers
#3B	16.50'	952 cf	**20.50'W x 46.34'L x 3.67'H Field B** 3,483 cf Overall - 1,103 cf Embedded = 2,380 cf x 40.0% Voids
#4B	17.00'	1,103 cf	**ADS_StormTech SC-740 +Cap** x 24 Inside #3 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 4 Rows of 6 Chambers
		3,473 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	17.00'	**15.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 17.00' / 16.60' S= 0.0080 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.71 cfs @ 12.15 hrs HW=17.67' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 1.71 cfs @ 3.68 fps)

Pond HB-5: South WQV ST Chmbr - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

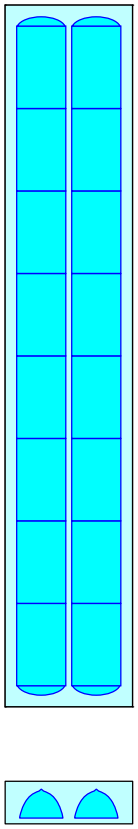
8 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 58.58' Row Length +12.0" End Stone x 2 = 60.58' Base Length
2 Rows x 51.0" Wide + 6.0" Spacing x 1 + 12.0" Side Stone x 2 = 11.00' Base Width
6.0" Base + 30.0" Chamber Height + 8.0" Cover = 3.67' Field Height

16 Chambers x 45.9 cf = 735.0 cf Chamber Storage

2,443.3 cf Field - 735.0 cf Chambers = 1,708.2 cf Stone x 40.0% Voids = 683.3 cf Stone Storage

Chamber Storage + Stone Storage = 1,418.3 cf = 0.033 af
Overall Storage Efficiency = 58.1%
Overall System Size = 60.58' x 11.00' x 3.67'

16 Chambers
90.5 cy Field
63.3 cy Stone



Pond HB-5: South WQV ST Chmbr - Chamber Wizard Field B

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

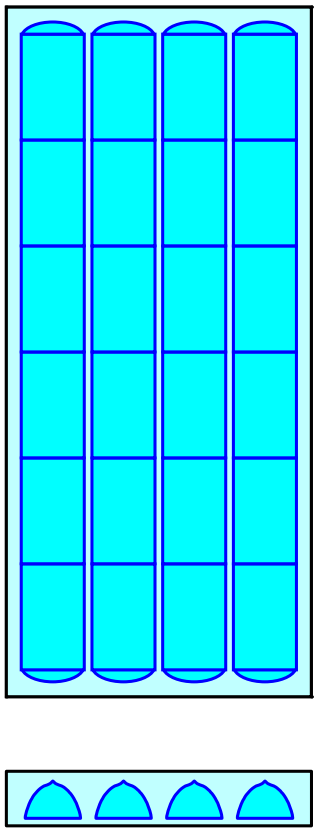
6 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 44.34' Row Length +12.0" End Stone x 2 = 46.34' Base Length
4 Rows x 51.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 20.50' Base Width
6.0" Base + 30.0" Chamber Height + 8.0" Cover = 3.67' Field Height

24 Chambers x 45.9 cf = 1,102.6 cf Chamber Storage

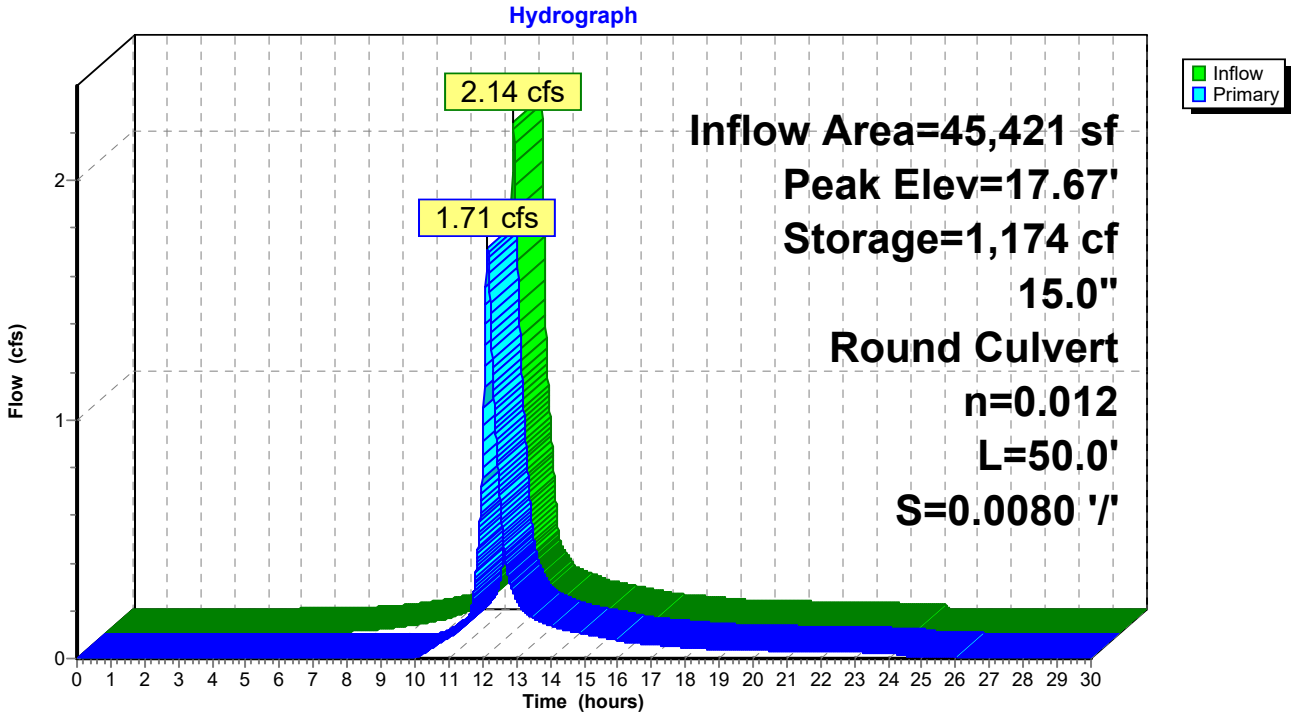
3,483.0 cf Field - 1,102.6 cf Chambers = 2,380.4 cf Stone x 40.0% Voids = 952.2 cf Stone Storage

Chamber Storage + Stone Storage = 2,054.7 cf = 0.047 af
Overall Storage Efficiency = 59.0%
Overall System Size = 46.34' x 20.50' x 3.67'

24 Chambers
129.0 cy Field
88.2 cy Stone



Pond HB-5: South WQV ST Chmbr



Summary for Pond Hc-3: Hc-3 Diversion MH

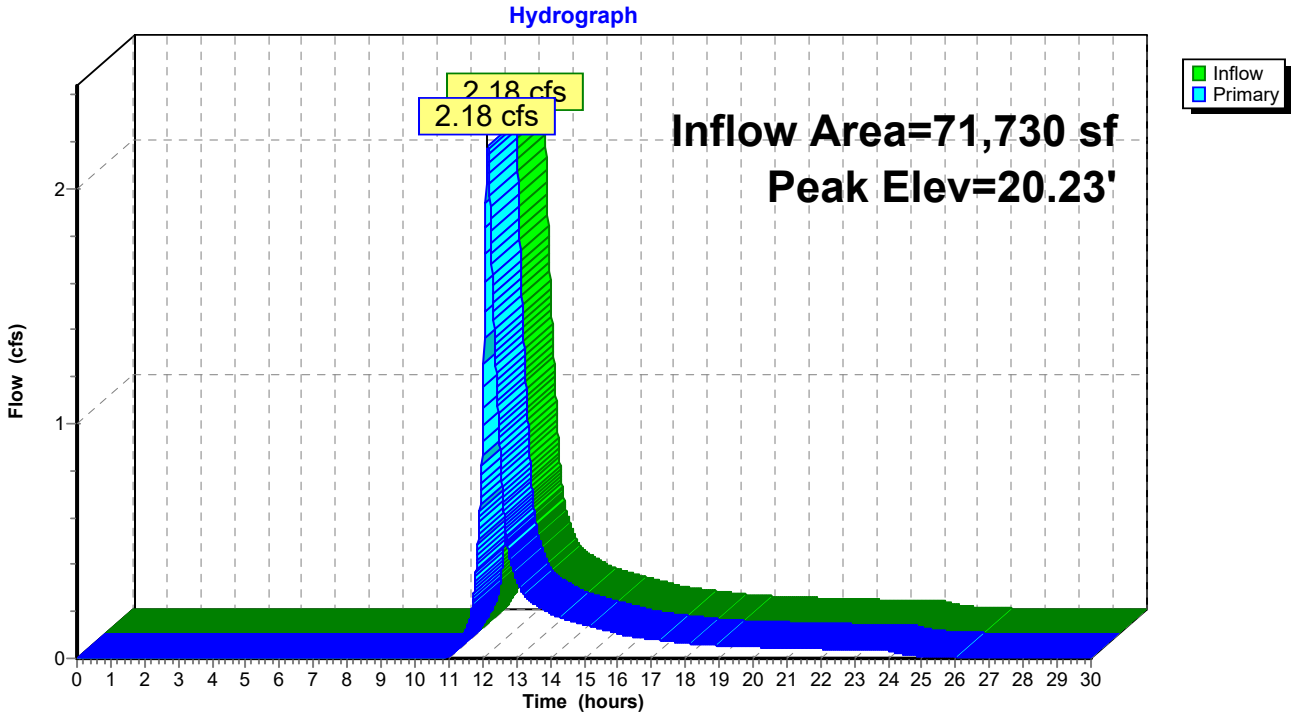
Inflow Area = 71,730 sf, 52.85% Impervious, Inflow Depth > 1.36" for 1yr event
Inflow = 2.18 cfs @ 12.15 hrs, Volume= 8,121 cf
Outflow = 2.18 cfs @ 12.15 hrs, Volume= 8,121 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.18 cfs @ 12.15 hrs, Volume= 8,121 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 20.23' @ 12.15 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	16.60'	**15.0" Round Culvert** L= 11.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 16.60' / 16.50' S= 0.0091 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	17.30'	**1.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	20.00'	**7.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=2.17 cfs @ 12.15 hrs HW=20.23' (Free Discharge)
└**1=Culvert** (Passes 2.17 cfs of 10.24 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.04 cfs @ 8.18 fps)
└**3=Broad-Crested Rectangular Weir** (Weir Controls 2.13 cfs @ 1.34 fps)

Pond Hc-3: Hc-3 Diversion MH



Summary for Pond Hc-4: Hc JF and Storage

Artificial stone cover thickness to fix storage warning and calculate correct Peak elevation over weir. (6" installed per details not 8" as specified)

Inflow Area = 71,730 sf, 52.85% Impervious, Inflow Depth = 1.41" for 1yr event
Inflow = 2.73 cfs @ 12.09 hrs, Volume= 8,441 cf
Outflow = 2.18 cfs @ 12.15 hrs, Volume= 8,121 cf, Atten= 20%, Lag= 3.6 min
Primary = 2.18 cfs @ 12.15 hrs, Volume= 8,121 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 18.36' @ 12.15 hrs Surf.Area= 1,530 sf Storage= 1,350 cf
Flood Elev= 21.00' Surf.Area= 1,530 sf Storage= 3,346 cf

Plug-Flow detention time= 50.7 min calculated for 8,121 cf (96% of inflow)
Center-of-Mass det. time= 29.4 min (857.1 - 827.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	17.00'	1,508 cf	**25.25'W x 60.58'L x 3.67'H Field A** 5,608 cf Overall - 1,838 cf Embedded = 3,771 cf x 40.0% Voids
#2A	17.50'	1,838 cf	**ADS_StormTech SC-740 +Cap** x 40 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 5 Rows of 8 Chambers
		3,346 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	17.50'	**15.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 17.50' / 17.40' S= 0.0083 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=2.18 cfs @ 12.15 hrs HW=18.36' (Free Discharge)
1=Culvert (Barrel Controls 2.18 cfs @ 3.42 fps)

Pond Hc-4: Hc JF and Storage - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

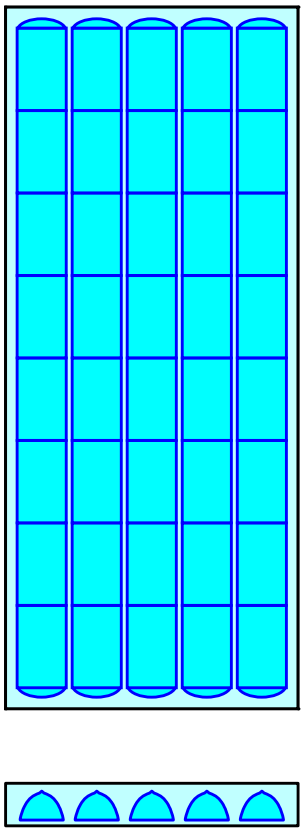
8 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 58.58' Row Length +12.0" End Stone x 2 = 60.58' Base Length
5 Rows x 51.0" Wide + 6.0" Spacing x 4 + 12.0" Side Stone x 2 = 25.25' Base Width
6.0" Base + 30.0" Chamber Height + 8.0" Cover = 3.67' Field Height

40 Chambers x 45.9 cf = 1,837.6 cf Chamber Storage

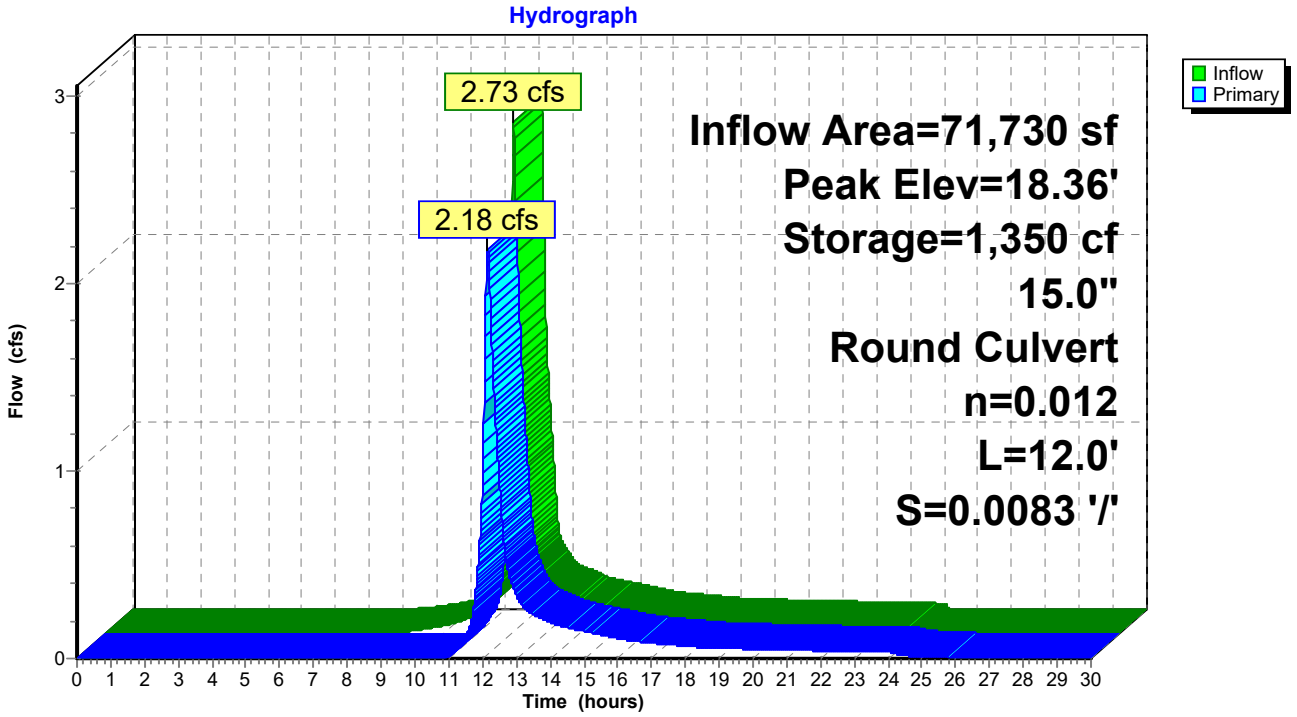
5,608.4 cf Field - 1,837.6 cf Chambers = 3,770.8 cf Stone x 40.0% Voids = 1,508.3 cf Stone Storage

Chamber Storage + Stone Storage = 3,345.9 cf = 0.077 af
Overall Storage Efficiency = 59.7%
Overall System Size = 60.58' x 25.25' x 3.67'

40 Chambers
207.7 cy Field
139.7 cy Stone



Pond Hc-4: Hc JF and Storage



Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment Hb-n: Hb North Runoff Area=25,934 sf 100.00% Impervious Runoff Depth=5.94"
Tc=6.0 min CN=98 Runoff=3.61 cfs 12,841 cf

Subcatchment Hb-s1: Hb JF trib Runoff Area=11,110 sf 94.55% Impervious Runoff Depth=5.82"
Tc=6.0 min CN=97 Runoff=1.54 cfs 5,392 cf

Subcatchment Hb-s2: Hb JF trib Runoff Area=34,311 sf 66.83% Impervious Runoff Depth=5.02"
Tc=6.0 min CN=90 Runoff=4.41 cfs 14,357 cf

Subcatchment Hc: Zone Hc Runoff Area=71,730 sf 52.85% Impervious Runoff Depth=4.69"
Tc=6.0 min CN=87 Runoff=8.78 cfs 28,032 cf

Pond Hb 4: DMH HB4 Peak Elev=18.39' Inflow=8.14 cfs 31,950 cf
18.0" Round Culvert n=0.012 L=12.0' S=0.0083 '/' Outflow=8.14 cfs 31,950 cf

Pond HB-11: North WQ St Chmbr Peak Elev=17.99' Storage=1,377 cf Inflow=3.61 cfs 12,841 cf
15.0" Round Culvert n=0.012 L=56.0' S=0.0071 '/' Outflow=3.11 cfs 12,540 cf

Pond Hb-3: Hb-3 Diversion MH Peak Elev=20.02' Inflow=8.14 cfs 31,950 cf
Outflow=8.14 cfs 31,950 cf

Pond HB-5: South WQV ST Chmbr Peak Elev=18.39' Storage=2,016 cf Inflow=5.95 cfs 19,749 cf
15.0" Round Culvert n=0.012 L=50.0' S=0.0080 '/' Outflow=5.04 cfs 19,411 cf

Pond Hc-3: Hc-3 Diversion MH Peak Elev=20.49' Inflow=7.35 cfs 27,712 cf
Outflow=7.35 cfs 27,712 cf

Pond Hc-4: Hc JF and Storage Peak Elev=19.67' Storage=2,710 cf Inflow=8.78 cfs 28,032 cf
15.0" Round Culvert n=0.012 L=12.0' S=0.0083 '/' Outflow=7.35 cfs 27,712 cf

Total Runoff Area = 143,085 sf Runoff Volume = 60,622 cf Average Runoff Depth = 5.08"
32.02% Pervious = 45,810 sf 67.98% Impervious = 97,275 sf

Summary for Subcatchment Hb-n: Hb North

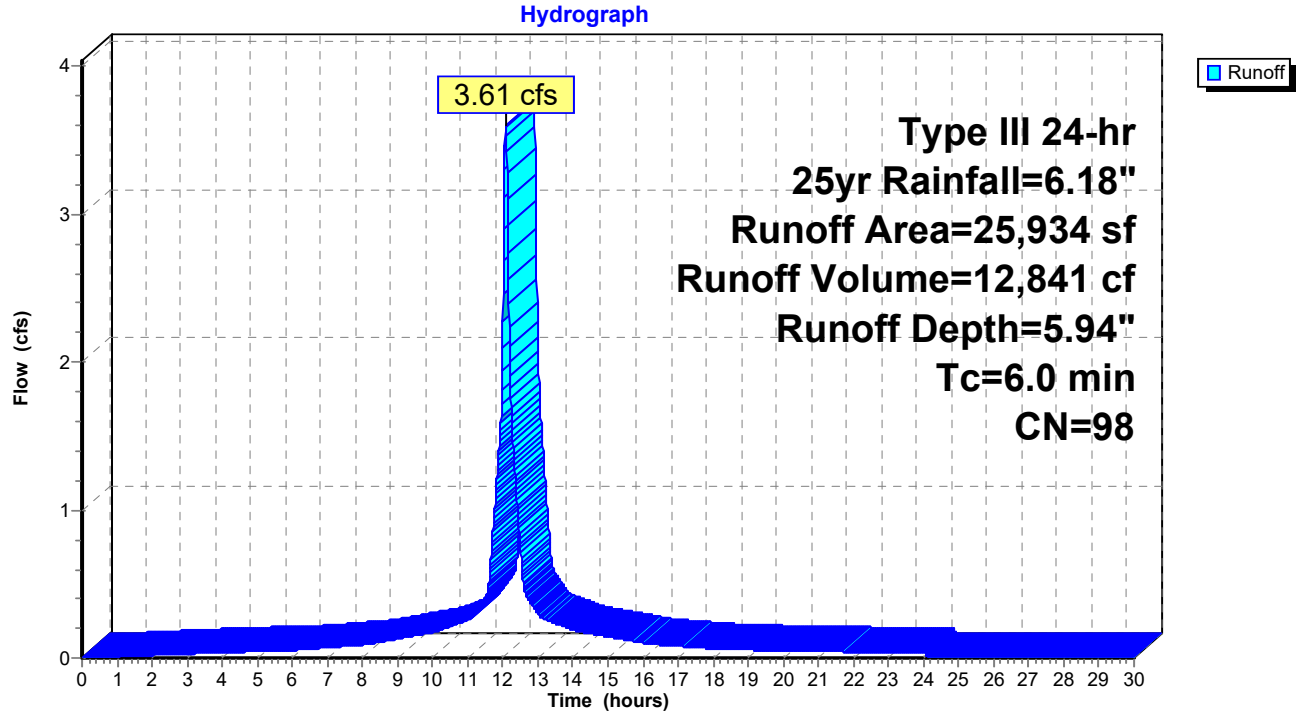
Runoff = 3.61 cfs @ 12.08 hrs, Volume= 12,841 cf, Depth= 5.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25yr Rainfall=6.18"

	Area (sf)	CN	Description
*	25,934	98	Impervious Pavement & Roofs, HSG C
	25,934		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc - MIn**

Subcatchment Hb-n: Hb North



Summary for Subcatchment Hb-s1: Hb JF trib

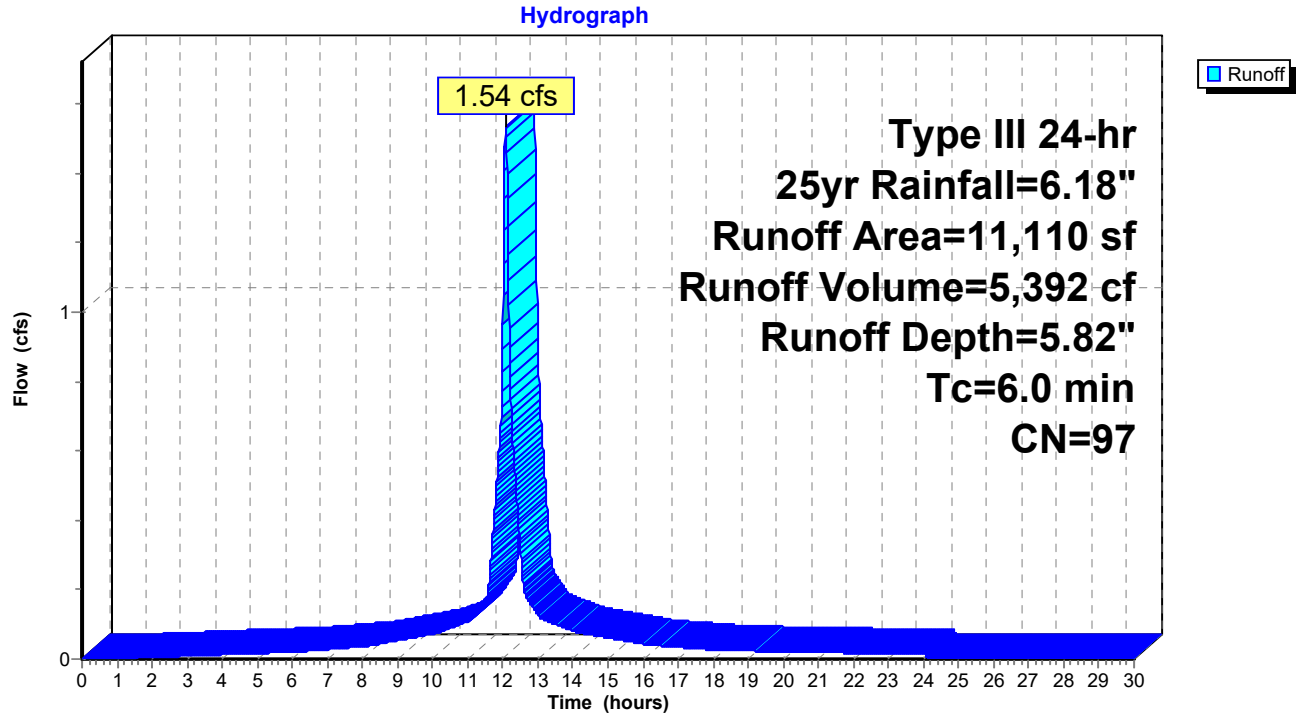
Runoff = 1.54 cfs @ 12.08 hrs, Volume= 5,392 cf, Depth= 5.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25yr Rainfall=6.18"

	Area (sf)	CN	Description
*	7,222	98	roof
	3,283	98	Paved parking, HSG C
	605	74	>75% Grass cover, Good, HSG C
	11,110	97	Weighted Average
	605		5.45% Pervious Area
	10,505		94.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc - min**

Subcatchment Hb-s1: Hb JF trib



Summary for Subcatchment Hb-s2: Hb JF trib

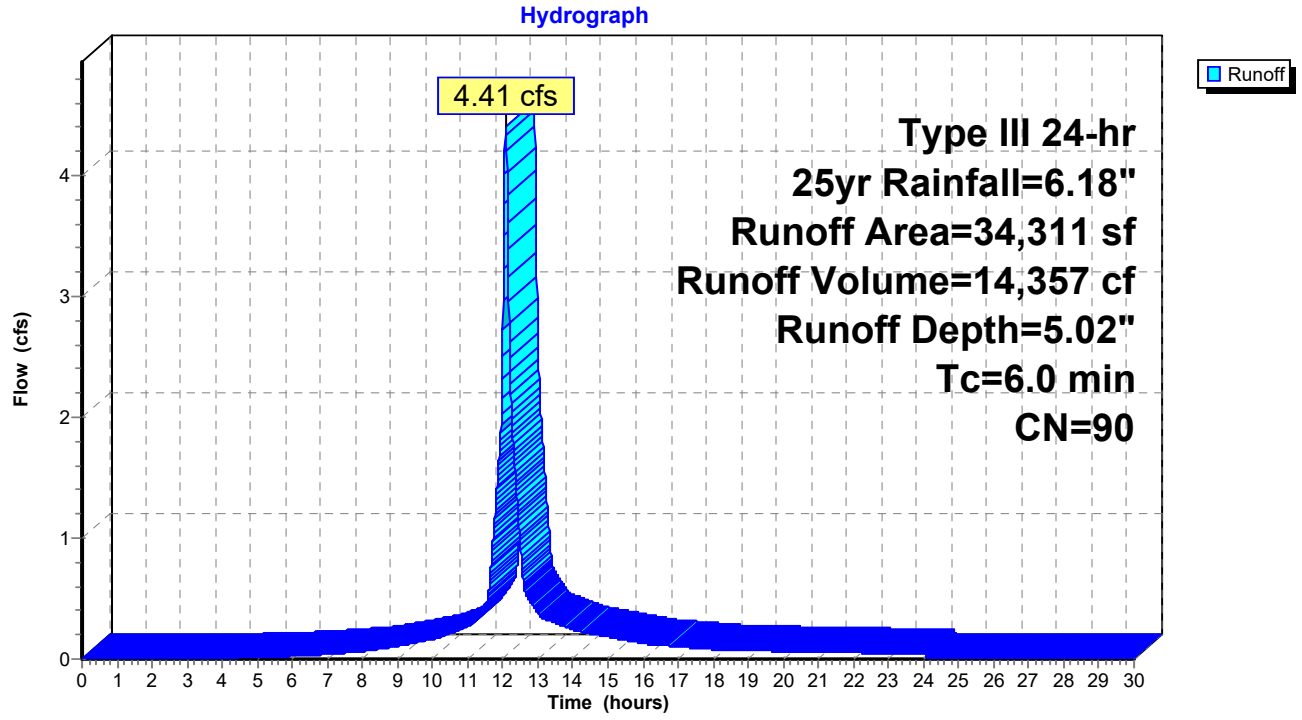
Runoff = 4.41 cfs @ 12.08 hrs, Volume= 14,357 cf, Depth= 5.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25yr Rainfall=6.18"

	Area (sf)	CN	Description
*	14,260	98	Roof
	8,669	98	Paved parking, HSG C
	11,382	74	>75% Grass cover, Good, HSG C
	34,311	90	Weighted Average
	11,382		33.17% Pervious Area
	22,929		66.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Tc - min**

Subcatchment Hb-s2: Hb JF trib



Summary for Subcatchment Hc: Zone Hc

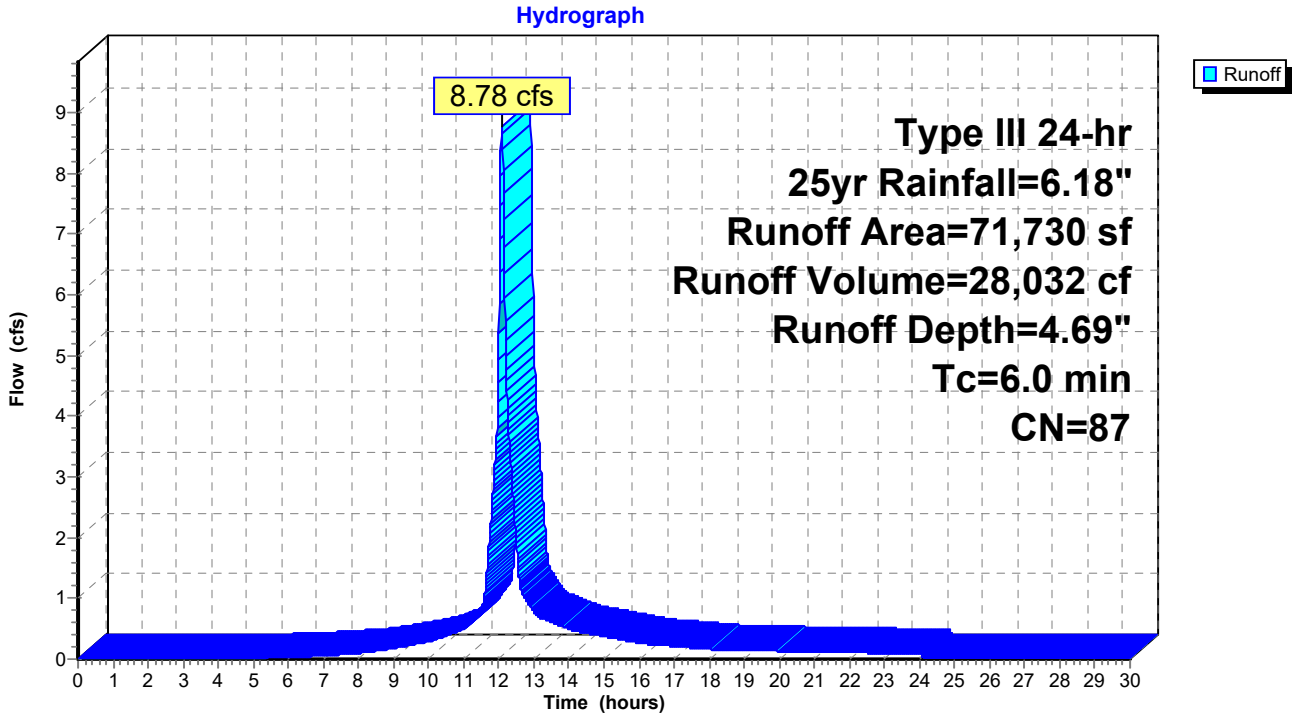
Runoff = 8.78 cfs @ 12.09 hrs, Volume= 28,032 cf, Depth= 4.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25yr Rainfall=6.18"

	Area (sf)	CN	Description
*	15,256	98	Building
*	4,904	98	Building
*	8,572	98	Building
	9,175	98	Paved parking, HSG C
	33,823	74	>75% Grass cover, Good, HSG C
	71,730	87	Weighted Average
	33,823		47.15% Pervious Area
	37,907		52.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment Hc: Zone Hc



Summary for Pond Hb 4: DMH HB4

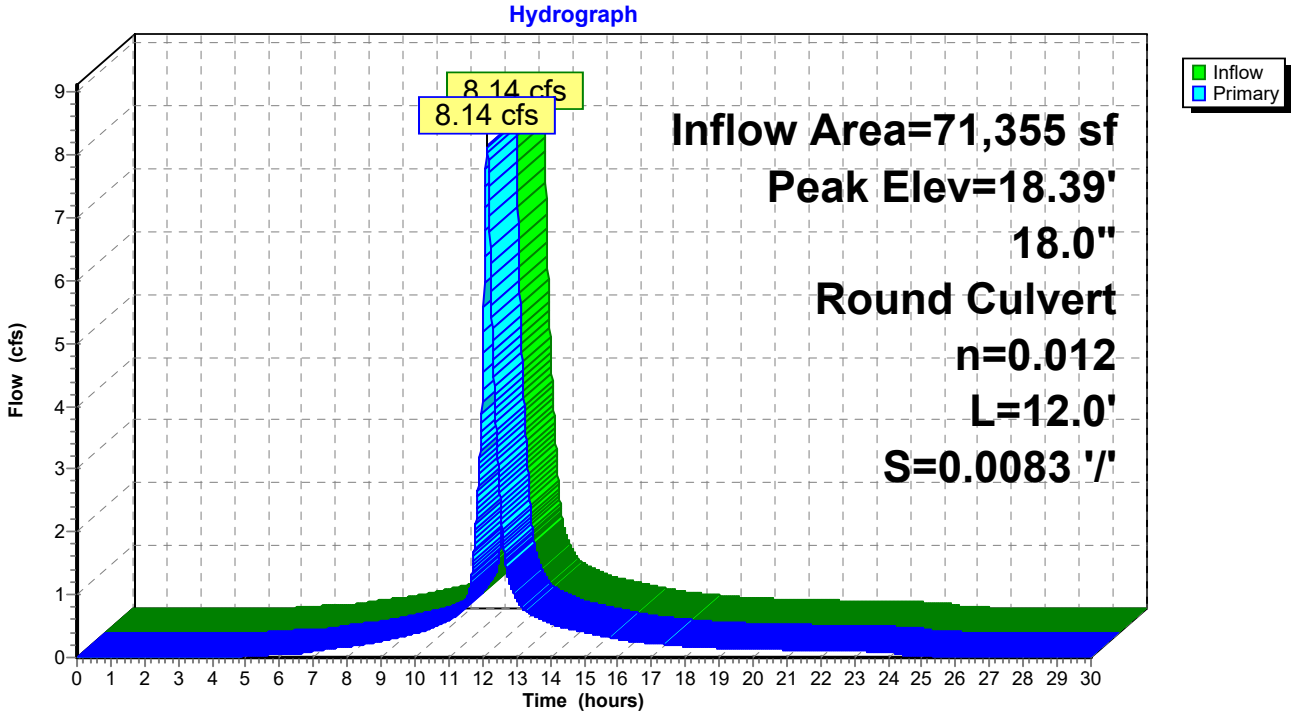
Inflow Area = 71,355 sf, 83.20% Impervious, Inflow Depth > 5.37" for 25yr event
Inflow = 8.14 cfs @ 12.13 hrs, Volume= 31,950 cf
Outflow = 8.14 cfs @ 12.13 hrs, Volume= 31,950 cf, Atten= 0%, Lag= 0.0 min
Primary = 8.14 cfs @ 12.13 hrs, Volume= 31,950 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 18.39' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	16.50'	**18.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 16.50' / 16.40' S= 0.0083 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=8.14 cfs @ 12.13 hrs HW=18.38' (Free Discharge)
1=Culvert (Barrel Controls 8.14 cfs @ 4.71 fps)

Pond Hb 4: DMH HB4



Summary for Pond HB-11: North WQ St Chmbr

Inflow Area = 25,934 sf,100.00% Impervious, Inflow Depth = 5.94" for 25yr event
Inflow = 3.61 cfs @ 12.08 hrs, Volume= 12,841 cf
Outflow = 3.11 cfs @ 12.13 hrs, Volume= 12,540 cf, Atten= 14%, Lag= 2.8 min
Primary = 3.11 cfs @ 12.13 hrs, Volume= 12,540 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 17.99' @ 12.13 hrs Surf.Area= 1,445 sf Storage= 1,377 cf

Plug-Flow detention time= 46.0 min calculated for 12,540 cf (98% of inflow)
Center-of-Mass det. time= 30.9 min (775.6 - 744.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	16.50'	1,068 cf	**15.75'W x 67.70'L x 3.67'H Field A** 3,909 cf Overall - 1,240 cf Embedded = 2,669 cf x 40.0% Voids
#2A	17.00'	1,240 cf	**ADS_StormTech SC-740 +Cap** x 27 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 3 Rows of 9 Chambers
#3B	16.50'	408 cf	**6.25'W x 60.58'L x 3.67'H Field B** 1,388 cf Overall - 368 cf Embedded = 1,021 cf x 40.0% Voids
#4B	17.00'	368 cf	**ADS_StormTech SC-740 +Cap** x 8 Inside #3 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap
		3,084 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	17.00'	**15.0" Round Culvert** L= 56.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 17.00' / 16.60' S= 0.0071 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=3.11 cfs @ 12.13 hrs HW=17.99' (Free Discharge)
1=Culvert (Barrel Controls 3.11 cfs @ 4.10 fps)

Pond HB-11: North WQ St Chmbr - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

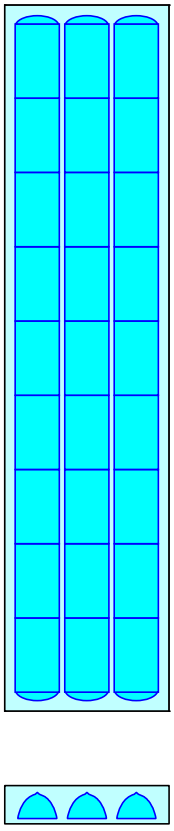
9 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 65.70' Row Length +12.0" End Stone x 2 = 67.70' Base Length
3 Rows x 51.0" Wide + 6.0" Spacing x 2 + 12.0" Side Stone x 2 = 15.75' Base Width
6.0" Base + 30.0" Chamber Height + 8.0" Cover = 3.67' Field Height

27 Chambers x 45.9 cf = 1,240.4 cf Chamber Storage

3,909.5 cf Field - 1,240.4 cf Chambers = 2,669.1 cf Stone x 40.0% Voids = 1,067.6 cf Stone Storage

Chamber Storage + Stone Storage = 2,308.0 cf = 0.053 af
Overall Storage Efficiency = 59.0%
Overall System Size = 67.70' x 15.75' x 3.67'

27 Chambers
144.8 cy Field
98.9 cy Stone



Pond HB-11: North WQ St Chmbr - Chamber Wizard Field B

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

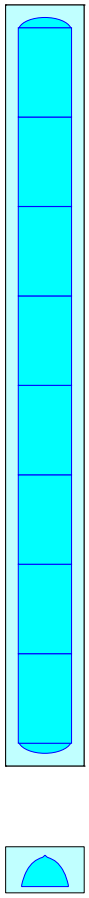
8 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 58.58' Row Length +12.0" End Stone x 2 = 60.58' Base Length
1 Rows x 51.0" Wide + 12.0" Side Stone x 2 = 6.25' Base Width
6.0" Base + 30.0" Chamber Height + 8.0" Cover = 3.67' Field Height

8 Chambers x 45.9 cf = 367.5 cf Chamber Storage

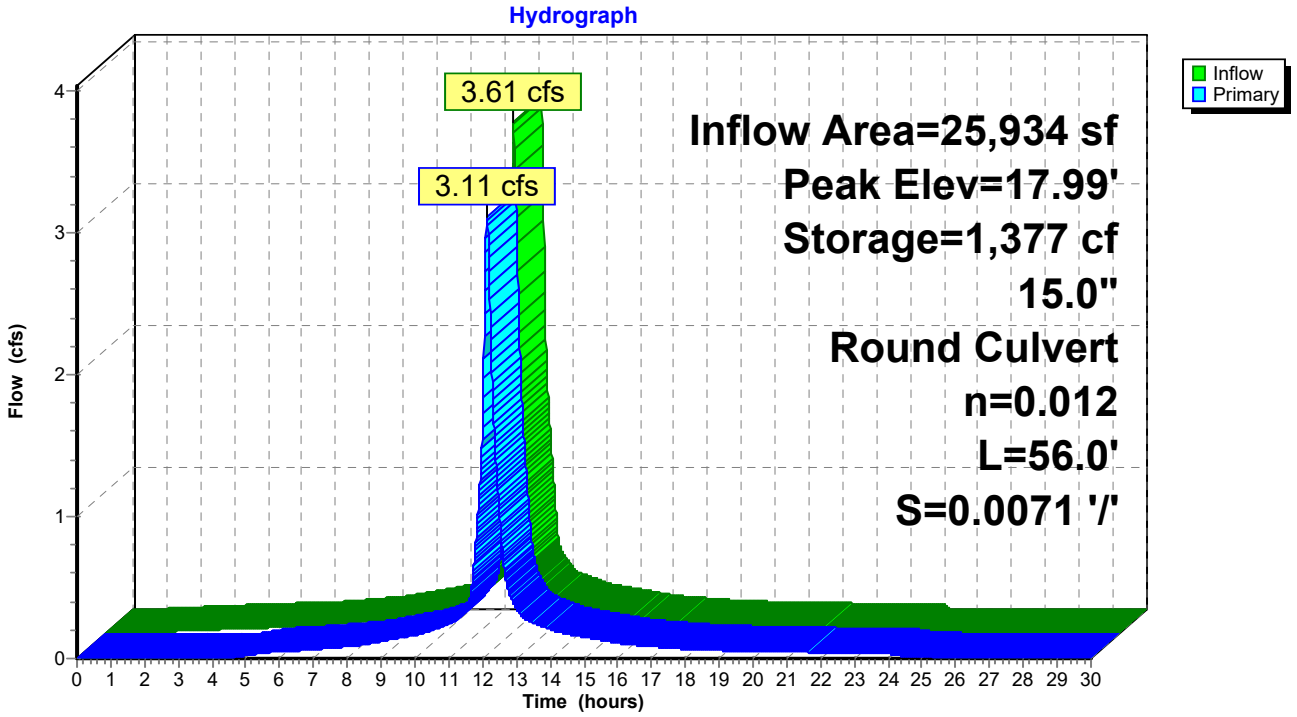
1,388.2 cf Field - 367.5 cf Chambers = 1,020.7 cf Stone x 40.0% Voids = 408.3 cf Stone Storage

Chamber Storage + Stone Storage = 775.8 cf = 0.018 af
Overall Storage Efficiency = 55.9%
Overall System Size = 60.58' x 6.25' x 3.67'

8 Chambers
51.4 cy Field
37.8 cy Stone



Pond HB-11: North WQ St Chmbr



Summary for Pond Hb-3: Hb-3 Diversion MH

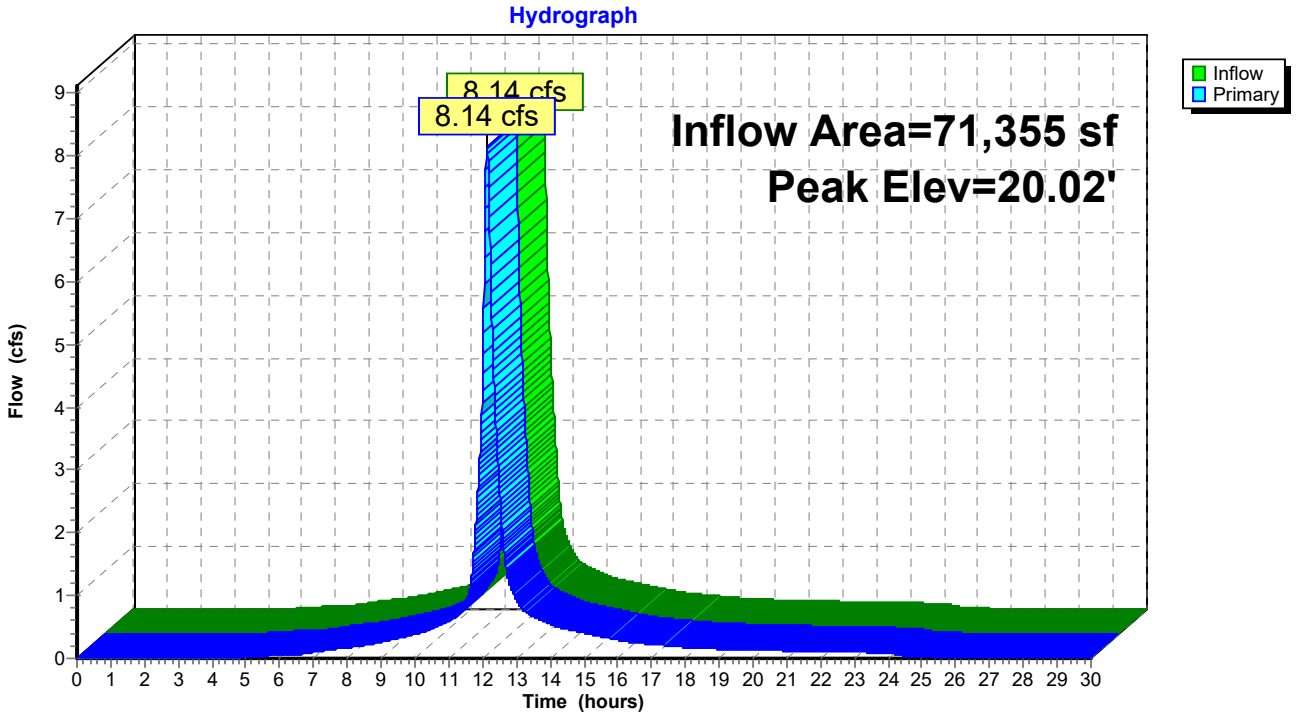
Inflow Area = 71,355 sf, 83.20% Impervious, Inflow Depth > 5.37" for 25yr event
Inflow = 8.14 cfs @ 12.13 hrs, Volume= 31,950 cf
Outflow = 8.14 cfs @ 12.13 hrs, Volume= 31,950 cf, Atten= 0%, Lag= 0.0 min
Primary = 8.14 cfs @ 12.13 hrs, Volume= 31,950 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 20.02' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	15.70'	**18.0" Round Culvert** L= 11.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 15.70' / 15.10' S= 0.0545 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	16.30'	**1.4" Vert. Orifice/Grate** C= 0.600
#3	Device 1	19.50'	**7.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=8.13 cfs @ 12.13 hrs HW=20.02' (Free Discharge)
└─**1=Culvert** (Passes 8.13 cfs of 16.09 cfs potential flow)
└─**2=Orifice/Grate** (Orifice Controls 0.10 cfs @ 9.22 fps)
└─**3=Broad-Crested Rectangular Weir** (Weir Controls 8.03 cfs @ 2.19 fps)

Pond Hb-3: Hb-3 Diversion MH



Summary for Pond HB-5: South WQV ST Chmbr

Inflow Area = 45,421 sf, 73.61% Impervious, Inflow Depth = 5.22" for 25yr event
Inflow = 5.95 cfs @ 12.08 hrs, Volume= 19,749 cf
Outflow = 5.04 cfs @ 12.13 hrs, Volume= 19,411 cf, Atten= 15%, Lag= 3.0 min
Primary = 5.04 cfs @ 12.13 hrs, Volume= 19,411 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 18.39' @ 12.13 hrs Surf.Area= 1,616 sf Storage= 2,016 cf

Plug-Flow detention time= 34.3 min calculated for 19,411 cf (98% of inflow)
Center-of-Mass det. time= 23.5 min (798.4 - 775.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	16.50'	683 cf	**11.00'W x 60.58'L x 3.67'H Field A** 2,443 cf Overall - 735 cf Embedded = 1,708 cf x 40.0% Voids
#2A	17.00'	735 cf	**ADS_StormTech SC-740 +Cap** x 16 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 2 Rows of 8 Chambers
#3B	16.50'	952 cf	**20.50'W x 46.34'L x 3.67'H Field B** 3,483 cf Overall - 1,103 cf Embedded = 2,380 cf x 40.0% Voids
#4B	17.00'	1,103 cf	**ADS_StormTech SC-740 +Cap** x 24 Inside #3 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 4 Rows of 6 Chambers
		3,473 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	17.00'	**15.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 17.00' / 16.60' S= 0.0080 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=5.03 cfs @ 12.13 hrs HW=18.39' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 5.03 cfs @ 4.61 fps)

Pond HB-5: South WQV ST Chmbr - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

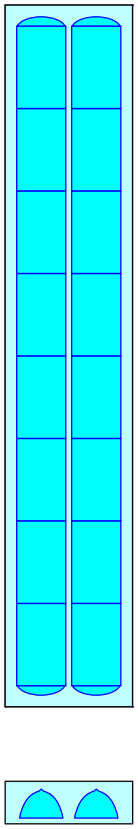
8 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 58.58' Row Length +12.0" End Stone x 2 = 60.58' Base Length
2 Rows x 51.0" Wide + 6.0" Spacing x 1 + 12.0" Side Stone x 2 = 11.00' Base Width
6.0" Base + 30.0" Chamber Height + 8.0" Cover = 3.67' Field Height

16 Chambers x 45.9 cf = 735.0 cf Chamber Storage

2,443.3 cf Field - 735.0 cf Chambers = 1,708.2 cf Stone x 40.0% Voids = 683.3 cf Stone Storage

Chamber Storage + Stone Storage = 1,418.3 cf = 0.033 af
Overall Storage Efficiency = 58.1%
Overall System Size = 60.58' x 11.00' x 3.67'

16 Chambers
90.5 cy Field
63.3 cy Stone



Pond HB-5: South WQV ST Chmbr - Chamber Wizard Field B

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

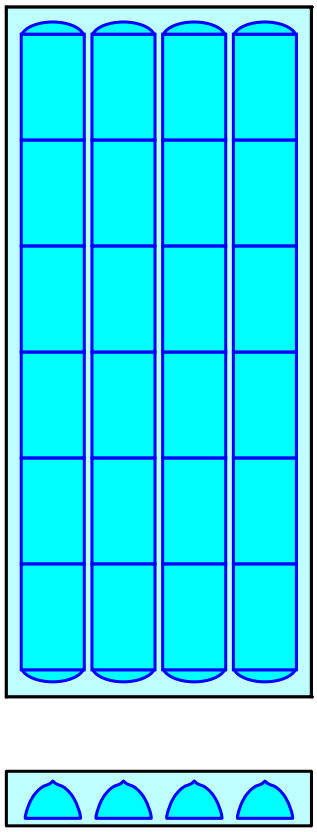
6 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 44.34' Row Length +12.0" End Stone x 2 = 46.34' Base Length
4 Rows x 51.0" Wide + 6.0" Spacing x 3 + 12.0" Side Stone x 2 = 20.50' Base Width
6.0" Base + 30.0" Chamber Height + 8.0" Cover = 3.67' Field Height

24 Chambers x 45.9 cf = 1,102.6 cf Chamber Storage

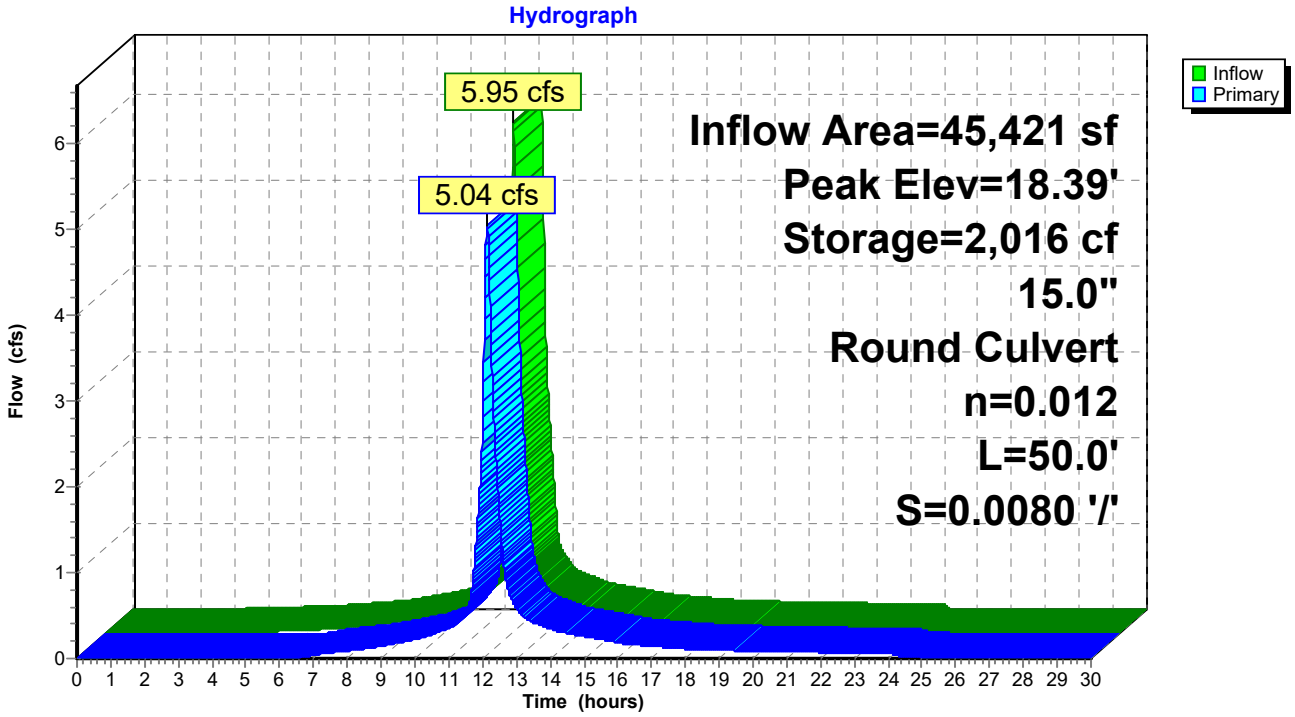
3,483.0 cf Field - 1,102.6 cf Chambers = 2,380.4 cf Stone x 40.0% Voids = 952.2 cf Stone Storage

Chamber Storage + Stone Storage = 2,054.7 cf = 0.047 af
Overall Storage Efficiency = 59.0%
Overall System Size = 46.34' x 20.50' x 3.67'

24 Chambers
129.0 cy Field
88.2 cy Stone



Pond HB-5: South WQV ST Chmbr



Summary for Pond Hc-3: Hc-3 Diversion MH

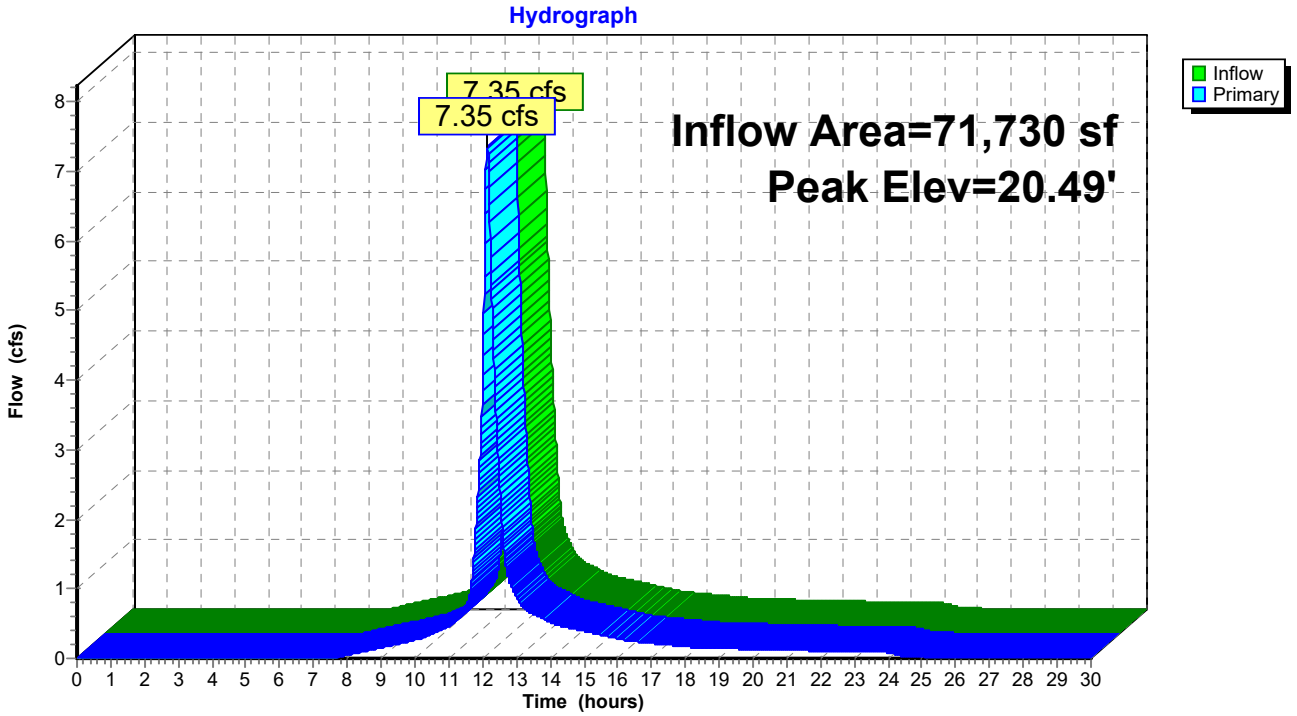
Inflow Area = 71,730 sf, 52.85% Impervious, Inflow Depth > 4.64" for 25yr event
Inflow = 7.35 cfs @ 12.14 hrs, Volume= 27,712 cf
Outflow = 7.35 cfs @ 12.14 hrs, Volume= 27,712 cf, Atten= 0%, Lag= 0.0 min
Primary = 7.35 cfs @ 12.14 hrs, Volume= 27,712 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 20.49' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	16.60'	**15.0" Round Culvert** L= 11.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 16.60' / 16.50' S= 0.0091 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	17.30'	**1.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	20.00'	**7.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=7.34 cfs @ 12.14 hrs HW=20.49' (Free Discharge)
└─**1=Culvert** (Passes 7.34 cfs of 10.68 cfs potential flow)
└─**2=Orifice/Grate** (Orifice Controls 0.05 cfs @ 8.55 fps)
└─**3=Broad-Crested Rectangular Weir** (Weir Controls 7.29 cfs @ 2.11 fps)

Pond Hc-3: Hc-3 Diversion MH



APPENDIX D

Summary of Water Quality Treatment Zone H

Summary of Water Quality Treatment - Lot 17 (BLDG G - Multi-Family Residential)

Zone	Inlet ID	Impervious Area (sf)	Pervious Area (sf)	Total Area (sf)	Total Area (Acres) [1]	Required Water Quality Volume (CF) [2]	Existing Developed Area Mitigation Credits (SF) [9]	Treatment Approach [6]	Filter Size Area Required [6] (SF)	Jellyfish Unit Provided [5]	1 Yr 24-hr Storm Event Peak Flow Rate (cfs) [3]	Required Isolator Row Chambers (Stormtech SC-740 (JF)) [4]	Provided Filter Bed (SF)/Water Quality Volume (CF) [7]	Isolator Row Chambers (Stormtech SC-740) Provided (EA) [6]
Zone Ha Developed Area	Ha-9	0.00	1,607.00	1,607.00	0.04	53.57	0.00	filterra w open top	< 0.1 ac 1-(4x4)	N/A	0.02	N/A	N/A	N/A
	Ha-2	6,683.00	1,473.00	8,156.00	0.19	606.02	0.00	filterra - Curbline w/ top slab	< 0.202 ac 1-(4x8)	N/A	0.43	N/A	N/A	N/A
	Ha-6	6,585.00	847.00	7,432.00	0.17	576.98	0.00	filterra - Curbline w/ top slab	< 0.202 ac 1-(4x8)	N/A	0.41	N/A	N/A	N/A
	Ha-7	0.00	1,036.00	1,036.00	0.02	34.53	0.00	filterra w open top	< 0.1 ac 1-(4x4)	N/A	0.01	N/A	N/A	N/A
	Ha-8	667.00	1,147.00	1,814.00	0.04	93.82	0.00	filterra w open top	< 0.1 ac 1-(4x4)	N/A	0.06	N/A	N/A	N/A
	Ha-4	4,748.00	814.00	5,562.00	0.13	422.80	0.00	filterra - Curbline w/ top slab	< 0.151 ac 1-(4x6)	N/A	0.30	N/A	N/A	N/A
	Ha-5	12,313.40	1,513.60	13,827.00	0.32	1076.57	0.00	filterra - Curbline w/ top slab	< 0.378 ac 1 - (6x10)	N/A	0.77	N/A	N/A	N/A
	Zone Ha - Total	**30,996.40**	**8,437.60**	**39,434.00**	**0.91**	**2,864.29**	**0.00**	Filterra Tree Box Filter	-	-	2.00	N/A	N/A	N/A
Zone Hb Developed Area	Hb-R5 north (split in half for different Isolator rows)	7,222.00	0.00	7,222.00	0.17	601.83	0.00	Contech Jellyfish Filter	N/A	JF4 2-1	0.44	2.21	3,042.00	6.00
	Hb-13	1,469.00	259.00	1,728.00	0.04	131.05	0.00				0.09	0.47		
	Hb-12	1,209.00	346.00	1,555.00	0.04	112.28	0.00				0.08	0.39		
	Hb-5 Isolator south 1 Subtotal	**9,900.00**	**605.00**	**10,505.00**	**0.24**	**845.17**	**0.00**				**0.61**	**3.06**		
	Hb-R5 South (split in half for different Isolator rows)	7,222.00	0.00	7,222.00	0.17	601.83	0.00				0.44	2.21		8.00
	Hb-14	225.00	724.00	949.00	0.02	42.88	0.00				0.02	0.12		
	Hb-15	1,146.00	2,657.00	3,803.00	0.09	184.07	0.00				0.10	0.52		
	Hb-R4	7,038.00	0.00	7,038.00	0.16	586.50	0.00				0.43	2.15		
	Hb-16	586.00	3,935.00	4,521.00	0.10	180.00	0.00				0.09	0.43		
	Hb-17	3,056.00	179.00	3,235.00	0.07	260.63	0.00				0.19	0.94		
	Hb-18	716.00	1,298.00	2,014.00	0.05	102.93	0.00				0.06	0.30		
	Hb-9	1,246.00	1,622.00	2,868.00	0.07	157.90	0.00				0.10	0.48		
	Hb-19	1,093.00	461.00	1,554.00	0.04	106.45	0.00				0.07	0.36		
	Hb-20	601.00	506.00	1,107.00	0.03	66.95	0.00				0.04	0.22		
	Hb-5 Isolator South 2 Subtotal	**22,929.00**	**11,382.00**	**34,311.00**	**0.79**	**2,290.15**	**0.00**				**1.55**	**7.73**		
	Hb-5 South Storage Subtotal	**32,829.00**	**11,987.00**	**44,816.00**	**1.03**	**3,135.32**	**0.00**				**2.16**	**10.79**		**14.00**
	Hb-GR	25,934.00	0.00	25,934.00	0.60	2161.17	0.00				1.58	7.92	2,699.00	8.00
	Hb-11 North Storage/Isolator Subtotal	**25,934.00**	**0.00**	**25,934.00**	**0.60**	**2,161.17**	**0.00**				**1.58**	**7.92**		
	Hb-3.1 Jellyfish Total	**58,763.00**	**11,987.00**	**70,750.00**	**1.62**	**5,296.48**	**0.00**				**3.74**	**18.71**	**5,741.00**	**22.00**
	Hb-21	1,522.00	2,257.00	3,779.00	0.09	202.07	0.00	filterra w open top	< 0.1 ac 1-(4x4)	N/A	0.12	N/A	N/A	N/A
	Hb-22	682.00	6,048.00	6,730.00	0.15	258.43	0.00	filterra w open top	< 0.151 ac 1-(4x6)	N/A	0.12	N/A	N/A	N/A
	Hb-Filterra Subtotal	**2,204.00**	**8,305.00**	**10,509.00**	**0.24**	**460.50**	**0.00**	Filterra Tree Box Filter	-	-	0.24			
Zone Hc Developed Area	Hc-R1	15,256.00	0.00	15,256.00	0.35	1271.33	0.00	Contech Jellyfish Filter	N/A	JF4 2-1	0.93	4.66	2938	**16**
	Hc-R2	4,904.00	0.00	4,904.00	0.11	408.67	0.00				0.30	1.50		
	Hc-R3	8,572.00	0.00	8,572.00	0.20	714.33	0.00				0.52	2.62		
	Hc-5	2,495.00	1,852.00	4,347.00	0.10	269.65	0.00				0.18	0.88		
	Hc-7	1,587.00	2,781.00	4,368.00	0.10	224.95	0.00				0.13	0.66		
	Hc-6	0.00	460.00	460.00	0.01	15.33	0.00				0.01	0.03		
	Hc-4 Storage/Isolator Subtotal	**32,814.00**	**5,093.00**	**37,907.00**	**0.87**	**2,904.27**	**0.00**				**2.07**	**10.35**		
Zone H Developed Area Treated Subtotals	Ha + Hb + Hc	**124,777.40**	**33,822.60**	**158,600.00**	**3.64**	**11,525.54**	**0.00**	Proprietary Filter Devices	See above	See above	See above	See above	See above	See above
Tributary to Hb Outfall Untreated	Hb-23	520.00	262.00	782.00	0.02	52.07	0.00	None	N/A	N/A	N/A	N/A	N/A	N/A
Tributary to ROW SD Untreated	Ha-10	317.00	5,778.00	6,095.00	0.14	219.02	0.00	None	N/A	N/A	N/A	N/A	N/A	N/A
Tributary to Ha Offsite City CB Untreated	Ha-City	1,296.60	768.40	2,065.00	0.05	133.66	0.00	None	N/A	N/A	N/A	N/A	N/A	N/A
	Disturbed Perimeter Area (H27)	1,904.00	26,834.00	28,738.00	0.66	1053.13	0.00	None	N/A	N/A	N/A	N/A	N/A	N/A
Zone H Developed Area UnTreated Subtotals		**4,037.60**	**33,642.40**	**37,680.00**	**0.87**	**1,457.88**	**0.00**	None	N/A	N/A	N/A	N/A	N/A	N/A
Zone H Developed Area Subtotals		**128,815.00**	**67,465.00**	**196,280.00**	**4.51**	**12,983.42**	**0.00**	**N/A**	N/A	N/A	N/A	N/A	N/A	N/A
Zone H Existing Buildings	N/A	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Zone H Existing Building Subtotal		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Zone H Developed Area Totals	-	**128,815.00**	**67,465.00**	**196,280.00**	**4.51**	**12,983.42**	**0.00**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**

Developed Area Breakdown (This project phase only)		
A.) Total New Developed Area Treated (SF)	158,600.00	**3.64**
B.) Total New Developed Area untreated (SF)	37,680.00	**0.87**
C.) Total New Developed Area (SF) = A+B	196,280.00	**4.51**
D.) Existing Developed Area Treated (SF)	0.00	**0.00**
E.) Adjusted Existing Developed Area Treated (SF)	0.00	**0.00**
F.) Total Net Developed Area Treated (SF) = A+E	158,600.00	**3.64**
Impervious Area Breakdown		
G.) Total New Impervious Area treated (SF)	124,777.40	**2.86**
H.) Total New Impervious Area untreated (SF)	4,037.60	**0.09**
I.) Total New Impervious Area (SF) = G+H	128,815.00	**2.96**
J.) Existing Impervious Area Treated (SF)	0.00	**0.00**
K.) Adjusted Existing Impervious Area Treated (SF)	0.00	**0.00**
L.) Total Net Impervious Area Treated (SF) = G+K	124,777.40	**2.86**

Treatment Breakdown	Required	This Phase Only Provided
% of Net Developed Area Treated = F/C	80.00%	80.80%
% of Net Impervious Area Treated = L/I	95.00%	96.87%

Add concessions to the below totals

Developed Area Breakdown (Cumulative Campus Development To-Date)		
A.) Total New Developed Area Treated (SF)	494,298.00	**11.35**
B.) Total New Developed Area untreated (SF)	129,587.00	**2.97**
C.) Total New Developed Area (SF) = A+B	623,885.00	**14.32**
D.) Existing Developed Area Treated (SF)	72,596.00	**1.67**
E.) Adjusted Existing Developed Area Treated (SF)	43,557.40	**1.00**
F.) Total Net Developed Area Treated (SF) = A+E	537,855.40	**12.35**
Impervious Area Breakdown		
G.) Total New Impervious Area treated (SF)	376,461.74	**8.64**
H.) Total New Impervious Area untreated (SF)	63,280.60	**1.45**
I.) Total New Impervious Area (SF) = G+H	439,742.34	**10.10**
J.) Existing Impervious Area Treated (SF)	72,596.00	**1.67**
K.) Adjusted Existing Impervious Area Treated (SF)	43,557.40	**1.00**
L.) Total Net Impervious Area Treated (SF) = G+K	420,019.14	**9.64**

Treatment Breakdown	Required	Cumulative Campus Provided
% of Net Developed Area Treated = F/C	80.00%	86.21%
% of Net Impervious Area Treated = L/I	95.00%	95.51%

Development Projects Included in Cumulative Review (inorder of input):

Brick North and Brick South (Lots 1, 2, 3)
West Loop Rd (Common)
Hotel Portland (Lot 6)
East Loop Rd (Common)
CMTM (Lot 7)
Warehouse (Lot 11)
Concessions (Lot 9)
Multi-Family (Lot 17)

NOTES AND ASSUMPTIONS:

1. All areas are based on the Placemaker Partners Permit drawings dated Sept 2024.
2. The required water quality volumes have been computed based on Sections 7.4, 7.5 and 7.6 of the Maine DEP Volume III BMP's Technical Design Manual. The volume is computed to be 1" times the subcatchments impervious area and 0.4" times the subcatchments vegetated area. Existing buildings to remain are not required to be treated since they predate 1975 clean water act requirements.
3. The 1 year peak flow rates have been computed using the rational method. The rainfall intensities are derived from the Cumberland County IDF curve.
4. Subsurface storage system sizing is based on a Stormtech SC-740 chamber system. All isolator rows have been computed per a 7/29/2016 letter from State of Maine to Stormtech re: Pretreatment Isolator Row of the Maine DEP Volume III BMP's Technical Manual. One chamber is required for each 0.2 cfs of the computed tributary 1 year peak flow rate.
5. The required number of Jelly Fish treatment units have been computed based on Contech Sizing requirements. The water quality volume for each unit is storage up stream and the amount of treatment cartridges are computed based sediment mass loading.
6. The owner reserves the right to use an alternate tree box filter device provided it has been approved by the Maine DEP Chapter 500 delegated review authority of the City of Portland. Area listed is max tributary area for size selected
7. Provided Water Quality Volume for stormtreat storage system computed using 61.38 CF of storage per chamber based on Storm Tech Chamber Design Manual. This includes volume from Chamber and Surrounding stone only, excluding oversized perimeter stone, and distribution piping.
8. Vacant
9. According to Chapter 500 Maine DEP stormwater rules Dated 2015; the department allows applicants to take credit for the treatment of existing impervious areas on site. For existing roofs the credit can be calculated by multiplying the total treated area by 0.6. The overall project was approved using this methodology.
10. The MEDEP will now accept a Filterra tree box filter as a stand alone treatment unit and does not require an Isolator Row for eligible projects. This project meets the eligibility criteria noted in a letter dated June 27th, 2014 from the MEDEP and updated February 2, 2017.

APPENDIX E

Stormwater Management Plans-1 through 3

NOTES:

1. PHASE (SWM ZONE B2) WILL TEMPORARILY DISCHARGE TO EXISTING STORM DRAIN DISCHARGE. STORM DRAIN SIZED TO BE TREATED AND DISCHARGED AT ZONE B OUTFALL WHEN FUTURE PHASE IS DEVELOPED.

LEGEND

- STORMWATER MANAGEMENT AREA BOUNDARY
- SUBCATCHMENT BOUNDARY
- LOT 7 DEVELOPMENT STORM WATER MANAGEMENT AREA INTERNALLY DRAINS TO SEPARATE SUBSURFACE STORAGE AND TREATMENT INFRASTRUCTURE. DISCHARGES TO ZONE F0 DISCHARGE
- DRAINAGE DISCHARGE OUTFALL
- D15B — SUBCATCHMENT DESIGNATION
- SUBSURFACE CHAMBER SYSTEM ISOLATOR ROW WITH INSPECTION PORTS

NORTH

TIDAL AREA

ZONE HB
DISCHARGE HB-0
WITH RCP FLARED END
AND BAR RACK
INV. = 7.8

RIPRAP ENERGY DISPERSION PLUNGE POOL

ZONE HB
HB-5 SUBSURFACE
WATER QUALITY
STORAGE

ZONE HB
HB-3.1 JELLYFISH
TREATMENT UNIT
(JF-4-2-1)
HB-3 8'x10' OVERFLOW
DIVERSION MANHOLE

LANDSCAPED SLOPE TO SHEET FLOW DIRECTLY TO FORE RIVER

LANDSCAPED SLOPE TO SHEET FLOW DIRECTLY TO FORE RIVER

ZONE HB
HB-11 SUBSURFACE
WATER QUALITY
STORAGE

STORMWATER MANAGEMENT ZONE HB
(DEVELOPMENT OF THIS SWM ZONE REDEVELOPED UNDER THIS PROJECT PHASE)

STORMWATER MANAGEMENT ZONE HC
(DEVELOPMENT OF THIS SWM ZONE REDEVELOPED UNDER THIS PROJECT PHASE)

STORMWATER MANAGEMENT ZONE HA
(DEVELOPMENT OF THIS SWM ZONE REDEVELOPED UNDER THIS PROJECT PHASE)

LANDSCAPED SLOPE TO SHEET FLOW DIRECTLY TO FORE RIVER

ZONE HC
HC-4 SUBSURFACE
WATER QUALITY
STORAGE

RIPRAP ENERGY DISPERSION OUTLET APRON AND CHANNEL PROTECTION

ZONE HC
DISCHARGE HC_
WITH RCP FLARED END
AND BAR RACK
INV. = 13.0

ZONE HC
HC-3.1 JELLYFISH
TREATMENT UNIT
(JF-4-2-1)
HC-3 8'x10' OVERFLOW
DIVERSION MANHOLE

ZONE HA
HA-5.1 6'x10' FILTERRA TB
ZONE HA
HA-8.1 4'x4' FILTERRA TB
ZONE HA
HA-7.1 4'x4' FILTERRA TB
ZONE HA
HA-4.1 4'x6' FILTERRA TB
ZONE HA
HA-6.1 4'x8' FILTERRA TB
ZONE HA
HA-9.1 4'x4' FILTERRA TB
ZONE HA
HA-2.1 4'x8' FILTERRA TB
ZONE HA
DISCHARGE HA-15
DISCHARGE TO CITY
STORM DRAINAGE
SYSTEM AND 36"
OUTFALL D9.0

ZONE D
D21 - (2) 4'x6' FILTERRA TB

FUTURE STORMWATER MANAGEMENT ZONE E
(AREA NOT REDEVELOPED AS OF THE DATE OF THIS PLAN)

ZONE D
D20 - (2) 6'x6' FILTERRA TB

STORMWATER MANAGEMENT ZONE D

ZONE D
D9.0 - SUBSURFACE
WATER QUALITY
STORAGE
(78) SC-740 CHAMBERS

ZONE D
D9.5 - JELLYFISH
TREATMENT UNIT (J4-2-1)
D19 - 8'x10' OVERFLOW
DIVERSION MANHOLE

ZONE D
D18 - (2) 4'x6' FILTERRA TB

ZONE D
D19 - 4'x6'
FILTERRA TB WITH
INTERNAL BY-PASS

ZONE D
D9.0 DISCHARGE 36"
WITH RCP FLARED
END AND BAR RACK
INV. 7.40

ZONE D
D27 - FOCAL POINT
FILTER (FUTURE)
AREA = 96 S.F.

ZONE D
D25 13'x7' FILTERRA TB
PEDESTRIAN GRATE
AND GRASS PLANTING

ZONE D
D24 6'x6' FILTERRA TB

STORMWATER MANAGEMENT ZONE D

APPROVED STORMWATER MANAGEMENT ZONE C
(TO BE CONSTRUCTED)

B2-14

BUILDING B1

LANDSCAPED SLOPE TO SHEET FLOW DIRECTLY TO FORE RIVER

STORMWATER MANAGEMENT ZONE B2

BUILDING B2

FORE RIVER

100-YEAR FLOOD STAGE
ZONE, ELEV. 10.0
HAT, ELEV. 7.4

HIGHEST ANNUAL TIDE, ELEV. 9.4

STONE DRIP EDGE FILTER TREATMENT

TEMPORARY CONNECTION TO EXISTING STORM DRAIN. STORM DRAIN TO BE CONNECTED TO SWM ZONE B IN FUTURE PHASE

EXISTING SD DISCHARGE

ZONE C
C6-SUBSURFACE WATER
QUALITY STORAGE (66)
SC-740 CHAMBER

STORMWATER MANAGEMENT ZONE B

CONNECT SWM ZONE B2 TO STORM DRAIN STUB IN FUTURE PHASE

FUTURE EXPANDED STORMWATER MANAGEMENT ZONE B2
(AREA NOT REDEVELOPED AS OF THE DATE OF THIS PLAN)

ZONE B
B3 - 7'x13' FILTERRA

ZONE B AND C
DISCHARGE B0 36"
WITH RCP FLARED
END AND BAR RACK
INV. 8.60

ZONE F
CMTM STORM WATER
MANAGEMENT (SEE
SYSTEM NOTES)

ZONE F
F13 - SUBSURFACE WATER
QUALITY STORAGE
(61) SC-740 CHAMBERS

ZONE F
F12 - JELLYFISH
TREATMENT UNIT
(JF-4-2-1)
F11 - 6'x12' OVERFLOW
DIVERSION MANHOLE

ZONE F
F14- 6'x6' FILTERRA TB

ZONE F AND G
DISCHARGE F0 36"
WITH RCP FLARED
END AND BAR RACK
INV. 10.0

ZONE F
F15 - 6'x10'
FILTERRA TB

LANDSCAPED SLOPE TO SHEET FLOW DIRECTLY TO FORE RIVER

FUTURE STORMWATER MANAGEMENT ZONE D
(AREA NOT REDEVELOPED AS OF THE DATE OF THIS PLAN)

FUTURE STORMWATER MANAGEMENT ZONE D AND G
(AREA NOT REDEVELOPED AS OF THE DATE OF THIS PLAN)

STORMWATER MANAGEMENT ZONE G

ZONE G
G10.1 - 8'x4' FILTERRA TB

ZONE G
G9 - HOODED OUTLET
WITH DEEP SUMP

ZONE G
G8 - HOODED OUTLET
WITH DEEP SUMP

ZONE G
G7 - HOODED OUTLET
WITH DEEP SUMP

Z6.1 - HOODED OUTLET
WITH DEEP SUMP

BUILDING G
BUILDING L
BUILDING F2
BUILDING F1
BUILDING A
BUILDING I
BUILDING C
BUILDING D
BUILDING B
BUILDING B1
BUILDING B2

HB-5 HB-21 HB-7 HB-22 HB-17 HB-18 HB-19 HB-9 HA-5 HA-4 HA-8 HA-7 HA-6 HA-2 HA-10 HA-CITY
H-R5 H-R4 H-GR H-R3 H-R2 H-R1
HC-4 HC-3 HC-6
B2-20 B2-15 B2-12 B2-20R
C15BR D15BR C13R D25R D27R C15R F6R F5R F3R D24R G12R
CB B14 CB B13 DMH B13 CB B12 CB C7 DMH C6.1 DMH C6 CB C11 CB C10 DMH C9 CB C12 CB C13 DMH C8 DMH C5 DMH C4 DMH C3 DMH C2 DMH B2 DMH B1 CB B3.1 CB F17 CB F16 DMH F2 DMH F13.2 F7 DMH F1C (6'Ø) DMH F1 DMH F9 DMH F1B (6'Ø) CB F1A (8'Ø) CB F14.1 DMH G1 (6'Ø) DMH F10 BEND CB G9 DMH G3 CB G8 CB G11 TEE DMH G2 CB G6 CB G7 CB G12 TEE BEND CB G10 TEE PROPANE FUEL PUMP
CB C7 CB C11 CB C10 CB C12 CB C13 CB F15 CB G12 TEE
D1 D2 D3 D4 D5 D6 D8 D9.0 D10 D11 D12 D13 D14 D15 D15A D16 D17 CO D22R TEE D23R TEE D24 D29 D27 TEE D27.1 D28 D28.1 CB D24 DMH 23 CB D24 DMH 22 DMH 21 CB D25 DB EX. MH

STORMWATER MANAGEMENT ZONE F

STONE DRIP EDGE FILTER TREATMENT

GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1 inch = 60 ft.

PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
2	12/23/2024	REVISED TO ADDRESS CITY COMMENTS
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY No. 11994 — LICENSED PROFESSIONAL ENGINEER — 12/23/2024

P.E. BO KENNEDY
LIC. #11994

PROJECT: THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

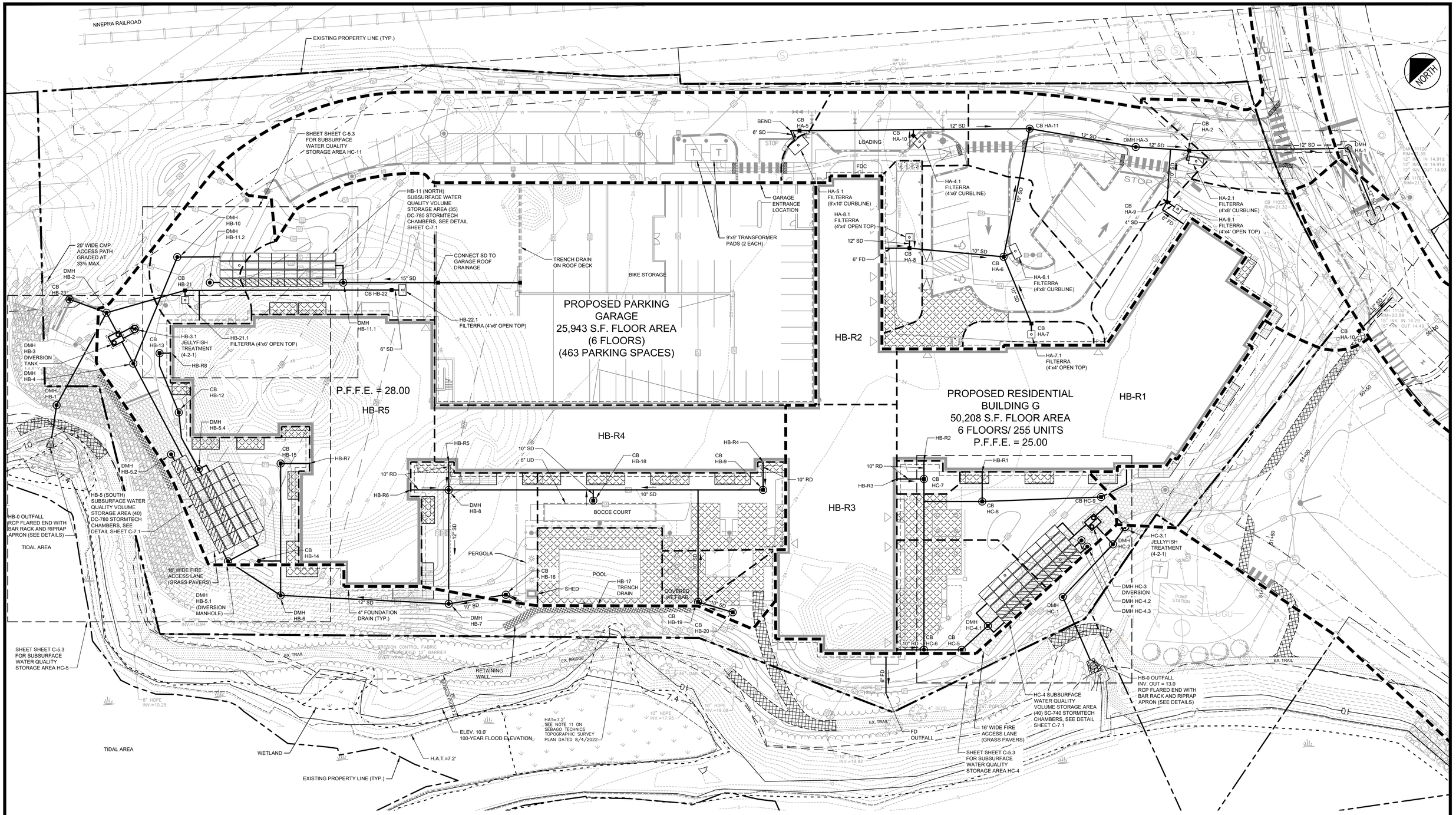
SHEET TITLE: INTERIM OVERALL STORMWATER MANAGEMENT PLAN

CLIENT: CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN:	DB
DESIGNED:	BEK
DATE:	AUGUST 2024
SCALE:	1" = 60'
FILE NAME:	PANHANDLE-SMP_OVERALL.dwg
SHEET	C-5.1

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NOTE:
SEE SHEET C-5.2 FOR ZONE C AND D2 TABULAR STORMWATER QUALITY MANAGEMENT COMPUTATIONS.

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
2	12/23/2024	REVISED TO ADDRESS CITY COMMENTS
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE – BO KENNEDY No. 11994 – LICENSED PROFESSIONAL ENGINEER – 12/23/2024

P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

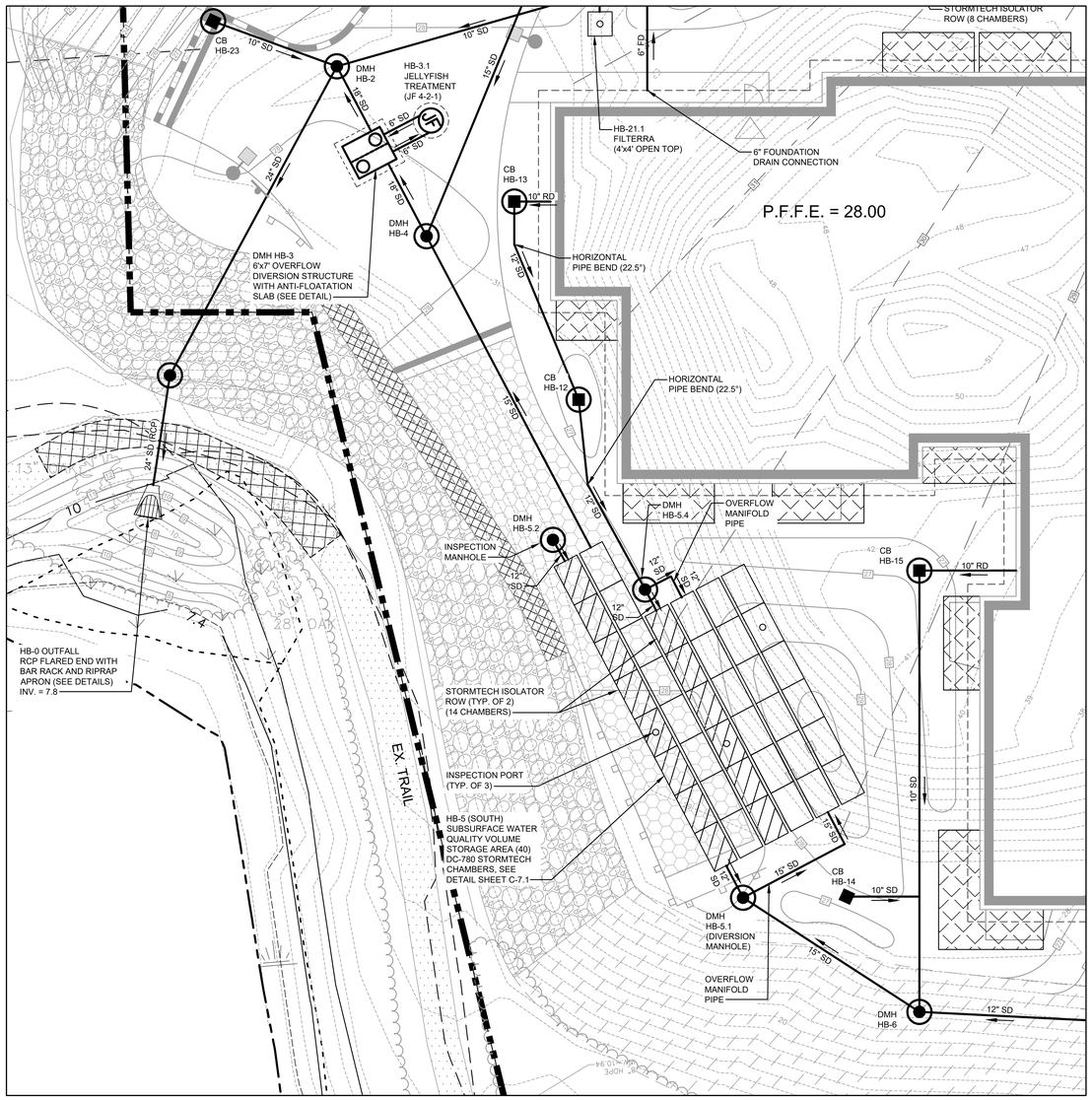
SHEET TITLE
STORMWATER MANAGEMENT PLAN - 1

CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

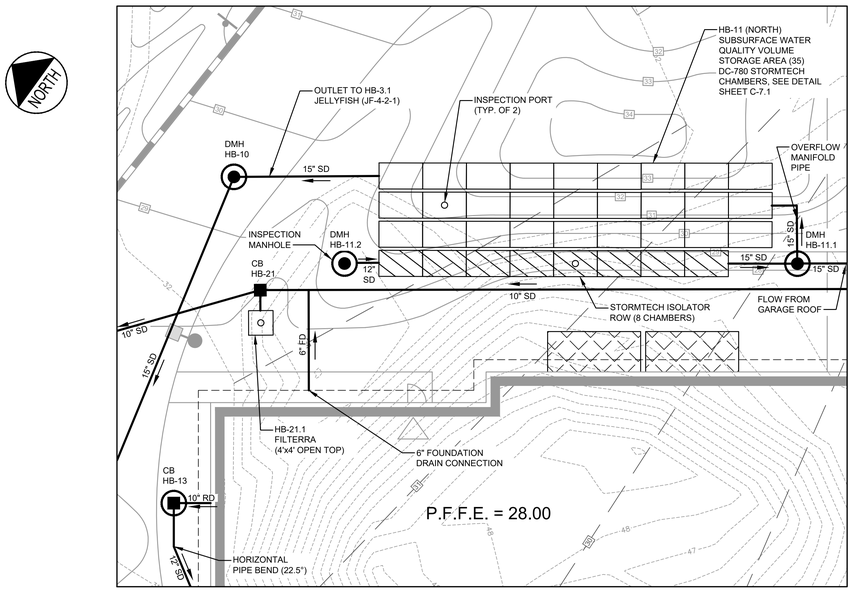
PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

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DESIGNED:	BEK
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SHEET	C-5.2

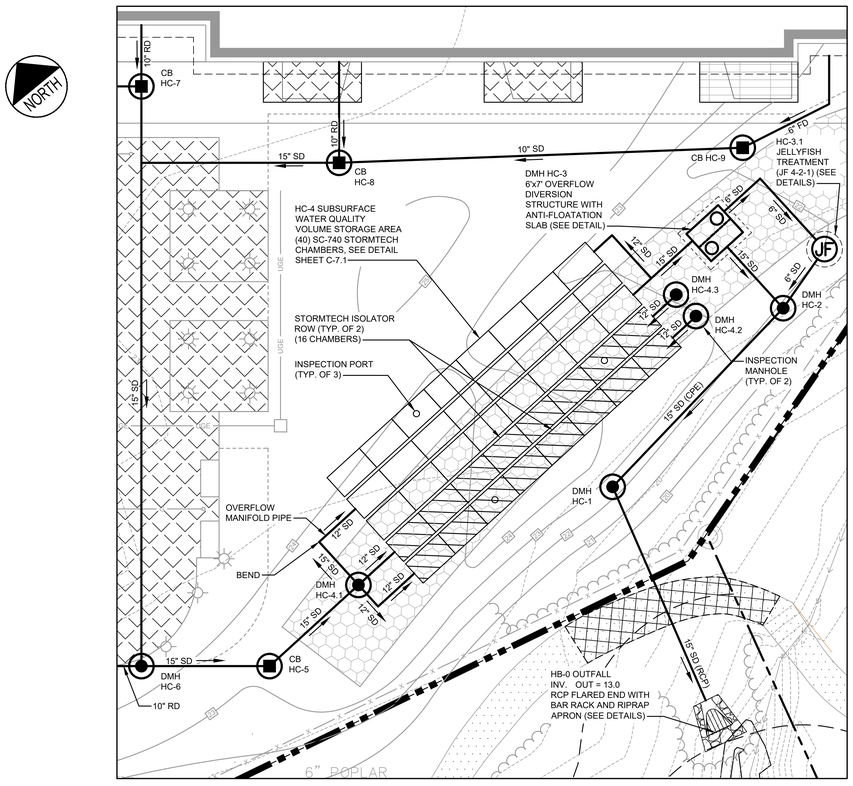
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SUBSURFACE WATER QUALITY STORAGE AREA HB-5
ENLARGED VIEW
SCALE: 1"=10'



SUBSURFACE WATER QUALITY STORAGE AREA HB-11
ENLARGED VIEW
SCALE: 1"=10'



SUBSURFACE WATER QUALITY STORAGE AREA HC-4
ENLARGED VIEW
SCALE: 1"=10'

PRELIMINARY – NOT FOR CONSTRUCTION

GRAPHIC SCALE
10 0 5 10 20
(IN FEET)
1 inch = 10 ft.

REV	DATE	DESCRIPTION
2	12/23/2024	REVISED TO ADDRESS CITY COMMENTS
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE · BO KENNEDY No. 11994 · LICENSED PROFESSIONAL ENGINEER
12/23/2024
P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

SHEET TITLE
STORMWATER MANAGEMENT PLAN - 2

CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

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DESIGNED:	BEK
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SHEET	C-5.3

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APPENDIX F

Stormwater Operation and Maintenance Manual - Approved 2016

INSPECTION AND MAINTENANCE MANUAL FOR STORMWATER MANAGEMENT AND RELATED STORMWATER FACILITIES

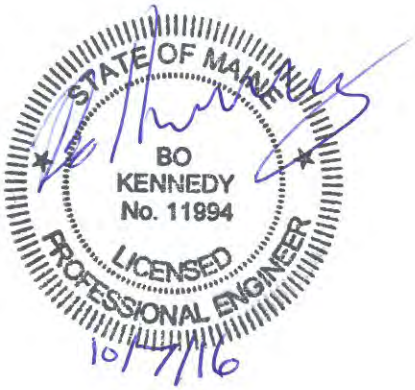
THE FOREFRONT AT THOMPSON'S POINT
PORTLAND, MAINE

PREPARED FOR:

FOREFRONT PARTNERS I, LP
55 LISBON STREET
LEWISTON, MAINE 04240
(207) 784-0335

PREPARED BY:

STANTEC CONSULTING SERVICES INC.
482 PAYNE ROAD
SCARBOROUGH, MAINE 04074
(207) 883-3355



MARCH 2012
REVISED OCTOBER 2016

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	C. Stormwater Inlets	5
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APPENDICES

Appendix A – Sample Inspection Logs

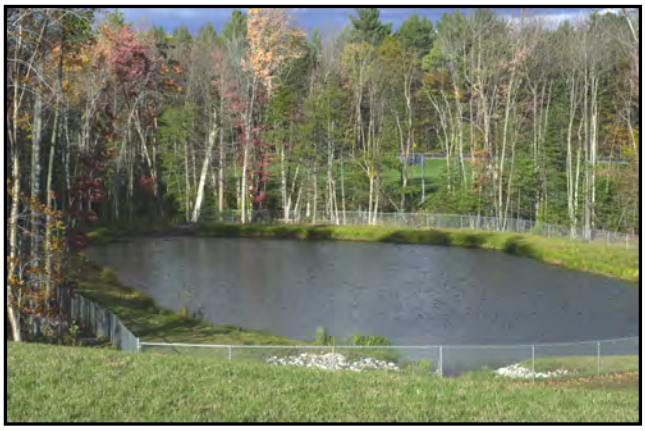
Appendix B – Permits for Project

Appendix C – Summary Checklist for Inspection and Maintenance

I. INTRODUCTION

Relatively complex stormwater management facilities are commonly installed in development projects including, commercial facilities, and many other developments. The complexity and goals of these systems vary with the nature of the receiving water, as well as the type of development. Runoff from developed areas of the project, including rooftops, paved or lawn areas, typically contain materials that can impact the receiving waters. Source control and the installation of wet ponds, infiltration galleries, and water quality units, often combined with pretreatment measures or followed by vegetated buffer strips and other best management practices, can significantly reduce the non-point pollution discharge from the developed area. These measures are particularly important to projects in the watersheds of sensitive water bodies, or projects with potential impacts to groundwater. With the increased cost of land and development, there is an increased tendency to construct portions of the stormwater management systems underground.

The effectiveness of water quality management provisions and other components of the stormwater management system are dependent on their design, upkeep, and maintenance to assure they meet their intended function over an extended period of years. It is critical that the stormwater management facilities are regularly inspected, and that maintenance is performed on an as-needed basis. It must also be recognized that the effectiveness of these facilities, and their maintenance requirements, are related to the stormwater drainage facilities that collect and transport the flow to the ponds, infiltration galleries, and other treatment measures. Thus, maintenance should be directed to the total system, not just the pond or primary stormwater management facility.



The purpose of this document is to define, in detail, the inspection and maintenance requirements deemed necessary to assure that the stormwater management facilities function as intended when they were designed. Subsequent sections identify individual maintenance items, give a brief commentary of the function and need for the item, a description of the work required, and a suggested frequency of accomplishment. While the suggested programs and schedules must be adapted to projects, the material presented should provide guidance for a successful long-term program for operation and maintenance. A supplemental section provides guidance for construction monitoring of the facilities during their installation and more detailed checklists. Certain facilities, specifically the groundwater recharge and infiltration beds are not intended to be placed in service until the tributary catchment area has the permanent cover in place and any contributing turf areas have achieved a 90% catch of vegetation (i.e. established).

A. GUIDELINES OVERVIEW

A summary of the individual components of stormwater management facilities has been prepared. The format used in the summary is as follows:

Preface: A general description of what function/benefit the element is intended to provide. This is a short summary and not intended to provide the design basis which can be found in other sources.

Inspection: This section provides the inspection requirements for the individual component.

Maintenance: The section provides general information on the routine maintenance requirements of this element.

Frequency: This section outlines the best judgment of the designer on the system to the frequency of maintenance.

Comments: This section provides any particular comment on the site-specific features of this element. This is a summary only. The owner/operator should review the design drawings and documents carefully to understand the particular elements of the project. The end of this section should allow for the owner/operator to make notes on the specific program. This may include the selected maintenance procedure, cross-references to applicable design drawings, etc.

A list of the individual inspection/maintenance elements is provided in the table of contents. The guidelines are proposed for initial use with adjustments made as appropriate based upon specific project experience.

II. PROJECT OVERVIEW

Key permits issued (or applied for) on the project include:

- MeDEP Site Location of Development (City of Portland Delegated Review Authority)
- City of Portland Site Plan Review

The permit applications pending for the project include the design information for the stormwater system.

A copy of the permits and Stormwater Management Report should be appended to this manual as Appendix B. The Owner/Operator of the stormwater management system should review these permits for a general description and background of the project, as well as any specific permit conditions or requirements of the project.

The applicant has retained Stantec Consulting Services Inc. for civil engineering for The Forefront at Thompson's Point mixed-use commercial project in Portland, Maine. Stantec Consulting Services Inc. has prepared the design for the stormwater management facilities and may be contacted at:

Stantec Consulting Services Inc.
482 Payne Road
Scarborough, Maine 04074
(207) 883-3355

It is recommended the preparer of the plan be contacted with any particular questions on the design intent or similar issues.

The applicable plans/design documents which apply to the project are:

1. Civil Site Plans/Permit Applications Prepared by Stantec Consulting Services Inc.
2. The Erosion Control/Sedimentation Control Plan for the project.
3. The Stormwater Management Plan for the project.

A copy of these documents should be retained with the manual.

The site is tributary to the Fore River watershed.

The proposed design will include deep sump catch basins, oil absorbent sorbent booms, underground detention including the use of an arched chamber system, subsurface sand filter, Jellyfish® filter, Filterra® tree box filters (or approved equal), and collection, conveyance, and discharge systems.

The project is subject to the requirements of the City of Portland Code of Ordinances, Chapter 32. Specifically, the post construction stormwater management plan. The City requirements have been reiterated for ease of reference; however, the owner shall be responsible to meet the current City code.

"Any person owning, operating or otherwise having control over a BMP required by a post construction stormwater management plan shall maintain the BMP's in accordance with the approved plan and shall demonstrate compliance with that plan as follows:

(a) Inspections. The owner of operator of a BMP shall hire a qualified post-construction stormwater inspector to at least annually, inspect the BMP's, including but not limited to any parking areas, catch basins, drainage swales, detention basins and ponds, pipes and related structures, in accordance with all municipal and state inspection, cleaning and maintenance requirements of the approved post-construction stormwater management plan.

(b) Maintenance and repair. If the BMP requires maintenance, repair or replacement to function as intended by the approved post-construction stormwater management plan, the owner or operator of the BMP shall take corrective action (s) to address the deficiency or deficiencies as soon as possible after the deficiency is discovered and shall provide a record of the deficiency and corrective action (s) to the department of public services ("DPS") in the annual report.

(c) Annual report. The owner or operator of a BMP or a qualified post-construction stormwater inspector hired by that person, shall, on or by June 30 of each year, provide a completed and signed certification to DPS in a form provided by DPS, certifying that the person has inspected the BMP (s) and that they are adequately maintained and functioning as intended by the approved post-construction stormwater management plan, or that they require maintenance or repair, including the record of the deficiency and corrective action (s) taken.

(d) Filing fee. Any persons required to file an annual certification under this section shall include with the annual certification a filing fee established by DPS to pay the administrative and technical costs of review of the annual certification.

(e) Right of entry. In order to determine compliance with this article and with the post-construction stormwater management plan, DPS may enter upon property at reasonable hours with the consent of the owner, occupant or agent to inspect the BMP's."

III. STANDARD INSPECTION/MAINTENANCE DESCRIPTIONS

The following narratives describe the inspection/maintenance provisions for the Stormwater Management area. These O&M procedures will complement scheduled sweeping of the pavement areas anticipated to occur at least twice per year. The MeDEP will require the stormwater system be certified to meet the basis of design at five year increments. Proper O&M is necessary to make sure the system can be certified.

A. POND OVERFLOW

Preface: The stormwater detention facilities proposed for the project includes underground detention systems under the paved parking areas. The underground units are a proprietary system called StormTech® SC-740 Chambers. The storage portion of the 30-inch high chambers will travel to the Jellyfish® filter or down through a sand filter. The upper storage portion will bypass the treatment system for major storm events. If the detention storage volume were exceeded, water would spill over the overflows of the underground systems and flow to the next inlet or sheet flow over the curb line and down the perimeter slope to the Fore River.

Inspection: There are inspection ports that should be checked semiannually to make sure that water is not ponded due to blockage.

Maintenance: The upstream measures are intended to reduce and presumably eliminate maintenance cleanings. Major cleaning would likely require excavation of the system although some success has been reported with fire flow flushing.

B. CONTROL STRUCTURES

Preface: The proposed underground storage systems will serve as a detention pond controlled by the hydraulic outlet control structure. The outlet control structure will be designed to detain the water quality volume with a slow release through the treatment measure (Jellyfish® or Sand Filter) and discharge runoff for storm events larger than 1". Therefore, flow is anticipated to be released during and after every major storm event. Minor events will likely filter through the sand filter or pass through the Jellyfish® filter. The Jellyfish® filters have a controlled low flow discharge of 0.066 cfs per unit. The control structure will be designed to be inspected by removing the manhole covers and inspection of the valve, orifice, weir, and channels. Debris should be removed whenever observed and reported to key maintenance personnel since any debris would indicate lack of proper system O&M in the collection and conveyance system. Entry may require CONFINED SPACE ENTRY procedures and appropriately trained personnel.

Inspection: The outlet control structures must be inspected to assure it maintains its intended hydraulic characteristics. The inspection would note any debris or sediment which may accumulate in the structure and in the inlet and

outlet pipes. It is noted that it does not take much debris or silt to alter the hydraulic characteristics of the discharge. The inlet should be inspected to assure it is not blocked or restricted or there is sediment to the extent that its flow characteristics may be altered.

Maintenance: Maintenance of the control structure will consist primarily of removing debris which may accumulate and sealing the bulkhead if leakage occurs.

Frequency: The control structure should be inspected quarterly, and after a high intensity rainfall event (in excess of 3 inches in a 24-hour period).

Maintenance/Inspection Responsibility:

Inspection Personnel: The maintenance personnel will be an outside agent hired by Forefront Partners I, LP and will perform the scheduled maintenance/inspection.

Dates of inspections, maintenance performed, and any observed problems should be noted in the logs/records maintained by the outside agent.

Outside Contract Services: The outlet structure should be opened/inspected by the outside agent of Forefront Partners I, LP on a quarterly basis. The logs and records of inspections and maintenance of the control structures should be maintained during each 5-year re-certification interval.

Replacement Parts/Repairs: No normal replacement parts are required. Inspection personnel should have a bucket to remove debris from the structure. If leakage of the bulkhead occurs, it is recommended that repairs be made by a professional contractor familiar with hydraulic grouts.

C. STORMWATER INLETS

Preface: The success of any stormwater facility relies on the ability to intercept stormwater runoff at the design locations. Stormwater inlets may include catch basins, open culverts, culverts with bar screens, and field inlets. Inlets exist throughout the system at the points of collection as well as at the outlet of many ponds. Bar racks are common on many inlet locations which intercept an open channel. This section is directed at maintenance of the actual inlet point. A later section addresses more substantive maintenance of the structures and conveyance facilities. The inlets contain oil absorbent sorbent booms to retain oils and avoid discharge to downgradient areas. These will become saturated with oil over time and require replacement.

Inspection: The inspection of inlet points will need to be coordinated with other maintenance items, these include:

- Roadway/parking lot maintenance areas
- Building maintenance areas
- Grounds maintenance

The key elements of the inspection are to assure the inlet entry point is clear of debris and will allow the intended water entry.

Maintenance: The key maintenance is the removal of any blockage which restricts the entry of stormwater to the inlet. The removed material should be taken out of the area of the inlet and placed where it will not reenter the runoff collection system. Snow should be removed from inlets in parking lots/roadway areas. Grass clippings and leaves should be bagged and removed particularly near the yard inlets near the building.

Frequency: All inlets should be inspected on a monthly basis, and after/during significant storm events. A windshield survey is suitable for most inlets but off road inlets and pond structures require more rigorous inspection.

Maintenance/Inspection Responsibility:

Maintenance Personnel: The outside agent will perform the normal maintenance/inspections of the inlets and culvert crossings.

Comments: Maintenance of inlets is critical on this project.



POORLY STABILIZED INLET ALLOWS ENTRANCE OF DEBRIS AND REDUCED CAPACITY



STABILIZED INLETS REDUCE DEBRIS ACCUMULATION AND MAINTAIN DESIGN CAPACITY

D. TRIBUTARY DRAINAGE SYSTEM

Preface: Stormwater from most of the project will be directed through a conveyance system which transports the flow to water quality units, underground sand filter, Filterra® units, or Jellyfish® filter. This conveyance system will be principally overland flow discharging to piped drain systems. Most of the sediment carried by the drainage system is intended to be trapped in the catch basin isolator rows or water quality units. Maintenance of this system can play a major role in the long-term maintenance costs and the effectiveness of the treatment systems.

Inspection: The tributary drainage system should be periodically inspected to assure that it is operating as intended, and that its carrying capacity has not been diminished by accumulations of debris and sediment or other hydraulic impediments. On piped systems the inlets must be inspected to ensure the rims are set at the proper elevation to optimize flow entry and are not clogged with leaves or other debris. The inlet basins are normally equipped with sumps which will remove large sediment particles from the flow stream with hooded outlets. The inlet basins may be equipped with oil absorbent sorbent booms which should be inspected for saturation. Once the boom becomes saturated it will appear brown or black in color and will be ineffective at removing oils.

The level of sediment in the sumps should be checked to assure their effectiveness. Pipelines connecting the inlets should be checked to determine if siltation is occurring. This will be most critical on drain lines laid at minimal slopes. This can usually be accomplished by a light and mirror procedure.

In some projects most of the stormwater is carried in open swales, channels, or ditches. These conveyance channels may be rip rapped or vegetated, depending on the gradient and expected flow velocities. These facilities must be inspected to insure debris or sedimentation does not reduce their carrying capacity. Excess vegetative growth must also be noted. The surface protection

for the channels, either stone or vegetation, must be inspected to insure its integrity. Any areas subject to erosion should be noted.

Maintenance: Maintenance of the storm drainage system must assure that it continues to serve its design function on a long term basis, and that its operation does not transport excessive sedimentation to any downstream detention pond, or the receiving waters. Elevations on the rim of catch basins should be adjusted as needed to assure optimal water entry. Depending on the frost susceptibility of the soil, the rims may become elevated over time causing flow to circumvent the inlet. When the sump in an inlet restricts capacity and is half full with silt or other deleterious materials, the catch basin cleaning would normally be accomplished with vacuum trucks contracted as a maintenance service for the development center. The removed material must be disposed of at an approved site for such materials. The removed and replaced sorbent boom shall be disposed of in accordance with local and state regulations.

If sediment in the pipeline exceeds 20% of the diameter of the pipe, it should be removed. This may be accomplished by hydraulic flushing, or by mechanical means. If hydraulic flushing is used the downstream conditions should be analyzed. In general a sump or sediment trap should be used where it can be flushed into the underground detention pond, since it will reduce pond volume and hasten the time when it must be cleaned.

Frequency: The piped drainage system should be inspected on an annual basis. Adjustment of inlet rim elevations should be on an as needed basis. Cleaning catch basin sumps and pipelines will depend on the rate of accumulation.

Maintenance/Inspection Responsibility:

Maintenance Personnel: Outside agent appointed by Forefront Partners I, LP.

Special Services: The owner will elect to contract with an independent agent for cleaning catch basins, sumps, pipelines, and replacement of sorbent booms. Remedial source control measures may be performed by the owner or an outside service depending upon the nature of the particular situation.

Comments: Maintenance of inlets is critical on this project.



A WELL STABILIZED VEGETATED SWALE SHOWS LITTLE SIGNS OF EROSIVE VELOCITIES OR FLOWS. THIS SWALE ALSO FUNCTIONS AS A POND SPILLWAY

E. JELLYFISH® FILTER

Preface: The primary purpose of the Jellyfish Filter is to capture and remove pollutants from stormwater runoff. As with any filtration system, these pollutants must be removed to maintain the filter's maximum treatment performance. Regular inspection and maintenance are required to insure proper functioning of the system.

It is recommended that Jellyfish Filter inspection and maintenance be performed by professionally trained individuals, with experience in stormwater maintenance and disposal services. Maintenance procedures may require manned entry into the Jellyfish structure. Only professional maintenance service providers trained in confined space entry procedures should enter the vessel. Procedures, safety and damage prevention precautions, and other information, included in these guidelines, should be reviewed and observed prior to all inspection and maintenance activities.

Inspection: Inspection of the Jellyfish Filter is key in determining the maintenance requirements for, and to develop a history of the site's pollutant loading characteristics. In general, inspections should be performed at the times indicated below; or per the approved project stormwater quality documents (if applicable), whichever is more frequent.

- Post-construction inspection is required prior to putting the Jellyfish Filter into service. All construction debris or construction-related sediment within the device must be removed, and any damage to system components repaired.
- A minimum of two inspections during the first year of operation to assess the sediment and floatable pollutant accumulation, and to ensure proper functioning of the system.
- Inspection frequency in subsequent years is based on the inspection and maintenance plan developed in the first year of operation. Minimum frequency should be once per year. Inspection is recommended after each major storm event.
- Immediately after an upstream oil, fuel or other chemical spill.

Inspection activities are typically conducted from surface observations and include:

- Observe if standing water is present
- Observe if there is any physical damage to the deck or cartridge lids
- Observe the amount of debris in the Maintenance Access Wall (MAW)

The following procedure is recommended when performing inspections:

- Provide traffic control measures as necessary.
- Inspect the MAW for floatable pollutants such as trash, debris, and oil sheen.
- Measure oil and sediment depth by lowering a sediment probe through the

MAW opening until contact is made with the floor of the structure. Retrieve the probe, record sediment depth, and presences of any oil layers and repeat in multiple locations within the MAW opening. Sediment depth of 12 inches or greater indicates maintenance is required.

- Inspect cartridge lids. Missing or damaged cartridge lids to be replaced.
- Inspect the MAW, cartridge deck, and backwash pool weir, for cracks or broken components. If damaged, repair is required.
- Dry weather inspections: inspect the cartridge deck for standing water.
  - No standing water under normal operating condition.
  - Standing water inside the backwash pool, but not outside the backwash pool, this condition indicates that the filter cartridges need to be rinsed.
  - Standing water outside the backwash pool may indicate a backwater condition caused by high water elevation in the receiving water body, or possibly a blockage in downstream infrastructure.
- Wet weather inspections: observe the rate and movement of water in the unit. Note the depth of water above deck elevation within the MAW.
  - Less than 6 inches, flow should be exiting the cartridge lids of each of the draindown cartridges (i.e. cartridges located outside the backwash pool).
  - Greater than 6 inches, flow should be exiting the cartridge lids of each of the draindown cartridges and each of the hi-flo cartridges (i.e. cartridges located inside the backwash pool), and water should be overflowing the backwash pool weir.
  - 18 inches or greater and relatively little flow is exiting the cartridge lids and outlet pipe, this condition indicates that the filter cartridges are occluded with sediment and need to be rinsed.

Maintenance: Maintenance frequencies and requirements are site specific and vary depending on pollutant loading. Maintenance activities may be required in the event of an upstream chemical spill or due to excessive sediment loading from site erosion or extreme runoff events. It is a good practice to inspect the system after major storm events. Recommended maintenance activities typically include:

- Removal of oil, floatable trash and debris.
- Removal of collected sediments.
- Rinsing and re-installing the filter cartridges.
- Replace filter cartridge tentacles, as needed.

Required maintenance for the Jellyfish Filter is based upon results of the most recent inspection, historical maintenance records, or the site specific water quality management plan; whichever is more frequent. In general, maintenance requires some combination of the following:

- Sediment removal for depths reaching 12 inches or greater, or within 3 years of the most recent sediment cleaning, whichever occurs sooner.
- Floatable trash, debris, and oil must be removal.
- Filter cartridges rinsed and re-installed as required by the most recent inspection results, or within 12 months of the most recent filter rinsing, whichever occurs sooner.
- Replace filter cartridge if rinsing does not remove accumulated sediment from the tentacles, or if tentacles are damaged or missing. It is recommended that tentacles should remain in service no longer than 5 years before replacement.
- Damaged or missing cartridge deck components must be repaired or replaced as indicated by results of the most recent inspection.
- The unit must be cleaned out and filter cartridges inspected immediately after an upstream oil, fuel, or chemical spill. Filter cartridge tentacles should be replaced if damaged by the spill.

The following procedures are recommended when maintaining the Jellyfish Filter:

- Provide traffic control measures as necessary.
- Open all covers and hatches. Use ventilation equipment as required, according to confined space entry procedures.
- Caution: Dropping objects onto the cartridge deck may cause damage. Perform Inspection Procedure prior to maintenance activity.
- To access the cartridge deck for filter cartridge service, descend the ladder and step directly onto the deck. Caution: Do not step onto the maintenance access wall (MAW) or backwash pool weir, as damage may result. Note that the cartridge deck may be slippery.
- Filter Cartridge Rinsing Procedure
    - Remove a cartridge lid.
    - Remove the cartridge from the receptacle using the lifting loops in the cartridge head plate. Caution: Should a snag occur, do not force the cartridge upward as damage to the tentacles may result. Rotate the cartridge with a slight sideways motion to clear the snag and continue removing the cartridge.
    - Thread a rope or cord through the lifting loops and lift the filter cartridge from the cartridge deck to the top surface outside the structure.
    - Caution: Immediately replace and secure the lid on the exposed empty receptacle as a safety precaution. Never expose more than one empty cartridge receptacle.
    - Repeat the filter cartridge removal procedure until all of the cartridges are located at the top surface outside the structure.
    - Disassemble the tentacles from each filter cartridge by rotating counter-clockwise. Remove the tentacles from the cartridge head plate.

- Position a receptacle in a plastic tub or garbage can such that the rinse water is captured. Using a low-pressure garden hose sprayer, direct a wide-angle water spray at a downward 45° angle onto the tentacle membrane, sweeping from top to bottom along the length of the tentacle. Rinse until all sediment is removed from the membrane. Caution: Do not use a high pressure sprayer or focused stream of water on the membrane. Excessive water pressure may damage the membrane.
- Remove rinse water from rinse tub or garbage can using a vacuum hose as needed.
- Slip the O-ring over the pipe nipple on the top end of the tentacle and reassemble onto the cartridge head plate; hand tighten.
- If rinsing is ineffective in removing sediment from the tentacles, or if tentacles are damaged, provisions must be made to replace the spent or damaged tentacles with new tentacles. Contact Contech to order replacement tentacles.
- Lower a rinsed filter cartridge to the cartridge deck. Remove the cartridge lid on a receptacle and carefully lower the filter cartridge into the receptacle until the head plate gasket is seated squarely on the lip of the receptacle. Caution: Should a snag occur when lowering the cartridge into the receptacle, do not force the cartridge downward; damage may occur. Rotate the cartridge with a slight sideways motion to clear the snag and complete the installation.
- Replace the cartridge lid on the exposed receptacle. Check the fit before completing rotation to a firm hand-tight attachment. Rinse away any accumulated grit from the receptacle threads if needed to get a proper fit.
- Repeat cartridge installation until all cartridges are installed.

- Vacuum Cleaning Procedure
  - Caution: Perform vacuum cleaning of the Jellyfish Filter only after filter cartridges have been removed from the system. Access the lower chamber for vacuum cleaning only through the maintenance access wall (MAW) opening, being careful not to damage the flexible plastic separator skirt that is attached to the underside of the deck. The separator skirt surrounds the filter cartridge zone, and could be torn if contacted by the wand. Do not lower the vacuum wand through a cartridge receptacle, as damage to the receptacle will result.
  - To remove floatable trash, debris, and oil, lower the vacuum hose into the MAW opening and vacuum floatable pollutants off the surface of the water. Alternatively, floatable solids may be removed by a net or skimmer.
  - Using a vacuum hose, remove the water from the lower chamber to the sanitary sewer, if permitted by the local regulating authority, or into a separate containment tank.
  - Remove the sediment from the bottom of the unit through the MAW opening.

- For larger diameter Jellyfish Filter manholes (8-ft, 10-ft, 12-ft diameter), complete

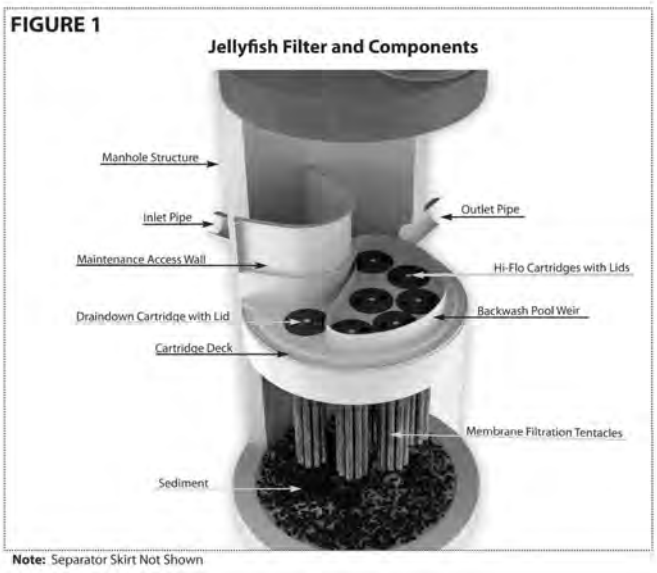
  sediment removal may be facilitated by removing a cartridge lid from an empty receptacle and inserting a jetting wand (not a vacuum wand) through the receptacle. Use the sprayer to rinse loosened sediment toward the vacuum hose in the MAW opening, being careful not to damage the receptacle.

- After the unit is clean, re-fill the lower chamber with water if required by the local jurisdiction, and re-install filter cartridges.

- Dispose of sediment, floatable trash and debris, oil, spent tentacles, and water according to local regulatory requirements.

- Chemical Spills
  - Caution: If a chemical spill has been captured by the Jellyfish Filter, do not attempt maintenance. Immediately contact the local hazard response agency, and contact Contech Engineered Services.

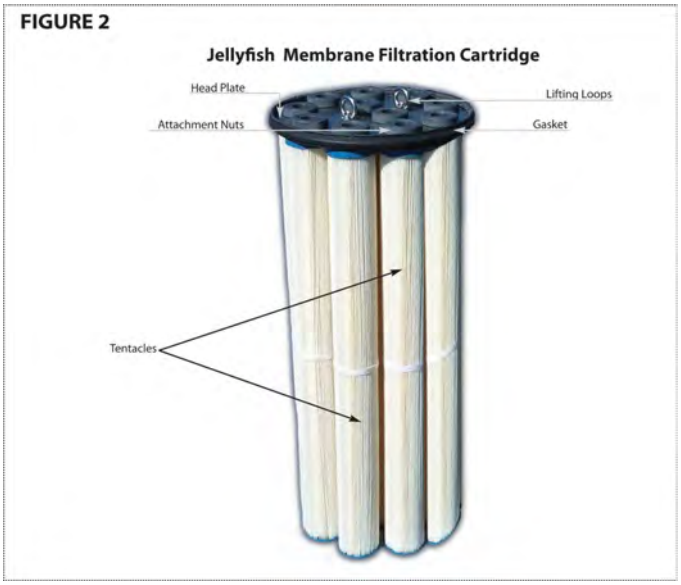
Below is a cut-away schematic of the Jellyfish Filter manhole with key components identified (6-ft. diameter manhole is depicted):



The Jellyfish Filter has no moving parts to wear out and therefore maintenance activities are generally focused on pollutant removal and filter cartridge service.

Below is a schematic of a Jellyfish Filter membrane filtration cartridge. Tentacles can be easily removed from the head plate and rinsed or replaced as needed.

FIGURE 2



Frequency: The Jellyfish Filter should be inspected a minimum of 2 times during the first year of operation and a minimum of once per year in subsequent years. Inspection is also recommended after each major storm event or immediately after an upstream oil, fuel or other chemical spill.

Maintenance/Inspection Responsibility:

Inspection Personnel: It is recommended that Jellyfish Filter inspection and maintenance be performed by professionally trained individuals, with experience in stormwater maintenance and disposal services. Maintenance procedures may require manned entry into the Jellyfish structure. Only professional maintenance service providers trained in confined space entry procedures should enter the vessel. Procedures, safety and damage prevention precautions, and other information, included in these guidelines, should be reviewed and observed prior to all inspection and maintenance activities.

Replacement Parts/Repairs: Jellyfish Filter cartridges, replacement tentacles, cartridge lids, and other system components can be ordered by contacting: Contech Engineered Solutions, 1-800-548-4667.

Comments: The benefits of regular inspection and maintenance are many from ensuring maximum operation efficiency, to keeping maintenance costs low, to the continued protection of natural waterways and provide the key to the Jellyfish Filter's long and effective service life.

F. PRETREATMENT SOLIDS REMOVAL (WATER QUALITY UNITS)

Preface: Certain vendors provide pre-manufactured systems which are effective in removal of suspended sediment particularly sand used for winter maintenance. Some of the units operate on a vortex principal with the sediment being swept from the stormwater stream and stored in the base of the unit. Other units are long linear units designed in accordance with Stokes Law. The units are constructed of durable materials requiring little maintenance of the physical component and typically are accessible via an at grade manhole cover.

The vendor of the unit should provide information on suggested maintenance which should be appended to this manual.

These units typically do not remove nutrients, metals, and dissolved materials.

Inspection: Most water quality units have an access manhole cover for inspection. The sediment storage zone is the bottom of the system and lies below the vortex in this type of unit or along the bottom. Because of the depth, a pole staff, or sludge judge is helpful in determining the depth of the sediment. Inspection should comply with applicable confined space regulations and vendor recommendations. Oil and floatables are also trapped in certain devices and should be removed.

Maintenance: The typical unit maintenance is the removal of sediment. Stantec Consulting Services Inc. typically recommends the units be inspected in the spring and late fall with adjustments based on historic operating experience.

The vendor may have specific scheduled maintenance schedules which should be followed.

The structural components of the system are principally stainless steel, concrete, and or climate resistant plastics.

Frequency: Twice per year or as outlined above.

Applicability: This system has three water quality units. The three linear units are in Zone A upstream of the underground sand filter.

Special Notes: These units are designed for a specific flow and catchment area. If the contributing watershed is increased, the need for design modifications or supplements to the water quality units should be examined.

G. IN-LINE STORAGE (UNDERGROUND DETENTION)

Preface: In-line storage may be used for storage of water ahead of treatment systems, or for buried underdrained filters. Because of the difficulty in access for inspection and maintenance, the units will be preceded with pretreatment to remove sediment.

The underground storage systems for this project include StormTech® chamber system for detention ahead of water quality treatment units or underground sand filter.

In-line storage systems typically have a restrictive outlet when used for detention. This outlet is a separate downstream appurtenance with orifices, weirs, and overflows.

Specific design cautions should be considered if in-line storage is used as part of a stormwater management system. In-line storage systems have multiple inspection ports. The locations should consider the need for confined space entry.

Inspection*:* Inspection of in-line storage systems should follow all protocols for confined space entry. Inspections should include:

- Observations of standing water and monitoring drainage to make sure drainage is achieved 72 hours after a rainfall of 1 inches or greater (annually) for Jellyfish® filter systems and 48 hours for underground sand filters.
- Sedimentation
- Outlet Controls
- Inlets
- Inspection of each isolated tank series, run of pipe, distribution of manhole, and header pipe

Maintenance*:* Maintenance of in-line storage systems will vary depending upon the extent of pretreatment, the nature of the receiving bodies, and the design. Leakage, accumulated sediment, and repairs of any damaged portion of the system should be performed immediately upon discovery.

Maintaining Responsibility: A contract for third party maintenance needs to be established before occupancy.

Frequency*:* After successful operation of the in-line storage system for one year or two major storms (whichever is longer), quarterly inspections are recommended except the drawdown test after a one-inch rain may be annually only. Maintenance repairs should be performed as soon as possible. The Site Location of Development Permit will require recertification on a periodic basis as stipulated by the permit conditions.

Applicability*:* Underground detention will be employed on this project

H. FILTERRA® TREE BOX FILTERS

Preface: The Filterra® units consist of a concrete container with an underdrain at the base, proprietary filtration media, a top layer of mulch and plants specifically selected for nutrient transformation and uptake. Access is provided through a surficial tree grate. Water enters through a curb inlet and discharges through the underdrain at the base of the tank. The Filterra® tree box type soil filter is installed upstream of an overflow catch basin.



Inspection:
Inspection of the Filterra® unit should include review of the health and condition of the plant material, the surficial mulch for

degradation and accumulation of debris and litter, and the curb inlet for clogging and debris.

Maintenance: Prune plant material during the spring and fall and replace top layer of mulch annually. The first year's maintenance shall be provided by the Manufacturer to ensure the systems are operating as intended. Ongoing inspection and maintenance shall be performed by a professional with knowledge of erosion and stormwater control, including a working knowledge of the Filterra®.

Frequency: Inspect quarterly and at any time when sustained ponding is observed near the inlet.
Maintenance/Inspection Responsibility: A third party inspection company with knowledge of stormwater controls, including a working knowledge of the Filterra® system.

Maintenance Personnel: An outside agent of Forefront Partners I, LP.

Comments: Maintenance of units are critical on this project to prevent short term clogging and replacement.

Applicability: There are several Filterra® units for the project.

I. SORBENT BOOMS

Preface: During construction, sorbent booms will be installed in the catch basins which have pavement areas. The intent of these is to absorb oil and runoff from new pavement surfaces. These will be removed and replaced when construction of the project is complete and should be inspected quarterly for the first year and annually thereafter.

Inspection: The sorbent boom should be raised out of the inlet, inspected, and replaced if necessary. Inspection should occur for the first year and annually thereafter concurrent with the catch basin cleaning.

Recommendation: It is recommended this project have additional sorbent booms or pillows onsite in the event of an unexpected spill or if oil sheen is observed frequently on any inlet.

Maintenance: The inspection and replacement should be conducted as part of a third party O&M contract and require disposal of used sorbent booms as "special wastes".

J. PARKING LOT CLEANING

To protect the catch basin sediment sumps, underground storage, Filterra® tree box, and Jellyfish® filter, it is recommended the parking lot be swept at mid winter and spring and that power washing with an appropriate vacuum/power wash vehicle be done once a year.

Maintenance: It is recommended this service be contract with the firm that maintains lawns and landscaping.

K. LITTER

Litter should be removed as a matter of course by workers and a part of the grounds maintenance contract.

L. SUMMARY CHECKLIST

The above described inspection and maintenance items have been summarized on a checklist appended hereto as Appendix C.

IV. PROGRAM ADMINISTRATION

A. GENERAL

A reliable administrative structure must be established to assure implementation of the maintenance programs described in the foregoing section. Key factors that must be considered in establishing a responsive administrative structure include:

1. Administrative body must be responsible for long-term operation and maintenance of the facilities.

2. Administrative body must have the financial resources to accomplish the inspection and maintenance program over the life of the facility.

3. The administrative body must have a responsible administrator to manage the inspection and maintenance programs.

4. The administrative body must have the staff to accomplish the inspection and maintenance programs, or must have authority to contract for the required services.

5. The administrative body must have a management information system sufficient to file, retain, and retrieve all inspection and maintenance records associated with the inspection and maintenance programs.

If any of the above criteria cannot be met by the entity assigned inspection and maintenance responsibilities, it is likely that the system will fail to meet its water quality objectives at some point during its life. While each of the above criteria may be met by a variety of formats, it is critical to clearly establish the assigned administrative body in a responsible and sustainable manner.

B. RECORD KEEPING

Records of all inspections and maintenance work accomplished must be kept and maintained to document facility operations. These records should be filed and retained for a minimum 5-year time span. The filing system should be capable of ready retrieval of data for periodic reviews by appropriate regulatory bodies. Where possible, copies of such records should also be filed with the designated primary regulatory agency for their review for compliance with permit conditions. Typical inspection and maintenance record forms are attached hereto as Appendix B.

C. CONTRACT SERVICES

In some instances or at specific times, the Maintenance Personnel may not have the staff to conduct the required inspection and/or maintenance programs as outlined in this document. In such cases the work should be accomplished on a contractual basis with a firm or organization that has the staff and equipment to accomplish the required work.

The service contract for inspection and maintenance should be formal, well written legal document which clearly defines the services to be provided, the contractual conditions that will apply, and detailed payment schedules. Liability insurance should be required in all contracts.

APPENDIX A

Sample Inspection Logs

THE FORERONT AT THOMPSON'S POINT
PORTLAND, MAINE

STORMWATER MANAGEMENT
IN-LINE STORAGE
ANNUAL INSPECTION & MAINTENANCE LOG

FACILITY:		**YEAR:**	
LOCATION:		**CONTRACTOR:**	
FUNCTION:		**INSPECTOR:**	
DATE OF INSPECTION:			
ITEM IDENTIFICATION	**DESCRIPTION OF CONDITIONS**	**MAINTENANCE ACCOMPLISHED**	**DATE OF MAINTENANCE**
GENERAL COMMENTS:			

THE FOREFRONT AT THOMPSON'S POINT
PORTLAND, MAINE

STORMWATER MANAGEMENT
IN-LINE STORAGE
MONTHLY INSPECTION & MAINTENANCE LOG

FACILITY:			YEAR:			
LOCATION:			CONTRACTOR:			
FUNCTION:						
				OVERFLOW WEIR		
MONTH	DAY	INSPECTOR	WATER DEPTH	CLEAR	DEBRIS	WEIR CONDITION
JANUARY						
FEBRUARY						
MARCH						
APRIL						
MAY						
JUNE						
JULY						
AUGUST						
SEPTEMBER						
OCTOBER						
NOVEMBER						
DECEMBER						
LIST SPECIAL MAINTENANCE UNDERTAKEN:						

THE FOREFRONT AT THOMPSON'S POINT
PORTLAND, MAINE

STORMWATER MANAGEMENT
IN-LINE STORAGE
SEMI-ANNUAL INSPECTION & MAINTENANCE LOG

SEMI-ANNUAL INSPECT 1.2	FACILITY:
DATE:	LOCATION:
INSPECTOR:	FUNCTION:
WEIR CONDITION:	
OUTLET CONDITION	

FORE BAY SUMP	EST. DEPTH SED.	REMOVED? Y/N	EST. VOL. CY	WHERE DISPOSED OF	STRUCTURAL CONDITION

CONTROL STRUCTURE:
DESCRIBE CONDITIONS FOUND & MAINTENANCE ACCOMPLISHED:

APPENDIX B

Permits for Project

(To be Added at a Subsequent Time)

APPENDIX C

Summary Checklist
Inspection and Maintenance

Stormwater Management System Maintenance Program Summary Checklist						
		Frequency				
Item	Commentary	Monthly	Quarterly	Semi-Annual	Annual	Long Term
Control Structure	Inspect outlet control to assure it maintains its hydraulic characteristics. Inspect inlets for blockage.		X			
Stormwater Inlets in Series	Stormwater inlets allow flow entry from a surface swale to a piped system. Entry may or may not be equipped with a bar rack. Inspect entry for debris accumulation. Remove debris to allow unimpeded entry. Lawn clippings and leaves should be removed from yard areas.	X			X Clearing	
Tributary Drainage	Inspect to assure that the carrying capacity has not been diminished by debris, sediment or other hydraulic impediments.				X	
Jellyfish® Filter	The operation and maintenance of the Jellyfish® filter system is limited to annual inspections and solids removal on an as-needed basis.			X First year only	X	X
In-Line Storage (Underground detention)	Inspect for standing water not anticipated, sedimentation, outlet control, inlets. Jet Stream sediment removal from Isolator Row				X	X
Filterra® Units (or approved equal)	The Filterra® units should be inspected for sedimentation accumulation in the sump and mulch area. Replace mulch, prune plant(s), clean Isolator Row.				X	
Sorbent Booms	Sorbent boom should be raised out of the inlet, inspected, and replaced if necessary.		X For first 12 months		X After first year	
Parking Lot Cleaning	Parking lot be swept at mid winter and spring. Power washing with an appropriate vacuum/power wash vehicle be done once a year.			X	X	
Litter	Litter should be removed daily.					

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
55 Portland Street,
Portland, Maine 04101-2991

Bradley Roland, P.E.
Water Resources Division

Date: 2024.08.23

1. Please, Submit Utility, Site, and Locus Plans.

Site Address: 125 Thompson's Point Rd

Chart Block Lot Number: 201/A/005 - Lot 17

Proposed Use: Multi-Family Residential

Previous Use: N/A

Existing Sanitary Flows: 0 GPD

Existing Process Flows: 0 GPD

Description and location of City sewer that is to receive the proposed building sewer lateral.

Thompson's Point Pump Station

Site Category		
	Commercial *(see part 4 below)*	
	Industrial *(complete part 5 below)*	
	Governmental	
	Residential	X
	Other *(specify)*	

Clearly, indicate the proposed connections, on the submitted plans.

2. Please, Submit Contact Information.

City Planner's Name: Matt Grooms Phone: 207-756-8083

Owner/Developer Name: Cathartes

Owner/Developer Address: 501 Danforth Street, Portland, ME

Phone: 617-840-4778 Fax: E-mail: robs@cathartes.com

Engineering Consultant Name: Bo Kennedy, P.E.

Engineering Consultant Address: 18 Van Aken Way Portland, ME

Phone: 207-747-5288 ext 5 Fax: 207-747-5288 E-mail: bo@placemakerpartners.com

Note: Consultants and Developers should allow +/- 15 days, for capacity status, prior to Planning Board Review.

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: 38,670 GPD

Peaking Factor/ Peak Times: 6/ Morning Hours

Specify the source of design guidelines: *(i.e. "Handbook of Subsurface Wastewater Disposal in Maine," __ "Plumbers and Pipe Fitters Calculation Manual," __ Portland Water District Records, Other (specify)* Maine Subsurface Disposal Rules

Note: Please submit calculations showing the derivation of your design flows, either on the following page, in the space provided, or attached, as a separate sheet.

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values: N/A

Size of External Grease Interceptor: N/A

Retention Time: N/A

Peaking Factor/ Peak Times: N/A

Note: In determining your restaurant process water flows, and the size of your external grease interceptor, please use The Uniform Plumbing Code. Note: In determining the retention time, sixty (60) minutes is the minimum retention time. Note: Please submit detailed calculations showing the derivation of your restaurant process water design flows, and please submit detailed calculations showing the derivation of the size of your external grease interceptor, either in the space provided below, or attached, as a separate sheet.

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated: N/A GPD

Do you currently hold Federal or State discharge permits? Yes ____ No ____

Is the process wastewater termed categorical under CFR 40? Yes ____ No ____

OSHA Standard Industrial Code (SIC): *(http://www.osha.gov/oshstats/sicser.html)*

Peaking Factor/Peak Process Times: _____

Note: On the submitted plans, please show where the building's domestic sanitary sewer laterals, as well as the building's industrial-commercial process wastewater sewer laterals exits the facility. Also, show where these building sewer laterals enter the city's sewer. Finally, show the location of the wet wells, control manholes, or other access points; and, the locations of filters, strainers, or grease traps.

Note: Please submit detailed calculations showing the derivation of your design flows, either in the space provided, or attached, as a separate sheet.

Proposed and Existing Forefront at Thompson's Point Development
Estimated Thompson's Point Wastewater Design Flows

	Quantity	Unit	Flow per Unit	Total Design Flow (GPD)
Hotel				
Hotel	*90,000*	*SF*		
	148	Room(s)	100 gpd/room	14,800
	20	Employee	12 gpd/employee	240
Hotel Service Restaurant (3 meals/day)	5,620	SF +/-		
	174	Seat(s)	30 gpd/seat	5,220
	10	Employee	12 gpd/employee	120
			Hotel Subtotal	**20,380**
Brick North - Building A				
Mixed Use			Previously Calc. 2015.11.05	5,441
			Brick North Subtotal	**5,441**
Brick South - Building C				
Event/Assembly Space			Previously Calc. 2015.11.05	12,500
			Brick South Subtotal	**12,500**
CMTM				
Cultural Center	555	Visitors	6 gpd/Visitor	3,330
	15	Employee	15 gpd/Employee	225
			CMTM Subtotal	**3,555**
Lot 11 Redevelopment				
F2 - Artist Studio and Presentation Space	1,888	SF	**100 gpd**	**100**
Office Use/Sudios	6	Employee	**12 gpd/employee**	**72**
			either or which ever is >	**100**
Event/Assembly Space	50	Seats	5 gpd/seat	**250**
			Studio Subtotal	**350**
F1 - Warehouse	13,000	SF	**100 gpd**	**100**
	30	Employee	**12 gpd/employee**	**360**
			either or which ever is >	**360**
			Lot 11 Subtotal	**710**
B2 Concessions	1,280	SF	**100 gpd**	**100**
	600	Visitors	**5 gpd/Visitor**	**3,000**
	5	Employee	**either or which ever is >**	**3,000**
			Lot 9 Subtotal	**3,000**
G - Multi-Family Residential	22	Studios		
	101	1 Bedroom	**120 gpd - single bedroom & Studios**	**17,520**
	23	1 Bedroom +	**180 gpd - two bedroom (90 gpd/bedroom)**	**16,560**
	92	2 Bedroom	**270 gpd - three bedroom**	**4,590**
	17	3 Bedroom	**Lot 17 Subtotal**	**38,670**
	255	Units		
			Total Cumulative Site Flow	**84,256 GPD**

THIS APPLICATION PHASE

Assumptions:

Hotel	Hotel and Rest. Share kitchen	Seats per prelim. Floor plan
Brick North	Calculated as part of Level III in 2015	
Brick South	Calculated as part of Level III in 2015	
Artist Studio	Calculated assuming it will operate like an office with indivudual spaces occupied	

References:

Chapter 241 State of Maine Subsurface Disposal Rules, DHS; January 18, 2011
Site Master Plan, September 2015
Traffic Study, Gorrill-Palmer, September 2015
Mechanical Engineer, Bennett Engineering October 2015

From:	Bo Kennedy
To:	AMaP MEANS; Robert Bartels
Subject:	Thompson"s Point - Building G - Ability To Serve
Date:	Monday, August 26, 2024 11:32:00 AM
Attachments:	C - SITE PLANS (EX-OVRLL-UTIL).pdf 2024.08.26 - BLDG G - City Wastewater Application.pdf L- LANDSCAPE PLANS.pdf Multi-unit Resi - Peak Domestic Water Flow Based on Fixture Count_2016.xlsx

---

Hello Rob,

I'm writing on behalf of Cathartes, a development group partnering with Forefront Partners to construct a 255 Unit Multi-Family residential building (referred to as Building G on the updated Master Development Plan) in the North westerly corner of the Subdivision Plan. Development on Lot 17 of the Sectional 4 Subdivision Plat, anecdotally referred to as the "Panhandle", is being developed in accordance with the Master Development Plan and Subdivision Plan approved on or about 2014 and 2015, respectively. This portion of the project will be submitted for the Planning Authority and Planning Board review as part of a Major Site Plan Application.

I have enclosed some Draft plans, the City's Wastewater Application, and peak domestic water flow spreadsheet for review and consideration in advance of the imminent Site Plan Application Submission. I am also sending this information to the City of Portland Wastewater Department for their Review.

I am seeking an updated "Ability To Serve" letter from all utilities at this time. If your department can provide the applicant with this level of assurances, we will continue to work with the Department on the design details over the course of the Site Plan Review.

Please contact me if you have any questions.

Sincerely,

Bo Kennedy P.E.
Project Manager/Engineer

Placemaker Partners, LLC
18 Van Aken Way
Portland, ME 04102
Tel. (207) 747-5288 Ext. 5
bo@placemakerpartners.com

Unitil
ME GAS OPERATIONS

June 11, 2024

Bo Kennedy
Placemaker Partners, LLC
18 Van Aken Way
Portland, ME 04102

Re: Ability to Serve for 125 Thompson's Point Rd, Portland ME

Dear Bo,

Thank you for your interest in using natural gas for the above referenced project.

This is to confirm that natural gas can be made available from our distribution system to serve your proposed project.

Any improvements to the existing distribution system that are necessary to provide this service, as well as the design of the gas system in the project itself, will be established as the overall design and scope of your project progresses.

All work necessary to provide service will be performed in accordance with the Maine Public Utilities Commission requirements.

If you have any further questions or require additional information, please contact me directly at (207) 541-2536 or email at morrisons@unitil.com.

Sincerely,

Sara Morrison
Sara Morrison
Business Development Representative
(T) 207-541-2536 (F) 207-541-2536

ME GAS OPERATIONS
376 Riverside Industrial Parkway
Portland, ME 04103-3586

T 207.541.2508 www.unitil.com

From:	MITCHELL, JOSHUA
To:	Bo Kennedy
Subject:	CMP Three Phase Service Process and Ability to Serve Letter for 125 Thompson's Point Road in Portland Maine
Date:	Monday, July 1, 2024 10:00:21 AM
Attachments:	image001.png Easement_Information_Worksheet.doc blank W9.pdf Standard Easement Sample.pdf EDET.xlsx

---

Bo Kennedy
Placemaker Partners, LLC
501 Danforth Street
Portland, ME 041

RE: 125 Thompson's Point Road in Portland
Letter of Ability to Serve Request

SAP: 10301097388
Project Description:

The proposed development includes 255-unit residential building and approximately 455 car structured garage with Electric Vehicle charging located at 125 Thompson's Point Road, Portland, ME 04102. The proposed residential development is expected to provide 255 units consisting of Studio, 1 bedroom, 2 bedroom, and 3-bedroom apartments with commons areas and amenities.

CMP has the ability to serve the proposed project in accordance with our CMP Handbook (web link below). We can provide you the desired pad or pole mounted transformers per your request and city approval, in accordance with our CMP Handbook of Standard Requirements. If you have any questions on the process, or need help in completion of the documents, please contact CMP at 800-565-3181.

Here is our typical process for getting your three phase or CT rated single phase service installed. If you have any questions, please let us know. The underlined links will redirect you to the appropriate site for additional information.

Service Milestones for Three Phase Services and CT Rated Single Phase Services. There are additional requirements for primary metered Solar Service Installations listed in the Chapter 324 Interconnections section below. Please refer to CMP Installation Checklists for other installations.

- Call 800-750-4000 option 4 to establish a new account (if needed) and an SAP work order. Please provide both of these to me.
- Submit Load information. Please complete the attached EDET (excel file) using load information. Please complete this and email back to me. If the loads are over 500 kw, more in depth load studies may be required with our Distribution Planning and Transmission Planning Departments. Be advised that these will involve more detailed load information, a load study agreement (signed contract), as well as other items. This additional study process may add up to two additional months to completion of the job.

- Submit the easement information worksheet, including where any CMP structures may be on ANY private property (Poles, Wires, Anchors). You are responsible for obtaining all information for all required easements. Please complete this form and either email or fax back to me.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections.
- For Primary Metered installations (including PV), please have the access road in for pole staking.
- Preliminary meetings with CMP Advisor and Engineer to determine details of job (I will need to schedule with your electrician/contractor-please let me know who this is)
- Field planner design appointment scheduled once the preliminary information is complete. This will allow us to cost out the job and develop a CMP Invoice. The invoice is typically generated 5-6 weeks after the design appointment. This expires after 90 days from the invoice date.
- Submit completed W9 so that your bill can be properly processed. This is a new CMP process.
- CMP submits invoice to the customer for payment (typically via email). Payment received from customer.
- Easements (based on easement information worksheet) sent out, signed and originals returned to CMP.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer or materials delivery, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

As you may be aware, there are global supply chain issues impacting the utility industry. CMP is closely monitoring and managing their inventory in order to serve our customers. Larger padmount transformers may not be readily available for the date that you will need to be energized. Please consider this as part of your construction plan. The energy service advisor will continue to work closely with you and let you know as soon as the transformer becomes available. Should you have any questions or concerns throughout this process, please do not hesitate to contact your ESA directly at the number or email provided.

Please complete the attached forms (the specific instructions are on each form). Please email them at your earliest convenience. If you are returning an Easement Form, a 1190 or State Permit please be sure to send those documents to lineclerknewservice@cmpco.com, All W9's should be sent to gettingconnected@cmpco.com. All other forms including the EDET (load sheet) and technical information should be sent to me.

For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements: CMP Handbook of Standard Requirements An additional resource is our Distribution Construction Standards: CMP Distribution Construction Standards CMP Distribution Construction Standards.

You will be responsible for installing the customer connections, conduits, and metering in accordance with the CMP Handbook of Standard Requirements The transformer will be sized based on your submitted load sheets.

Your deposit amount will be typically based on an estimated two month bill, calculated from your completed load sheet unless otherwise determined by CMP.

In addition, we have recently added on an online map that shows single phase and three phase power locations within CMP. Here is that link: CMP ArcGIS Information

Metering:

All metering (including locations) must be preapproved by CMP. If you have any questions, please consult the CMP Handbook of Standard Requirements

Chapter 324 Interconnections:

Please be advised that if you plan to install solar/wind/hydro generation, you must complete an application under the MPUC mandated Chapter 324 Interconnection Standards. If you go to Chapter 324 Interconnection Standards and follow the instructions for the Small Generator Interconnection Procedures, CMP can do this work in parallel to your service request that will be handled by me. If you project is under 660 KW You will be able to have a Customer Net Energy Billing contract. Information concerning Customer Net Energy Billing can be accessed thru the Chapter 324 website or by clicking here: Net Energy Billing

Reallocation/Line Extensions:

Recently, changes were made to the three-phase construction policy, which require CMP to reallocate construction costs paid by customers. If applicable, those projects identified as "developments" do not qualify for reallocation of funds. Please see this document at our website for details about the reallocation conditions. Any reallocation charges will be specifically denoted on your invoice. The website address for this is: PolyphaseLineExtension.

This line extension will be part of Central Maine Power's distribution system. In the event the property served under this Agreement is sold or otherwise conveyed, all rights and obligations of the Agreement shall stay with the property. Please note that if you rent or lease this property to another and you want to receive the reimbursement payments, you must make special arrangements with the Central Maine Power Company. Otherwise, any reimbursement payments will be sent to the "Customer" taking service at the service location.

Electricity Supplier Information:

Central Maine Power Company (CMP) will provide your facility with electric delivery service. If you don't already have a provider, you will need to make arrangements with a competitive electricity provider in order to receive electricity supply for your facility. In the event you fail to choose a

competitive electricity provider, you will receive Standard Offer service arranged by the Maine Public Utilities Commission. If you wish to be served by a competitive electricity provider immediately upon establishment of delivery service, you must arrange for this service directly through your chosen competitive electricity provider, who must enroll your account no later than 5 PM on the business day prior initiation of delivery service by CMP. An up-to-date list of competitive suppliers can be found at the:

1. Maine Public Utilities Commission (MPUC) web site- **Maine PUC**
2. By calling the MPUC at (207) 287-3831

Best regards,

Josh



Joshua Mitchell
Energy Service Specialist
Portland Service Area
207-200-0333
Joshua.Mitchell@cmpco.com

Internal Use

Please consider the environment before printing this email.
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PORTLAND FIRE DEPARTMENT
SITE REVIEW
FIRE DEPARTMENT CHECKLIST

SEE ATTACHED C-9.0 FIRE SAFETY COMPLIANCE PLAN

A separate drawing[s] shall be provided as part of the site plan application for the Portland Fire Department's review.

1. Name, address, telephone number of applicant
2. **CPI MANAGMENT, LLC (Cathartes) 11 Portwalk Place Portsmouth, NH 03801 Ph - 1.617.840.4778**
3. Name address, telephone number of architect
   Embarc 580 Harrison Avenue, Suite 2W Boston, MA 02118 Ph - 1.617.765.8000
4. Proposed uses of any structures [NFPA and IBC classification]
5. **Embarc .....**
6. Square footage of all structures [total and per story]
   50,208 SF Floor Area per 6 stories; 301,248 SF Gross Building Area
7. Elevation of all structures
   See Plan Sheets A-2.1, 2.2, and 2.3 for Building Elevations
8. Proposed fire protection of all structures
   - ***As of September 16, 2010 all new construction of one and two family homes are required to be sprinkled in compliance with NFPA 13D. This is required by City Code. (NFPA 101 2009 ed.)***

   Sprinkler meeting NFPA 13 and NFPA 14
9. **1 Public Hydrant & 2 Private Hydrants - See Plan Sheets C-4.0 (Utility Plan) & C9.0 (Fire Safety Plan)**
10. Water main[s] size and location
    12" Water Main See Plan Sheets C-4.0 (Utility Plan) & C9.0 (Fire Safety Plan)
11. Access to all structures [min. 2 sides]
    See Plan Sheets C-4.0 (Utility Plan) & C9.0 (Fire Safety Plan)
12. A code summary shall be included referencing NFPA 1 and all fire department. Technical standards.
    See Plan Sheet C9.0 (Fire Safety Plan)

Some structures may require Fire flows using annex H of NFPA 1

3. CODE SUMMARY PER NFPA 1 AND FIRE DEPT. TECHNICAL STANDARDS FOR PROPOSED MULTI-FMILY HOUSING

FIRE/BUILDING CODES:

-THE BUILDING WILL BE DESIGNED IN ACCORDANCE WITH THE CITY BUILDING CODE, AS WELL AS ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES/LAWS. THE BUILDING WILL BE FULLY SPRINKLERED IN ACCORDANCE WITH NFPA 13, AND WILL HAVE FIRE DETECTION/ALARM SYSTEMS AS DICTATED BY NFPA 72 AND THE UNDERLYING CODES.

TECHNICAL STANDARD 3.2 - FIRE HYDRANTS:

-THERE IS (1) MUNICIPAL FIRE HYDRANT AND (2) PROPOSED PRIVATE HYDRANT LOCATED WITHIN 500 FEET RADIUS OF THE BUILDING. PLEASE SEE THE ATTACHED FIRE SAFETY COMPLIANCE PLAN C-9.0.

TECHNICAL STANDARD 3.3 - SINGLE AND TWO FAMILY RESIDENTIAL DEVELOPMENT:

-MULTI-FAMILY BUILDING WILL BE FULLY SPRINKLERED

TECHNICAL STANDARD 3.4 - SITE ACCESS STANDARDS:

3.4.1. - PRIVATE ROAD PROVIDES TURNAROUND DESIGNED TO ACCOMODATE 45' LADDER TRUCK

3.4.2. - FIRE DEPARTMENT ACCESS IS PROVIDED VIA THOMPSON'S POINT ACCESS ROAD AND A PRIVATE DRIVE FOR ACCESS TO 2 SIDES OF THE BUILDING.

3.4.3. - ZONING DOES NOT REQUIRE BUILDING SETBACKS

3.4.4. - FIRE DEPARTMENT ACCESS ROADS EXTEND TO WITHIN 50' OF ENTRANCES TO BUILDING

3.4.5. - ALL SITE ACCESS PROVIDES NO LESS THAN 9 FEET IN CLEARANCE HEIGHT.

3.4.6. - ALL ELEVATORS WILL ACCOMMODATE AN 80 X 24 STRETCHER.

3.4.7. - THE STREET NUMBERING AND 911 ADDRESS HAS BEEN REVIEWED AND APPROVED BY THE CITY OF PORTLAND PUBLIC WORKS.

3.4.8. - THE BUILDING WILL DISPLAY THE ASSIGNED STREET NUMBERS. ANTICIPATED 911 ADDRESS IS 125 THOMPSON'S POINT ROAD.

TECHNICAL STANDARD 3.5 - STANDARDS FOR EMERGENCY ACCESS LANES AND GATES:

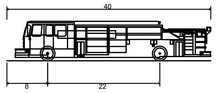
ALL ACCESS ROADS EXCEED 16' IN WIDTH AND ROAD RADIUS CAN ACCOMMODATE A 40' LONG FIRE TRUCK

TECHNICAL STANDARD 3.6 - SUBDIVISION STANDARDS:

APPROVED SUBDIVISION WITH 1 ACCESS ROAD

TECHNICAL STANDARDS 3.7 THROUGH 3.11 - STANDARDS FOR BLASTING AND REGULATION OF EXPLOSIVES:

-GEOTECHNICAL EXPLORATIONS WERE PERFORMED AND THE SUBSURFACE CONDITION DOES NOT CONTAIN BEDROCK. BASED ON THE FINDINGS, LARGE BLAST OPERATIONS ARE NOT ANTICIPATED.



Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	7.745ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

FIRE TRUCK VEHICLE PROFILE
N.T.S

NORTH

26' WIDE SWING GATE WITH CLICK TO ENTER ACCESS

FIRE TRUCK TURNING MOVEMENT SIMULATION (10 MPH) VEHICLE: 40' FIRE TRUCK, SEE PROFILE

GARAGE ENTRANCE LOCATION

PROPOSED PRIVATE HYDRANT

6' CLEAR RADIUS AROUND HYDRANT (TYP.)

BIKE STORAGE (62 BIKES)

FIRE DEPARTMENT CONNECTION

PROPOSED PARKING GARAGE
25,943 S.F. FLOOR AREA
(6 FLOORS)
(457 PARKING SPACES)

WATER ROOM

ELEC. ROOM

UTILITIES MECHANICAL ROOM

BIKE ROOM

TRASH ROOM

DOG WASH ROOM

ANNUNCIATOR PANEL

ENTRANCE LOCATION

DROP-OFF PARKING

PROPOSED PRIVATE HYDRANT

EXISTING PUBLIC HYDRANT
STATIC PRESSURE PSI 112±
RESIDUAL PRESSURE TESTED 102 PSI ±

100' (TYP.)

350' (TYP.)

PROPOSED RESIDENTIAL BUILDING G
50,208 S.F. FLOOR AREA
6 FLOORS/ 255 UNITS

KNOX BOX (TYP.)

RETAINING WALL

16' WIDE FIRE ACCESS LANE (GRASS PAVERS)

BOCCE COURT

6.5'x22' PERGOLA

6.5'x5' SHED

POOL

COVERED WET BAR

PERGOLA (TYP. OF 2)

16' WIDE FIRE ACCESS LANE (GRASS PAVERS OR EQUAL)

PUMP STATION

GRAVEL LOT

EX. TRAIL

EX. BRIDGE

OAK

RAMP

HAT=7.2'

PRELIMINARY – NOT FOR CONSTRUCTION

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

REV	DATE	DESCRIPTION
1	8/9/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

XX-XX-XX
P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

SHEET TITLE
FIRE SAFETY PLAN

CLIENT
CATHARTES

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN: DB	DATE: AUGUST 2024
DESIGNED: BEK	SCALE: 1" = 20'
FILE NAME: PANHANDLE-FIRE SAFETY.dwg	
SHEET C-9.0	

C:\Users\diana\Dropbox\DCS-Projects\Placemaker\Thompson's Point\Panhandle\Plans\Site Plan\CAD\PANHANDLE-FIRE SAFETY.dwg diana 8/22/2024 1:01 PM

APPENDIX A

EXPLORATION LOCATION PLAN

INTERPRETIVE CROSS SECTIONS

PLAN REFERENCE

"CONCEPTUAL GRADING PLAN, THE FOREFRONT AT THOMPSON'S POINT RESIDENTIAL BUILDING - G", DATED FEBRUARY 2024, PREPARED BY PLACEMAKER PARTNERS, LLC.

REVISED: 6-26-2024 - CORRECTED F.F.E. 27 TO 28

PROJECT: THE FOREFRONT AT THOMPSON'S POINT
PORTLAND, MAINE

CLIENT: CATHARTES

TITLE: EXPLORATION LOCATION PLAN

SCALE: 1" = 50'

DATE: MAY 7, 2024

DRAWN BY: KRF

APPR. BY: CWC

PROJ.#: 24098

FIGURE: 1

SUMMIT
GEOENGINEERING SERVICES

MAIL: P.O. BOX 515
GARDINER, ME 04345

OFFICE: 210 MAINE AVENUE
FARMINGDALE, MAINE
TEL.: (207) 446-3360

LEGEND

B-1	SUMMIT TEST BORING (MAY 2024)
CPT-1	SUMMIT CONE PENETRATION TEST (MAY 2024)
TP-1	SUMMIT TEST PIT (MAY 2024)
TP-1	SUMMIT TEST PIT (JUNE 2017)
MA-1	McPHAIL ASSOC. TEST PIT (APRIL 2022)

SCALE: 1" = 50'

0 25 50 100 150

(SUMMIT #17173)
TP-3
BOR MA-1
2022, BY OTHERS
(+3')
EXISTING GRADE
(+10')
CPT-4
(+10')
TP-6
(+10')
B-6
(+10')
CPT-5
(-38')
B-7
EXISTING GRADE
(+12')
CPT-9
FILL
GLACIAL MARINE
Su=1000 psf (FV-1 TO FV-4)
Su=1125 psf
FV-1
FV-2
FV-3
FV-4
FV-5
Su=800 psf FV-3
Su=750 psf FV-5
Su=750 psf FV-7
FV-1 Su=950 psf
FV-2 Su=850 psf
FV-4 Su=700 psf
FV-6 Su=800 psf
FV-8 Su=600 psf
PROBABLE BEDROCK

CROSS SECTION A

SCALE: HORIZ. - 1" = 40'
VERT. - 1" = 20'

0 20 40 80 120(H)
0 10 20 40 60(V)

EXISTING GRADE
(-5')
TP-1
(+46')
TP-4
(+16')
CPT-3
(+42')
CPT-1
FILL
(+13')
B-5
FILL/REWORKED
(+15')
TP-7
(+16')
CPT-6
(-19')
TP-9
EXISTING GRADE
(+14')
B-1
(-19')
TP-11
FILL/REWORKED
(-19')
CPT-8
GLACIAL MARINE
NO REFUSAL
UT-1
Su=100 psf FV-2
Su=100 psf FV-4
UT-2
Su=550 psf FV-7
Su=600 psf FV-9
UT-3
Su=700 psf FV-12
Su=700 psf FV-14
Su=800 psf FV-16
FV-1 Su=850 psf
FV-3 Su=700 psf
FV-5 Su=650 psf
FV-6 Su=650 psf
FV-8 Su=600 psf
FV-10 Su=600 psf
FV-11 Su=450 psf
FV-13 Su=500 psf
FV-15 Su=900 psf
PROBABLE BEDROCK

CROSS SECTION B

PROJECT: THE FOREFRONT AT THOMPSON'S POINT
PORTLAND, MAINE

CLIENT: CATHARTES

TITLE: CROSS SECTIONS A & B

SCALE: AS NOTED

DRAWN BY: KRF

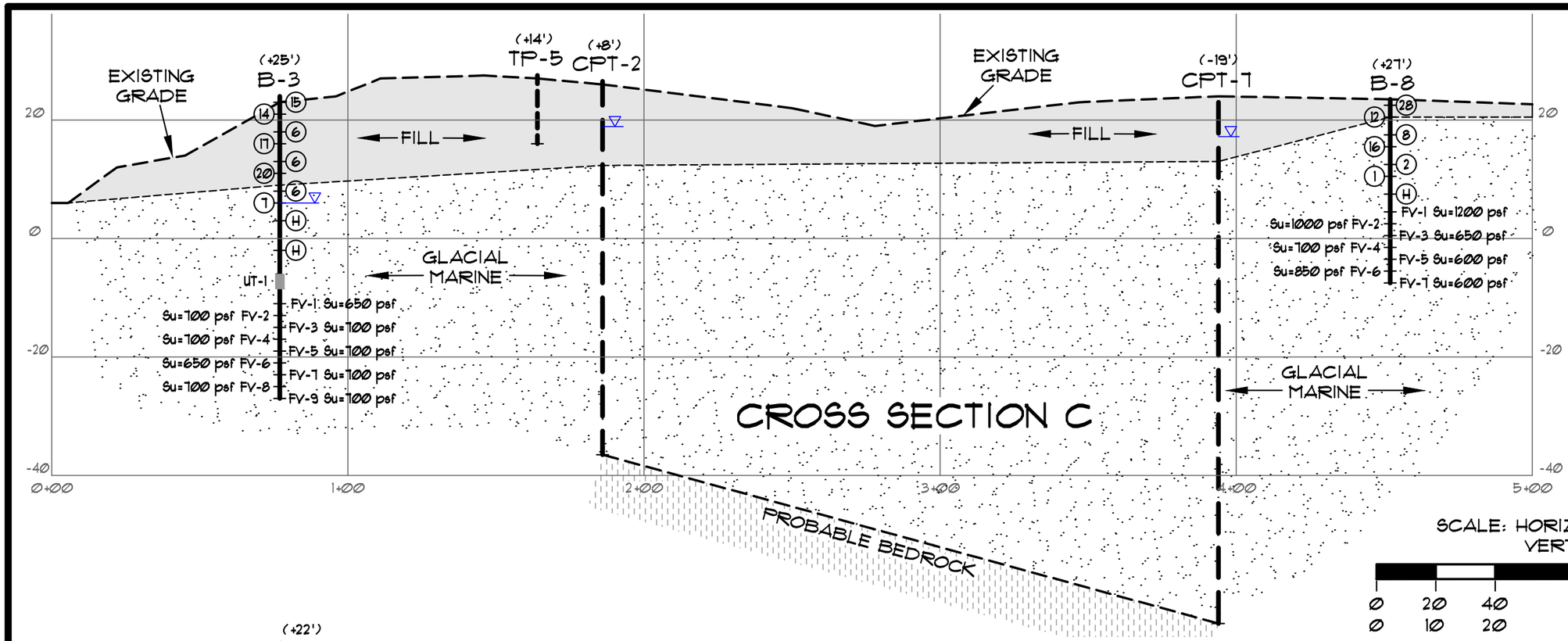
APPR BY: CWC

DATE: JUNE 13, 2024

SUMMIT
GEOENGINEERING SERVICES
MAIL: P.O. BOX 515
GARDINER, ME 04345
OFFICE: 210 MAINE AVENUE
FARMINGDALE, MAINE
TEL.: (207) 446-3360

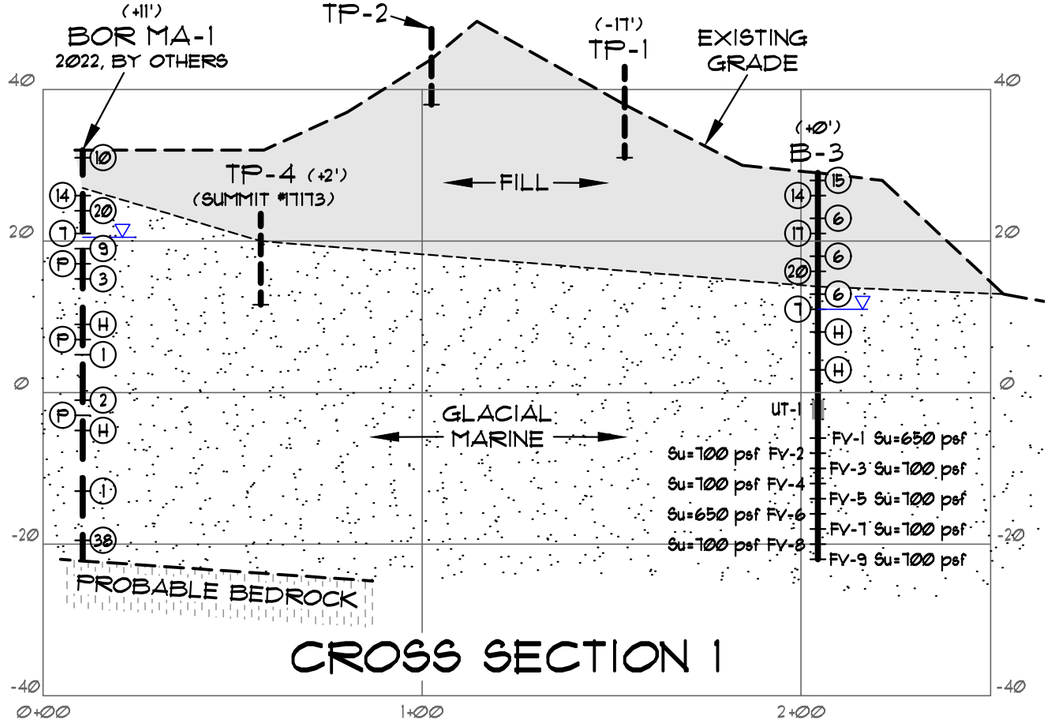
PROJ.#: 24098

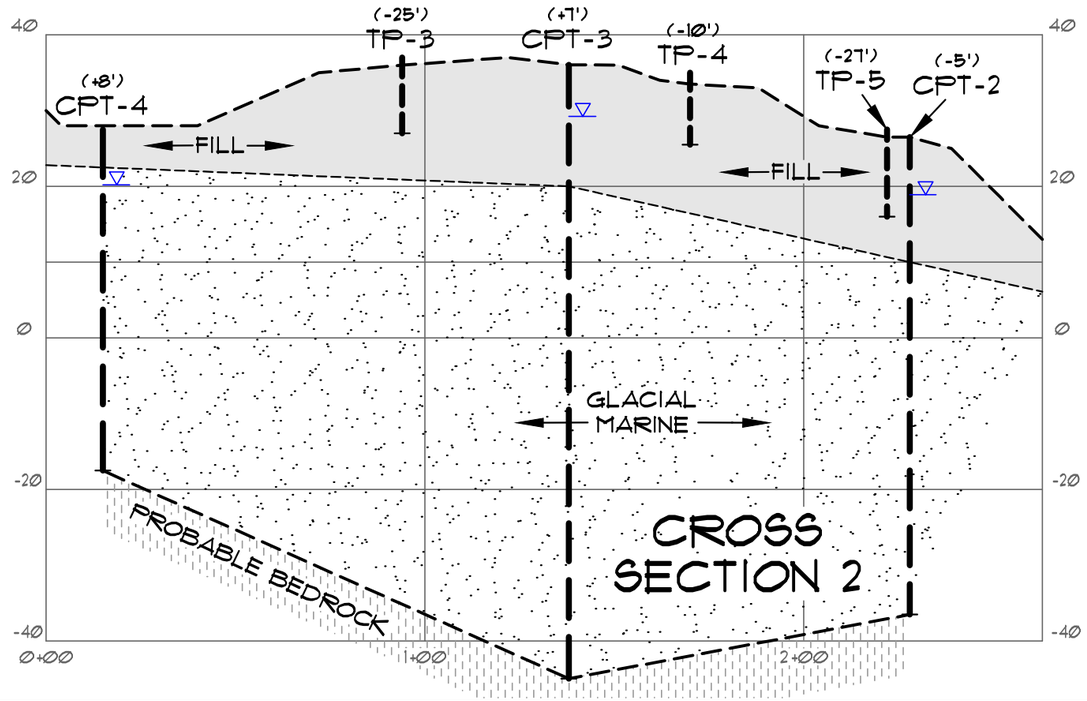
FIGURE: 2



SCALE: HORIZ. - 1" = 40'
VERT. - 1" = 20'

0 20 40 80 120(H)
0 10 20 40 60(V)





PROJECT: THE FOREFRONT AT THOMPSON'S POINT
PORTLAND, MAINE

CLIENT: CATHARTES

TITLE: CROSS SECTIONS C, 1 & 2

SCALE: AS NOTED

DATE: JUNE 13, 2024

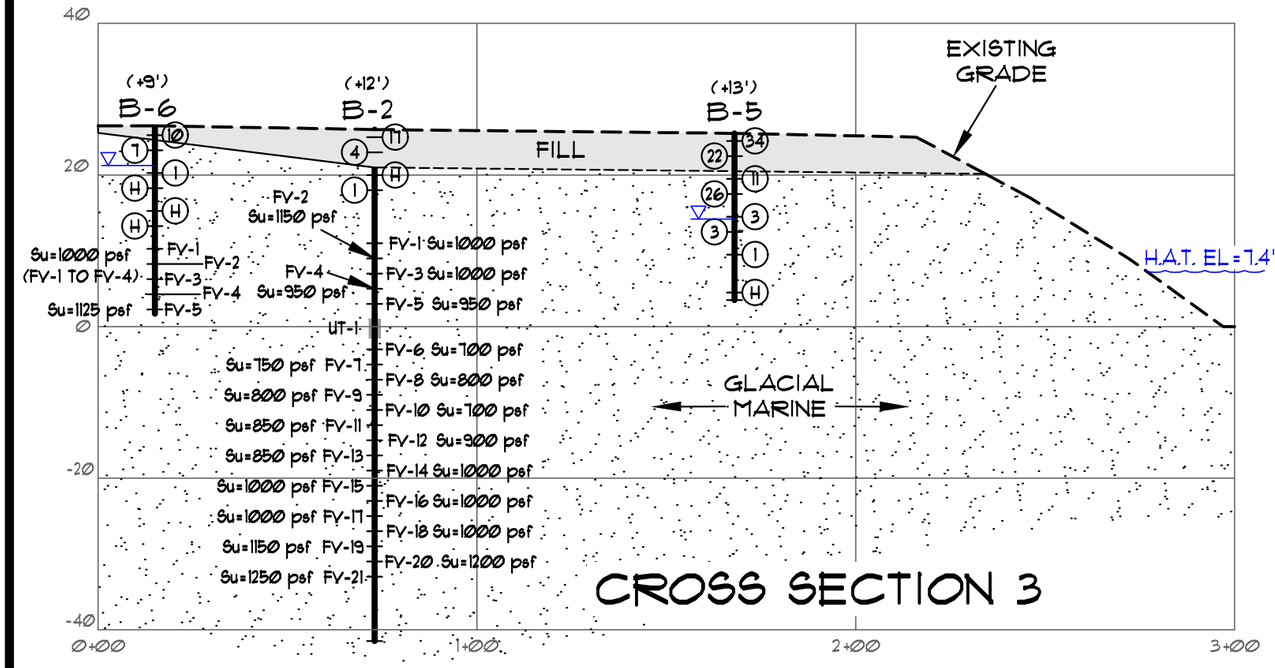
DRAWN BY: KRF

APPR BY: CWC

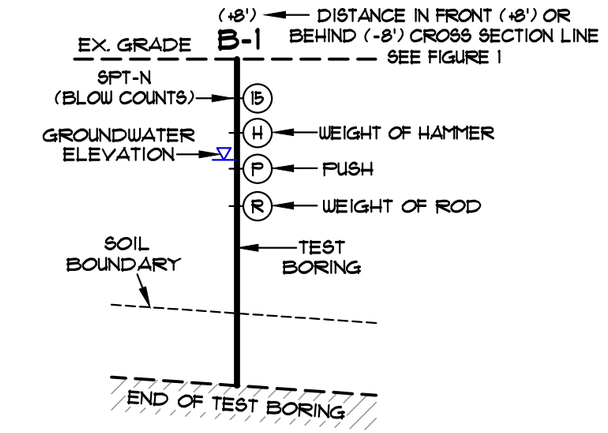
SUMMIT
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TEL.: (207) 446-3360

PROJ.#: 24098

FIGURE: 3

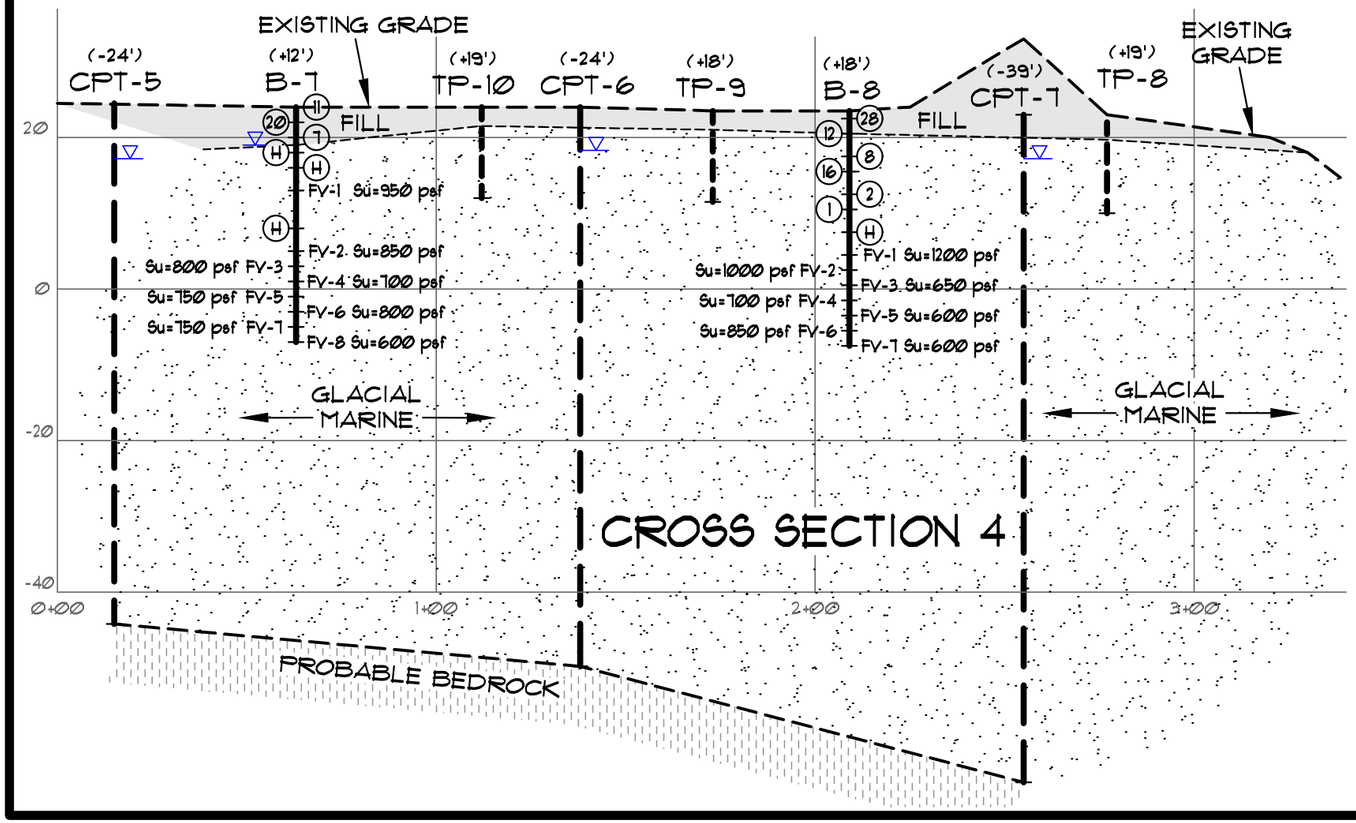


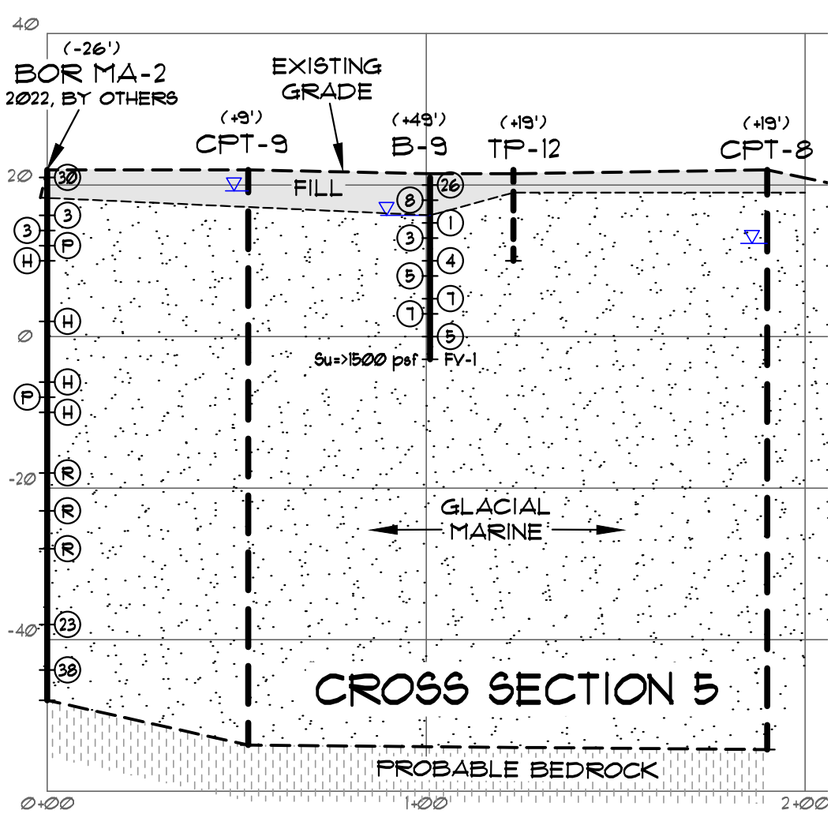
LEGEND



SCALE: HORIZ. - 1" = 40'
VERT. - 1" = 20'

0	20	40	80	120(H)
0	10	20	40	60(V)





PROJECT: THE FOREFRONT AT THOMPSON'S POINT
PORTLAND, MAINE

CLIENT: CATHARTES

TITLE: CROSS SECTIONS 3, 4 & 5

SCALE: AS NOTED

DRAWN BY: KRF

APPR BY: CWC

DATE: JUNE 13, 2024

MAIL: P.O. BOX 515
GARDINER, ME 04345

OFFICE: 210 MAINE AVENUE
FARMINGDALE, MAINE
TEL.: (207) 446-3360

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PROJ.#: 24098

FIGURE: 4

APPENDIX B

EXPLORATION SUMMARY TABLES

EXPLORATION LOGS

SUMMIT
GEOENGINEERING SERVICES

Project Name: Forefront at Thompson's Point
Location: Portland, ME
Project Number: 24098
Dates: 5/20/24 to 5/23/24

EXPLORATION SUMMARY TABLE (BORINGS)

EXPLORATION NUMBER	SURFACE ELEVATION	FILL	MARINE DEPOSIT	REFUSAL DEPTH	GROUNDWATER DEPTH	NOTES
B-1	23.0	0 to 5	5 to 77	77	6.3	Probe refusal on probable bedrock
B-2	26.0	0 to 5	5 to 67	67	10.3	Probe refusal on bedrock
B-3	29.0	0 to 15	15 to 51	NE	11.0	No Refusal
B-4	40.0	0 to 20	20 to 22	NE	5.5	No Refusal
B-5	11.3	0 to 5	5 to 22	NE	11.3	No Refusal
B-6	26.0	0 to 1	10 to 24	NE	5.0	No Refusal
B-7	24.0	0 to 5	5 to 31	NE	5.0	No Refusal
B-8	23.0	0 to 2	2 to 31	NE	11.0	No Refusal
B-9	23.0	0 to 5	5 to 24	NE	5.0	No Refusal

NOTES:

1.) Test borings were performed by Summit Geoengineering Services on May 20th to May 23rd, 2024 using a 9580 VTR ATV Drill Rig.

2.) Explorations were field located by SGS by measuring off existing site features.

3.) Surface elevations are estimated using 1-ft contours provided on the Conceptual Grading Plan, The Forefront at Thompson's Point Residential Building prepared by Placemaker Partners, LLC dated February, 2024.

4.) Groundwater is based upon measured depth within open borehole upon completion.

SUMMIT
GEOENGINEERING SERVICES

Project Name: Forefront at Thompson's Point
Location: Portland, ME
Project Number: 24098
Dates: 5/17/24

EXPLORATION SUMMARY TABLE (TEST PITS)

EXPLORATION NUMBER	SURFACE ELEVATION	FILL	MARINE DEPOSIT	REFUSAL DEPTH	GROUNDWATER DEPTH	NOTES
TP-1	43.0	0.5 to 10	10 to 11.5	NE	9.8	Hole caved to 8', Reworked Native
TP-2	38.0	0 to 7.5	7.5 to 10	10	7.5	Refusal on Concrete/Cement Rubble
TP-3	37.0	0 to 9	9 to 10	NE	8.5	Hole caved to 7', Reworked Native
TP-4	35.0	0.5 to 7	7 to 9.5	NE	7.5	Hole caving. Reworked Native
TP-5	27.0	0.5 to 11.5	NE	NE	10.0	No Refusal
TP-6	27.0	0 to 1.5	1.5 to 11.8	NE	8.4	No Refusal
TP-7	24.0	0 to 3	3 to 12	NE	9.0	No Refusal
TP-8	22.0	0 to 2.3	2.3 to 12	NE	5.0	No Refusal
TP-9	23.0	0 to 1.5	1.5 to 12	NE	9.0	No Refusal
TP-10	24.0	0 to 2.5	2.5 to 12	NE	9.0	No Refusal
TP-11	23.0	0 to 2	2 to 11.8	NE	9.5	No Refusal
TP-12	22.0	0.2 to 3	3 to 12	NE	7.0	No Refusal

NOTES:

1.) Test pit explorations were performed by Summit Geoengineering Services on May 17th, 2024 using a Kubota KX040 rubber track excavator. Test pits were excavated to a depth of 10 to 12 feet below ground surface (BGS).

2.) Explorations were field located by SGS by measuring off existing site features.

3.) Surface elevations are estimated using 1-ft contours provided on the Conceptual Grading Plan, The Forefront at Thompson's Point Residential Building prepared by Placemaker Partners, LLC dated February, 2024.

4.) Groundwater is based upon measured sidewall seeage or depth within open test pits during excavation.

SUMMIT
GEOENGINEERING SERVICES

Project Name: Forefront at Thompson's Point
Location: Portland, ME

Project Number: 24098
Dates: 5/20/24 to 5/23/24

EXPLORATION SUMMARY TABLE (CPT)

EXPLORATION NUMBER	SURFACE ELEVATION	FILL	MARINE DEPOSIT	REFUSAL DEPTH	GROUNDWATER DEPTH	NOTES
CPT-1	32 +/-	0 to 15 +/-	15 to 75.6	76	21.3	Refusal on Probable Bedrock
CPT-2	26 +/-	0 to 15 +/-	16 to 63.3	63	7.6	Refusal on Probable Bedrock
CPT-3	36 +/-	0 to 18 +/-	18 to 81	81	6.8	Refusal on Probable Bedrock
CPT-4	27 +/-	0 to 5 +/-	5 to 45.2	45	7.3	Refusal on Probable Bedrock
CPT-5	25 +/-	0 to 5 +/-	5 to 68.8	69	7.3	Refusal on Probable Bedrock
CPT-6	24 +/-	0 to 3 +/-	3 to 75.3	75	5.7	Refusal on Probable Bedrock
CPT-7	23 +/-	0 to 10 +/-	10 to 88	88	5.8	Refusal on Probable Bedrock
CPT-8	22 +/-	0 to 2 +/-	2 to 76.5	77	9.7	Refusal on Probable Bedrock
CPT-9	22 +/-	0 to 3 +/-	3 to 75.9	76	5.5	Refusal on Probable Bedrock

NOTES:

1.) CPT explorations were performed by Summit Geoengineering Services on May 20th to May 23rd, 2024 using a 9500 VTR ATV Drill Rig. Piezocone penetration tests (CPT) were explored to a depth of push refusal ranging from 45.0 to 88.0 feet below ground surface (BGS).

2.) Explorations were field located by SGS by measuring off existing site features.

3.) Surface elevations are estimated using 1-ft contours provided on the Conceptual Grading Plan, The Forefront at Thompson's Point Residential Building prepared by Placemaker Partners, LLC dated February, 2024. Bedrock depths were measured from the ground surface to the nearest tenth of a foot. Accuracy of bedrock elevations published in the table above are limited by the accuracy of surface elevations.

4.) Groundwater is based upon measured depth within open CPT borehole upon completion.

SUMMIT GEOENGINEERING SERVICES	TEST PIT LOG	Test Pit # TP-1
	Project: Forefront at Thompson's Point Portland, Maine	Project #: 24098
		Groundwater: 9.8 ft
Contractor: Summit Geoengineering Services	Ground Surface Elevation: 43 ft	
Equipment: Kubota KX040-4	Reference: "Conceptual Grading Plan" by Placemarker Partners	
Summit Staff: J.Barnes, E.I.	Date: 5/17/2024	Weather: Sunny

Depth (ft)	DESCRIPTION	
	ENGINEERING	GEOLOGIC/GENERAL
	Brown Sandy SILT, rootlets, loose, humid, ML	TOSPSOIL
1	Dark brown SAND, some Silt,some to little Gravel,	0.5'
	ocassional brick pieces, loose, moist to damp, SM	FILL
2		
3		
4		
5		
	Timbers and concrete pieces at 5'	
6	Ocassional SILT-CLAY clumps at 5.5'	
7		
8		
9		
	Groundwater observed at 9.8 ft	
10		
	Gray Silty CLAY interlayered with Sand, black	10'
11	staining, firm to soft, moist, CL	REWORKED NATIVE
12	End of Exploration at 11.5', Hole Caved to 8'	
13		
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	TEST PIT LOG	Test Pit # TP-2
	Project: Forefront at Thompson's Point Portland, Maine	Project #: 24098
		Groundwater: 7.5 ft
Contractor: Summit Geoengineering Services	Ground Surface Elevation: 38 ft	
Equipment: Kubota KX040-4	Reference: "Conceptual Grading Plan" by Placemarker Partners	
Summit Staff: J.Barnes, E.I.	Date: 5/17/2024	Weather: Sunny

Depth (ft)	DESCRIPTION	
	ENGINEERING	GEOLOGIC/GENERAL
1	Dark brown Silty SAND, some Clay, little Gravel, miost, SM	FILL
2	Oilve brown SILT-CLAY, some Sand, little Gravel, stiff to firm, wet to moist, ML-CL	
3	Bricks and wood pieces from 2' - 3'	
4		
5		
6	Geotextile fabric pieces at 5'	
7	Large wood pieces in western portion at 2' and 6'	
8	Gray Silty CLAY, some Sand, firm to soft, wet, CL	7.5' REWORKED NATIVE
9		
10		
11	End of Exploration at 10', Refusal on concrete or cement rubble	
12		
13		
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	TEST PIT LOG	Test Pit # TP-3
	Project: Forefront at Thompson's Point Portland, Maine	Project #: 24098
		Groundwater: 8.5 ft
Contractor: Summit Geoengineering Services	Ground Surface Elevation: 37 ft	
Equipment: Kubota KX040-4	Reference: "Conceptual Grading Plan" by Placemarker Partners	
Summit Staff: J.Barnes, E.I.	Date: 5/17/2024	Weather: Sunny

Depth (ft)	DESCRIPTION	
	ENGINEERING	GEOLOGIC/GENERAL
1	Dark brown Sandy SILT, rootlets, soft, ML	FILL
2	Dark brown Silty SAND, some to little Gravel, occasional Clay clumps, bricks and polyesterene pieces, loose, damp to moist with depth, SM	
3		
4		
5	Wood pieces and bricks at 4', occasional asphalt pieces, concrete piece at 5'	
6		
7	Gray Silty CLAY, some to little Sand, blocky, firm, moist to wet, CL	
8		
9	Groundwater at 8.5'	
10	Olive brown Silty CLAY, blocky, trace fine Sand, firm to stiff, moist to wet, CL	9' REWORKED NATIVE
11	End of Exploration at 10', hole caved to 7'	
12		
13		
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	TEST PIT LOG	Test Pit # TP-4
	Project: Forefront at Thompson's Point Portland, Maine	Project #: 24098
		Groundwater: 7.5 ft
Contractor: Summit Geoengineering Services	Ground Surface Elevation: 35 ft	
Equipment: Kubota KX040-4	Reference: "Conceptual Grading Plan" by Placemarker Partners	
Summit Staff: J.Barnes, E.I.	Date: 5/17/2024	Weather: Sunny

Depth (ft)	DESCRIPTION	
	ENGINEERING	GEOLOGIC/GENERAL
1	Dark brown Sandy SILT, trace Gravel, rootlets, soft, humid, ML	TOPSOIL FILL
2	Dark brown Silty Sand to SAND, some Silt, little Gravel, loose, humid to damp, SM	
3	Freqeunt asphalt and concrete pieces, occasional Silty CLAY clumps at 2.5'	
4		
5	Occasional plastic and polyesterene pieces Timbers, wood pieces, and bricks starting at 3.5'	
6		
7		
8	Gray SILT-CLAY interlayered with dark brown Sand, soft to firm, wet, ML-CL Groundwater at 7.5'	7' REWORKED NATIVE
9	Geotextile fabric at 8.5'	
10	End of Exploration at 9.5', Hole caving	
11		
12		
13		
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	TEST PIT LOG	Test Pit # TP-5
	Project: Forefront at Thompson's Point Portland, Maine	Project #: 24098
		Groundwater: 10 ft
Contractor: Summit Geoengineering Services	Ground Surface Elevation: 27 feet	
Equipment: Kubota KX040-4	Reference: "Conceptual Grading Plan" by Placemarker Partners	
Summit Staff: J.Barnes, E.I.	Date: 5/17/2024	Weather: Sunny

Depth (ft)	DESCRIPTION	
	ENGINEERING	GEOLOGIC/GENERAL
1	Dark brown Silty SAND, some Clay, little Gravel, moist, SM	TOPSOIL FILL
2	Dark brown Silty SAND to SAND, some Silt, little Gravel, brick and polyesterene pieces, loose, damp, SM	
3	Dark brown Sandy SILT, little to some Gravel, bricks, wood, and polyesterene pieces, damp to moist, ML	
4		
5		
6	Occasional CLAY clumps with black staining and petroleum odor starting at 5.5'	
7		
8	Olive brown Silty CLAY, fine Sand Seams, mottled, moist to wet, CL	
9		
10	Dark brown organic SILT pocket, frequent wood pieces and roots, firm to stiff, damp to moist, OL	
11	Gray to olive gray SILT-CLAY to Clayey SILT, roots, wood pieces, soft to firm, wet, ML-CL to ML	
12	End of Exploration at 11.5', No Refusal	
13		
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	TEST PIT LOG	Test Pit # TP-6
	Project: Forefront at Thompson's Point Portland, Maine	Project #: 24098
		Groundwater: 8.4 ft
Contractor: Summit Geoengineering Services	Ground Surface Elevation: 27 feet	
Equipment: Kubota KX040-4	Reference: "Conceptual Grading Plan" by Placemarker Partners	
Summit Staff: J.Barnes, E.I.	Date: 5/17/2024	Weather: Sunny

Depth (ft)	DESCRIPTION	
	ENGINEERING	GEOLOGIC/GENERAL
1	Olive brown SAND, little to some Silt, little Gravel, bricks, wires, and rebar, loose, moist, SM	FILL
2	Gray Silty CLAY, blocky, mottled, damp to moist with depth	1.5' GLACIAL MARINE DEPOSIT
3		
4		
5		
6		
7	Clay gets softer at 6', occasional Sand seams	
8		
9	Gray CLAY, some Silt, wet, CL	Groundwater at 8.4'
10		
11		
12		
13	End of Exploration at 11.8', No Refusal	
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	TEST PIT LOG	Test Pit # TP-7
	Project: Forefront at Thompson's Point Portland, Maine	Project #: 24098
		Groundwater: 9 ft
Contractor: Summit Geoengineering Services	Ground Surface Elevation: 24 ft	
Equipment: Kubota KX040-4	Reference: "Conceptual Grading Plan" by Placemarker Partners	
Summit Staff: J.Barnes, E.I.	Date: 5/17/2024	Weather: Sunny

Depth (ft)	DESCRIPTION	
	ENGINEERING	GEOLOGIC/GENERAL
1	Brown Sandy Gravel, compact to dense, humid, SP	FILL
2	Frequent small boulders and large cobbles	
3		
4	Olive brown to gray SILT-CLAY, heavily mottled, blocky, stiff, moist, ML-CL	3' GLACIAL MARINE DEPOSIT
5	PP = 6,000 psf	
6		
7	Olive brown to gray heavily mottled Silty CLAY, blocky, very stiff to stiff, moist, CL	
8	PP = 6,000 - 8,000 psf	
9	Groundwater at 9'	
10	Clay softens slightly, frequent fine sand seams PP = 5,000 - 6,000 psf	
11		
12		
13	End of Exploration at 12', No Refusal	
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	TEST PIT LOG	Test Pit # TP-8
	Project: Forefront at Thompson's Point Portland, Maine	Project #: 24098
		Groundwater: 5 ft
Contractor: Summit Geoengineering Services	Ground Surface Elevation: 22 ft	
Equipment: Kubota KX040-4	Reference: "Conceptual Grading Plan" by Placemarker Partners	
Summit Staff: J.Barnes, E.I.	Date: 5/17/2024	Weather: Sunny

Depth (ft)	DESCRIPTION	
	ENGINEERING	GEOLOGIC/GENERAL
1	Dark brown Sandy SILT to Silty SAND, soft/loose, SM or ML	FILL
2	Brown SAND, little to some Gravel, trace to little Silt, loose, damp, SP to SP-SM	0.7' 1.5'
3	Black Sandy SILT, brick pieces, petroleum odor, firm, moist, ML	2.3'
4	Gray Sandy SILT, some CLAY, firm, moist to wet, ML	GLACIAL MARINE DEPOSIT
5		
6	Olive brown to gray SILT-CLAY, blocky, heavily mottled, stiff, moist, ML-CL	
7		
8	Olive brown to gray Silty CLAY, blocky, mottled, stiff to hard, moist, CL	
9	PP = 6,000 - 9,000 psf	
10		
11		
12		
13	End of Exploration at 12', No Refusal	
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	TEST PIT LOG	Test Pit # TP-9
	Project: Forefront at Thompson's Point Portland, Maine	Project #: 24098
		Groundwater: 9 ft
Contractor: Summit Geoengineering Services	Ground Surface Elevation: 23 ft	
Equipment: Kubota KX040-4	Reference: "Conceptual Grading Plan" by Placemarker Partners	
Summit Staff: J.Barnes, E.I.	Date: 5/17/2024	Weather: Sunny

Depth (ft)	DESCRIPTION	
	ENGINEERING	GEOLOGIC/GENERAL
1	Brown Sandy Gravel, compact to dense, humid, SP	FILL
2	Olive brown to gray SILT-CLAY, blocky, stiff, damp, ML-CL	1.5' GLACIAL MARINE DEPOSIT
3		
4		
5		
6	Olive gray Silty CLAY, heavily mottled, firm to stiff, moist, CL	
7	Fine Sand seams at 6.5' PP = 3,000 - 5,000 psf	
8		
9		
10	Gray Silty CLAY, soft, wet, CL Groundwater at 9'	
11		
12		
13	End of Exploration at 12', No Refusal	
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	TEST PIT LOG	Test Pit # TP-10
	Project: Forefront at Thompson's Point Portland, Maine	Project #: 24098
		Groundwater: 9 ft
Contractor: Summit Geoengineering Services	Ground Surface Elevation: 24 ft	
Equipment: Kubota KX040-4	Reference: "Conceptual Grading Plan" by Placemarker Partners	
Summit Staff: J.Barnes, E.I.	Date: 5/17/2024	Weather: Sunny

Depth (ft)	DESCRIPTION	
	ENGINEERING	GEOLOGIC/GENERAL
1	Brown Sandy Gravel, compact to dense, humid, SP	FILL
2	Frequent small boulders and large cobbles	
3	Olive gray to brown SILT-CLAY, frequent fine Sand seams, heavily mottled, ML-CL	2.5' GLACIAL MARINE DEPOSIT
4		
5		
6		
7	Olive brown to gray Silty CLAY, fine Sand seams, mottled, soft ot firm, moist, CL PP = 3,000 - 5,000 psf	PP = 3,000 - 5,000 psf
8		
9	Groundwater at 9'	
10	Gray Silty CLAY, very soft, wet, CL PP = 2,000 - 500 psf with depth	
11		
12		
13	End of Exploration at 12', No Refusal	12' 
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	TEST PIT LOG	Test Pit # TP-11
	Project: Forefront at Thompson's Point Portland, Maine	Project #: 24098
		Groundwater: 9.5 ft
Contractor: Summit Geoengineering Services	Ground Surface Elevation: 23 ft	
Equipment: Kubota KX040-4	Reference: "Conceptual Grading Plan" by Placemarker Partners	
Summit Staff: J.Barnes, E.I.	Date: 5/17/2024	Weather: Sunny

Depth (ft)	DESCRIPTION	
	ENGINEERING	GEOLOGIC/GENERAL
1	Brown Gravelly SAND, compact, humid, SP	FILL
2		
3	Olive brown Sandy SILT, little to some Clay, firm, humid, ML	2' GLAICAL MARINE DEPOSIT
4		
5	Olive brown to gray SILT-CLAY, mottled, stiff, moist, ML-CL	
6		
7		
8	Oive brown to gray Silty CLAY, heavily mottled, blocky, stiff, moist, CL	
9		
10	Fine Sand seam at 9' Significant groundwater seepage observed at 9.5'	
11		
12		
13	End of Exploration at 11.8', No Refusal	11.8'
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	**TEST PIT LOG**	Test Pit # **TP-12**
	Project: Forefront at Thompson's Point Portland, Maine	Project #: 24098 Groundwater: 7 ft
Contractor: Summit Geoengineering Services	Ground Surface Elevation: 22 ft	
Equipment: Kubota KX040-4	Reference: "Conceptual Grading Plan" by Placemarker Partners	
Summit Staff: J.Barnes, E.I.	Date: 5/17/2024	Weather: Sunny

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
	Bituminous Pavement	PAVEMENT
1	Brown to black Silty SAND, little Gravel, damp, SM	0.2' FILL
2	Light brown SAND, loose, moist, SP	
3	Black Sandy SILT, heavy organic odor, roots and wood pieces, firm, moist, ML	
		3' GLACIAL MARINE DEPOSIT
4		
5	Gray SILT-CLAY, little Sand, firm, damp to moist, ML-CL	
6		
7		Groundwater observed at 7'
8		
9	Olive gray Silty CLAY, blocky, stiff, moist to wet, CL	
10		
11		
12		
	End of Exploration at 12', No Refusal	12'
13		
14		
15		
16		
17		

EXPLORATION COVER SHEET

The exploration logs are prepared by the geotechnical engineer from both field and laboratory data. Soil descriptions are based upon the Unified Soil Classification System (USCS) per ASTM D2487 and/or ASTM D2488 as applicable. Supplemental descriptive terms for estimated particle percentage, color, density, moisture condition, and bedrock may also be included to further describe conditions.

Drilling and Sampling Symbols:

SS = Split Spoon Sample
UT = Thin Wall Shelby Tube
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RW = Rotary Wash
SV = Shear Vane
PP = Pocket Penetrometer
RC = Rock Core Sample
FV = Field Vane Shear Test
PS = Concrete Punch Sample
Hyd = Hydraulic Advancement of Drilling Rods
Push = Direct Push of Drilling Rods
WOH = Weight of Hammer
WOR = Weight of Rod
PI = Plasticity Index
LL = Liquid Limit
W = Natural Water Content
USCS = Unified Soil Classification System
Su = Undrained Shear Strength
Su(r) = Remolded Shear Strength

Water Level Measurements:

Water levels indicated on the boring logs are the levels measured in the boring at the times indicated. In pervious soils, the indicated elevations are considered reliable groundwater levels. In impervious soils, the accurate determination of groundwater elevations may not be possible, even after several days of observations. Groundwater monitoring wells may be required to record accurate depths and fluctuation.

Gradation Description and Terminology:

Boulders:	Over 12 inches	Trace:	Less than 5%
Cobbles:	12 inches to 3 inches	Little:	5% to 15%
Gravel:	3 inches to No.4 sieve	Some:	15% to 30%
Sand:	No.4 to No. 200 sieve	Silty, Sandy, etc.:	Greater than 30%
Silt:	No. 200 sieve to 0.005 mm		
Clay:	less than 0.005 mm		

Density of Granular Soils and Consistency of Cohesive Soils:

CONSISTENCY OF COHESIVE SOILS		DENSITY OF GRANULAR SOILS	
SPT N-value blows/ft	**Consistency**	**SPT N-value blows/ft**	**Relative Density**
0 to 2	Very Soft	0 to 4	Very Loose
2 to 4	Soft	5 to 10	Loose
5 to 8	Firm	11 to 30	Compact
9 to 15	Stiff	31 to 50	Dense
16 to 30	Very Stiff	>50	Very Dense
>30	Hard		

SOIL BORING LOG

SUMMIT GEOENGINEERING SERVICES

Project:	Forefront at Thompson's Point	Boring #:	B-1
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	1 of 4
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services
Driller:	S. Floyd
Summit Staff:	J. Barnes, E.I.

Boring Elevation: 23 feet

Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.

Date started: 5/22/2024 Date Completed: 5/22/2024

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Length:	24" SS
Model:	9580 VTR	Diameter:	2"OD/1.5"ID
Method:	RW/4" Casing	Hammer:	140 lb
Hammer Style:	Auto	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/23/2024	6.3 ft	16.7 ft	Measured in open hole

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/8	0 - 2	12		Brown Gravelly SAND, dense, damp, SP		FILL
1				24				
				20		Brown to black Sandy SILT, trace Gravel, hard, damp,		
2				21		ML		
	S-2	24/16	2 - 4	18		Brown Silty SAND, trace Gravel, dense, damp, SM		
3				16				
				9				
4				5		Black Sandy SILT, little ash, stiff, damp, ML		
5					18			
	S-3	24/24	5 - 7	3		Olive gray Silty CLAY, frequent fine Sand seams,	PP = 8,000 -	5'
6				4		firm to stiff, moist, CL	9,000 psf	GLACIAL MARINE
				5				DEPOSIT
7				7				
	S-4	24/24	7 - 9	10		Olive gray to brown Silty CLAY, frequent Sand seams,	PP = 3,000 -	
8				6		firm to stiff, CL	6,000 psf	
				5				
9				5				
10								
	S-5	24/24	10 - 12	1		Olive gray to brown Silty CLAY, frequent Sand seams,		
11				1		soft, wet, CL	PP = 1,000 psf	
				1				
12				1				
	S-6	24/24	12 - 14	WOH		Olive gray to brown Silty CLAY, frequent Sand seams,		
13				WOH		very soft, wet to saturated, CL	PP < 500 psf	
				WOH				
14				WOH				
15								
16	UT-1	30/28	15.5 - 18	PUSH		Gray Silty CLAY, frequent SILT-SAND seams, soft,		
						wet, CL		
17								
18								
19								
	FIELD VANE DATA							
20	FV-1		20			S_u = 850 psf $S_{u(r)}$ = 100 psf		
21								
22	FV-2		22			S_u = 700 psf $S_{u(r)}$ = 150 psf		

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Bedrock Joints Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SOIL BORING LOG

SUMMIT GEOENGINEERING SERVICES

Project:	Forefront at Thompson's Point	Boring #:	B-1
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	2 of 4
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services	Boring Elevation: 23 feet	
Driller:	S. Floyd	Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.	
Summit Staff:	J. Barnes, E.I.	Date started: 5/22/2024	Date Completed: 5/22/2024

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Length:	24" SS
Model:	9580 VTR	Diameter:	2"OD/1.5"ID
Method:	RW/4" Casing	Hammer:	140 lb
Hammer Style:	Auto	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/23/2024	6.3 ft	16.7 ft	Measured in open hole

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	FIELD VANE DATA							GLACIAL MARINE DEPOSIT
23								
24	FV-3		24			S_u = 700 psf $S_{u(r)}$ = 115 psf		
25								
26	FV-4		26			S_u = 700 psf $S_{u(r)}$ = 125 psf		
27								
28	FV-5		28			S_u = 650 psf $S_{u(r)}$ = 125 psf		
29								
30								
	UT-2	30/27	30 - 32.5	PUSH		Gray Silty CLAY, soft, wet, CL		
31								
32								
33								
34								
	FIELD VANE DATA							
35	FV-6		35			S_u = 650 psf $S_{u(r)}$ = 50 psf		
36								
37	FV-7		37			S_u = 550 psf $S_{u(r)}$ = 25 psf		
38								
39	FV-8		39			S_u = 600 psf $S_{u(r)}$ = 50 psf		
40								
41	FV-9		41			S_u = 600 psf $S_{u(r)}$ = 25 psf		
42								
43	FV-10		43			S_u = 600 psf $S_{u(r)}$ = 50 psf		
44								

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT GEOENGINEERING SERVICES

SOIL BORING LOG

Project:	Forefront at Thompson's Point	Boring #:	**B-1**
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	3 of 4
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services	Boring Elevation: 23 feet	
Driller:	S. Floyd	Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.	
Summit Staff:	J. Barnes, E.I.	Date started: 5/22/2024	Date Completed: 5/22/2024

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Length:	24" SS
Model:	9580 VTR	Diameter:	2"OD/1.5"ID
Method:	RW/4" Casing	Hammer:	140 lb
Hammer Style:	Auto	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/23/2024	6.3 ft	16.7 ft	Measured in open hole

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
								GLACIAL MARINE DEPOSIT
45								
	UT-3	30/27	45 - 47.5	PUSH		Gray Silty CLAY, black organics streaks, very soft,		
46						wet, CL		
47								
48								
49								
		FIELD VANE DATA						
50	FV-11		50			S_u = 450 psf $S_{u(r)}$ = 50 psf		
51								
52	FV-12		52			S_u = 700 psf $S_{u(r)}$ = 50 psf		
53								
54	FV-13		54			S_u = 500 psf $S_{u(r)}$ = 75 psf		
55								
56	FV-14		56			S_u = 700 psf $S_{u(r)}$ = 100 psf		
57								
58	FV-15		58			S_u = 900 psf $S_{u(r)}$ = 75 psf		
59								
60	FV-16		60			S_u = 800 psf $S_{u(r)}$ = 50 psf		
						Spear tipped rod probe with SPT-N hammer, blows		
61				WOH		counted per foot		
62				WOH				
63				WOH				
64				WOH				
65				WOH				
66				WOH				

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SOIL BORING LOG

Project:	Forefront at Thompson's Point	Boring #:	B-1
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	4 of 4
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services
Driller:	S. Floyd
Summit Staff:	J. Barnes, E.I.

Boring Elevation: 23 feet

Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.

Date started: 5/22/2024 Date Completed: 5/22/2024

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Length:	24" SS
Model:	9580 VTR	Diameter:	2"OD/1.5"ID
Method:	RW/4" Casing	Hammer:	140 lb
Hammer Style:	Auto	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/23/2024	6.3 ft	16.7 ft	Measured in open hole

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
67				WOH		Spear tipped rod probe with SPT-N hammer, blows counted per foot		GLCAIAL MARINE DEPOSIT
68				WOH				
69				WOH				
70				WOH				
71				WOH				
72				WOH				
73				1				
74				3				
75				1				
76				1				
77				1				
78						End of Exploration at 77', Probe Refusal on Probable Bedrock		77' PROBABLE
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content

LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test

Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints

Shallow = 0 to 35 degrees

Dipping = 35 to 55 degrees

Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SOIL BORING LOG

SUMMIT GEOENGINEERING SERVICES

Project:	Forefront at Thompson's Point	Boring #:	B-2
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	1 of 4
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services
Driller:	S. Floyd
Summit Staff:	J. Barnes, E.I.

Boring Elevation: 26 feet

Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.

Date started: 5/22/2024 Date Completed: 5/23/2024

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Length:	24" SS
Model:	9580 VTR	Diameter:	2"OD/1.5"ID
Method:	RW/4" Casing	Hammer:	140 lb
Hammer Style:	Auto	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/23/2024	10.3 ft	15.7 ft	Measured in open hole

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/24	0 - 2	6		Light brown SAND, little to some Gravel, compact,		FILL
1				8		humid, SP		
				9		Olive brown Silty SAND, compact, damp, SM		
2				3				
	S-2	24/24	2 - 4	2		Olive brown Silty CLAY, Sand seam at 3.7', soft,	PP = 6,000 psf	
3				2		moist, CL		
				2				
4				2				
5					21			
	S-3	24/20	5 - 7	WOH		Gray Silty CLAY, Sand seams at 6.1' and 6.7', very	PP < 500 psf	5'
6				WOH		soft, wet, CL		GLACIAL MARINE
				WOH				DEPOSIT
7				WOH				
	S-4	24/6	7 - 9	1		Brown SAND, little Gravel, very loose, wet, SP		
8				1		Gray Silty CLAY, soft, saturated, CL		
				1				
9				1				
10								
						Attempted tube at 10' - 12.5', No Recovery		
11								
12								
13								
14	FIELD VANE DATA							
15	FV-1		15			S_u = 1,000 psf $S_{u(r)}$ = 150 psf		
16								
17	FV-2		17			S_u = 1,150 psf $S_{u(r)}$ = 200 psf		
18								
19	FV-3		19			S_u = 1,000 psf $S_{u(r)}$ = 200 psf		
20								
21	FV-4		21			S_u = 950 psf $S_{u(r)}$ = 200 psf		
22								

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SOIL BORING LOG

SUMMIT GEOENGINEERING SERVICES

Project:	Forefront at Thompson's Point	Boring #:	B-2
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	2 of 4
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services
Driller:	S. Floyd
Summit Staff:	J. Barnes, E.I.

Boring Elevation: 26 feet

Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.

Date started: 5/22/2024 Date Completed: 5/23/2024

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Length:	24" SS
Model:	9580 VTR	Diameter:	2"OD/1.5"ID
Method:	RW/4" Casing	Hammer:	140 lb
Hammer Style:	Auto	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/23/2024	10.3 ft	15.7 ft	Measured in open hole

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	FIELD VANE DATA							GLACIAL MARINE
23	FV-5		23			S_u = 950 psf $S_{u(r)}$ = 200 psf		DEPOSIT
24								
25								
	UT-1	30/28	25 - 27.5	PUSH		Gray Silty CLAY, very soft, wet to saturated, CL		
26				↓				
27				↓				
28				↓				
	FIELD VANE DATA							
29	FV-6		29			S_u = 700 psf $S_{u(r)}$ = 75 psf		
30								
31	FV-7		31			S_u = 750 psf $S_{u(r)}$ = 100 psf		
32								
33	FV-8		33			S_u = 800 psf $S_{u(r)}$ = 100 psf		
34								
35	FV-9		35			S_u = 800 psf $S_{u(r)}$ = 75 psf		
36								
37	FV-10		37			S_u = 700 psf $S_{u(r)}$ = 50 psf		
38								
39	FV-11		39			S_u = 850 psf $S_{u(r)}$ = 50 psf		
40								
41	FV-12		41			S_u = 900 psf $S_{u(r)}$ = 75 psf		
42								
43	FV-13		43			S_u = 850 psf $S_{u(r)}$ = 50 psf		
44								
	FV-14		45			S_u = 1,000 psf $S_{u(r)}$ = 50 psf		

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Bedrock Joints Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT GEOENGINEERING SERVICES

SOIL BORING LOG

Project:	Forefront at Thompson's Point	Boring #:	B-2
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	3 of 4
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services
Driller:	S. Floyd
Summit Staff:	J. Barnes, E.I.

Boring Elevation: 26 feet

Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.

Date started: 5/22/2024 Date Completed: 5/23/2024

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Length:	24" SS
Model:	9580 VTR	Diameter:	2"OD/1.5"ID
Method:	RW/4" Casing	Hammer:	140 lb
Hammer Style:	Auto	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/23/2024	10.3 ft	15.7 ft	Measured in open hole

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	FIELD VANE DATA							GLACIAL MARINE
45	FV-14		45			S_u = 1,000 psf $S_{u(r)}$ = 50 psf		DEPOSIT
46								
47	FV-15		47			S_u = 1,000 psf $S_{u(r)}$ = 50 psf		
48								
49	FV-16		49			S_u = 1,000 psf $S_{u(r)}$ = 50 psf		
50								
51	FV-17		51			S_u = 1,000 psf $S_{u(r)}$ = 75 psf		
52								
53	FV-18		53			S_u = 1,000 psf $S_{u(r)}$ = 75 psf		
54								
55	FV-19		55			S_u = 1,150 psf $S_{u(r)}$ = 100 psf		
56								
57	FV-20		57			S_u = 1,200 psf $S_{u(r)}$ = 150 psf		
58								
59	FV-21		59			S_u = 1,250 psf $S_{u(r)}$ = 175 psf		
60						Vane push refusal at 60'		
61				WOH		Spear tipped rod probe with SPT-N hammer, blows counted per foot		
62				WOH				
63				3				
64				3				
65				7				
66				13				
				50				

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content

LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test

Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints

Shallow = 0 to 35 degrees

Dipping = 35 to 55 degrees

Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SOIL BORING LOG

Project:	Forefront at Thompson's Point	Boring #:	**B-2**
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	4 of 4
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services
Driller:	S. Floyd
Summit Staff:	J. Barnes, E.I.

Boring Elevation: 26 feet

Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.

Date started: 5/22/2024 Date Completed: 5/23/2024

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Length:	24" SS
Model:	9580 VTR	Diameter:	2"OD/1.5"ID
Method:	RW/4" Casing	Hammer:	140 lb
Hammer Style:	Auto	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/23/2024	10.3 ft	15.7 ft	Measured in open hole

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
67				50		Spear tipped rod probe with SPT-N hammer, blows counted per foot		GLACIAL MARINE DEPOSIT
				50/0"	-41			
68						Probe refusal at 67'		67'
	ROCK CORE DATA							BEDROCK
69	RUN	RECOVERY	DEPTH (ft)	RQD		Hard, slightly weathered, fine grained quartz-plagioclase PHYLLITE		
	C-1	93%	67 - 72	74%				
70						Joints are close, shallow (5° to 35°), planar, rough and loose		
71						Softened portion at 71'+/-		
72					-46	Mohs hardness = 5		
73						End of Exploration at 72'		
74								
75								
76								
77								
78								
79								
80								
81								
82								
83								
84								
85								
86								
87								
88								

Granular Soils		Cohesive Soils		% Composition
	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content

LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test

Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints

Shallow = 0 to 35 degrees

Dipping = 35 to 55 degrees

Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SOIL BORING LOG

Project:	Forefront at Thompson's Point	Boring #:	**B-3**
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	1 of 3
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services
Driller:	S. Floyd
Summit Staff:	J. Barnes, E.I.

Boring Elevation: 29 feet

Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.

Date started: 5/23/2024 Date Completed: 5/23/2024

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Length:	24" SS
Model:	9580 VTR	Diameter:	2"OD/1.5"ID
Method:	RW/4" Casing	Hammer:	140 lb
Hammer Style:	Auto	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/23/2024	11 ft	18 ft	Estimated moisture content of samples

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/7	0 - 2	3		Olive brown to black Sandy SILT, some Clay, trace to		FILL
1				6		little Gravel, rootlets, damp, ML		
				9				
2				4				
	S-2	24/0	2 - 4	8		No recovery in spoon		
3				7				
				7				
4				7				
5								
	S-3	24/13	5 - 7	3		Black Sandy SILT, some Clay, little Gravel, firm, moist,		
6				3		ML		
				3				
7				6		Orange to light brown SAND, loose, humid, SP		
	S-4	24/6	7 - 9	8		Olive to black Clayey SILT, some Sand, brick piece at		
8				8		7.3', very stiff, damp, ML		
				9				
9				7				
10								
	S-5	24/24	10 - 12	2		Oilve to black Sandy SILT, some Clay, trace Gravel,		
11				2		firm, moist, ML		
				4		Olive brown SILT, some Sand and Clay, stiff,		
12				5		moist to wet, ML		
	S-6	24/24	12 - 14	8		Olive to black Sandy SILT, some Clay, trace Gravel,		
13				10		brick pieces, stiff, moist, ML		
				10		Olive brown interlayered Silty CLAY and SAND,		
14				8		stiff/compact, damp to moist, CL or SC		
15					14			
	S-7	24/24	15 - 17	2		Olive brown Silty CLAY, frequent fine Sand seams,	PP = 7,000 psf	15'
16				3		stiff, moist, CL		GLACIAL MARINE
				3				DEPOSIT
17				4				
	S-8	24/24	17 - 19	2		Olive brown SILT-CLAY, some Sand, black staining		
18				3		throughout, firm, moist, ML-CL		
				4				
19				5				
20								
	S-8	24/22	20 - 22	WOH		Olive brown Silty CLAY, trace to little fine Sand,		
21				WOH		coarse Sand seams at 20' and 21.2', very soft, wet		
				WOH		to saturated, CL		
22				WOH				

Granular Soils		Cohesive Soils	
Blows/ft.	Density	Blows/ft.	Consistency
0-4	V. Loose	<2	V. soft
5-10	Loose	2-4	Soft
11-30	Compact	5-8	Firm
31-50	Dense	9-15	Stiff
>50	V. Dense	16-30	V. Stiff
		>30	Hard

% Composition ASTM D2487

< 5% Trace
5-15% Little
15-30% Some
> 30% With

NOTES: PP = Pocket Penetrometer, MC = Moisture Content

LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test

Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints

Shallow = 0 to 35 degrees

Dipping = 35 to 55 degrees

Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition

Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SOIL BORING LOG

Project:	Forefront at Thompson's Point	Boring #:	B-3
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	1 of 3
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services	Boring Elevation: 29 feet	
Driller:	S. Floyd	Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.	
Summit Staff:	J. Barnes, E.I.	Date started: 5/23/2024	Date Completed: 5/23/2024

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Length:	24" SS
Model:	9580 VTR	Diameter:	2"OD/1.5"ID
Method:	RW/4" Casing	Hammer:	140 lb
Hammer Style:	Auto	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/23/2024	11 ft	18 ft	Estimated moisture content of samples

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
								GLACIAL MARINE DEPOSIT
23								
24								
25								
	S-9	24/24	25 - 27	WOH		Olive brown to gray Silty CLAY, fine Sand seams throughout, coarse Sand seam at 25.5', very soft, saturated, CL		
26				WOH				
				WOH				
27				WOH				
28								
29								
30								
	UT-1	30/	30 - 32.5	PUSH		Gray Silty CLAY, very soft, wet, CL		
31								
32								
33								
34								
	FIELD VANE DATA							
35	FV-1		35			S_u = 650 psf $S_{u(r)}$ = 100 psf		
36								
37	FV-2		37			S_u = 700 psf $S_{u(r)}$ = 150 psf		
38								
39	FV-3		39			S_u = 700 psf $S_{u(r)}$ = 125 psf		
40								
41	FV-4		41			S_u = 700 psf $S_{u(r)}$ = 100 psf		
42								
43	FV-5		43			S_u = 700 psf $S_{u(r)}$ = 125 psf		
44								
	FV-6		45			S_u = 650 psf $S_{u(r)}$ = 125 psf		

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SOIL BORING LOG

Project:	Forefront at Thompson's Point	Boring #:	B-3
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	3 of 3
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services	Boring Elevation: 29 feet	
Driller:	S. Floyd	Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.	
Summit Staff:	J. Barnes, E.I.	Date started: 5/23/2024	Date Completed: 5/23/2024

DRILLING METHOD		SAMPLER		ESTIMATED GROUND WATER DEPTH			
Vehicle:	ATV	Length:	24" SS	Date	Depth	Elevation	Reference
Model:	9580 VTR	Diameter:	2"OD/1.5"ID	5/23/2024	11 ft	18 ft	Estimated moisture content of samples
Method:	RW/4" Casing	Hammer:	140 lb				
Hammer Style:	Auto	Method:	ASTM D1586				

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	FIELD VANE DATA							GLACIAL MARINE
45	FV-6		45			S_u = 650 psf $S_{u(r)}$ = 125 psf		DEPOSIT
46								
47	FV-7		47			S_u = 700 psf $S_{u(r)}$ = 125 psf		
48								
49	FV-8		49			S_u = 700 psf $S_{u(r)}$ = 125 psf		
50								
51	FV-9		51		-22	S_u = 700 psf $S_{u(r)}$ = 125 psf		
52						End of Exploration at 51', No Refusal		51'
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SOIL BORING LOG

SUMMIT GEOENGINEERING SERVICES

Project:	Forefront at Thompson's Point	Boring #:	B-4
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	1 of 1
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services
Driller:	S. Floyd
Summit Staff:	J. Barnes, E.I.

Boring Elevation: 40 feet

Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.

Date started: 5/21/2024 Date Completed: 5/21/2024

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Length:	24" SS
Model:	9580 VTR	Diameter:	2"OD/1.5"ID
Method:	2-1/4" HSA	Hammer:	140 lb
Hammer Style:	Auto	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/21/2024	5.5 ft	34.5 ft	Estimated moisture content of samples

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/16	0 - 2	4		Dark brown Silty SAND, brick piece at 0.5', loose,		FILL
1				7		damp, SM		
				3				
2				3				
	S-2	24/22	2 - 4	3		Dark brown to black Sandy SILT, trace clay and brick		
3				3		pieces, firm, damp, ML		
				3				
4				20		Light brown SAND, little Gravel, compact, humid, SP		3.5'
5								
	S-3	24/14	5 - 7	8		Light brown SAND, trace to little Gravel, compact,		
6				3		humid, SP		5.5'
				2		Dark gray to black Sandy SILT, soft, moist, ML		
7				2				
	S-4	24/12	7 - 9	2		Black Sandy SILT, trace Gravel, organic odor,		
8				1		soft, wet, ML		
				1				
9				1				
10								
	S-5	24/10	10 - 12	WOH		Olive to brown SAND, little Silt, trace Gravel, very		
11				2		loose, wet to saturated, SP-SM		
				17		Black and orange SAND, some Gravel, compact,		
12				14		wet, SP		
	S-6	24/16	12 - 14	13		Black SAND, litle to some Silt, trace to little Gravel,		
13				9		compact, wet to saturated, SP-SM		
				16		Black Sandy SILT, stiff, moist to wet, ML		
14				8				
15								
	S-7	24/24	15 - 17	9		Olive brown Silty CLAY, firm, wet, CL		
16				19		Black Sandy SILT, brick from 15.5' to 16.3', very		
				11		stiff, wet, ML		
17				14				
18								
19								
20					20			
	S-8	24/20	20 - 22	5		Olive brown to gray SILT-CLAY, stiff, damp, ML-CL		20'
21				6				GLACIAL MARINE
				7				DEPOSIT
22				13	18			
						End of Exploration at 22', No Refusal		

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content

LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test

Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints

Shallow = 0 to 35 degrees

Dipping = 35 to 55 degrees

Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT GEOENGINEERING SERVICES

SOIL BORING LOG

Project:	Forefront at Thompson's Point	Boring #:	B-5
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	1 of 1
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services
Driller:	S. Floyd
Summit Staff:	J. Barnes, E.I.

Boring Elevation: 26 feet

Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.

Date started: 5/21/2024 Date Completed: 5/21/2024

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Length:	24" SS
Model:	9580 VTR	Diameter:	2"OD/1.5"ID
Method:	2-1/4" HSA	Hammer:	140 lb
Hammer Style:	Auto	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/21/2024	11.3 ft	14.7 ft	Measured in 15 feet of augers

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/15	0 - 2	5		Dark brown SAND, little Silt and Gravel, compact,		
1				10		humid, SP-SM		FILL/REWORKED
				24		Olive to dark gray Sandy SILT, trace Gravel, cobble		NATIVE
2				14		in spoon tip, hard, damp, ML	PP > 9,000 psf	
	S-2	24/24	2 - 4	8		Olive gray SILT-CLAY, trace SAND, stiff, damp, ML-CL		
3				10				
				12		Black Sandy SILT, little Gravel, wood piece at 3.3',		
4				12		petroleum odor, stiff, damp, ML		
5					21			
	S-3	24/20	5 - 7	1		Olive brown to gray SILT-CLAY, trace fine Sand, stiff,		5'
6				3		damp, ML-CL	PP > 9,000 psf	GLACIAL MARINE
				8				DEPOSIT
7				12				
	S-4	24/24	7 - 9	11		Olvie brown to gray SILT-CLAY, trace fine Sand,	PP > 9,000 psf	
8				13		root at 7.5' +/-, heavily mottled, very stiff, damp to		
				13		moist, ML-CL		
9				14				
10								
	S-5	24/24	10 - 12	1		Olive brown to gray Silty CLAY, fine Sand seam from	PP = 4,000 psf	
11				1		11.6' to 11.8', mottled, soft, moist to wet with		
				2		depth, CL		
12				3				
	S-6	24/24	12 - 14	2		Olive brown CLAY interlayered with fine SAND,		
13				2		heavily mottled, soft/very loose, wet to saturated,		
				1		CL or SC		
14				1				
15								
	S-7	24/24	15 - 17	WOH		Olive brown Silty CLAY, trace to little fine Sand,	PP = 1,000 -	
16				WOH		very soft, wet to saturated, CL	500 psf	
				1				
17				WOH				
18								
19								
20								
	S-8	24/24	20 - 22	WOH		Gray Silty CLAY, very soft, saturated, CL	PP < 500 psf	
21				WOH				
				WOH				
22				WOH	4			
						End of Exploration at 22', No Refusal		22'

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content

LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test

Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints

Shallow = 0 to 35 degrees

Dipping = 35 to 55 degrees

Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SOIL BORING LOG

Boring #:	**B-6**		
Project:	Forefront at Thompson's Point	Project #:	24098
Location:	Thompson's Point Road	Sheet:	1 of 2
City, State:	Portland, Maine	Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services
Driller:	S. Floyd
Summit Staff:	J. Barnes, E.I.

Boring Elevation: 26 feet

Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.

Date started: 5/21/2024 Date Completed: 5/21/2024

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Length:	24" SS
Model:	9580 VTR	Diameter:	2"OD/1.5"ID
Method:	2-1/4" HSA	Hammer:	140 lb
Hammer Style:	Auto	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/21/2024	5 ft	21 ft	Estimated moisture content of samples

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/18	0 - 2	4		Brown SAND, some Gravel, trace Silt, loose, humid,		FILL
1				5	25	SP		
				5		Olive brown SILT-CLAY, stiff, humid, ML-CL		1'
2				6				
	S-2	24/17	2 - 4	5		Olive brown Silty CLAY, sitff, damp to moist, CL	PP = 4,000 psf	
3				4				
				3				
4				5				
5								
	S-3	24/24	5 - 7	1		Olive brown Silty CLAY, frequent Sand seams, very	PP < 500 psf	
6				1		soft, wet, CL		
				WOH				
7				1				
	S-4	24/24	7 - 9	WOH		Olive brown Silty CLAY, Sand seam at 7', very soft,	PP < 500 psf	
8				WOH		saturated, CL		
				WOH	17.6			
9				WOH		Gray Silty CLAY, very soft, saturated, CL	PP < 500 psf	8.4'
10								
	S-5	24/24	10 - 12	WOH		Gray Silty CLAY, very soft, saturated, CL	PP < 500 psf	
11				WOH				
				WOH				
12				WOH				
	S-6	24/24	12 - 14	WOH		Gray Silty CLAY, very soft, saturated, CL	PP < 500 psf	
13				WOH				
				WOH				
14				WOH				
				WOH				
15								
	FIELD VANE DATA							
16	FV-1		16			S_u = 1,000 psf $S_{u(r)}$ = 200 psf		
17								
18	FV-2		18			S_u = 1,000 psf $S_{u(r)}$ = 250 psf		
19								
20	FV-3		20			S_u = 1,000 psf $S_{u(r)}$ = 250 psf		
21								
22	FV-4		22			S_u = 1,000 psf $S_{u(r)}$ = 250 psf		

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT GEOENGINEERING SERVICES

SOIL BORING LOG

Project:	Forefront at Thompson's Point	Boring #:	**B-6**
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	2 of 2
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services
Driller:	S. Floyd
Summit Staff:	J. Barnes, E.I.

Boring Elevation: 26 feet

Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.

Date started: 5/21/2024 Date Completed: 5/21/2024

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Length:	24" SS
Model:	9580 VTR	Diameter:	2"OD/1.5"ID
Method:	2-1/4" HSA	Hammer:	140 lb
Hammer Style:	Auto	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/21/2024	5 ft	21 ft	Estimated moisture content of samples

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	**SAMPLE DESCRIPTION**	Geological/ Test Data	Geological Stratum
	FIELD VANE DATA							GLACIAL MARINE DEPOSIT
23								
24	FV-5		24		1.7	S_u = 1,125 psf $S_{u(r)}$ = 300 psf		
25						End of Exploration at 24.3', Vane Push Refusal on Probable Sand Seam		24.3'
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								

Granular Soils		Cohesive Soils	
Blows/ft.	Density	Blows/ft.	Consistency
0-4	V. Loose	<2	V. soft
5-10	Loose	2-4	Soft
11-30	Compact	5-8	Firm
31-50	Dense	9-15	Stiff
>50	V. Dense	16-30	V. Stiff
		>30	Hard

% Composition ASTM D2487
< 5% Trace
5-15% Little
15-30% Some
> 30% With

NOTES: PP = Pocket Penetrometer, MC = Moisture Content

LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test

Bedrock Joints Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Shallow = 0 to 35 degrees

Dipping = 35 to 55 degrees

Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SOIL BORING LOG

Project:	Forefront at Thompson's Point	Boring #:	**B-7**
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	1 of 2
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services	Boring Elevation: 24 feet	
Driller:	S. Floyd	Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.	
Summit Staff:	J. Barnes, E.I.	Date started: 5/21/2024	Date Completed: 5/21/2024

DRILLING METHOD		SAMPLER		ESTIMATED GROUND WATER DEPTH			
Vehicle:	ATV	Length:	24" SS	Date	Depth	Elevation	Reference
Model:	9580 VTR	Diameter:	2"OD/1.5"ID	5/21/2024	5 ft	19 ft	Estimated moisture content of samples
Method:	2-1/4" HSA	Hammer:	140 lb				
Hammer Style:	Auto	Method:	ASTM D1586				

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	12/12	0 - 1	PUSH	23.8	2" Bituminous asphalt		PAVEMENT
1				▼		Brown SAND, some Gravel, little black ash, compact,		FILL/REWORKED
	S-2	24/16	1 - 3	11		damp, SP		NATIVE
2				12		Brown to orange Sandy SILT, trace Gravel, very stiff,		
				8		damp, ML		
3				8		Olive gray CLAY, Sand seams throughout, very stiff,		
	S-3	24/24	3 - 5	4		damp, CL		
4				4		Black ash from 2.5' to 3'		
				3		Olive to light brown SAND, little black ash, loose, damp		
5				2	19	to moist, SP		
	S-4	24/24	5 - 7	WOH		Gray Silty CLAY, frequent fine Sand seams, very soft,		5'
6				WOH		saturated, CL	PP < 500 psf	GLACIAL MARINE
				WOH				DEPOSIT
7				WOH				
	S-5	24/24	7 - 9	WOH		Gray Silty CLAY, Sand seam from 7' to 7.2', very soft,		
8				WOH		saturated, CL		
				WOH				
9				WOH				
10								
	FIELD VANE DATA							
11	FV-1		11			S_u = 950 psf $S_{u(r)}$ = 100 psf		
12								
						Vane push refusal at 12' on probable Sand seam		
13								
14								
15								
	S-6	24/24	15 - 17	WOH		Gray Silty CLAY, fine Sand seams throughout, very soft,		
16				WOH		saturated, CL		
				WOH				
17				WOH				
18								
	FIELD VANE DATA							
19	FV-2		19			S_u = 850 psf $S_{u(r)}$ = 200 psf		
20								
21	FV-3		21			S_u = 800 psf $S_{u(r)}$ = 100 psf		
22								
	FV-4		23			S_u = 700 psf $S_{u(r)}$ = 125 psf		

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT GEOENGINEERING SERVICES

SOIL BORING LOG

Boring #: **B-7**

Project:	Forefront at Thompson's Point	Project #:	24098
Location:	Thompson's Point Road	Sheet:	2 of 2
City, State:	Portland, Maine	Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services	Boring Elevation: 24 feet	
Driller:	S. Floyd	Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.	
Summit Staff:	J. Barnes, E.I.	Date started: 5/21/2024	Date Completed: 5/21/2024

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Length:	24" SS
Model:	9580 VTR	Diameter:	2"OD/1.5"ID
Method:	2-1/4" HSA	Hammer:	140 lb
Hammer Style:	Auto	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/21/2024	5 ft	19 ft	Estimated moisture content of samples

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	FIELD VANE DATA							GLACIAL MARINE
23	FV-4		23			S_u = 700 psf $S_{u(r)}$ = 125 psf		DEPOSIT
24								
25	FV-5		25			S_u = 750 psf $S_{u(r)}$ = 100 psf		
26								
27	FV-6		27			S_u = 800 psf $S_{u(r)}$ = 150 psf		
28								
29	FV-7		29			S_u = 750 psf $S_{u(r)}$ = 150 psf		
30								
31	FV-8		31		-7	S_u = 600 psf $S_{u(r)}$ = 175 psf		
32						End of Exploration at 31', No Refusal		31'
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT GEOENGINEERING SERVICES

SOIL BORING LOG

Project:	Forefront at Thompson's Point	Boring #:	B-8
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	1 of 2
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services
Driller:	S. Floyd
Summit Staff:	J. Barnes, E.I.

Boring Elevation: 23 feet

Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.

Date started: 5/21/2024 Date Completed: 5/21/2024

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Length:	24" SS
Model:	9580 VTR	Diameter:	2"OD/1.5"ID
Method:	2-1/4" HSA	Hammer:	140 lb
Hammer Style:	Auto	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/21/2024	11 ft	12 ft	Estimated moisture content of samples

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/8	0 - 2	9		Brown SAND, little Gravel, compact, humid, SP		FILL
1				12				
				16				
2				10	21			
	S-2	24/18	2 - 4	5		Olive brown SILT-CLAY, frequent fine Sand seams,		2' +/-
3				5		mottled, stiff, damp, ML-CL		GLACIAL MARINE
				7				DEPOSIT
4				9				
5								
	S-3	24/20	5 - 7	5		Olive brown CLAY, some Silt, frequent Sand seams,	PP = 7,000 -	
6				5		stiff, damp, CL	8,000 psf	
				3				
7				5				
	S-4	24/24	7 - 9	6		Olive gray Silty CLAY, fine Sand seams throughout,	PP = 5,000 -	
8				9		stiff, moist, CL	6,000 psf	
				7				
9				6				
10								
	S-5	24/24	10 - 12	1		Olive brown Silty CLAY, fine Sand seams throughout,	PP = 4,000 psf	
11				1		soft, moist, CL	to 2,000 with	
				1			depth	
12				1				
	S-6	24/24	12 - 14	1		Gray CLAY interlayered with fine SAND, soft/loose,		
13				WOH	10	saturated, CL or SC		
				1		Gray Silty CLAY, very soft, saturated, CL		13' +/-
14				WOH				
15								
	S-7	24/24	15 - 17	WOH		Gray Silty CLAY, frequent fine Sand seams, very soft,	PP < 500 psf	
16				WOH		saturated, CL		
				WOH				
17				WOH				
18								
	FIELD VANE DATA							
19	FV-1		19			S_u = 1,200 psf $S_{u(r)}$ = 150 psf		
20								
21	FV-2		21			S_u = 1,000 psf $S_{u(r)}$ = 100 psf		
22								
	FV-3		23			S_u = 650 psf $S_{u(r)}$ = 100 psf		

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content

LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test

Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints

Shallow = 0 to 35 degrees

Dipping = 35 to 55 degrees

Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SOIL BORING LOG

SUMMIT GEOENGINEERING SERVICES

Project:	Forefront at Thompson's Point	Boring #:	B-8
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	2 of 2
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services	Boring Elevation: 40 feet	
Driller:	S. Floyd	Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.	
Summit Staff:	J. Barnes, E.I.	Date started: 5/21/2024	Date Completed: 5/21/2024

DRILLING METHOD		SAMPLER		ESTIMATED GROUND WATER DEPTH			
Vehicle:	ATV	Length:	24" SS	Date	Depth	Elevation	Reference
Model:	9580 VTR	Diameter:	2"OD/1.5"ID	5/21/2024	11 ft	12 ft	Estimated moisture content of samples
Method:	2-1/4" HSA	Hammer:	140 lb				
Hammer Style:	Auto	Method:	ASTM D1586				

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	FIELD VANE DATA							GLACIAL MARINE
23	FV-3		23			S_u = 650 psf $S_{u(r)}$ = 100 psf		DEPOSIT
24								
25	FV-4		25			S_u = 700 psf $S_{u(r)}$ = 100 psf		
26								
27	FV-5		27			S_u = 600 psf $S_{u(r)}$ = 100 psf		
28								
29	FV-6		29			S_u = 850 psf $S_{u(r)}$ = 100 psf		
30								
31	FV-7		31		-8	S_u = 600 psf $S_{u(r)}$ = 100 psf		
32						End of Exploration at 31', No Refusal		31'
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SOIL BORING LOG

SUMMIT GEOENGINEERING SERVICES

Project:	Forefront at Thompson's Point	Boring #:	B-9
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	1 of 2
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services
Driller:	S. Floyd
Summit Staff:	J. Barnes, E.I.

Boring Elevation: 21 feet

Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.

Date started: 5/21/2024 Date Completed: 5/21/2024

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Length:	24" SS
Model:	9580 VTR	Diameter:	2"OD/1.5"ID
Method:	2-1/4" HSA	Hammer:	140 lb
Hammer Style:	Auto	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/21/2024	5 ft	16 ft	Estimated moisture content of samples

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION	Geological/ Test Data	Geological Stratum
	S-1	24/14	0 - 2	10		Brown to black SAND, some Gravel, compact, humid,		FILL
1				14	20	SP		
				12		Black SILT and ash, stiff, moist, ML		1'
2				10				
	S-2	24/16	2 - 4	4		Black ash, trace Sand, organic odor		
3				4				
				4				
4				4		Orange fine SAND, very loose, damp, SP		
5					16			
	S-3	24/19	5 - 7	1		Olive brown to gray Silty CLAY, frequent fine Sand		5' +/-
6				WOH		seams, very soft, wet, CL		GLACIAL MARINE
				1				DEPOSIT
7				2				
	S-4	24/20	7 - 9	1		Olive gray SILT-CLAY, Sand seam at 7.3' to 7.5',	PP = 4,000 psf	
8				2		black stained portion at 7.5', soft, wet, ML-CL		
				1				
9				1				
10								
	S-5	24/16	10 - 12	1		Dark brown to gray Sandy SILT, soft, moist to wet,		
11				2		ML		
				2				
12				3				
	S-6	24/20	12 - 14	3		Olive brown to gray Sandy SILT, rootlets, occasional		
13				3		black staining, wet, soft, ML		
				2				
14				2				
15								
	S-7	24/22	15 - 17	2		Olive gray Silty CLAY, firm, wet to saturated, CL	PP = 6,000 -	
16				3			7,000 psf	
				4				
17				5				
	S-8	24/20	17 - 19	3		Olive gray Silty CLAY, occasional fine Sand seams,	PP = 5,000 -	
18				3		firm, wet to saturated, CL	7,000 psf	
				4				
19				5				
20								
	S-9	24/24	20 - 22	1		Olive gray Silty CLAY, frequent fine Sand seams,	PP = 5,000 -	
21				2		firm, wet to saturated, CL	7,000 psf	
				3				
22				3				

Granular Soils		Cohesive Soils		% Composition
Blows/ft.	Density	Blows/ft.	Consistency	ASTM D2487
0-4	V. Loose	<2	V. soft	
5-10	Loose	2-4	Soft	< 5% Trace
11-30	Compact	5-8	Firm	5-15% Little
31-50	Dense	9-15	Stiff	15-30% Some
>50	V. Dense	16-30	V. Stiff	> 30% With
		>30	Hard	

NOTES: PP = Pocket Penetrometer, MC = Moisture Content

LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test

Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength

Bedrock Joints

Shallow = 0 to 35 degrees

Dipping = 35 to 55 degrees

Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches

Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

SUMMIT GEOENGINEERING SERVICES

SOIL BORING LOG

Project:	Forefront at Thompson's Point	Boring #:	**B-9**
Location:	Thompson's Point Road	Project #:	24098
City, State:	Portland, Maine	Sheet:	2 of 2
		Chkd by:	CWC

Drilling Co:	Summit Geoengineering Services
Driller:	S. Floyd
Summit Staff:	J. Barnes, E.I.

Boring Elevation: 23 feet

Reference: Interpolated from "Conceptual Grading Plan" prepared by Placemarker Partners, LLC.

Date started: 5/21/2024 Date Completed: 5/21/2024

DRILLING METHOD		SAMPLER	
Vehicle:	ATV	Length:	24" SS
Model:	9580 VTR	Diameter:	2"OD/1.5"ID
Method:	2-1/4" HSA	Hammer:	140 lb
Hammer Style:	Auto	Method:	ASTM D1586

ESTIMATED GROUND WATER DEPTH

Date	Depth	Elevation	Reference
5/21/2024	5 ft	16 ft	Estimated moisture content of samples

Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	**SAMPLE DESCRIPTION**	Geological/ Test Data	Geological Stratum
	FIELD VANE DATA							GLACIAL MARINE DEPOSIT
23								
24	FV-1		24		-1	S_u > 1,500 psf		
25						End of Exploration at 24', Vane Push Refusal		24'
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								

Granular Soils		Cohesive Soils	
Blows/ft.	Density	Blows/ft.	Consistency
0-4	V. Loose	<2	V. soft
5-10	Loose	2-4	Soft
11-30	Compact	5-8	Firm
31-50	Dense	9-15	Stiff
>50	V. Dense	16-30	V. Stiff
		>30	Hard

% Composition ASTM D2487
< 5% Trace
5-15% Little
15-30% Some
> 30% With

NOTES: PP = Pocket Penetrometer, MC = Moisture Content
LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test
Bedrock Joints Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength
Shallow = 0 to 35 degrees
Dipping = 35 to 55 degrees
Steep = 55 to 90 degrees

Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

Soil Moisture Condition
Dry: S = 0%
Humid: S = 1 to 25%
Damp: S = 26 to 50%
Moist: S = 51 to 75%
Wet: S = 76 to 99%
Saturated: S = 100%

CPT EXPLORATION COVER SHEET

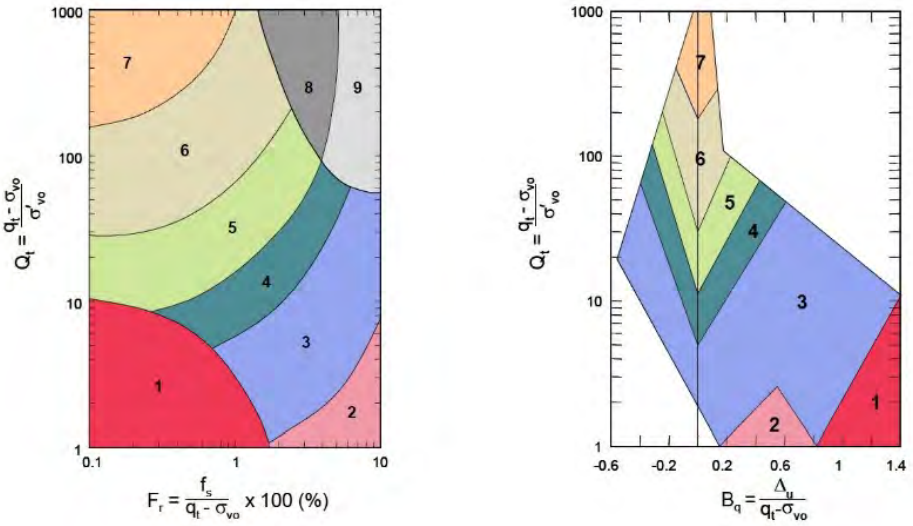
Piezocone penetration test (CPT) is performed by a cone on the end of a series of rods pushed into the ground at a constant rate (2 cm/s) to obtain near continuous measurements of soil parameters. Parameters obtained during the CPT test include cone tip resistance, sleeve friction, and piezocone pore pressure per ASTM D5778 and shear wave velocity per ASTM D7400. These parameters are presented graphically on the CPT log.

CPT Data Symbols:

q_c = Tip Resistance	u_2 = Pore Pressure	q_t = Total Resistance
f_s = Sleeve Friction	v_s = Shear Wave Velocity	c_h = Coefficient of Consolidation

Soil Behavior Type:

Soil behavior type is interpreted from CPT data as one of 9 soil behavior types published by Robertson et al. 1990, shown below. Each soil behavior type (SBT) is assigned a color which correlates to the SBT plot on the CPT log.



Zone	Soil Behavior Type
1	Sensitive, Fine Grained
2	Organic Soils-Peats
3	Clays; Clay to Silty Clay
4	Silt Mixtures; Clayey Silt to Silty Clay
5	Sand Mixtures; Silty Sand to Sandy Silt
6	Sands; Clean Sands to Silty Sands
7	Gravelly Sand to Sand
8	Very Stiff Sand to Clayey Sand*
9	Very Stiff Fine Grained*

*Overconsolidated or Cemented

SUMMIT
GEOENGINEERING SERVICES

CPTu PORE PRESSURE DISSIPATION SUMMARY

NCHRP 368 Figure 58 (G/S_u)

Location	Depth	U_0	U_{100}	U_{50}	$T_{50\,(s)}$	$T_{50\,(min)}$	G	S_u	I_r	$c_{h\,(cm2/min)}$	$c_{h\,(ft2/day)}$
CPT-1	17.80	20.30	4.8	12.55	586.10	9.77	Figure 58	Figure 58	200	1.13	**1.75**
CPT-3	17.83	99.63	4.78	52.21	341.10	5.69	Figure 58	Figure 58	200	1.94	**3.01**
CPT-3	41.62	71.89	15.09	43.49	1718.70	28.65	Figure 58	Figure 58	200	0.39	**0.60**
CPT-5	11.32	58.60	1.74	30.17	635.60	10.59	Figure 58	Figure 58	200	1.04	**1.62**
CPT-5	35.08	84.42	12.03	48.23	2411.70	40.20	Figure 58	Figure 58	200	0.27	**0.43**
CPT-6	18.05	59.64	5.35	32.50	678.70	11.31	Figure 58	Figure 58	200	0.98	**1.51**
CPT-6	31.78	77.36	11.31	44.33	1783.00	29.72	Figure 58	Figure 58	200	0.37	**0.58**
CPT-7	14.58	86.22	45.01	3.80	463.70	7.73	Figure 58	Figure 58	200	1.43	**2.21**
CPT-8	17.88	53.86	3.55	28.70	623.20	10.39	Figure 58	Figure 58	200	1.06	**1.65**
CPT-8	76.46	39.72	28.34	34.33	351.30	5.86	Figure 58	Figure 58	200	1.89	**2.92**

Reference: FIGURE 58 from the National Cooperative Highway Research Program (NCHRP) Synthesis 368 Cone Pentration Testing

Groundwater Head Pressure

Location	Depth	U_{100}	Depth (ft)	Depth (ft)
CPT-1	75.61	23.42	54.02	**21.59**
CPT-3	80.99	23.28	53.70	**27.29**
CPT-4	45.20	12.85	29.64	**15.56**
CPT-5	68.74	20.27	46.75	**21.99**
CPT-6	75.34	23.46	54.11	**21.23**
CPT-7	88.07	30.64	70.67	**17.40**
CPT-9	75.90	23.83	54.97	**20.93**

T	0.245
r	1.785
OCR	1.5
PI	15

$c_h = (T*r^2*\sqrt{I_r})/t$
T = 0.245 at 50%
$I_r = G/S_u$ = 50 to 500 (typical)
d = 3.57 cm (10 cm^2 cone)
r = (½)d = 1.785 cm

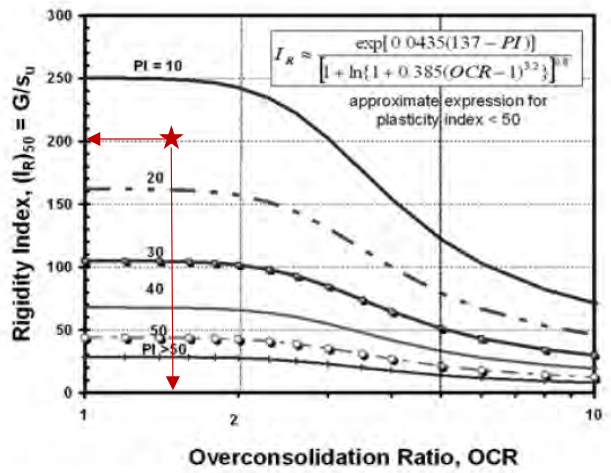
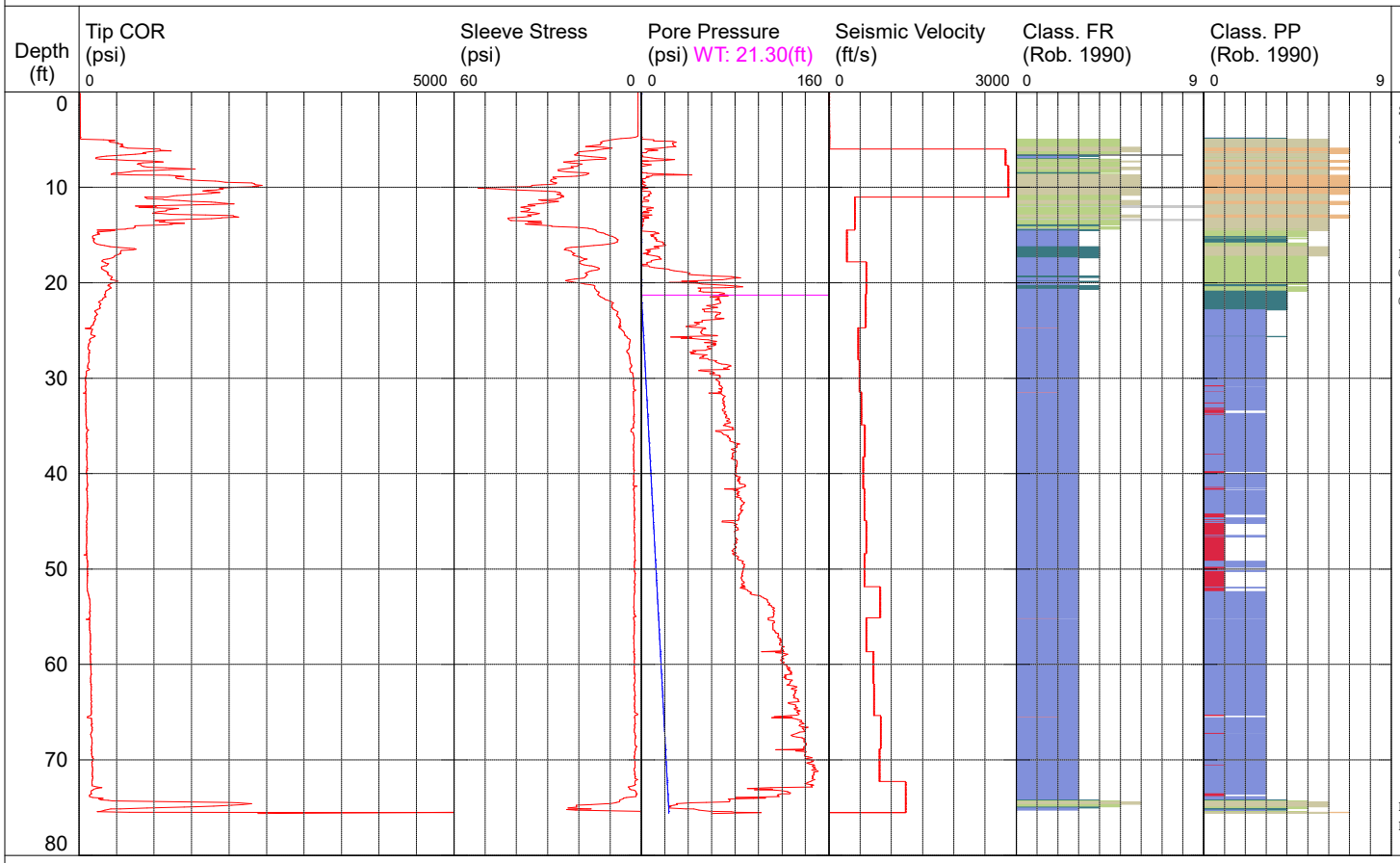


FIGURE 58 Evaluation of rigidity index from plasticity index and OCR (after Keaveny and Mitchell 1986).

CPT-1

COMPANY: Summit Geoengineering Services
OPERATOR: C. Coolidge, P.E.
CREW: C. Sullivan, E.I
CLIENT: Cathartes
CLIENT REP: Rob Simmons

TEST DATE: Thu 23/May/2024
TEST ID: CPT-1
PROJECT: 24098
SITE: The Forefront at Thompson's Point
LOCATION: Thompson's Point Road, Portland, ME



REMARKS

Set Anchor to 5 Ft
Start CPT @ 5 Ft
Dissipation Test @ 17.8 Ft
Ch = 1.8 ft2/day
Groundwater @ 21.3 Ft
Dissipation Test @ 75.6 Ft
Dissipation Head = 21.6 Ft

TOTAL DEPTH: 75.616 ft

PROBE ID: 4544.106XX

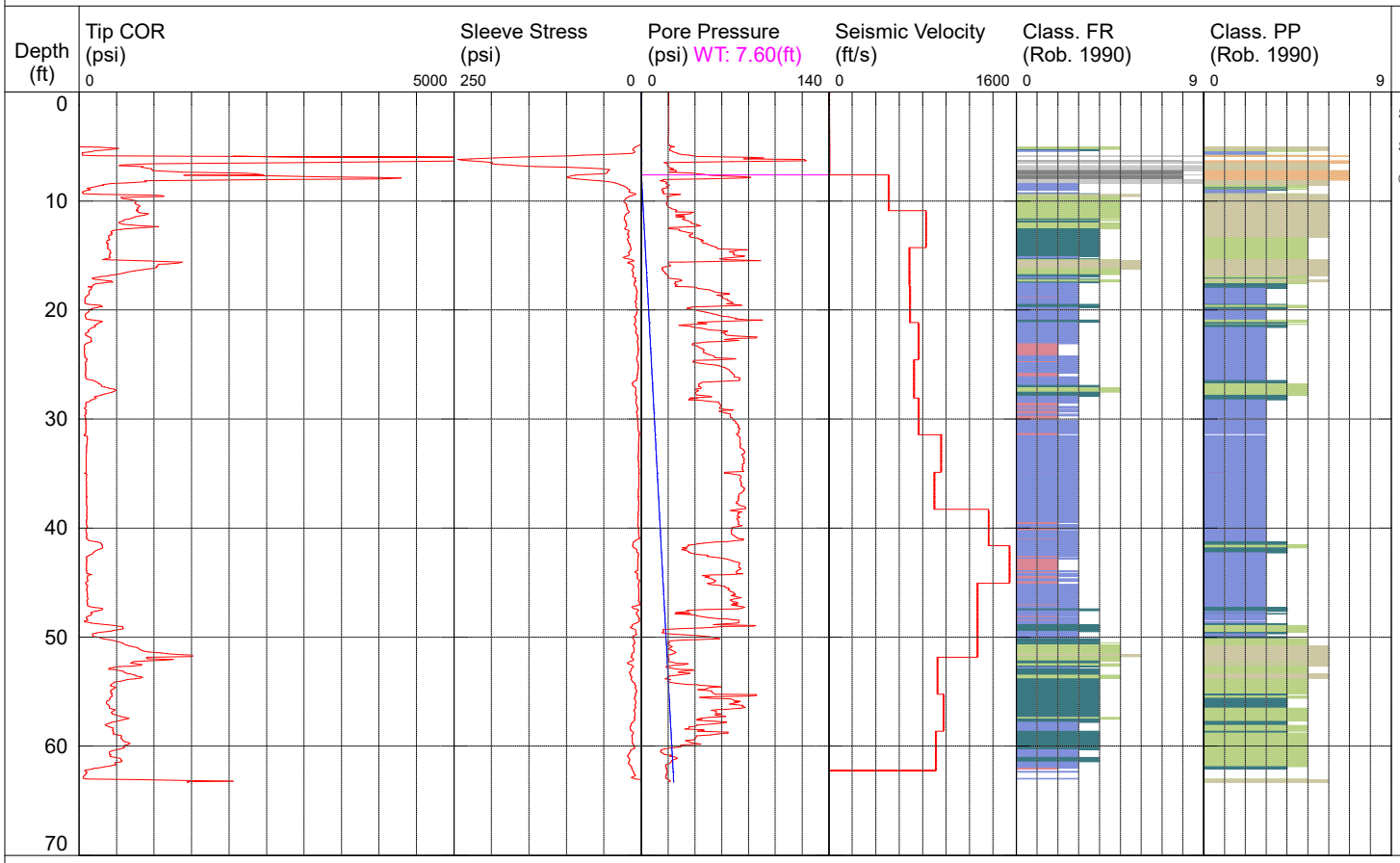
1 Sensitive, fine grained
2 Organic soils - peats
3 Clays - clay to silty clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to sand
8 Very stiff sand to clayey sand **
9 Very stiff, fine grained **

*SBT: Robertson 1990; **Overconsolidated or Cemented; *SBT/SPT CORRELATION: UBC-1983

CPT-2

COMPANY: Summit Geoengineering Services
OPERATOR: C. Coolidge, P.E.
CREW: C. Sullivan, E.I
CLIENT: Cathartes
CLIENT REP: Rob Simmons

TEST DATE: Thu 23/May/2024
TEST ID: CPT-2
PROJECT: 24098
SITE: The Forefront at Thompson's Point
LOCATION: Thompson's Point Road, Portland, ME



REMARKS

Set Anchor to 5 Ft

Start CPT @ 5 Ft

Groundwater @ 7.6 Ft

TOTAL DEPTH: 63.326 ft

PROBE ID: 4544.106XX

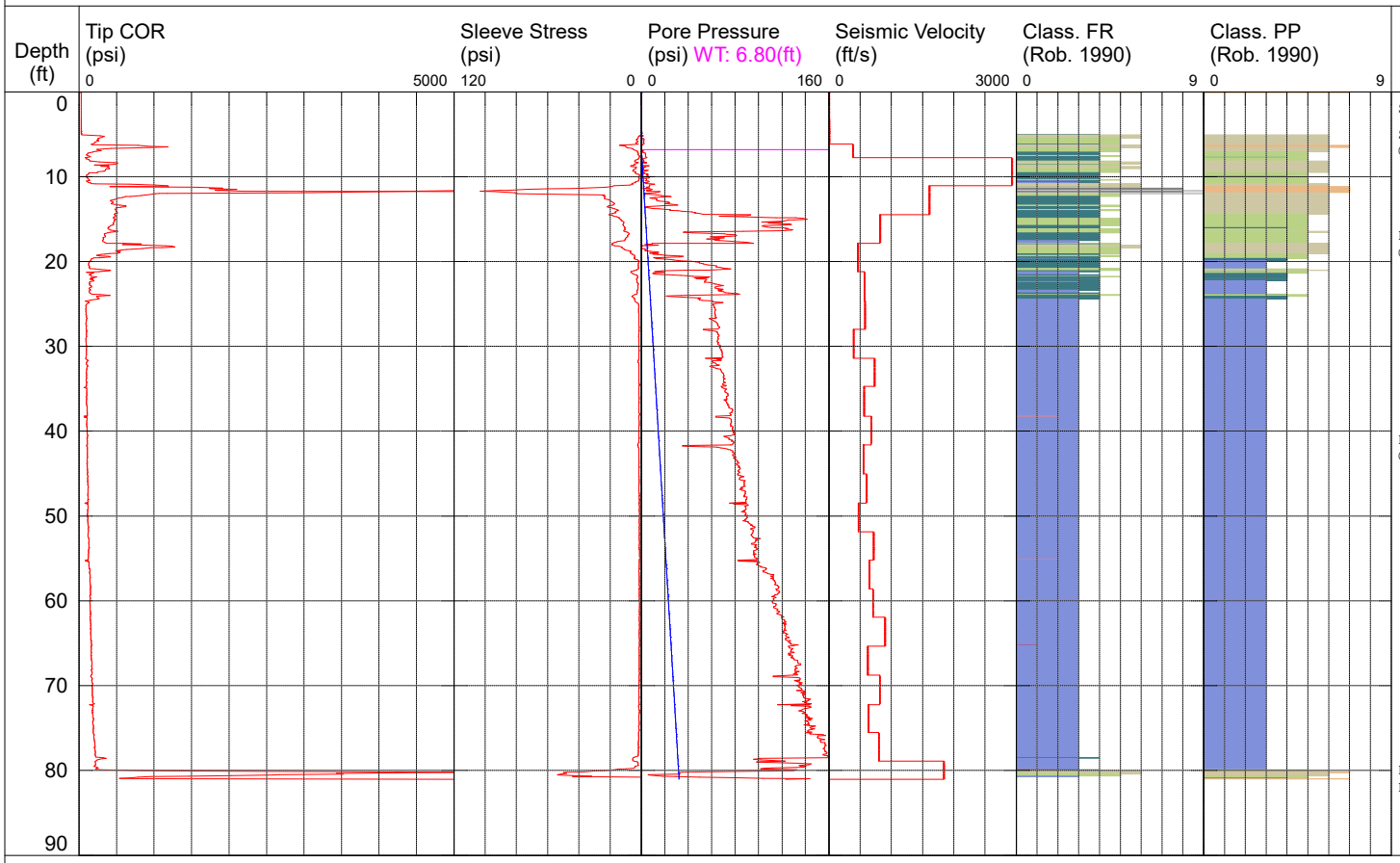
1 Sensitive, fine grained
2 Organic soils - peats
3 Clays - clay to silty clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to sand
8 Very stiff sand to clayey sand **
9 Very stiff, fine grained **

*SBT: Robertson 1990; **Overconsolidated or Cemented; *SBT/SPT CORRELATION: UBC-1983

CPT-3

COMPANY: Summit Geoengineering Services
OPERATOR: C. Coolidge, P.E.
CREW: C. Sullivan, E.I
CLIENT: Cathartes
CLIENT REP: Rob Simmons

TEST DATE: Wed 22/May/2024
TEST ID: CPT-3
PROJECT: 24098
SITE: The Forefront at Thompson's Point
LOCATION: Thompson's Point Road, Portland, ME



REMARKS

Set Anchor to 5 Ft

Start CPT @ 5 Ft
Groundwater @ 6.8 Ft

Dissipation Test @ 17.8 Ft
Ch = 3.0 ft2/day

Dissipation Test @ 41.6 Ft
Ch = 0.6 ft2/day

Dissipation Test @ 81.0 Ft
Dissipation Head = 27.3 Ft

TOTAL DEPTH: 81.038 ft

PROBE ID: 4544.106XX

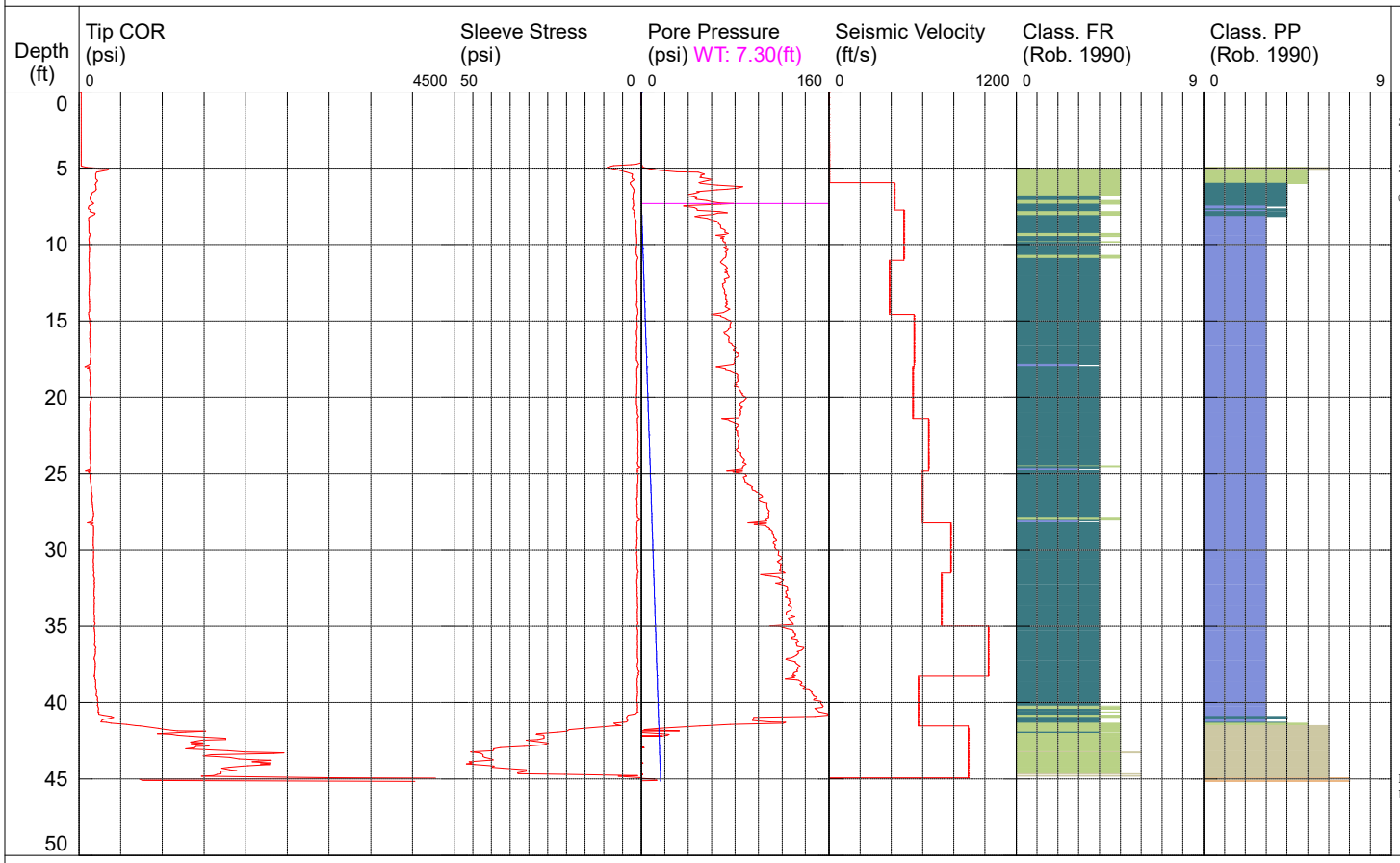
1 Sensitive, fine grained
2 Organic soils - peats
3 Clays - clay to silty clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to sand
8 Very stiff sand to clayey sand **
9 Very stiff, fine grained **

*SBT: Robertson 1990; **Overconsolidated or Cemented; *SBT/SPT CORRELATION: UBC-1983

CPT-4

COMPANY: Summit Geoengineering Services
OPERATOR: C. Coolidge, P.E.
CREW: C. Sullivan, E.I
CLIENT: Cathartes
CLIENT REP: Rob Simmons

TEST DATE: Wed 22/May/2024
TEST ID: CPT-4
PROJECT: 24098
SITE: The Forefront at Thompson's Point
LOCATION: Thompson's Point Road, Portland, ME



REMARKS

Set Anchor to 5 Ft

Start CPT @ 5 Ft

Groundwater @ 7.3 Ft

Dissipation Test @ 45.2 Ft
Dissipation Head = 15.6 Ft

TOTAL DEPTH: 45.161 ft

PROBE ID: 4544.106XX

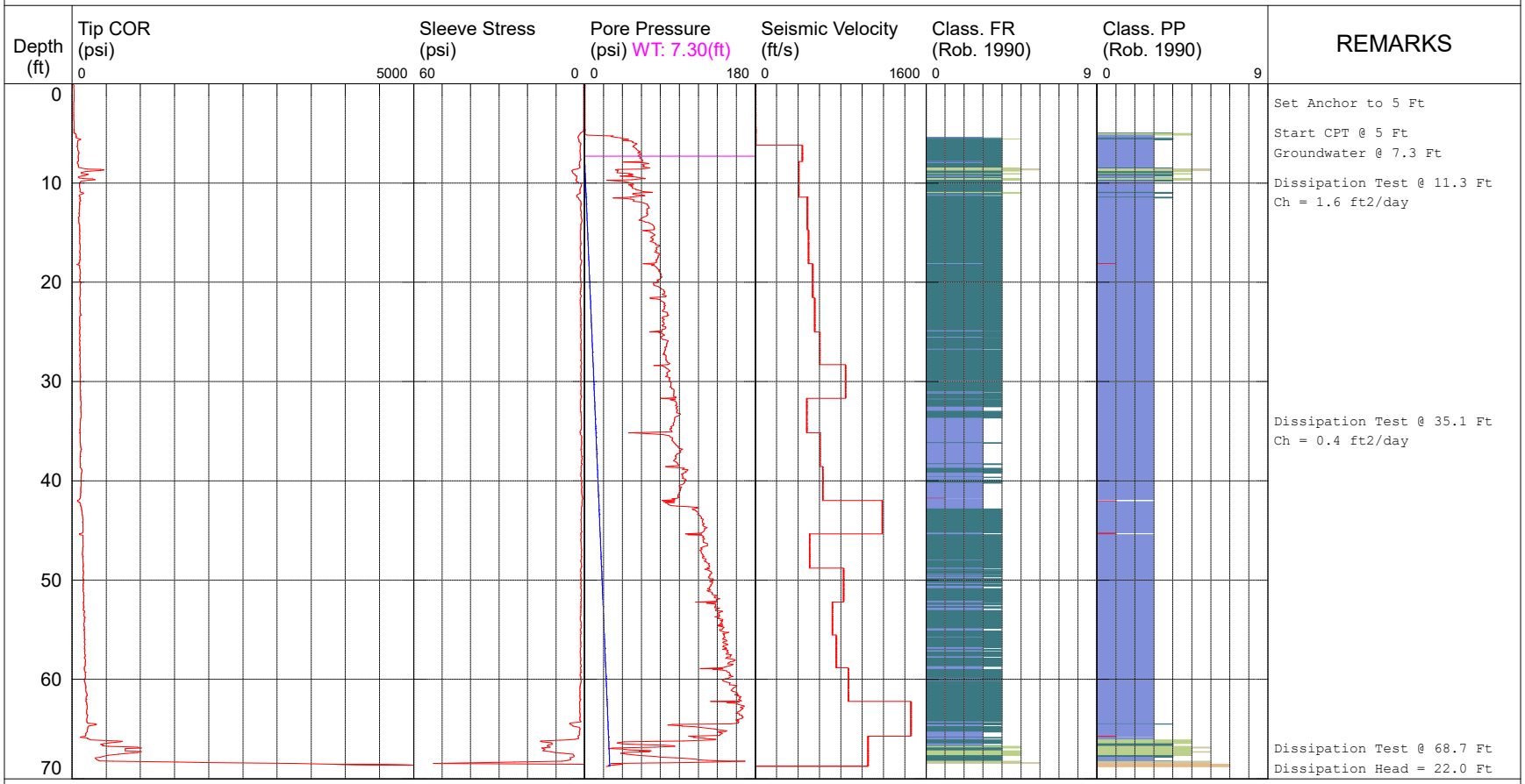
1 Sensitive, fine grained
2 Organic soils - peats
3 Clays - clay to silty clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to sand
8 Very stiff sand to clayey sand **
9 Very stiff, fine grained **

*SBT: Robertson 1990; **Overconsolidated or Cemented; *SBT/SPT CORRELATION: UBC-1983

CPT-5

COMPANY: Summit Geoengineering Services
OPERATOR: C. Coolidge, P.E.
CREW: C. Sullivan, E.I
CLIENT: Cathartes
CLIENT REP: Rob Simmons

TEST DATE: Wed 22/May/2024
TEST ID: CPT-5
PROJECT: 24098
SITE: The Forefront at Thompson's Point
LOCATION: Thompson's Point Road, Portland, ME



REMARKS

Set Anchor to 5 Ft

Start CPT @ 5 Ft
Groundwater @ 7.3 Ft

Dissipation Test @ 11.3 Ft
Ch = 1.6 ft2/day

Dissipation Test @ 35.1 Ft
Ch = 0.4 ft2/day

Dissipation Test @ 68.7 Ft
Dissipation Head = 22.0 Ft

TOTAL DEPTH: 68.771 ft

PROBE ID: 4544.106XX

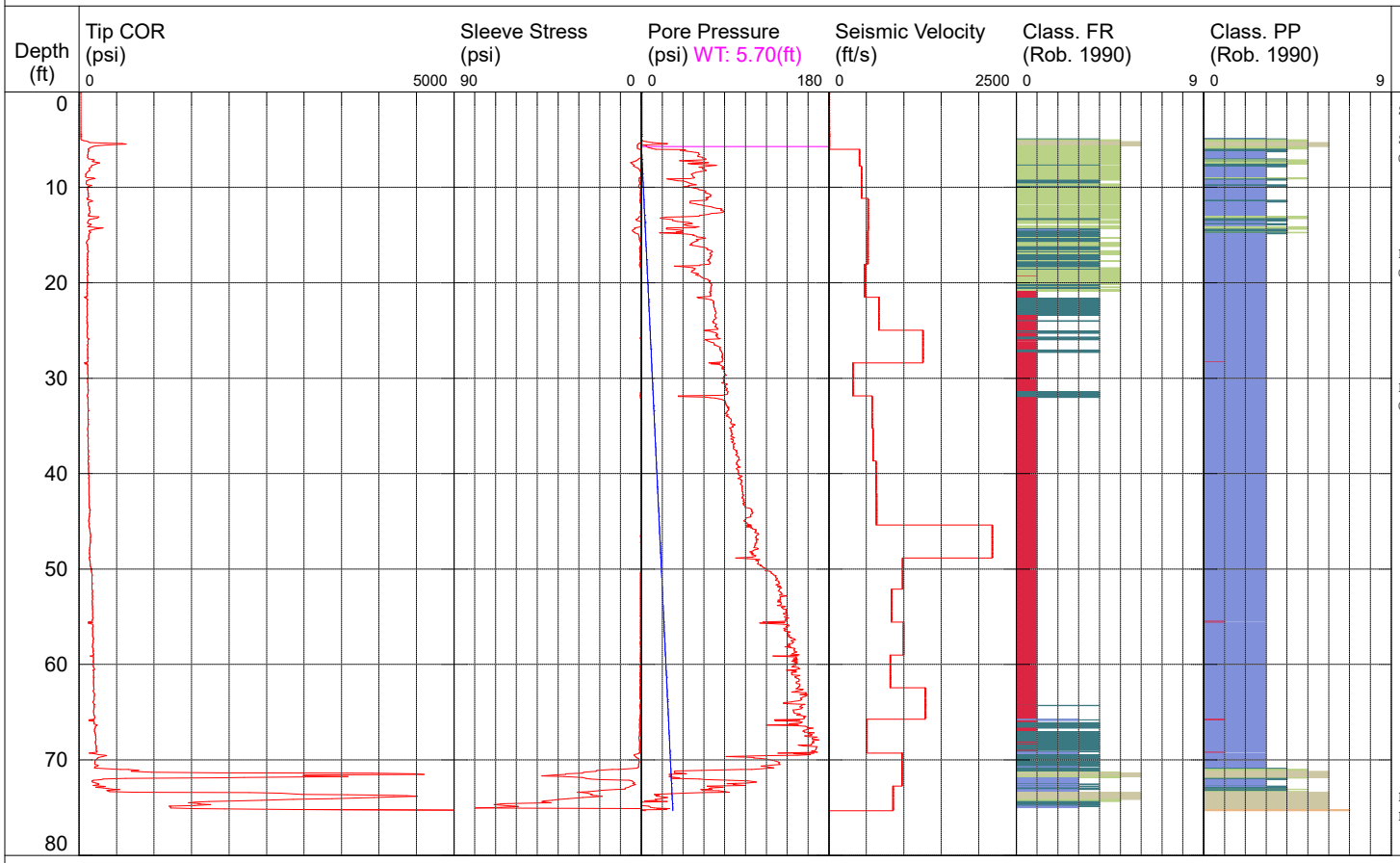
1 Sensitive, fine grained
2 Organic soils - peats
3 Clays - clay to silty clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to sand
8 Very stiff sand to clayey sand **
9 Very stiff, fine grained **

*SBT: Robertson 1990; **Overconsolidated or Cemented; *SBT/SPT CORRELATION: UBC-1983

CPT-6

COMPANY: Summit Geoengineering Services
OPERATOR: C. Coolidge, P.E.
CREW: C. Sullivan, E.I
CLIENT: Cathartes
CLIENT REP: Rob Simmons

TEST DATE: Tue 21/May/2024
TEST ID: CPT-6
PROJECT: 24098
SITE: The Forefront at Thompson's Point
LOCATION: Thompson's Point Road, Portland, ME



REMARKS

Set Anchor to 5 Ft
Start CPT @ 5 Ft
Groundwater @ 5.7 Ft
Dissipation Test @ 18.1 Ft
Ch = 1.5 ft2/day
Dissipation Test @ 31.8 Ft
Ch = 0.6 ft2/day
Dissipation Test @ 75.3 Ft
Dissipation Head = 21.2 Ft

TOTAL DEPTH: 75.336 ft

PROBE ID: 4544.106XX

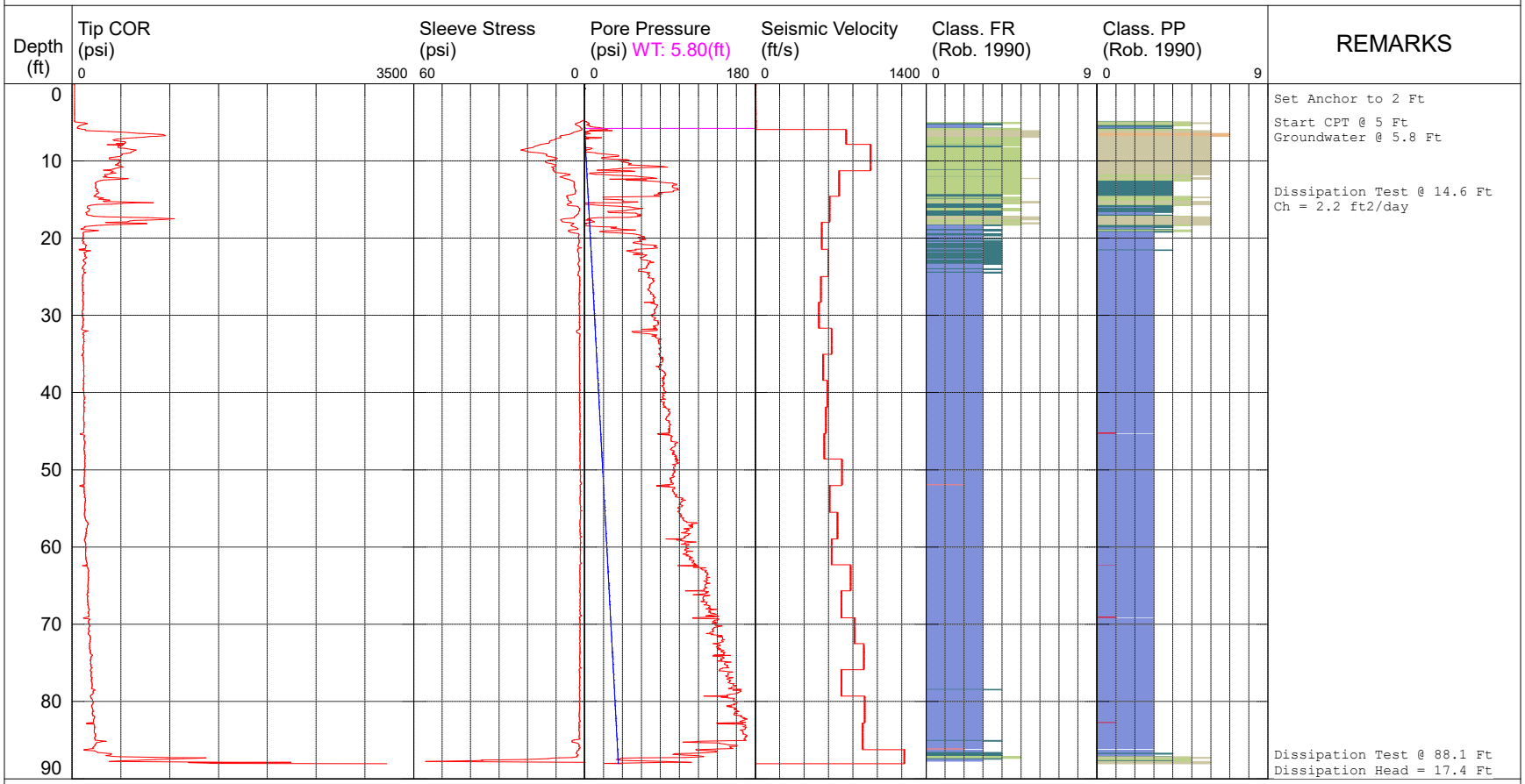
1 Sensitive, fine grained
2 Organic soils - peats
3 Clays - clay to silty clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to sand
8 Very stiff sand to clayey sand **
9 Very stiff, fine grained **

*SBT: Robertson 1990; **Overconsolidated or Cemented; *SBT/SPT CORRELATION: UBC-1983

CPT-7

COMPANY: Summit Geoengineering Services
OPERATOR: C. Coolidge, P.E.
CREW: C. Sullivan, E.I
CLIENT: Cathartes
CLIENT REP: Rob Simmons

TEST DATE: Thu 23/May/2024
TEST ID: CPT-7
PROJECT: 24098
SITE: The Forefront at Thompson's Point
LOCATION: Thompson's Point Road, Portland, ME



REMARKS

Set Anchor to 2 Ft

Start CPT @ 5 Ft
Groundwater @ 5.8 Ft

Dissipation Test @ 14.6 Ft
Ch = 2.2 ft2/day

Dissipation Test @ 88.1 Ft
Dissipation Head = 17.4 Ft

TOTAL DEPTH: 88.068 ft

PROBE ID: 4544.104XX

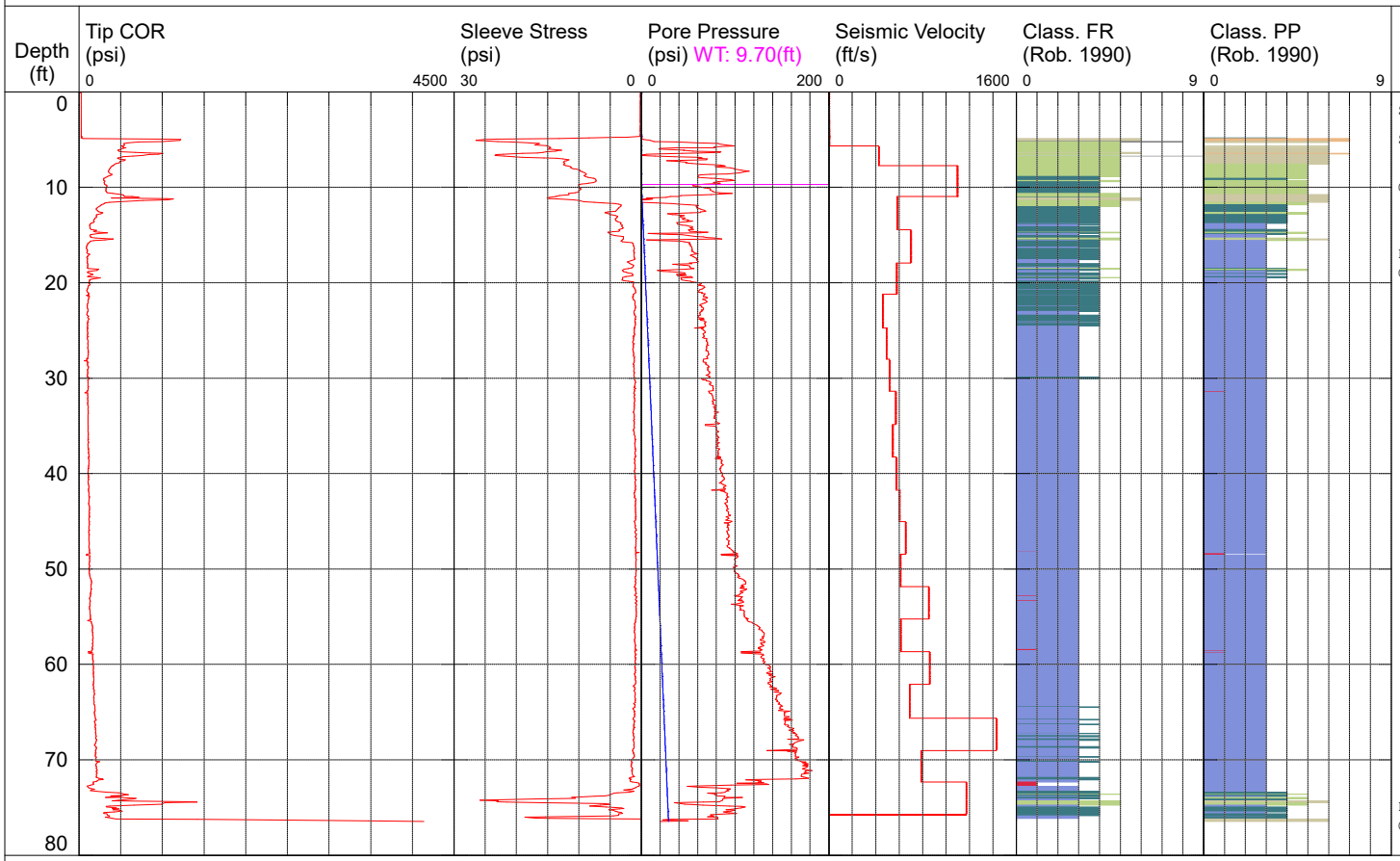
1 Sensitive, fine grained
2 Organic soils - peats
3 Clays - clay to silty clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to sand
8 Very stiff sand to clayey sand **
9 Very stiff, fine grained **

*SBT: Robertson 1990; **Overconsolidated or Cemented; *SBT/SPT CORRELATION: UBC-1983

CPT-8

COMPANY: Summit Geoengineering Services
OPERATOR: C. Coolidge, P.E.
CREW: C. Sullivan, E.I
CLIENT: Cathartes
CLIENT REP: Rob Simmons

TEST DATE: Tue 21/May/2024
TEST ID: CPT-8
PROJECT: 24098
SITE: The Forefront at Thompson's Point
LOCATION: Thompson's Point Road, Portland, ME



REMARKS

Set Anchor to 5 Ft
Start CPT @ 5 Ft
Groundwater @ 9.7 Ft
Dissipation Test @ 17.9 Ft
Ch = 1.7 ft2/day
Dissipation Test @ 76.5 Ft
Ch = 2.9 ft2/day

TOTAL DEPTH: 76.458 ft

PROBE ID: 4544.106XX

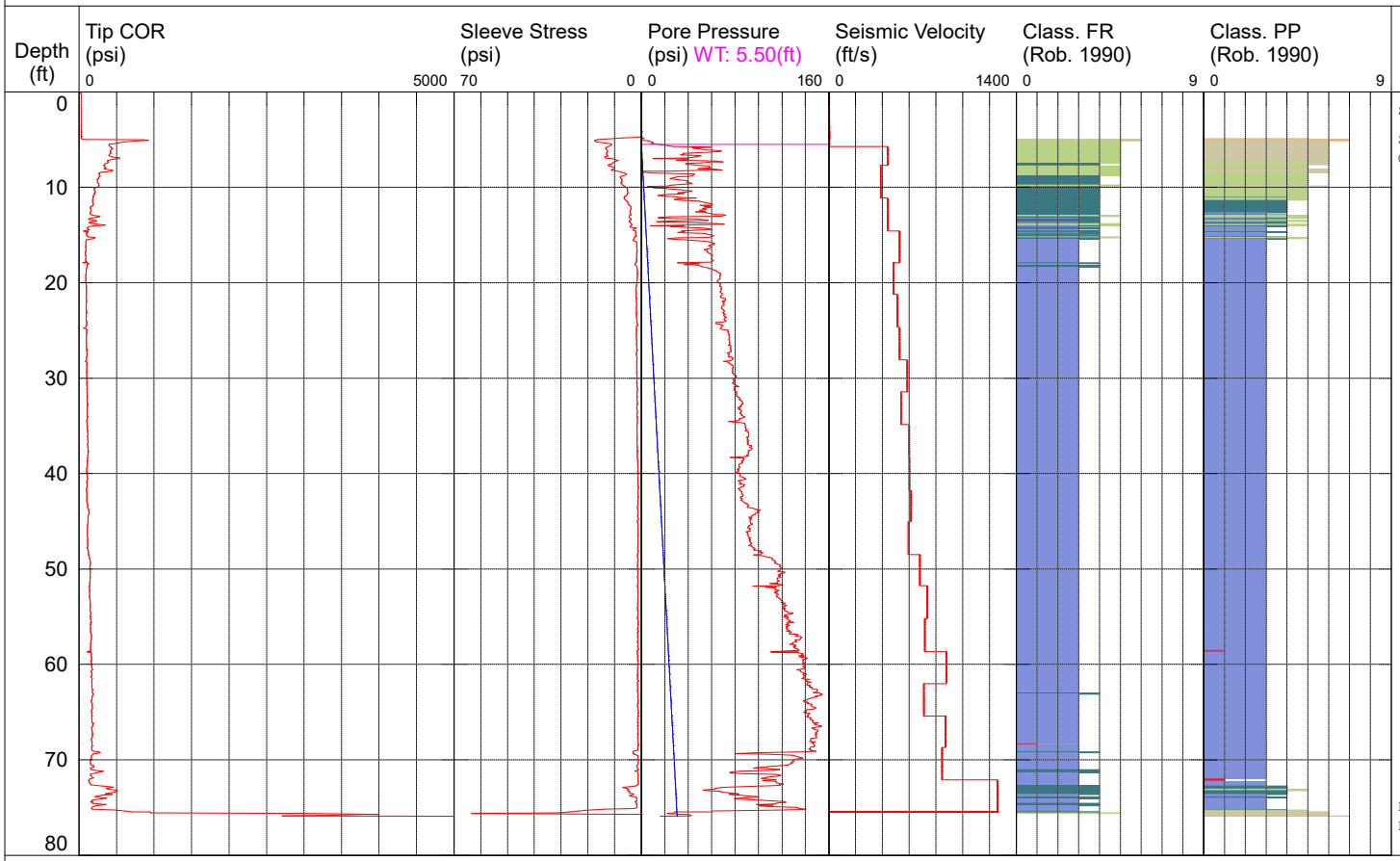
1 Sensitive, fine grained
2 Organic soils - peats
3 Clays - clay to silty clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to sand
8 Very stiff sand to clayey sand **
9 Very stiff, fine grained **

*SBT: Robertson 1990; **Overconsolidated or Cemented; *SBT/SPT CORRELATION: UBC-1983

CPT-9

COMPANY: Summit Geoengineering Services
OPERATOR: C. Coolidge, P.E.
CREW: C. Sullivan, E.I
CLIENT: Cathartes
CLIENT REP: Rob Simmons

TEST DATE: Tue 21/May/2024
TEST ID: CPT-9
PROJECT: 24098
SITE: The Forefront at Thompson's Point
LOCATION: Thompson's Point Road, Portland, ME



REMARKS

Set Anchor to 5 Ft

Start CPT @ 5 Ft
Groundwater @ 5.5 Ft

Dissipation Test @ 75.9 Ft
Dissipation Head = 20.9 Ft

TOTAL DEPTH: 75.921 ft

PROBE ID: 4544.106XX

1 Sensitive, fine grained
2 Organic soils - peats
3 Clays - clay to silty clay
4 Silt mixtures - clayey silt to silty clay
5 Sand mixtures - silty sand to sandy silt
6 Sands - clean sand to silty sand
7 Gravelly sand to sand
8 Very stiff sand to clayey sand **
9 Very stiff, fine grained **

*SBT: Robertson 1990; **Overconsolidated or Cemented; *SBT/SPT CORRELATION: UBC-1983

SUMMIT GEOENGINEERING SERVICES	**TEST PIT LOG**	Test Pit # **TP-1**
	Project: Proposed Fill Slope Thompson's Point Portland, Maine	Project #: 17173 Groundwater: 14.0' Depth
Contractor: Shaw Brothers Construction	Ground Surface Elevation: 20.1 ft. +/-	
Equipment: CAT 330 Tracked Excavator	Reference: Surveyed by Shaw Bros. on day of Explorations	
Summit Staff: M. Hardison, E.I.	Date: 6/14/2017	Weather: 75° Sunny

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
1	12" Dark Brown Sandy SILT, trace Clay, frequent roots and rootlets, damp, loose, ML	TOPSOIL
2	Olive Brown Clayey SILT, little to some Sand, slightly mottled and blocky, humid, stiff, ML	Pocket Penetrometer = 5,000 psf to 7,000 psf
3		GLACIAL MARINE
4		
5	Similar to above, Silty CLAY, slighly mottled, heavily blocky, very stiff, CL	Pocket Penetrometer = 9,000 psf
6		Pocket Penetrometer = 5,500 psf
7		
8	Similar to above, slightly mottled and blocky, trace Silt and Sand seams	Pocket Penetrometer = 4,500 psf
9		
10		
11	Similar to above, slightly mottled, not blocky	Pocket Penetrometer = 3,000 psf
12		
13		
14		▽ Groundwater
15	Gray Silty CLAY, wet, very soft, CL	Pocket Penetrometer <= 500 psf
16	End of Test Pit at 14.7', no refusal	
17		

SUMMIT GEOENGINEERING SERVICES	TEST PIT LOG	Test Pit # TP-2
	Project: Proposed Fill Slope Thompson's Point Portland, Maine	Project #: 17173 Groundwater: None Observed
Contractor: Shaw Brothers Construction	Ground Surface Elevation: 20.1 ft. +/-	
Equipment: CAT 330 Tracked Excavator	Reference: Surveyed by Shaw Bros. on day of Explorations	
Summit Staff: M. Hardison, E.I.	Date: 6/14/2017	Weather: 75° Sunny

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
1	8" Dark Brown Sandy SILT, trace Clay, frequent roots and rootlets, damp, loose, ML	TOPSOIL
2	Olive Brown Clayey SILT, trace to little Sand, moderately mottled and blocky, humid, stiff to very stiff, ML	Pocket Penetrometer > 9,000 psf
3		GLACIAL MARINE
4	Olive gray Silty CLAY, slightly mottled and blocky, frequent Sand and Silt seams, soft to stiff, CL	Pocket Penetrometer = 5,000 psf to 7,000 psf
5		
6		
7		
8	Similar to above, trace Silt and Sand seams	Pocket Penetrometer = 3,500 psf to 9,000 psf
9		
10	Similar to above, slightly mottled, not blocky	
11	End of Test Pit at 10.0', no refusal	
12		
13		
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	TEST PIT LOG	Test Pit # TP-3
	Project: Proposed Fill Slope Thompson's Point Portland, Maine	Project #: 17173 Groundwater: None Observed
Contractor: Shaw Brothers Construction	Ground Surface Elevation: 23.1 ft.	
Equipment: CAT 330 Tracked Excavator	Reference: Surveyed by Shaw Bros. on day of Explorations	
Summit Staff: M. Hardison, E.I.	Date: 6/14/2017	Weather: 75° Sunny

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
1	17" Dark Brown Sandy SILT, trace Clay, frequent roots and rootlets, damp, loose, ML	TOPSOIL
2	Reddish Brown Silty SAND, little Clay, humid, loose, SM	GLACIAL MARINE
3		
4	Olive brown Silty CLAY, trace Sand, heavily mottled and blocky, humid, firm to stiff	Pocket Penetrometer = 7,000 psf to 8,000 psf
5		
6		
7		
8	Similar to above, slightly mottled and blocky, trace Silt and Sand seams	Pocket Penetrometer = 3,500 psf to 5,500 psf
9		
10	Similar to above, slightly mottled, not blocky	Pocket Penetrometer = 5,000 psf to 7,000 psf
11	End of Test Pit at 10.2', no refusal	
12		
13		
14		
15		
16		
17		

SUMMIT GEOENGINEERING SERVICES	TEST PIT LOG	Test Pit # TP-4
	Project: Proposed Fill Slope Thompson's Point Portland, Maine	Project #: 17173 Groundwater: None Observed
Contractor: Shaw Brothers Construction	Ground Surface Elevation: 23.6 ft.	
Equipment: CAT 330 Tracked Excavator	Reference: Surveyed by Shaw Bros. on day of Explorations	
Summit Staff: M. Hardison, E.I.	Date: 6/14/2017	Weather: 75° Sunny

Depth (ft)	DESCRIPTION	
	ENGINEERING	**GEOLOGIC/GENERAL**
1	Brown Silty SAND, trace to little Clay, humid, loose, SM	
2		FILL
3	Olive Brown Silty CLAY, trace to little Sand, heavily mottled and blocky, humid, stiff, CL	Pocket Penetrometer = 4,000 psf
4		
5	Similar to above, moderatley mottled and blocky	Pocket Penetrometer = 5,000 psf
6		
7		
8	Similar to above, slightly mottled and blocky, trace Silt and Sand seams	Pocket Penetrometer = 3,000 psf to 6,000 psf
9		
10	Similar to above, soft to firm	
11		
12		Pocket Penetrometer = 1,500 psf
13	End of Test Pit at 12.0', no refusal	
14		
15		
16		
17		

Project:	Thompson's Point	**Job #:**	7430.2.T1
Location:	Stockplie area	**Date Started:**	4-7-22
City/State:	Portland, Maine	**Date Finished:**	4-12-22

Boring No.

MA-1

Contractor: Carr-Dee Corp
Driller/Helper: G. Smith/C. Smith
Logged By/Reviewed By: T. M. Cormican
Surface Elevation (ft): 32.8

Casing Type: 2.25 inch HSA/HW
Casing Hammer (lbs)/Drop (in): 300 lbs./24 inches
Sampler Size/Type: 1-3/8 inch I.D. Split spoon
Sampler Hammer (lbs)/Drop (in): 140 lbs./30 inches

Groundwater Observations

Date	Depth	Elev.	Notes
4-7-22	11.5	21.3	

Depth (ft)	Elev. (ft)	Symbol	Depth/EL to Strata Change (ft)	Stratum	Sample N-Value / RQD	Sample No.	Sample Pen./Rec. (in)	Sample Depth (ft)	Sample Blows/6" / Min/ft	Sample Description and Boring Notes
1	32			FILL	10	S-1	24/20	0.0-2.0	5 5 5 9	Loose to compact gray-brown silty CLAY, some sand, trace gravel. (FILL) NOTE(s): Advanced Augers to 5 ft. Sampled contionously to 9 ft. Removed HSA and Replace with HW casing to 9 ft. Performed wet rotary drilling open hole to 55 feet.
2	31									
3	30		3.0 / 29.8							
4	29			MARINE CLAY						
5	28				14	S-2	24/24	5.0-7.0	9 6 8 9	Compact stratified yellow-gray and blue-gray fine sandy SILT and silty fine SAND to stiff mottled yellow-gray silty CLAY, with occasional fine SAND, partings. (MARINE CLAY)
6	27									
7	26				20	S-3	24/16	7.0-9.0	10 10 10 9	Very stiff ywllow-gray silty CLAY, with occasional fine SAND partings. (MARINE CLAY)
8	25									
9	24									
10	23				7	S-4	24/20	10.0-12.0	2 3 4 4	Firm mottled yellow-gray and blue-gray silty CLAY, with occasional fine SAND partings. (MARINE CLAY)
11	22									
12	21				9	S-5	24/20	12.0-14.0	6 4 5 4	Stiff yellow-gray silty CLAY, with occasional fine SAND partings. (MARINE CLAY)
13	20									
14	19				n/a	U.P.-1	24/19	14.0-16.0	P U S H	mottled yellow-gray silty CLAY. (MARINE CLAY)
15	18									
16	17				3	S-6	24/14	16.0-18.0	1 1 2 1	Soft mottled yellow-gray silty CLAY. (MARINE CLAY)
17	16									
18	15									
19	14									
20	13									
21	12									
22	11									Very soft gray silty CLAY. (MARINE CLAY)
	10									

GRANULAR SOILS	
BLOWS/FT.	DENSITY
0-4	V.LOOSE
4-10	LOOSE
10-30	COMPACT
30-50	DENSE
>50	V.DENSE

COHESIVE SOILS	
BLOWS/FT.	CONSISTENCY
<2	V.SOFT
2-4	SOFT
4-8	FIRM
8-15	STIFF
15-30	V.STIFF
>30	HARD

SOIL COMPONENT

DESCRIPTIVE TERM	PROPORTION OF TOTAL
"TRACE"	0-10%
"SOME"	10-20%
"ADJECTIVE" (eg SANDY, SILTY)	20-35%
"AND"	35-50%

SOIL CONTAINING THREE COMPONENTS EACH OF WHICH COMPRISE AT LEAST 25% OF THE TOTAL ARE CLASSIFIED AS "A WELL-GRADED MIXTURE OF"

Notes:
Automatic Hammer

Weather: Variable

McPHAIL ASSOCIATES, LLC
2269 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02140
TEL: 617-868-1420
FAX: 617-868-1423

Project:	Thompson's Point	**Job #:**	7430.2.T1
Location:	Stockplie area	**Date Started:**	4-7-22
City/State:	Portland, Maine	**Date Finished:**	4-12-22

Boring No.

MA-1

Contractor: Carr-Dee Corp
Driller/Helper: G. Smith/C. Smith
Logged By/Reviewed By: T. M. Cormican
Surface Elevation (ft): 32.8

Casing Type: 2.25 inch HSA/HW
Casing Hammer (lbs)/Drop (in): 300 lbs./24 inches
Sampler Size/Type: 1-3/8 inch I.D. Split spoon
Sampler Hammer (lbs)/Drop (in): 140 lbs./30 inches

Groundwater Observations

Date	Depth	Elev.	Notes
4-7-22	11.5	21.3	

Depth (ft)	Elev. (ft)	Symbol	Depth/EL to Strata Change (ft)	Stratum	Sample N-Value / RQD	Sample No.	Sample Pen./Rec. (in)	Sample Depth (ft)	Sample Blows/6" / Min/ft	Sample Description and Boring Notes
24	9				0	S-7	24/24	22.0-24.0	WOH WOH	
25	8				n/a	U.P. 2	24/22	24.0-26.0	WOH Ø S H	gray silty CLAY. (MARINE CLAY)
26	7									
27	6				1	S-8	24/24	26.0-28.0	WOH WOH 1 2	Very soft gray silty CLAY to mottled gray-black ORGANIC SILT/CLAY? (MARINE CLAY)
28	5									
29	4									
30	3									
31	2									
32	1									
33	0				2	S-9	24/24	32.0-34.0	WOH WOH 2 2	Very soft to soft gray silty CLAY, with specks/splotches of black organic silt/clay? (MARINE CLAY)
34	-1									
35	-2			MARINE CLAY	n/a	U.P.-3	24/22	34.0-36.0	P U S H	gray silty CLAY, with black organic silt/clay? (MARINE CLAY)
36	-3									
37	-4				O	S-10	24/18	36.0-38.0	WOR WOR WOH WOH	Very soft gray silty CLAY, with specks/splotches of black organic silt/clay? (MARINE CLAY)
38	-5									
39	-6									
40	-7									
41	-8									
42	-9									
43	-10									
44	-11									
45	-12				1	S-11	24/24	44.0-46.0	WOR WOR 1 2	Very soft gray silty CLAY, with frequent fine SAND partings and frequent partings and seams of black organic silt/clay? (MARINE CLAY)
	-13									

GRANULAR SOILS	
BLOWS/FT.	DENSITY
0-4	V.LOOSE
4-10	LOOSE
10-30	COMPACT
30-50	DENSE
>50	V.DENSE

COHESIVE SOILS	
BLOWS/FT.	CONSISTENCY
<2	V.SOFT
2-4	SOFT
4-8	FIRM
8-15	STIFF
15-30	V.STIFF
>30	HARD

SOIL COMPONENT

DESCRIPTIVE TERM	PROPORTION OF TOTAL
"TRACE"	0-10%
"SOME"	10-20%
"ADJECTIVE" (eg SANDY, SILTY)	20-35%
"AND"	35-50%

SOIL CONTAINING THREE COMPONENTS EACH OF WHICH COMPRISE AT LEAST 25% OF THE TOTAL ARE CLASSIFIED AS "A WELL-GRADED MIXTURE OF"

Notes:
Automatic Hammer

Weather: Variable

McPHAIL ASSOCIATES, LLC
2269 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02140
TEL: 617-868-1420
FAX: 617-868-1423

Project: Thompson's Point
Location: Stockplie area
City/State: Portland, Maine

Job #: 7430.2.T1
Date Started: 4-7-22
Date Finished: 4-12-22

Boring No. MA-1

Contractor: Carr-Dee Corp
Driller/Helper: G. Smith/C. Smith
Logged By/Reviewed By: T. M. Cormican
Surface Elevation (ft): 32.8

Casing Type: 2.25 inch HSA/HW
Casing Hammer (lbs)/Drop (in): 300 lbs./24 inches
Sampler Size/Type: 1-3/8 inch I.D. Split spoon
Sampler Hammer (lbs)/Drop (in): 140 lbs./30 inches

Groundwater Observations

Date	Depth	Elev.	Notes
4-7-22	11.5	21.3	

Depth (ft)	Elev. (ft)	Symbol	Depth/EL to Strata Change (ft)	Stratum	Sample N-Value / RQD	Sample No.	Sample Pen./Rec. (in)	Sample Depth (ft)	Sample Blows/6" / Min/ft	Sample Description and Boring Notes
47	-14			MARINE CLAY						
48	-15									
49	-16									
50	-17		50.0 / -17.2							
51	-18			GLACIAL OUTWASH	38	S-12	24/9	50.5-52.5	15 15 23 8	Dense gray silty fine to medium SAND, trace gravel. (GLACIAL OUTWASH)
52	-19									
53	-20		53.5 / -20.7							
54	-21			WEATHERED/FRACTURED BEDROCK WITH GLACIAL TILL SEAMS	100/2"	S-13	2/2	55.0-55.2	100/2"	Very dense gray-black SILT, SAND and GRAVEL. (WEATHERED/FRACTUED BEDROCK with GLACIAL TILL seams). NOTE: Hole caved after sampling. Drove HW casing to refusal at 54.1 feet. Washed out and continued open hole to practical button bit refusal at 56.5 feet.
55	-22									
56	-23		56.0 / -23.2							
57	-24			GNEISSIC SCHIST BEDROCK	75%	R.C.-1	60/60	56.5-61.5	7-7.5-7.5-8.5-8.5	Very hard, freshly weathered, moderately fractured to sound, gray, black and white, amorphous to fine grained gniessic SCHIST, close, tight, horizontal to shallow dipping, rough joints; horizontal banding. (BEDROCK) Performed rock coring operations with NX split inner barrel. Borehole grouted upon completion.
58	-25									
59	-26									
60	-27									
61	-28		61.5 / -28.7							
62	-29			Bottom of Borehole at 61.5 feet below existing grade.						
63	-30									
64	-31									
65	-32									
66	-33									
67	-34									
68	-35									
	-36									

GRANULAR SOILS	
BLOWS/FT.	DENSITY
0-4	V.LOOSE
4-10	LOOSE
10-30	COMPACT
30-50	DENSE
>50	V.DENSE

COHESIVE SOILS	
BLOWS/FT.	CONSISTENCY
<2	V.SOFT
2-4	SOFT
4-8	FIRM
8-15	STIFF
15-30	V.STIFF
>30	HARD

SOIL COMPONENT

DESCRIPTIVE TERM	PROPORTION OF TOTAL
"TRACE"	0-10%
"SOME"	10-20%
"ADJECTIVE" (eg SANDY, SILTY)	20-35%
"AND"	35-50%

SOIL CONTAINING THREE COMPONENTS EACH OF WHICH COMPRISE AT LEAST 25% OF THE TOTAL ARE CLASSIFIED AS "A WELL-GRADED MIXTURE OF"

Notes:
Automatic Hammer

Weather: Variable

McPHAIL ASSOCIATES, LLC
2269 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02140
TEL: 617-868-1420
FAX: 617-868-1423

Project:	Thompson's Point	**Job #:**	7430.2.T1
Location:	Gravel Parking Lot	**Date Started:**	4-6-22
City/State:	Portland, Maine	**Date Finished:**	4-7-22

Boring No.

MA-2

Contractor: Carr-Dee Corp
Driller/Helper: G. Smith/C. Smith
Logged By/Reviewed By: T. M. Cormican
Surface Elevation (ft): 21.8

Casing Type: 2.25 inch HSA/HW
Casing Hammer (lbs)/Drop (in): 300 lbs./24 inches
Sampler Size/Type: 1-3/8 inch I.D. Split spoon
Sampler Hammer (lbs)/Drop (in): 140 lbs./30 inches

Groundwater Observations

Date	Depth	Elev.	Notes
4-6-22	6.5	15.3	

Depth (ft)	Elev. (ft)	Symbol	Depth/EL to Strata Change (ft)	Stratum	Sample N-Value / RQD	Sample No.	Sample Pen./Rec. (in)	Sample Depth (ft)	Sample Blows/6" / Min/ft	Sample Description and Boring Notes
1	21			FILL	30	S-1	24/24	0.0-2.0	19 15 15 53	Compact to dense gray-brown gravelly SAND, trace silt to black SILT and SAND and ASH and CINDERS. (FILL) NOTE(s): Augered to 5 feet, sampled continously to 9 feet. Removed HSA and replaced with HW casing to 9 feet. Performed wet rotary drilling open hole to bottom of borehole.
2	20									
3	19		3.0 / 18.8							
4	18									
5	17									
6	16				3	S-2	24/24	5.0-7.0	1 2 1 2	Soft yellow-gray to blue-gray silty CLAY, with occasional fine SAND partings. (MARINE CLAY)
7	15									
8	14				3	S-3	24/24	7.0-9.0	1 2 1 2	Soft blu-gay silty CLAY, with occasional fine SAND partings. (MARINE CLAY)
9	13									
10	12				n/a	U.P.-1	24/18	9.0-11.0	P U S H	gray silty CLAY with fine SAND paring at bottom of sample. (MARINE CLAY)
11	11									
12	10				0	S-4	24/24	11.0-13.0	WOH WOH WOH WOH	Very soft gray silty CLAY, with occasional fine SAND partings. (MARINE CLAY)
13	9			MARINE CLAY						
14	8									
15	7									
16	6									
17	5									
18	4									
19	3									
20	2				0	S-5	24/24	19.0-21.0	WOH WOH WOH WOH	Very soft gray silty CLAY, with occasional fine SAND partings. (MARINE CLAY)
21	1									
22	0									
	-1									

GRANULAR SOILS	
BLOWS/FT.	DENSITY
0-4	V.LOOSE
4-10	LOOSE
10-30	COMPACT
30-50	DENSE
>50	V.DENSE

COHESIVE SOILS	
BLOWS/FT.	CONSISTENCY
<2	V.SOFT
2-4	SOFT
4-8	FIRM
8-15	STIFF
15-30	V.STIFF
>30	HARD

SOIL COMPONENT

DESCRIPTIVE TERM	PROPORTION OF TOTAL
"TRACE"	0-10%
"SOME"	10-20%
"ADJECTIVE" (eg SANDY, SILTY)	20-35%
"AND"	35-50%

SOIL CONTAINING THREE COMPONENTS EACH OF WHICH COMPRISE AT LEAST 25% OF THE TOTAL ARE CLASSIFIED AS "A WELL-GRADED MIXTURE OF"

Notes:
Automatic Hammer

Weather: Variable

McPHAIL ASSOCIATES, LLC
2269 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02140
TEL: 617-868-1420
FAX: 617-868-1423

Project: Thompson's Point
Location: Gravel Parking Lot
City/State: Portland, Maine

Job #: 7430.2.T1
Date Started: 4-6-22
Date Finished: 4-7-22

Boring No. MA-2

Contractor: Carr-Dee Corp
Driller/Helper: G. Smith/C. Smith
Logged By/Reviewed By: T. M. Cormican
Surface Elevation (ft): 21.8

Casing Type: 2.25 inch HSA/HW
Casing Hammer (lbs)/Drop (in): 300 lbs./24 inches
Sampler Size/Type: 1-3/8 inch I.D. Split spoon
Sampler Hammer (lbs)/Drop (in): 140 lbs./30 inches

Groundwater Observations

Date	Depth	Elev.	Notes
4-6-22	6.5	15.3	

Depth (ft)	Elev. (ft)	Symbol	Depth/EL to Strata Change (ft)	Stratum	Sample N-Value / RQD	Sample No.	Sample Pen./Rec. (in)	Sample Depth (ft)	Sample Blows/6" / Min/ft	Sample Description and Boring Notes
24	-2									
25	-3									
26	-4									
27	-5									
28	-6				0	S-6	24/24	27.0-29.0	WOR WOR WOH WOH	Very soft gray silty CLAY. (MARINE CLAY)
29	-7									
30	-8				n/a	U.P.-2	24/16	29.0-31.0	P U S H	gray silty CLAY. (MARINE CLAY)
31	-9									
32	-10				0	S-7	24/24	31.0-33.0	WOH WOH WOH WOH	Very soft gray silty CLAY, with occasional black ORGANIC SILT ? partings and seams near bootom of sample. (MARINE CLAY)
33	-11									
34	-12									
35	-13			MARINE CLAY						
36	-14									
37	-15									
38	-16									
39	-17									
40	-18				0	S-8	24/3	39.0-41.0	WOR WOR WOR WOH	Very soft gray-black silty CLAY, with organic odor. (MARINE CLAY) NOTE(s): Gray-black color change in wash return water at ~ 36 feet. Made multible attempts to get split sppon recovery.
41	-19									
42	-20									
43	-21									
44	-22									
45	-23				0	S-9	24/0	44.0-46.0	WOR WOR WOR WOR	No Recovery NOTE: Made mutible attempts to get split spoon recovery.
	-24									

GRANULAR SOILS	
BLOWS/FT.	DENSITY
0-4	V.LOOSE
4-10	LOOSE
10-30	COMPACT
30-50	DENSE
>50	V.DENSE

COHESIVE SOILS	
BLOWS/FT.	CONSISTENCY
<2	V.SOFT
2-4	SOFT
4-8	FIRM
8-15	STIFF
15-30	V.STIFF
>30	HARD

SOIL COMPONENT

DESCRIPTIVE TERM	PROPORTION OF TOTAL
"TRACE"	0-10%
"SOME"	10-20%
"ADJECTIVE" (eg SANDY, SILTY)	20-35%
"AND"	35-50%

SOIL CONTAINING THREE COMPONENTS EACH OF WHICH COMPRISE AT LEAST 25% OF THE TOTAL ARE CLASSIFIED AS "A WELL-GRADED MIXTURE OF"

Notes:
Automatic Hammer

Weather: Variable

McPHAIL ASSOCIATES, LLC
2269 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02140
TEL: 617-868-1420
FAX: 617-868-1423

Project:	Thompson's Point	**Job #:**	7430.2.T1
Location:	Gravel Parking Lot	**Date Started:**	4-6-22
City/State:	Portland, Maine	**Date Finished:**	4-7-22

Boring No.

MA-2

Contractor: Carr-Dee Corp
Driller/Helper: G. Smith/C. Smith
Logged By/Reviewed By: T. M. Cormican
Surface Elevation (ft): 21.8

Casing Type: 2.25 inch HSA/HW
Casing Hammer (lbs)/Drop (in): 300 lbs./24 inches
Sampler Size/Type: 1-3/8 inch I.D. Split spoon
Sampler Hammer (lbs)/Drop (in): 140 lbs./30 inches

Groundwater Observations

Date	Depth	Elev.	Notes
4-6-22	6.5	15.3	

Depth (ft)	Elev. (ft)	Symbol	Depth/EL to Strata Change (ft)	Stratum	Sample N-Value / RQD	Sample No.	Sample Pen./Rec. (in)	Sample Depth (ft)	Sample Blows/6" / Min/ft	Sample Description and Boring Notes
47	-25									
48	-26									
49	-27									
50	-28				0	S-10	24/0	49.0-51.0	WOR WOR WOR WOR	No Recovery NOTE: Made mutible attempts to get split spoon recovery in addtion to pushing split spoon to 54 feet and still no recovery.
51	-29									
52	-30									
53	-31			MARINE CLAY						
54	-32									
55	-33									
56	-34									
57	-35									
58	-36									
59	-37									
60	-38		60.0 / -38.2		3	S-11	12/10	59.0-60.0	1 2	Soft black silty CLAY/ORANIC CLAY? (MUDLINE?)
61	-39				23	S-11a	12/6	60.0-61.0	21 23	Dense gray SAND, trace to some silt, with gravel in split spoon nose. (GLACIAL OUTWASH)
62	-40									
63	-41									
64	-42									
65	-43			GLACIAL OUTWASH						
66	-44				38	S-12	24/8	65.0-67.0	9 10 28 14	Dense gray-black SAND and GRAVEL, some silt, trace clay. (GLACIAL OUTWASH)
67	-45									
68	-46									
	-47									

GRANULAR SOILS	
BLOWS/FT.	DENSITY
0-4	V.LOOSE
4-10	LOOSE
10-30	COMPACT
30-50	DENSE
>50	V.DENSE

COHESIVE SOILS	
BLOWS/FT.	CONSISTENCY
<2	V.SOFT
2-4	SOFT
4-8	FIRM
8-15	STIFF
15-30	V.STIFF
>30	HARD

SOIL COMPONENT

DESCRIPTIVE TERM	PROPORTION OF TOTAL
"TRACE"	0-10%
"SOME"	10-20%
"ADJECTIVE" (eg SANDY, SILTY)	20-35%
"AND"	35-50%

SOIL CONTAINING THREE COMPONENTS EACH OF WHICH COMPRISE AT LEAST 25% OF THE TOTAL ARE CLASSIFIED AS "A WELL-GRADED MIXTURE OF"

Notes:
Automatic Hammer

Weather: Variable

McPHAIL ASSOCIATES, LLC
2269 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02140
TEL: 617-868-1420
FAX: 617-868-1423

Project:	Thompson's Point	**Job #:**	7430.2.T1
Location:	Gravel Parking Lot	**Date Started:**	4-6-22
City/State:	Portland, Maine	**Date Finished:**	4-7-22

Boring No.

MA-2

Contractor: Carr-Dee Corp
Driller/Helper: G. Smith/C. Smith
Logged By/Reviewed By: T. M. Cormican
Surface Elevation (ft): 21.8

Casing Type: 2.25 inch HSA/HW
Casing Hammer (lbs)/Drop (in): 300 lbs./24 inches
Sampler Size/Type: 1-3/8 inch I.D. Split spoon
Sampler Hammer (lbs)/Drop (in): 140 lbs./30 inches

Groundwater Observations

Date	Depth	Elev.	Notes
4-6-22	6.5	15.3	

Depth (ft)	Elev. (ft)	Symbol	Depth/EL to Strata Change (ft)	Stratum	Sample N-Value / RQD	Sample No.	Sample Pen./Rec. (in)	Sample Depth (ft)	Sample Blows/6" / Min/ft	Sample Description and Boring Notes
70	-48			GLACIAL OUTWASH	52	S-13	6/5	70.0-70.5	26	Compact to dense gray SAND and GRAVEL, trace to some silt. (GLACIAL OUTWASH)
			70.5 / -48.7							
71	-49		70.7 / -48.9	GLACIAL TILL	100/2"	S-13a	2/2	70.5-70.7	100/2"	Very dense gray SILT and fine SAND, trace gravel. (GLACIAL TILL)
72	-50			WEATHERD/FRACTURED PHYLLITIC SCHIST BEDROCK						
			72.5 / -50.7							
73	-51			Bottomof Borehole at 72.5 feet below existing grade.	100/0"	S-14	0/0	72.5-72.5	100/0"	No Penetration - Split spoon refusal.
74	-52									NOTE: Advance roller bit through probable Weathered/Fractured PHYLLITIC SCHIST from 70.7 to 72.5 feet. Borehole grouted upon completion.
75	-53									
76	-54									
77	-55									
78	-56									
79	-57									
80	-58									
81	-59									
82	-60									
83	-61									
84	-62									
85	-63									
86	-64									
87	-65									
88	-66									
89	-67									
90	-68									
91	-69									
	-70									

GRANULAR SOILS	
BLOWS/FT.	DENSITY
0-4	V.LOOSE
4-10	LOOSE
10-30	COMPACT
30-50	DENSE
>50	V.DENSE

COHESIVE SOILS	
BLOWS/FT.	CONSISTENCY
<2	V.SOFT
2-4	SOFT
4-8	FIRM
8-15	STIFF
15-30	V.STIFF
>30	HARD

SOIL COMPONENT

DESCRIPTIVE TERM	PROPORTION OF TOTAL
"TRACE"	0-10%
"SOME"	10-20%
"ADJECTIVE" (eg SANDY, SILTY)	20-35%
"AND"	35-50%

SOIL CONTAINING THREE COMPONENTS EACH OF WHICH COMPRISE AT LEAST 25% OF THE TOTAL ARE CLASSIFIED AS "A WELL-GRADED MIXTURE OF"

Notes:
Automatic Hammer

Weather: Variable

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CAMBRIDGE, MA 02140
TEL: 617-868-1420
FAX: 617-868-1423

APPENDIX C

LABORATORY TEST RESULTS

SUMMIT
GEOENGINEERING SERVICES

THIN WALLED TUBE SAMPLING - ASTM D1587

PROJECT NAME:	The Forefront at Thompson's Point	PROJECT #:	24098
PROJECT LOCATION:	Thompson's Point, Portland, Maine	CLIENT:	Cathartes
COLLECTION DATE:	5/22/2024	SAMPLE #:	UT-1
TEST DATE:	6/3/2024	TECHNICIAN:	Colleen Sullivan, E.I.

Test Boring Information

Boring Number: B-1
Drilling Method: Rotary Wash
Drilling Tooling: 4-inch Casing
Sampling Method: Tube Push

Sample Information

Tube Length: 30"
Recovery: 28"
Tube Diameter: 3"
Depth: 15.5' - 18'

Trial / Specimen Number	Moisture Content	Unit Weight	Torvane
1*	32.2%	115 pcf	200 psf
2*	33.7%	112 pcf	300 psf
3	44.5%	111 pcf	500 psf
Average	36.8%	112 pcf	340 psf

* Specimen 1 & 2 performed on Clay w/ frequent Silt-Sand seams indicating lower moisture content

Visual Description (ASTM D2488):

Gray Silty CLAY, occasional Silt-Sand seams from 15.5' - 17.5', frequent Silt-Sand seams from 17.5' - 18', soft, wet, CL



Photograph of cross sectional sample view.



Photograph of longitudinal sample view.

REMARKS:

Reviewed By: ELS

SUMMIT
GEOENGINEERING SERVICES

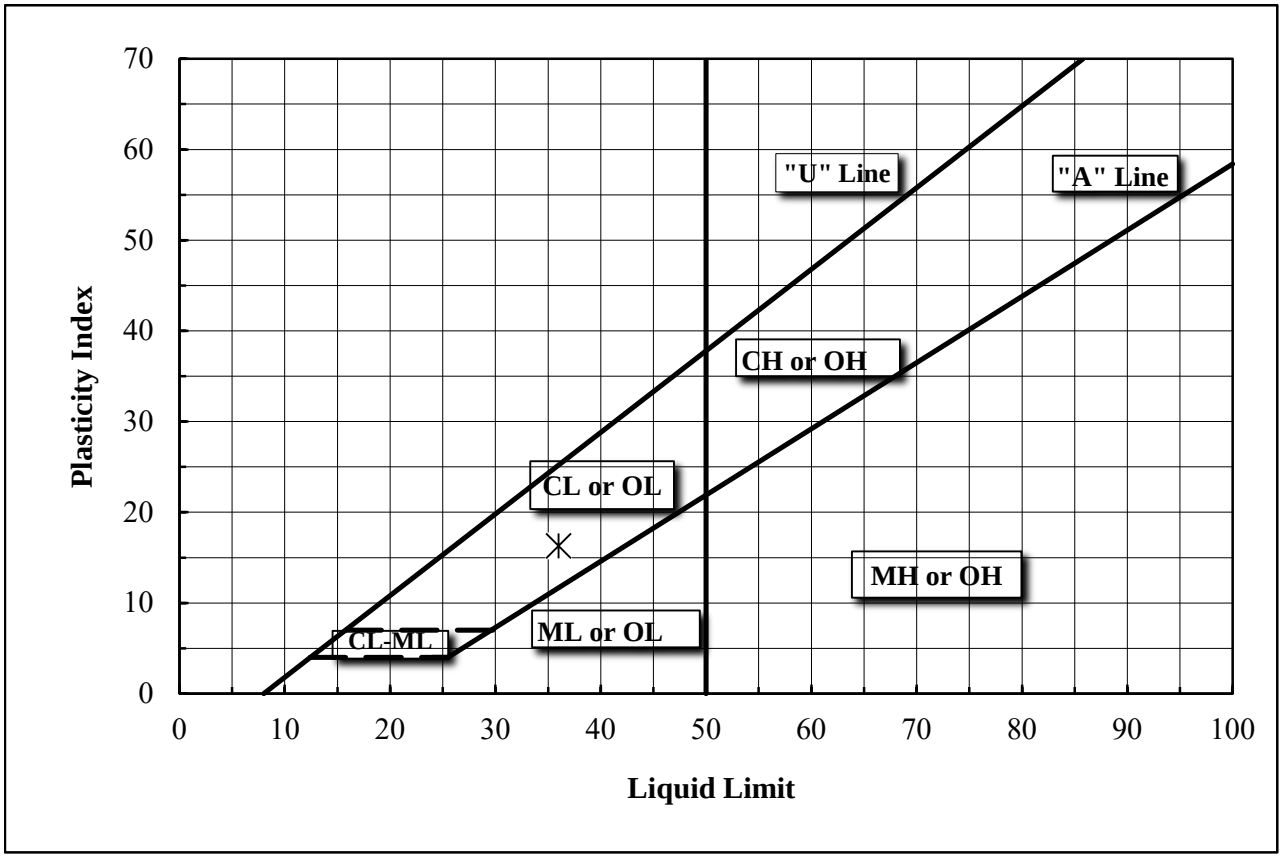
ATTERBERG LIMIT TEST - ASTM D4318

Method "A" (Multi-point)

PROJECT NAME:	The Forefront at Thompson's Point	PROJECT NUMBER:	24098
LOCATION:	Thompson's Point, Portland, Maine	SAMPLE NUMBER:	UT-1
CLIENT:	Cathartes	DEPTH:	15.5' - 18'
TEST DATE:	6/3/2024	TECHNICIAN:	Ellis Dixon, E.I.

DATA

Source	Depth	LL	PL	PI	Classification
B-1	15.5' - 18'	36	20	16	Gray Silty CLAY, occasional Silt-Sand
					seams, CL



Notes: Moisture Content = 38.7%

Reviewed By: CRS

Mailing: PO Box 515, Gardiner, ME 04345
Office: 210 Maine Avenue, Farmingdale, ME 04344

SUMMIT
GEOENGINEERING SERVICES

UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOILS - ASTM D2166

PROJECT NAME:	The Forefront at Thompson's Point	PROJECT #:	24098
PROJECT LOCATION:	Thompson's Point, Portland, ME	CLIENT:	Cathartes
COLLECTION DATE:	5/22/2024	TECHNICIAN:	Colleen Sullivan, E.I.
TEST DATE:	6/3/2024	CHECKED BY:	Erika Stewart, P.E.

Sample & Testing Information

Boring Number:	B-1	**Trimming Method:**	Tube	
Sample Number:	UT-1	**Liquid Limit (LL):**	36	
Sample Depth:	15.5' - 18'	**Plasticity Index (PI):**	16	
Sample Type:	Shelby Tube	**Rate of Strain:**	0.1	in/min
Sample State:	Intact	**H/D Ratio:**	2.0	

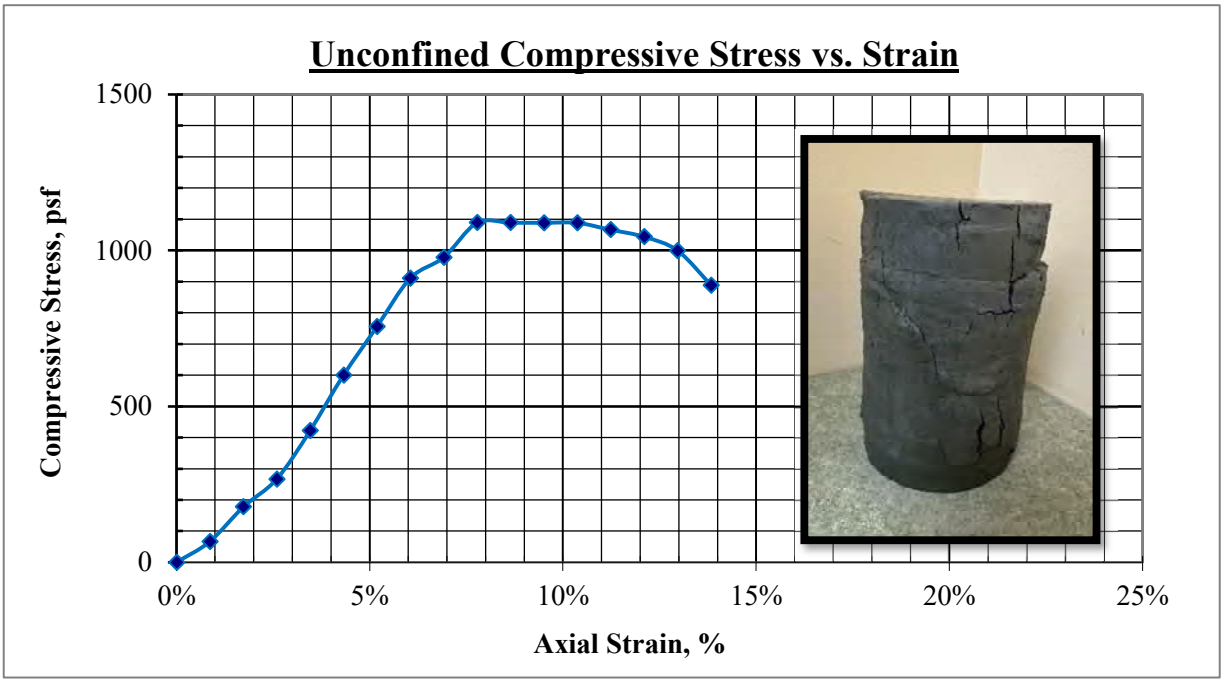
Sample Height:	5.79	in	**Sample Mass:**	1087.8	g
Sample Diameter:	2.87	in	**Moisture Content:**	44.9%	
Sample Volume:	37.46	in^3	**Moist Unit Weight:**	111	pcf
Cross Sectional Area:	6.48	in^2	**Dry Density:**	76	pcf

Sample Description & Classification

Gray Silty CLAY, occasional Silt-Sand seams, soft, wet, CL

Test Results

Unconfined Compressive Strength:	1080	psf	**Strain at Failure:**	8%
Shear Strength:	540	psf	**Failure Type:**	Bulge/Shear

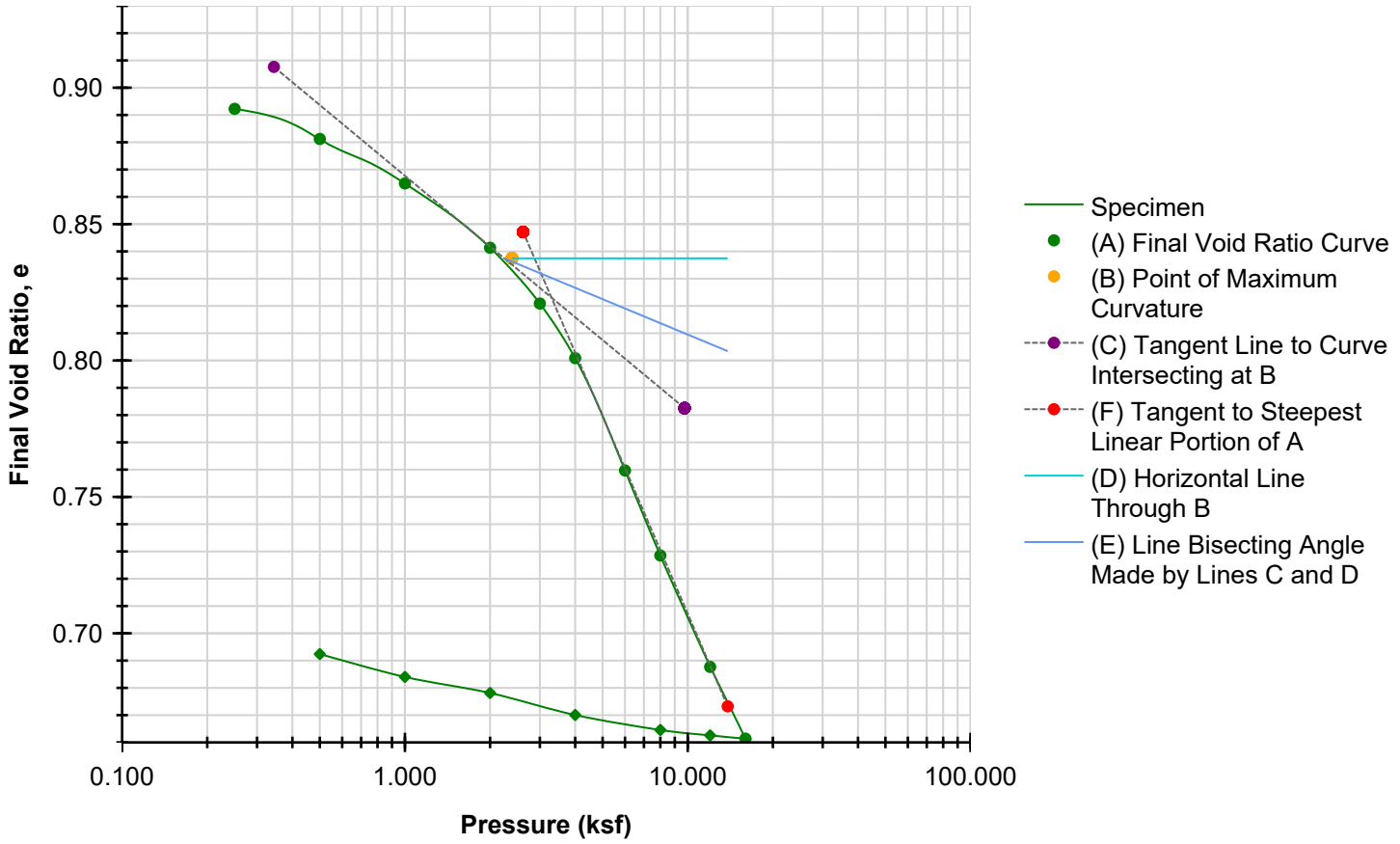


REMARKS:

Summit Geoengineering Services
210 Maine Avenue
Farmingdale, Maine 04344
207-446-3360

Final Voids [Log]

ASTM D2435



Preconsolidation Stress (ksf)	3.031	**Cc** 0.244	**Cr** 0.021

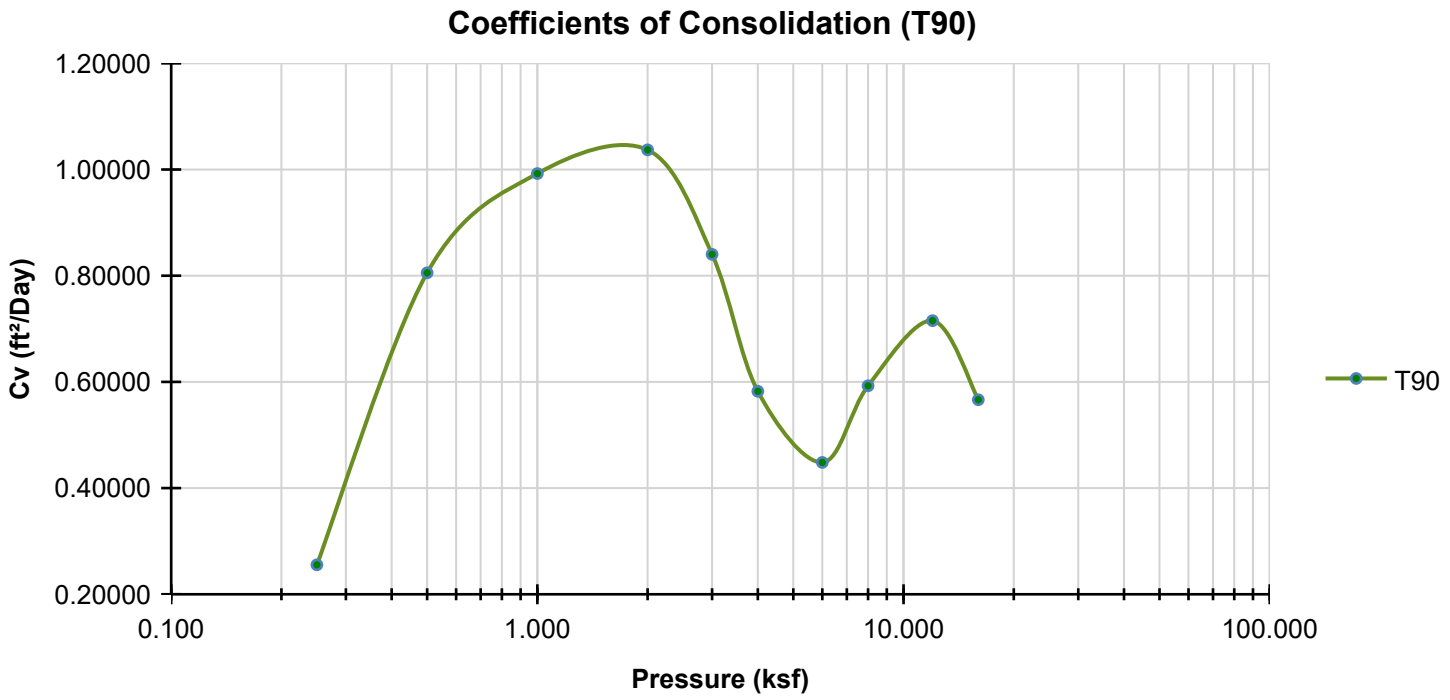
	BEFORE	AFTER			
			Liquid Limits	36	**Test Date** 6/3/2024
Moisture (%)	33.7	26.0	**Plastic Limits**	20	
Dry Density (pcf)	90.3	101.3			
Saturation (%)	102.8	103.2			
Void Ratio	0.90	0.69	**Specific Gravity**	2.75	ASSUMED

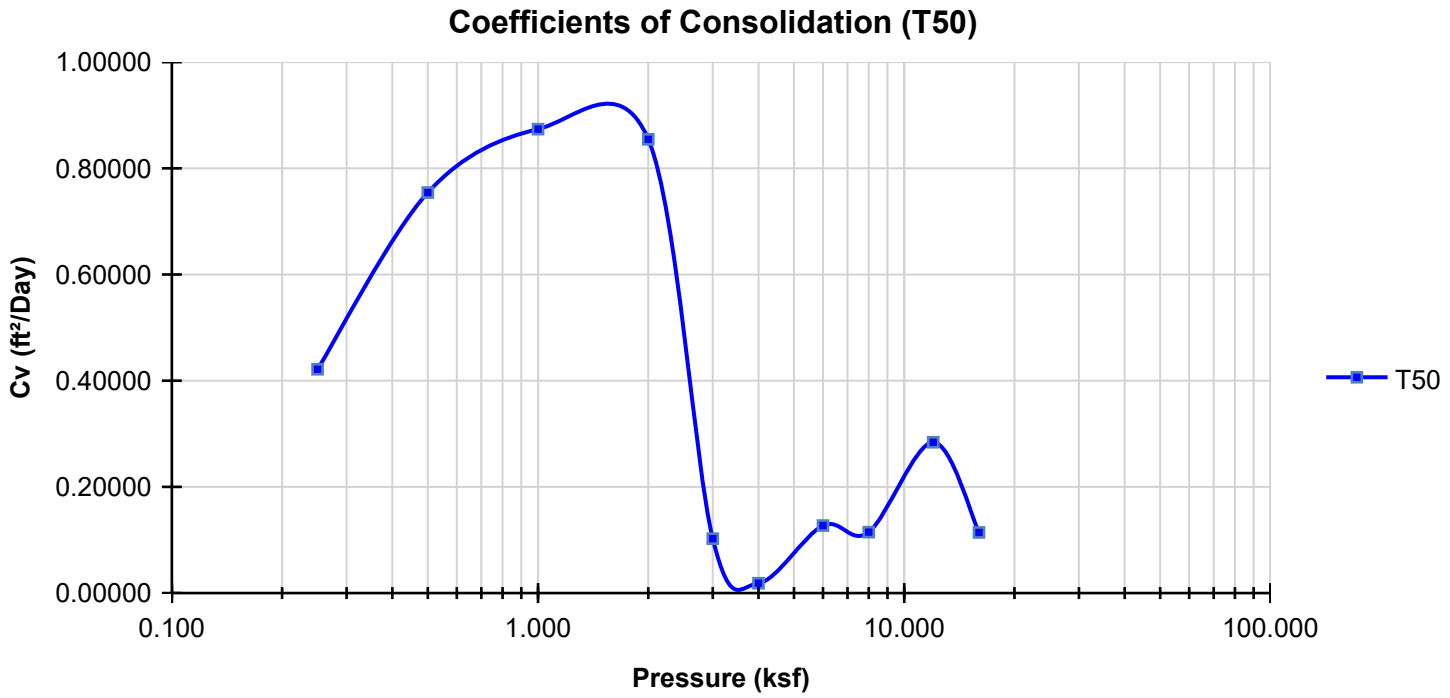
Sample Description	Gray Silty CLAY, frequent Silt-Sand seams, soft, wet, CL			
Project Number	24098	**Depth (ft)**	15.5-18	**Remarks**
Sample Number	UT-1	**Boring Number**	B-1	
Project	The Forefront at Thompson's Point			
Client	Cathartes			
Location	Thompson's Point Road, Portland, Maine			

Summit Geoengineering Services
210 Maine Avenue
Farmingdale, Maine 04344
207-446-3360

Coefficients of Consolidation

ASTM D2435





Project Name: The Forefront at Thompson's Point Project Number: 24098

Technician: Colleen Sullivan, E.I. Test Date: 6/3/2024 Checked By: _____ Date: _____

SUMMIT
GEOENGINEERING SERVICES

THIN WALLED TUBE SAMPLING - ASTM D1587

PROJECT NAME:	The Forefront at Thompson's Point	PROJECT #:	24098
PROJECT LOCATION:	Thompson's Point, Portland, ME	CLIENT:	Cathartes
COLLECTION DATE:	5/22/2024	SAMPLE #:	UT-2
TEST DATE:	5/29/2024	TECHNICIAN:	Colleen Sullivan, E.I.

Test Boring Information

Boring Number: B-1
Drilling Method: Rotary Wash
Drilling Tooling: 4-inch Casing
Sampling Method: Tube Push

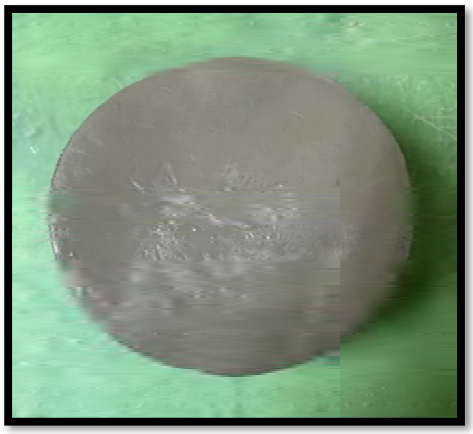
Sample Information

Tube Length: 30"
Recovery: 27"
Tube Diameter: 3"
Depth: 30' - 32.5'

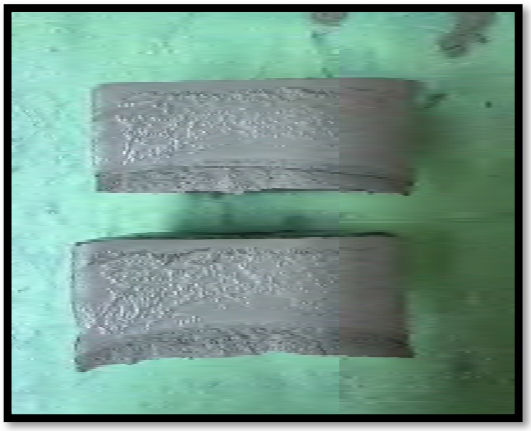
Trial / Specimen Number	Moisture Content	Unit Weight	Torvane
1	45.6%	115 pcf	400 psf
2	42.2%	113 pcf	400 psf
3	47.2%	115 pcf	500 psf
Average	45.0%	114 pcf	440 psf

Visual Description (ASTM D2488):

Gray Silty CLAY, soft, wet, CL



Photograph of cross sectional sample view.



Photograph of longitudinal sample view.

REMARKS:

Reviewed By: ELS

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GEOENGINEERING SERVICES

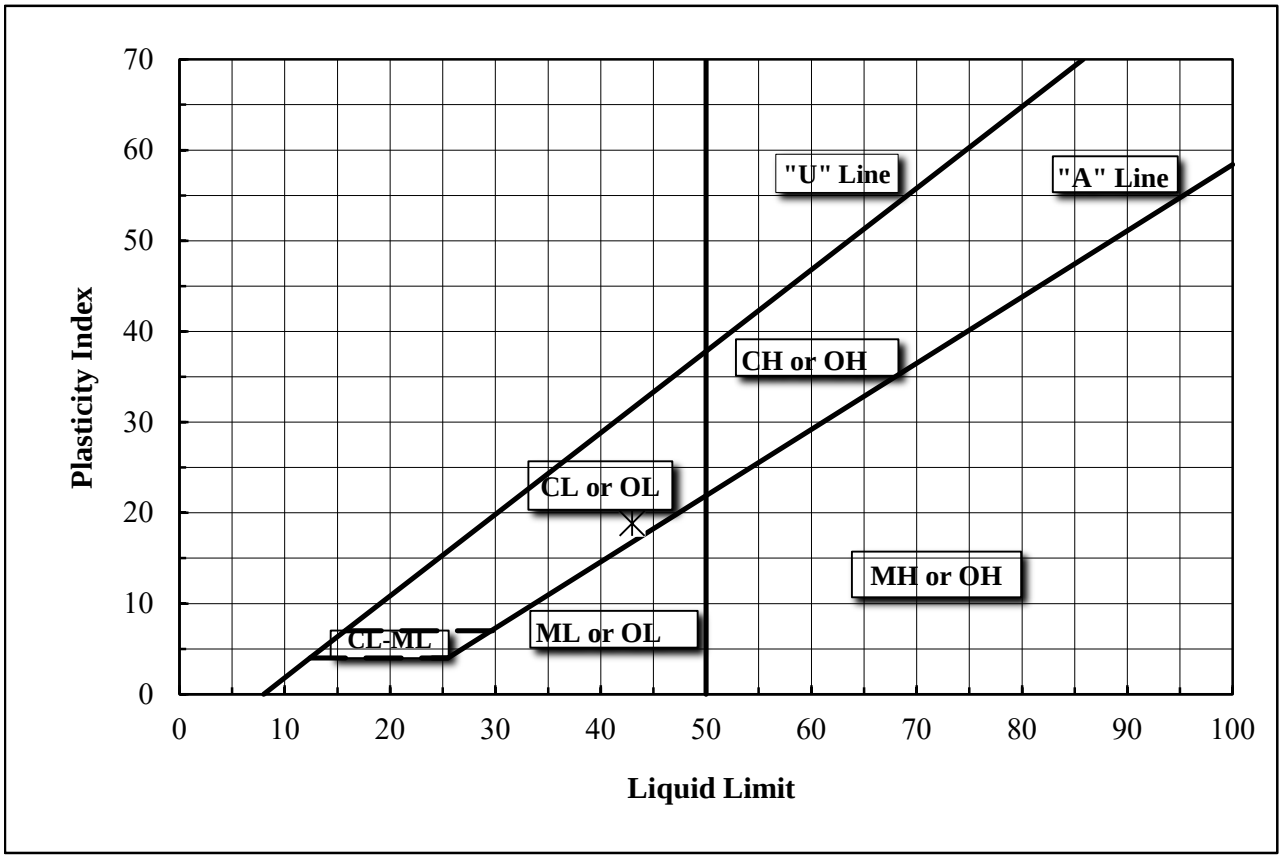
ATTERBERG LIMIT TEST - ASTM D4318

Method "A" (Multi-point)

PROJECT NAME:	The Forefront at Thompson's Point	PROJECT NUMBER:	24098
LOCATION:	Thompson's Point, Portland, Maine	SAMPLE NUMBER:	UT-2
CLIENT:	Cathartes	DEPTH:	30' - 32.5'
TEST DATE:	6/3/2024	TECHNICIAN:	Ellis Dixon, E.I.

DATA

Source	Depth	LL	PL	PI	Classification
B-1	30' - 32.5'	43	24	19	Gray Silty CLAY, CL



Notes: Moisture Content = 45.6%

Reviewed By: CRS

Mailing: PO Box 515, Gardiner, ME 04345
Office: 210 Maine Avenue, Farmingdale, ME 04344

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GEOENGINEERING SERVICES

UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOILS - ASTM D2166

PROJECT NAME:	The Forefront at Thompson's Point	PROJECT #:	24098
PROJECT LOCATION:	Thompson's Point, Portland, ME	CLIENT:	Cathartes
COLLECTION DATE:	5/22/2024	TECHNICIAN:	Colleen Sullivan, E.I.
TEST DATE:	5/29/2024	CHECKED BY:	Erika Stewart, P.E.

Sample & Testing Information

Boring Number:	B-1	**Trimming Method:**	Tube	
Sample Number:	UT-2	**Liquid Limit (LL):**	43	
Sample Depth:	30' - 32.5'	**Plasticity Index (PI):**	19	
Sample Type:	Shelby Tube	**Rate of Strain:**	0.1	in/min
Sample State:	Intact	**H/D Ratio:**	2.1	

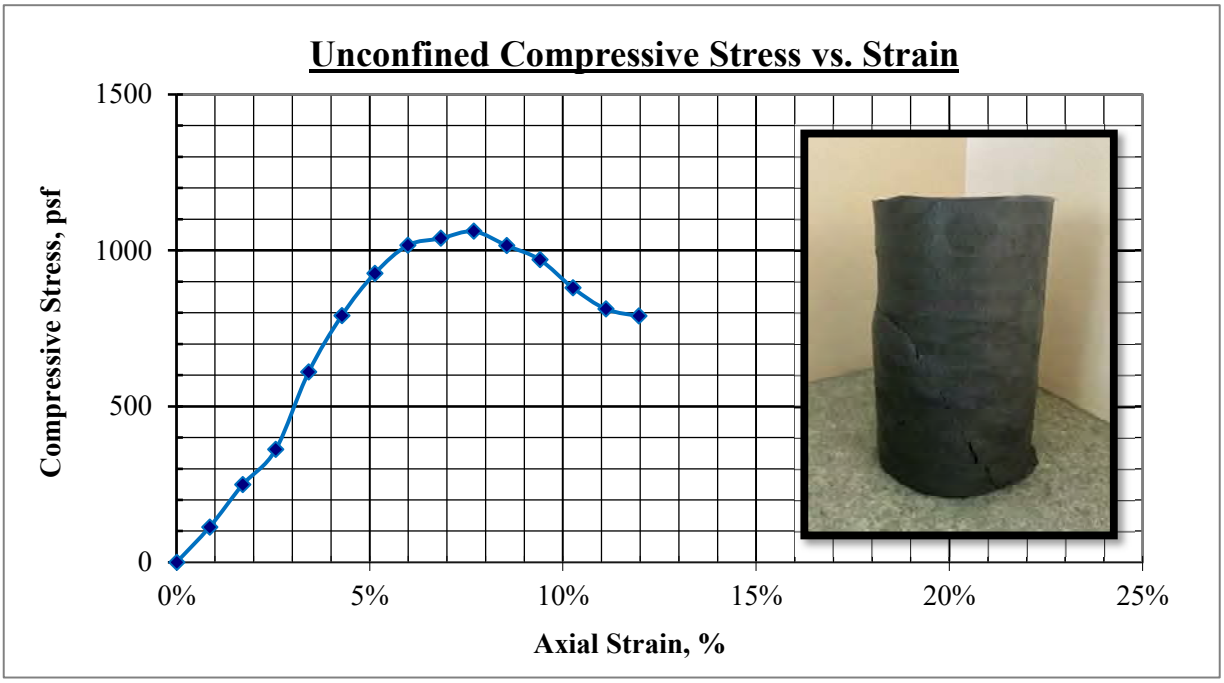
Sample Height:	5.85	in	**Sample Mass:**	1122.2	g
Sample Diameter:	2.85	in	**Moisture Content:**	41.1%	
Sample Volume:	37.30	in^3	**Moist Unit Weight:**	115	pcf
Cross Sectional Area:	6.37	in^2	**Dry Density:**	81	pcf

Sample Description & Classification

Gray Silty CLAY, soft, wet, CL

Test Results

Unconfined Compressive Strength:	1060	psf	**Strain at Failure:**	8%
Shear Strength:	530	psf	**Failure Type:**	Bulge/Shear

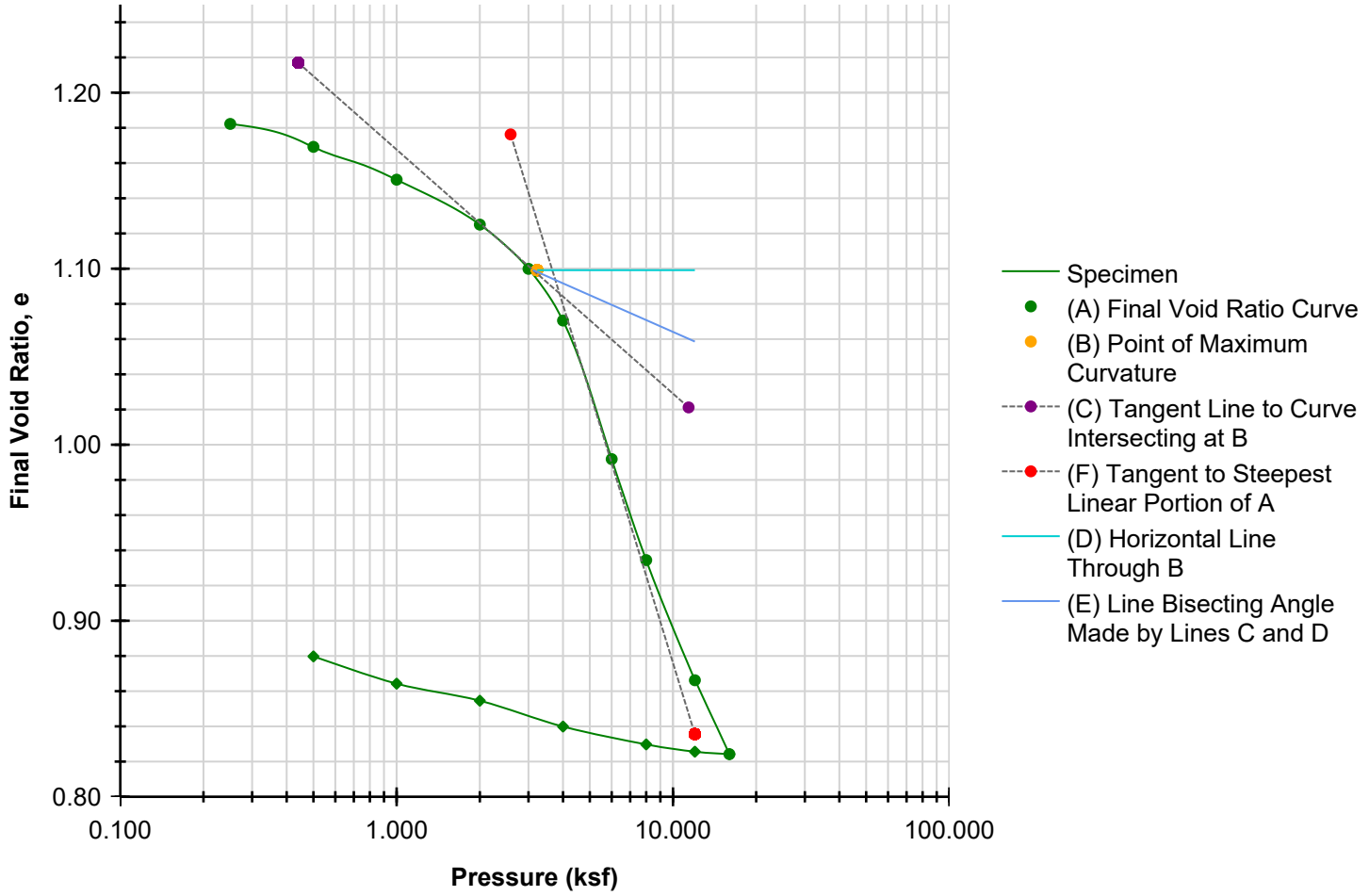


REMARKS:

Summit Geoengineering Services
210 Maine Avenue
Farmingdale, Maine 04344
207-446-3360

Final Voids [Log]

ASTM D2435



Preconsolidation Stress (ksf)	3.752	**Cc**	0.489	**Cr**	0.038

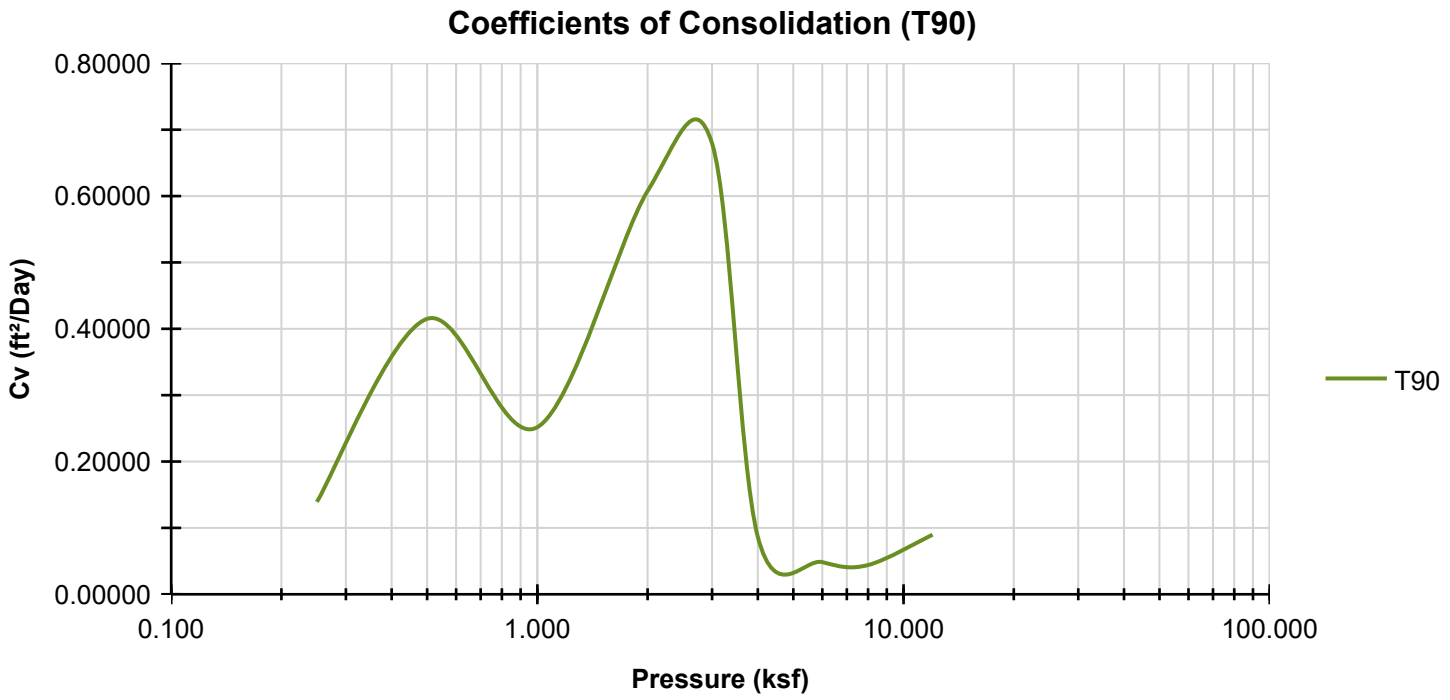
	BEFORE	AFTER			
			Liquid Limits	43	**Test Date** 5/29/2024
Moisture (%)	43.5	34.6	**Plastic Limits**	24	
Dry Density (pcf)	78.2	89.4			
Saturation (%)	100.1	103.4			
Void Ratio	1.19	0.92	**Specific Gravity**	2.75	ASSUMED

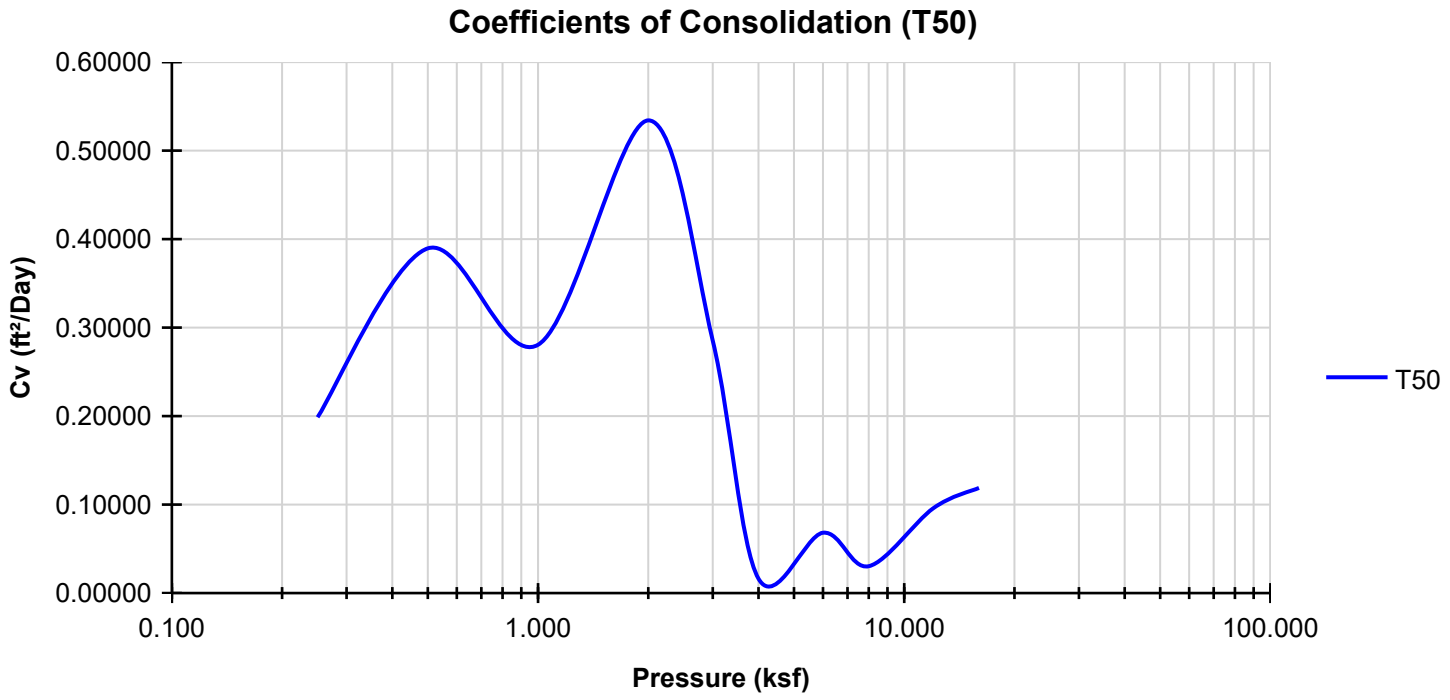
Sample Description	Gray Silty CLAY, soft, wet, CL			
Project Number	24098	**Depth (ft)**	30-32.5	**Remarks**
Sample Number	UT-2	**Boring Number**	B-1	
Project	The Forefront at Thompson's Point			
Client	Cathartes			
Location	Thompson's Point, Portland, Maine			

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207-446-3360

Coefficients of Consolidation

ASTM D2435





Project Name: The Forefront at Thompson's Point Project Number: 24098

Technician: Colleen Sullivan, E.I. Test Date: 5/29/2024 Checked By: _____ Date: _____

SUMMIT
GEOENGINEERING SERVICES

THIN WALLED TUBE SAMPLING - ASTM D1587

PROJECT NAME: The Forefront at Thompson's Point
PROJECT LOCATION: Thompson's Point, Portland, ME
COLLECTION DATE: 5/22/2024
TEST DATE: 5/23/2024

PROJECT #: 24098
CLIENT: Cathartes
SAMPLE #: UT-3
TECHNICIAN: Erika Stewart, P.E.

Test Boring Information

Boring Number: B-1
Drilling Method: Rotary Wash
Drilling Tooling: 4-inch Casing
Sampling Method: Tube Push

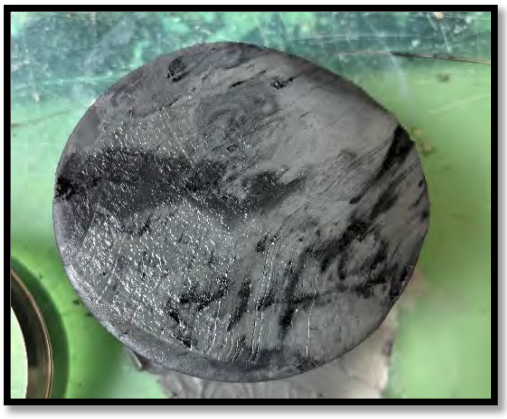
Sample Information

Tube Length: 30"
Recovery: 27"
Tube Diameter: 3"
Depth: 45' - 47.5'

Trial / Specimen Number	Moisture Content	Unit Weight	Torvane
1	43.8%	116 pcf	440 psf
2	41.1%	116 pcf	360 psf
3	40.9%	119 pcf	328 psf
Average	41.9%	117 pcf	380 psf

Visual Description (ASTM D2488):

Dark gray Silty CLAY, black Organic streaks, soft, wet, CL



Photograph of cross sectional sample view.



Photograph of longitudinal sample view.

REMARKS:

Reviewed By: CRS

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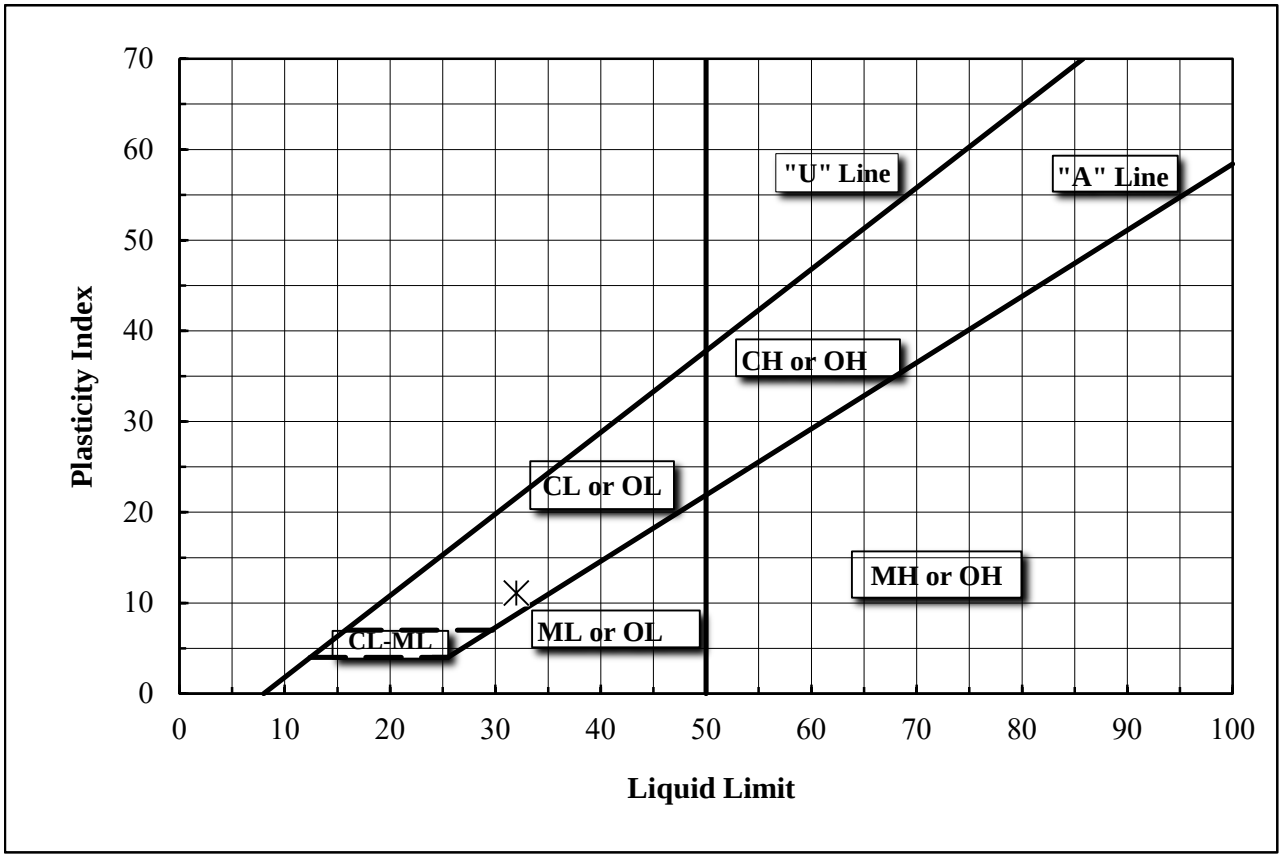
ATTERBERG LIMIT TEST - ASTM D4318

Method "A" (Multi-point)

PROJECT NAME:	The Forefront at Thompson's Point	PROJECT NUMBER:	24098
LOCATION:	Thompson's Point, Portland, Maine	SAMPLE NUMBER:	UT-3
CLIENT:	Cathartes	DEPTH:	45' - 47.5'
TEST DATE:	5/24/2024	TECHNICIAN:	Katie Luce

DATA

Source	Depth	LL	PL	PI	Classification
B-1	45' - 47.5'	32	21	11	Dark gray Silty CLAY, black Organic streaks, CL



Notes: Moisture Content = 38.4%

Reviewed By: CRS

Mailing: PO Box 515, Gardiner, ME 04345
Office: 210 Maine Avenue, Farmingdale, ME 04344

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GEOENGINEERING SERVICES

UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOILS - ASTM D2166

PROJECT NAME:	The Forefront at Thompson's Point	PROJECT #:	24098
PROJECT LOCATION:	Thompson's Point, Portland, ME	CLIENT:	Cathartes
COLLECTION DATE:	5/22/2024	TECHNICIAN:	Erika Stewart, P.E.
TEST DATE:	5/23/2024	CHECKED BY:	Colleen Sullivan, E.I.

Sample & Testing Information

Boring Number:	B-1	**Trimming Method:**	Tube	
Sample Number:	UT-3	**Liquid Limit (LL):**	32	
Sample Depth:	45' - 47.5'	**Plasticity Index (PI):**	11	
Sample Type:	Shelby Tube	**Rate of Strain:**	0.1	in/min
Sample State:	Intact	**H/D Ratio:**	2.2	

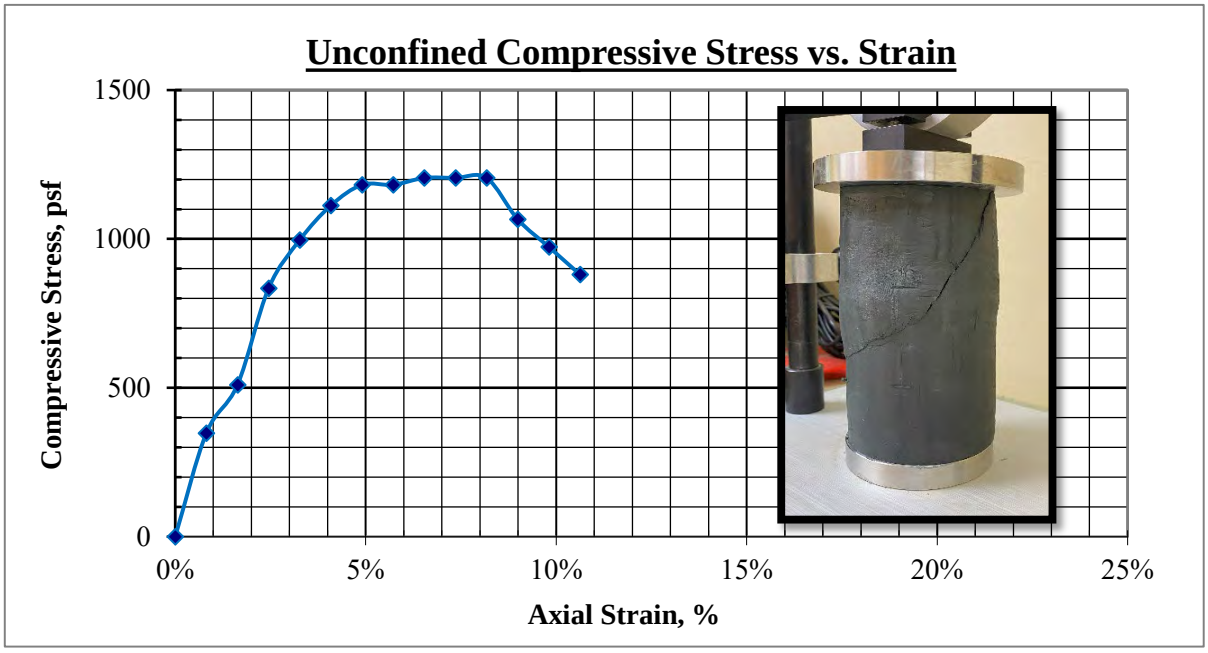
Sample Height:	6.12	in	**Sample Mass:**	1187.8	g
Sample Diameter:	2.81	in	**Moisture Content:**	37.3%	
Sample Volume:	37.98	in^3	**Moist Unit Weight:**	119	pcf
Cross Sectional Area:	6.21	in^2	**Dry Density:**	87	pcf

Sample Description & Classification

Dark gray Silty CLAY, black Organic streaks, soft, wet, CL

Test Results

Unconfined Compressive Strength:	1200	psf	**Strain at Failure:**	7%
Shear Strength:	600	psf	**Failure Type:**	Bulge/Shear

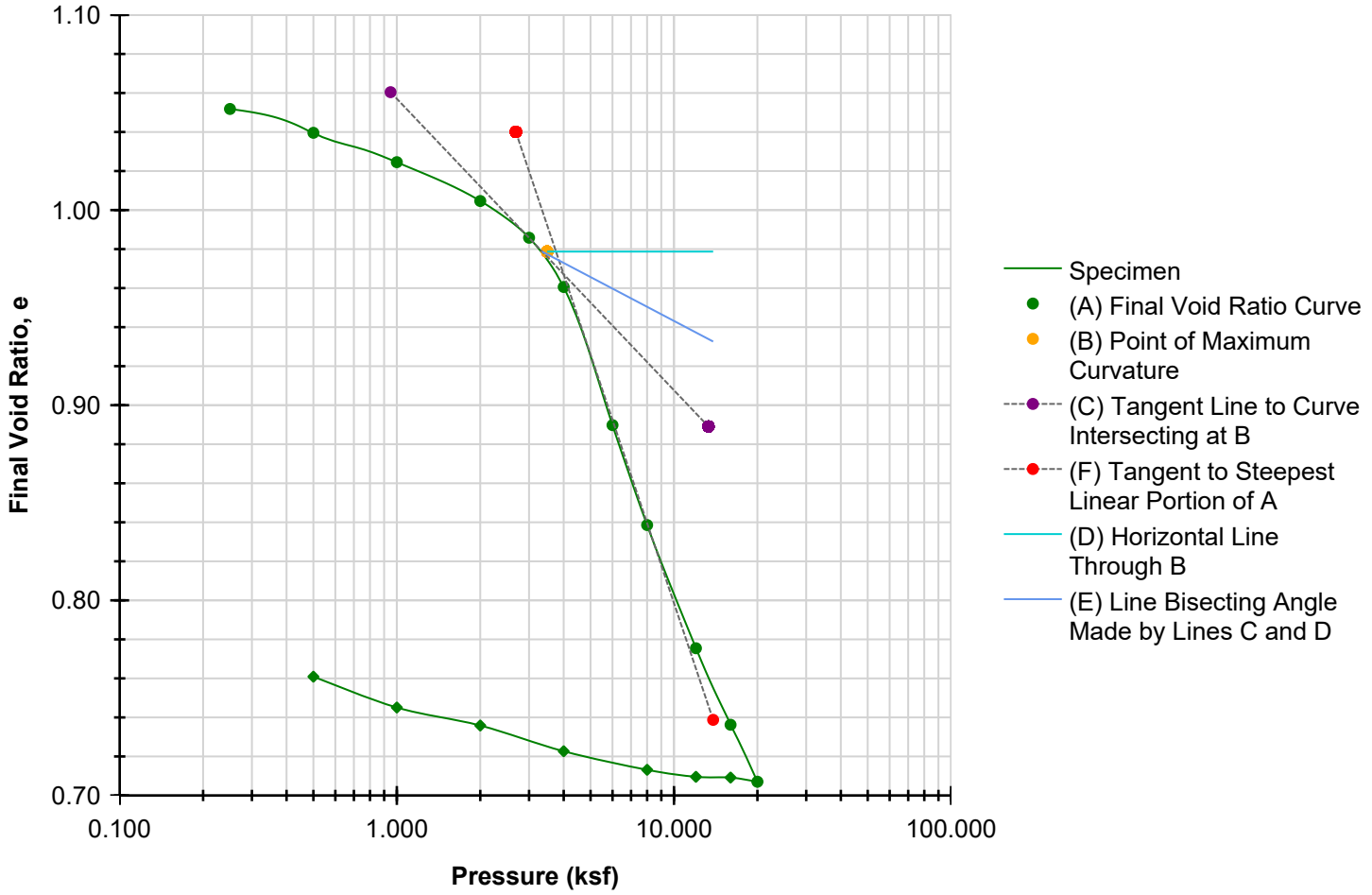


REMARKS:

Summit Geoengineering Services
210 Maine Avenue
Farmingdale, Maine 04344
207-446-3360

Final Voids [Log]

ASTM D2435



Preconsolidation Stress (ksf)	3.846	**Cc**	0.410	**Cr**	0.038

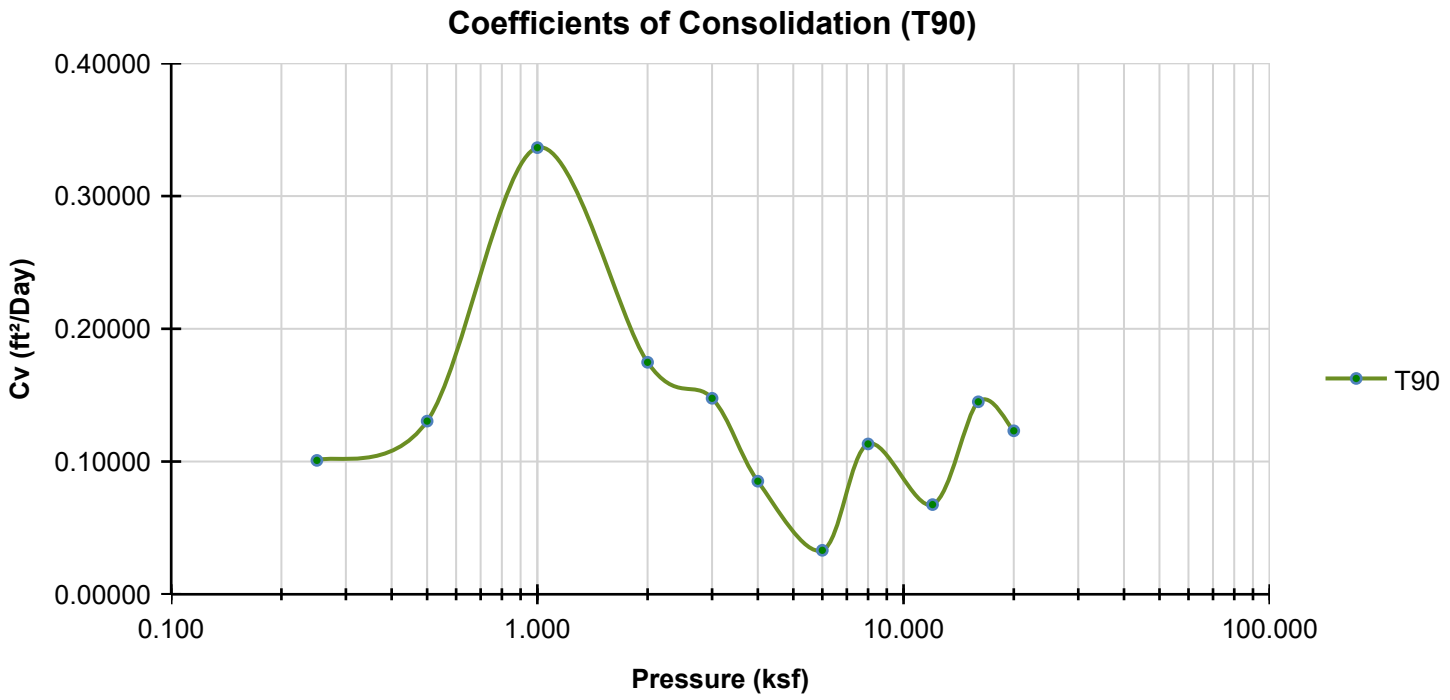
	BEFORE	AFTER			
			Liquid Limits	32	**Test Date** 5/23/2024
Moisture (%)	37.4	30.0	**Plastic Limits**	21	
Dry Density (pcf)	83.3	94.5			
Saturation (%)	97.0	101.1			
Void Ratio	1.06	0.82	**Specific Gravity**	2.75	ASSUMED

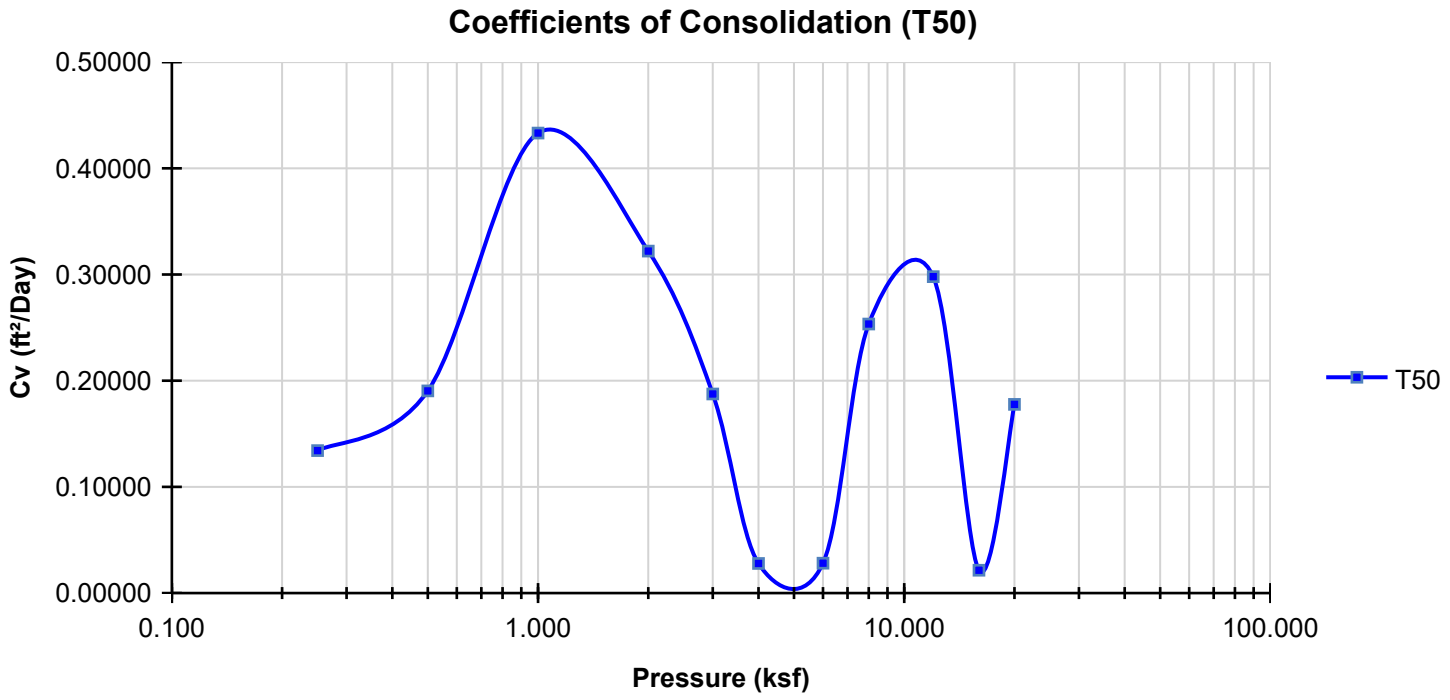
Sample Description	Dark gray Silty CLAY, black Organic streaks, soft, wet, CL			
Project Number	24098	**Depth (ft)**	45-47.5	**Remarks**
Sample Number	UT-3	**Boring Number**	B-1	
Project	The Forefront at Thompson's Point			
Client	Cathartes			
Location	Thompson's Point, Portland, Maine			

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207-446-3360

Coefficients of Consolidation

ASTM D2435





Project Name: The Forefront at Thompson's Point Project Number: 24098

Technician: Erika Stewart, P.E. Test Date: 5/23/2024 Checked By: _____ Date: _____

SUMMIT
GEOENGINEERING SERVICES

THIN WALLED TUBE SAMPLING - ASTM D1587

PROJECT NAME:	The Forefront at Thompson's Point	PROJECT #:	24098
PROJECT LOCATION:	Thompson's Point, Portland, Maine	CLIENT:	Cathartes
COLLECTION DATE:	5/22/2024	SAMPLE #:	UT-1
TEST DATE:	6/6/2024	TECHNICIAN:	Jason Barnes, E.I.

Test Boring Information

Boring Number: B-2
Drilling Method: Rotary Wash
Drilling Tooling: 4-inch Casing
Sampling Method: Tube Push

Sample Information

Tube Length: 30"
Recovery: 28"
Tube Diameter: 3"
Depth: 25' - 27.5'

Trial / Specimen Number	Moisture Content	Unit Weight	Torvane
1	41.7%	109 pcf	200 psf
2	39.4%	109 pcf	200 psf
3	38.7%	111 pcf	160 psf
Average	39.9%	110 pcf *	180 psf *

* Sample appears softened & slightly disturbed which may result in low readings

Visual Description (ASTM D2488):

Gray Silty CLAY, very soft-soft, wet, CL



Photograph of cross sectional sample view.



Photograph of longitudinal sample view.

REMARKS:

Reviewed By: CRS

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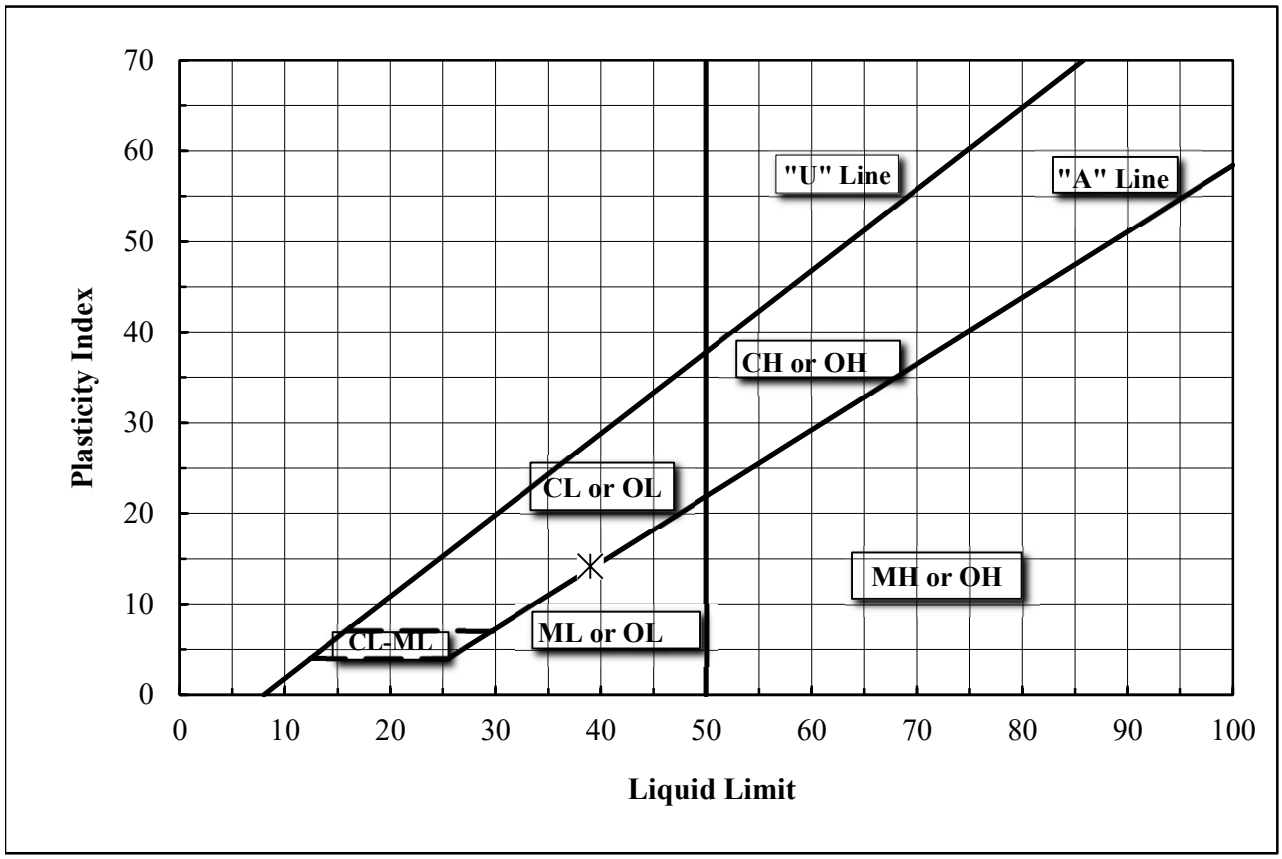
ATTERBERG LIMIT TEST - ASTM D4318

Method "A" (Multi-point)

PROJECT NAME:	The Forefront at Thompson's Point	PROJECT NUMBER:	24098
LOCATION:	Thompson's Point, Portland, Maine	SAMPLE NUMBER:	UT-1
CLIENT:	Cathartes	DEPTH:	25' - 27.5'
TEST DATE:	6/6/2024	TECHNICIAN:	Jason Barnes, E.I.

DATA

Source	Depth	LL	PL	PI	Classification
B-2	25' - 27.5'	39	25	14	Gray Silty CLAY, CL



Notes: Moisture Content = 39.1%

Reviewed By: CRS

Mailing: PO Box 515, Gardiner, ME 04345
Office: 210 Maine Avenue, Farmingdale, ME 04344

SUMMIT
GEOENGINEERING SERVICES

THIN WALLED TUBE SAMPLING - ASTM D1587

PROJECT NAME:	The Forefront at Thompson's Point	PROJECT #:	24098
PROJECT LOCATION:	Thompson's Point, Portland, ME	CLIENT:	Cathartes
COLLECTION DATE:	5/23/2024	SAMPLE #:	UT-1
TEST DATE:	6/10/2024	TECHNICIAN:	Colleen Sullivan, E.I.

Test Boring Information

Boring Number: B-3
Drilling Method: Rotary Wash
Drilling Tooling: 4-inch Casing
Sampling Method: Tube Push

Sample Information

Tube Length: 30"
Recovery: 27"
Tube Diameter: 3"
Depth: 30' - 32.5'

Trial / Specimen Number	Moisture Content	Unit Weight	Torvane
1	45.6%	115 pcf	300 psf
2	44.4%	116 pcf	328 psf
3	42.1%	115 pcf	560 psf
Average	44.0%	115 pcf	400 psf

Visual Description (ASTM D2488):

Gray Silty CLAY, occasional Silt-Sand seams, soft, wet, CL



Photograph of cross sectional sample view.



Photograph of longitudinal sample view.

REMARKS:

Reviewed By: ELS

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GEOENGINEERING SERVICES

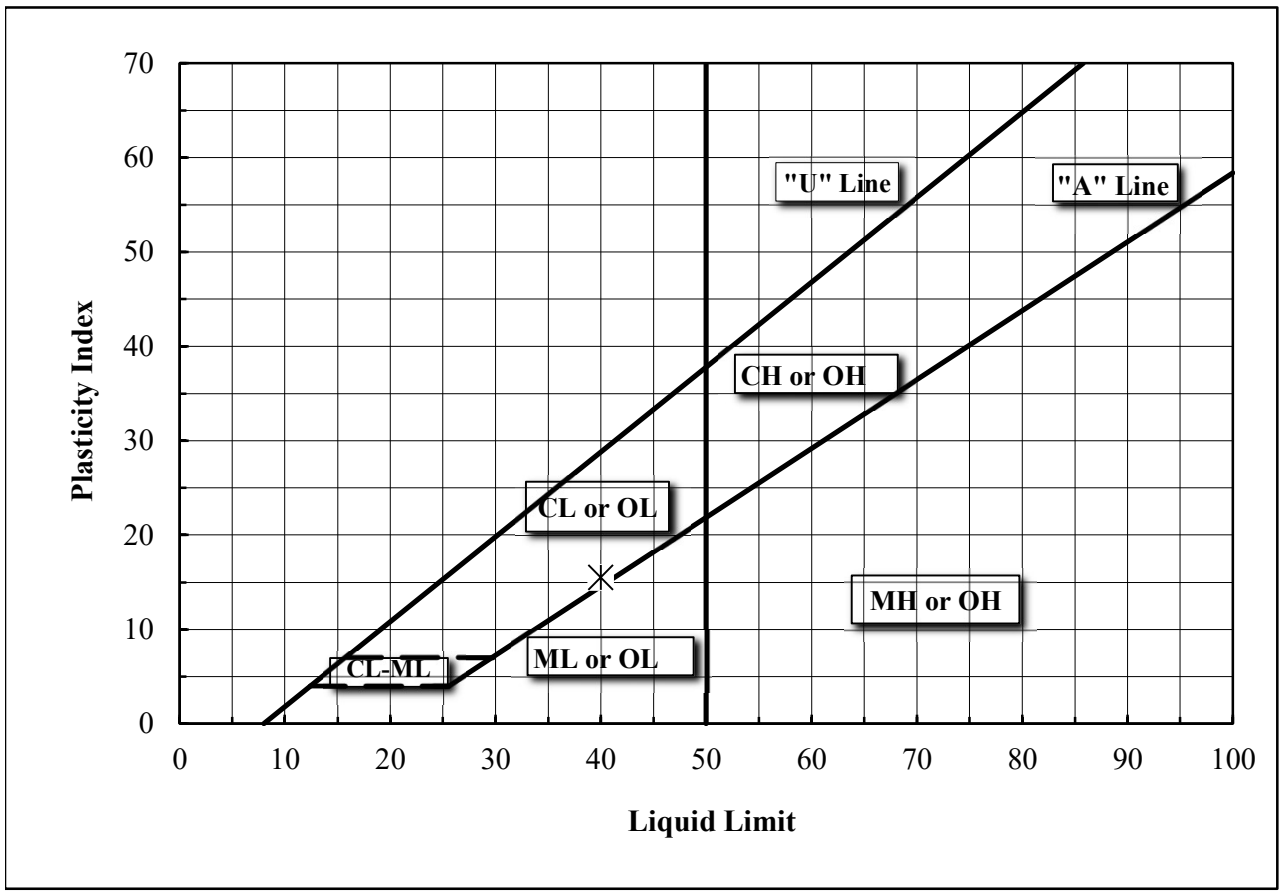
ATTERBERG LIMIT TEST - ASTM D4318

Method "A" (Multi-point)

PROJECT NAME:	The Forefront at Thompson's Point	PROJECT NUMBER:	24098
LOCATION:	Thompson's Point, Portland, Maine	SAMPLE NUMBER:	UT-1
CLIENT:	Cathartes	DEPTH:	30' - 32.5'
TEST DATE:	6/11/2024	TECHNICIAN:	Colleen Sullivan, E.I.

DATA

Source	Depth	LL	PL	PI	Classification
B-3	30' - 32.5'	40	25	15	Gray Silty CLAY, occasional Silt-Sand
					seams, CL



Notes: Moisture Content = 44.3%

Reviewed By: ELS

Mailing: PO Box 515, Gardiner, ME 04345
Office: 210 Maine Avenue, Farmingdale, ME 04344

SUMMIT
GEOENGINEERING SERVICES

UNCONFINED COMPRESSIVE STRENGTH OF COHESIVE SOILS - ASTM D2166

PROJECT NAME:	The Forefront at Thompson's Point	PROJECT #:	24098
PROJECT LOCATION:	Thompson's Point, Portland, ME	CLIENT:	Cathartes
COLLECTION DATE:	5/23/2024	TECHNICIAN:	Colleen Sullivan, E.I.
TEST DATE:	6/10/2024	CHECKED BY:	Erika Stewart, P.E.

Sample & Testing Information

Boring Number:	B-3	**Trimming Method:**	Tube	
Sample Number:	UT-1	**Liquid Limit (LL):**	40	
Sample Depth:	30' - 32.5'	**Plasticity Index (PI):**	15	
Sample Type:	Shelby Tube	**Rate of Strain:**	0.1	in/min
Sample State:	Intact	**H/D Ratio:**	2.1	

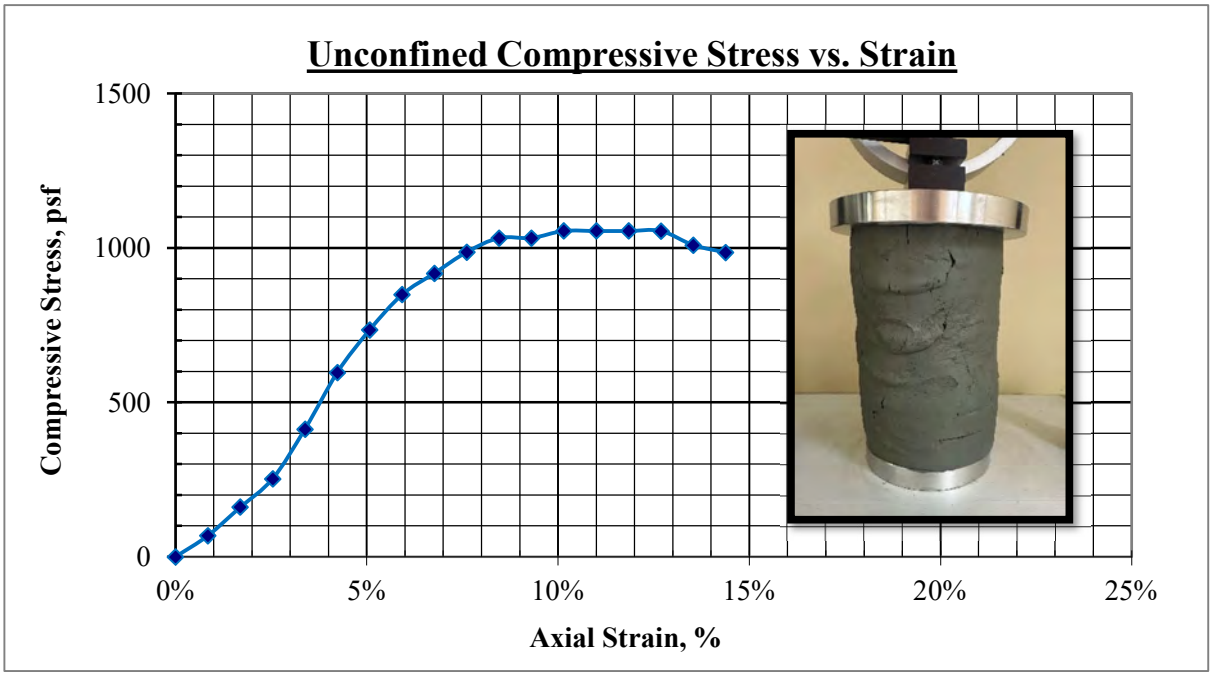
Sample Height:	5.91	in	**Sample Mass:**	1127.2 g
Sample Diameter:	2.83	in	**Moisture Content:**	42.5%
Sample Volume:	37.06	in^3	**Moist Unit Weight:**	116 pcf
Cross Sectional Area:	6.27	in^2	**Dry Density:**	81 pcf

Sample Description & Classification

Gray Silty CLAY, occasional Silt-Sand seams, soft, wet, CL

Test Results

Unconfined Compressive Strength:	1060	psf	**Strain at Failure:**	10%
Shear Strength:	530	psf	**Failure Type:**	Bulge/Shear

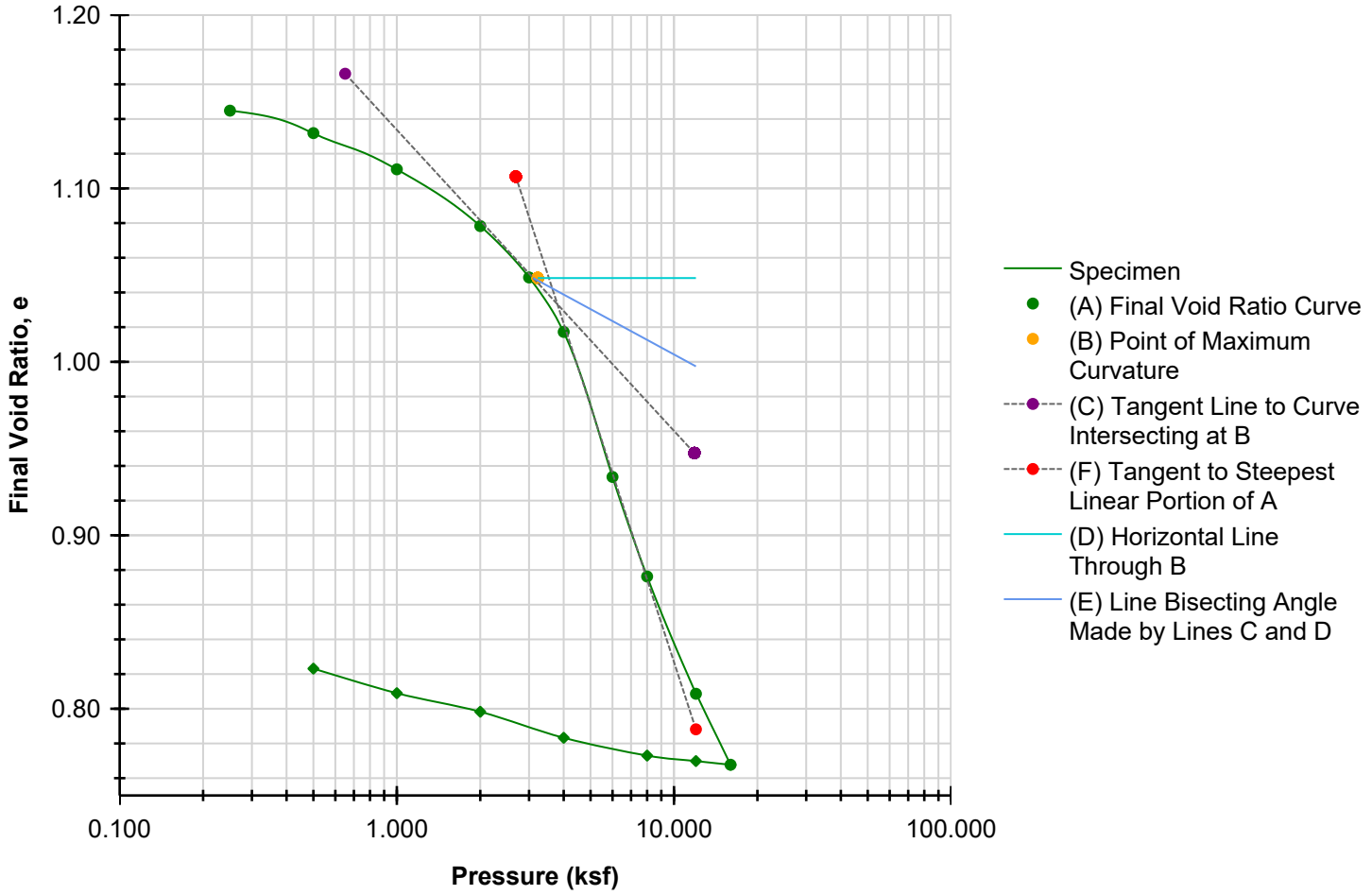


REMARKS:

Summit Geoengineering Services
210 Maine Avenue
Farmingdale, Maine 04344
207-446-3360

Final Voids [Log]

ASTM D2435



Preconsolidation Stress (ksf)	3.637	**Cc**	0.510	**Cr**	0.040

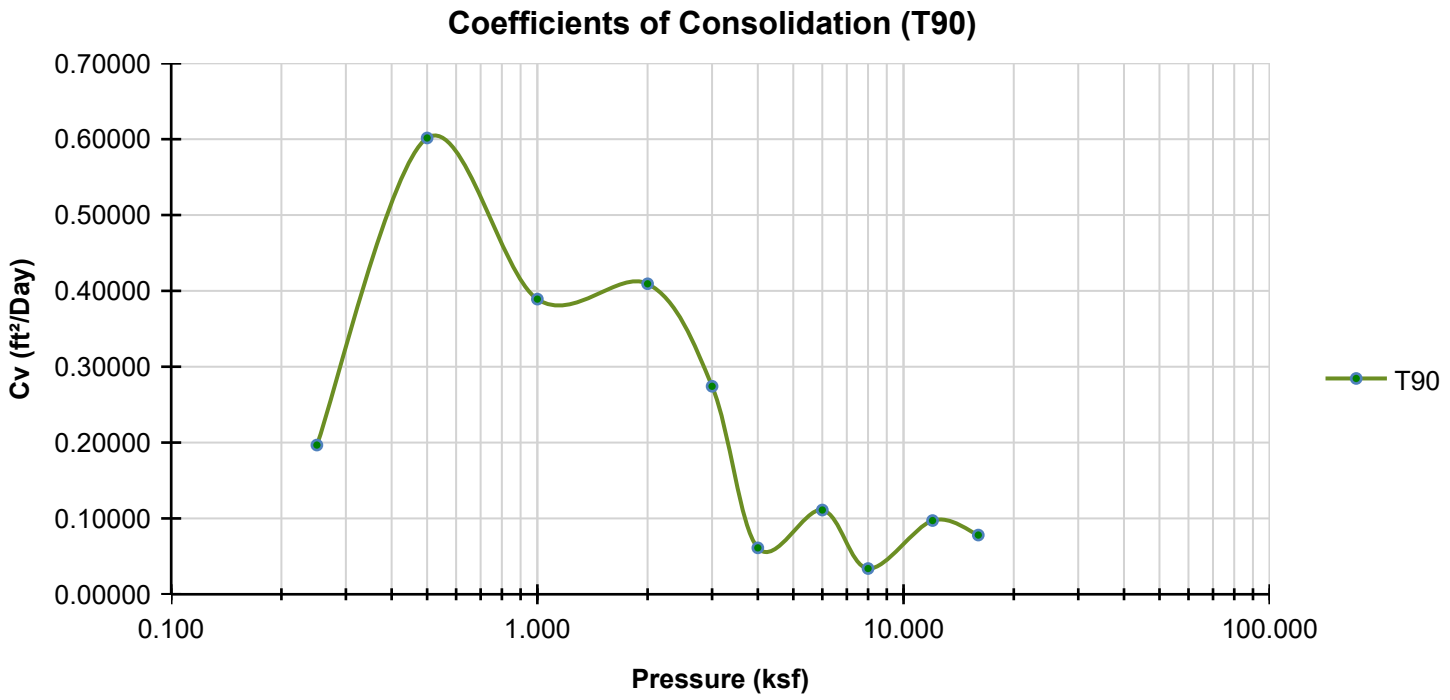
	BEFORE	AFTER			
			Liquid Limits	40	**Test Date** 6/10/2024
Moisture (%)	40.7	32.8	**Plastic Limits**	25	
Dry Density (pcf)	79.7	91.3			
Saturation (%)	96.9	102.5			
Void Ratio	1.15	0.88	**Specific Gravity**	2.75	ASSUMED

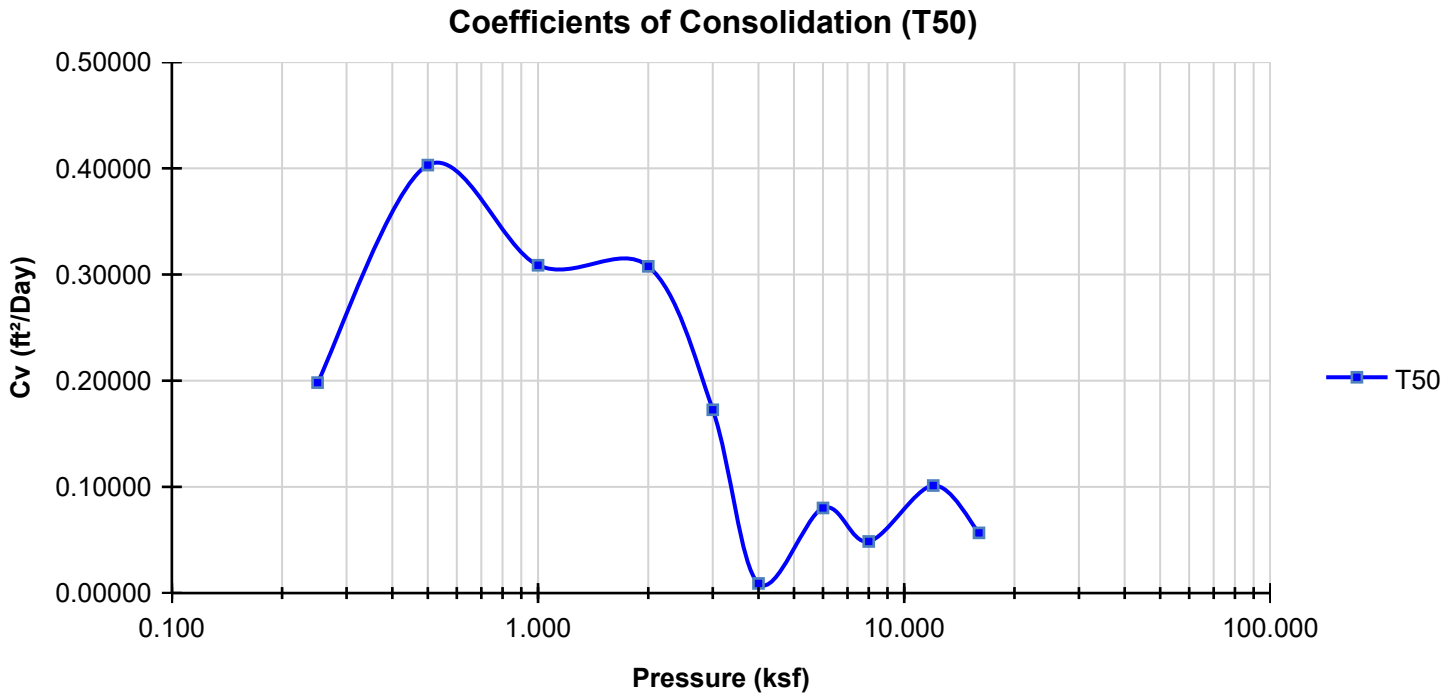
Sample Description	Gray Silty CLAY, occasional Silt-Sand seams, soft, wet, CL			
Project Number	24098	**Depth (ft)**	30-32.5	**Remarks**
Sample Number	UT-1	**Boring Number**	B-3	
Project	The Forefront at Thompson's Point			
Client	Cathartes			
Location	Thompson's Point, Portland, Maine			

Summit Geoengineering Services
210 Maine Avenue
Farmingdale, Maine 04344
207-446-3360

Coefficients of Consolidation

ASTM D2435





Project Name: The Forefront at Thompson's Point Project Number: 24098

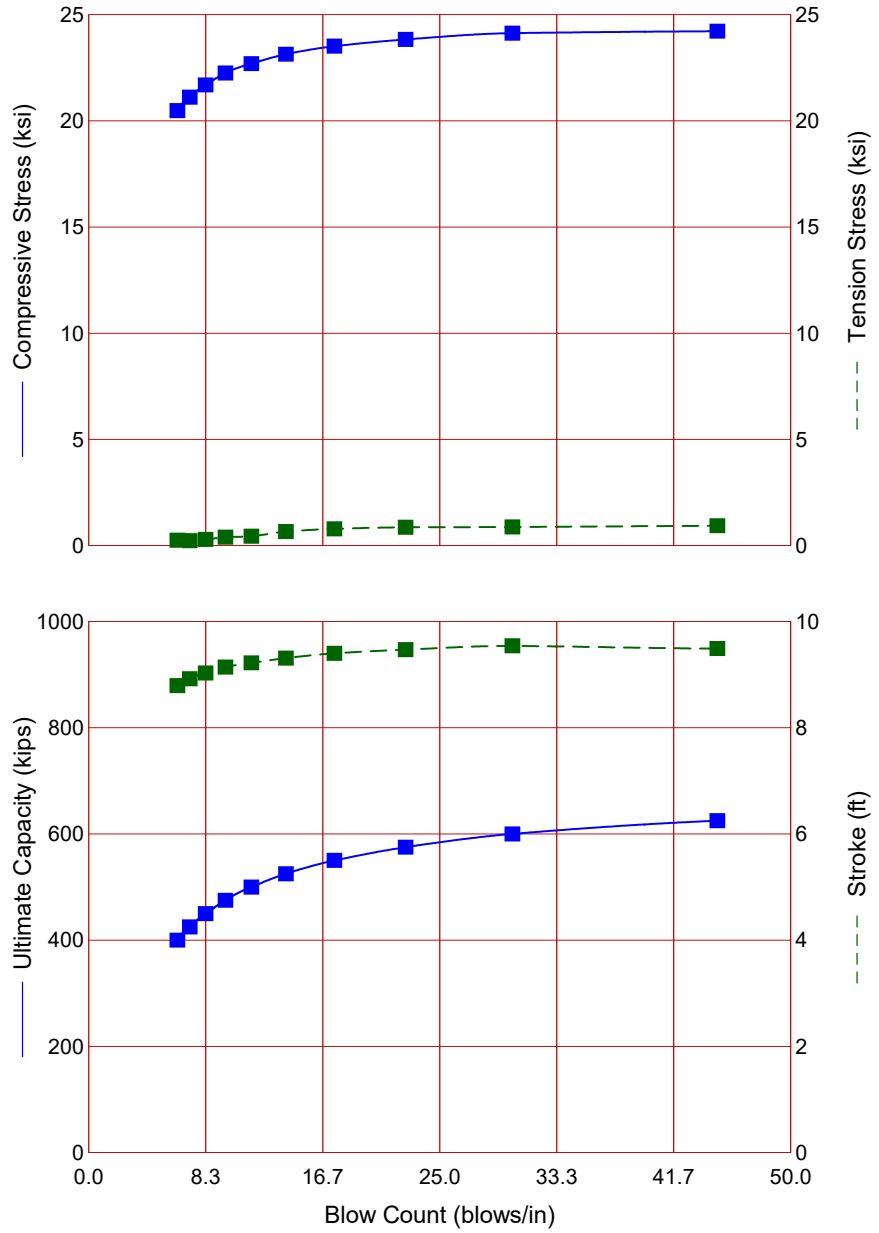
Technician: Colleen Sullivan, E.I. Test Date: 6/10/2024 Checked By: _____ Date: _____

APPENDIX D

GRLWEAP OUTPUT

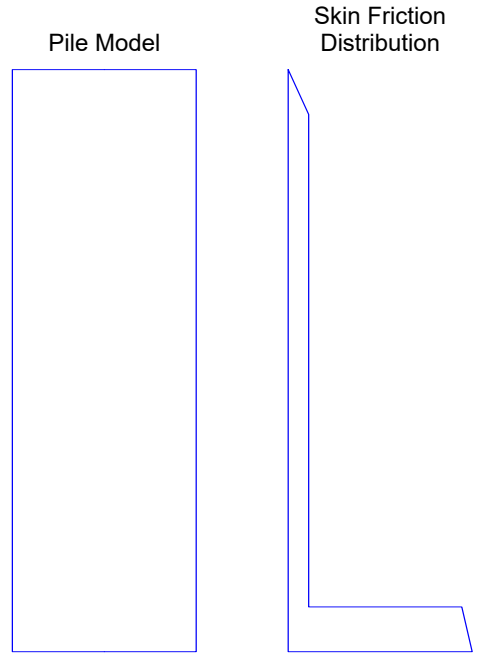
PILE DRIVER DATA SHEET

PILE INSTALLATION LOG



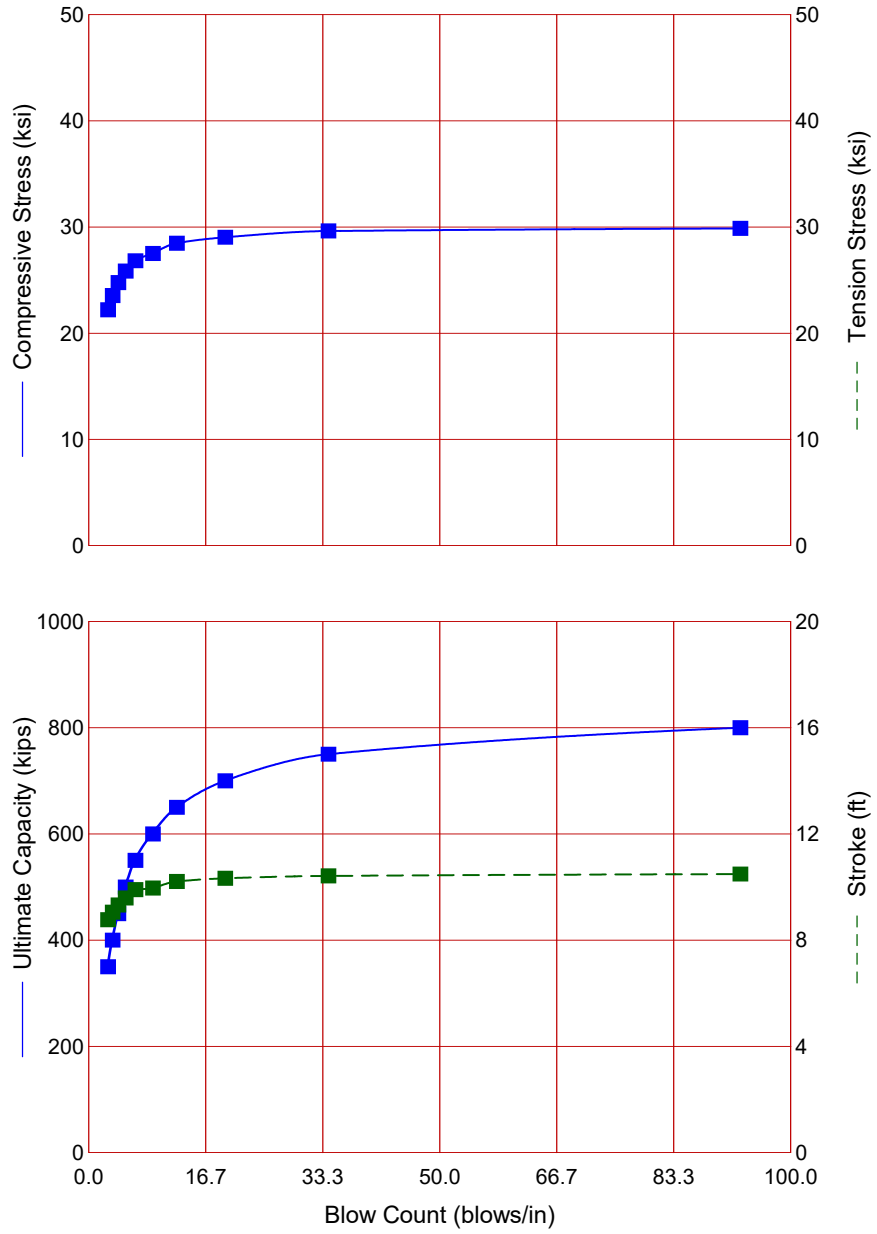
APE D 19-42

Efficiency	0.800	
Helmet	0.95	kips
Hammer Cushion	1767	kips/in
Skin Quake	0.100	in
Toe Quake	0.040	in
Skin Damping	0.137	sec/ft
Toe Damping	0.150	sec/ft
Pile Length	65.00	ft
Pile Penetration	65.00	ft
Pile Top Area	26.10	in2



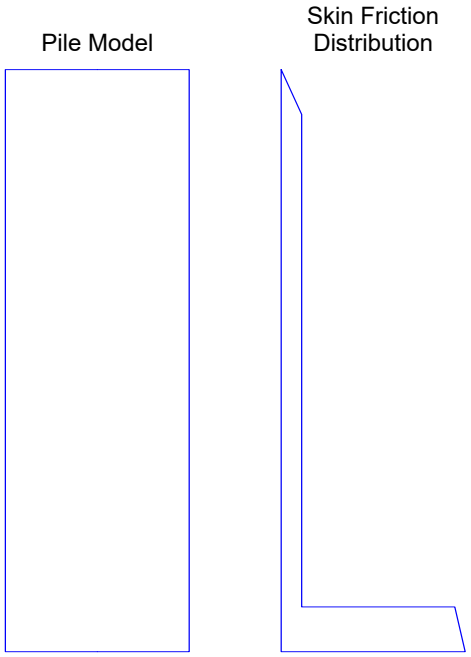
Res. Shaft = 27 %
(Proportional)

Ultimate Capacity kips	Maximum Compression Stress ksi	Maximum Tension Stress ksi	Blow Count blows/in	Stroke ft	Energy kips-ft
400.0	20.48	0.26	6.3	8.79	15.47
425.0	21.11	0.23	7.2	8.92	15.71
450.0	21.68	0.29	8.3	9.03	15.91
475.0	22.25	0.40	9.7	9.14	16.10
500.0	22.69	0.45	11.6	9.22	16.25
525.0	23.13	0.66	14.0	9.31	16.40
550.0	23.51	0.79	17.5	9.40	16.54
575.0	23.83	0.87	22.6	9.47	16.65
600.0	24.13	0.88	30.2	9.54	16.76
625.0	24.22	0.94	44.8	9.49	16.60



APE D 30-32

Efficiency	0.800	
Helmet	0.95	kips
Hammer Cushion	1767	kips/in
Skin Quake	0.100	in
Toe Quake	0.040	in
Skin Damping	0.137	sec/ft
Toe Damping	0.150	sec/ft
Pile Length	65.00	ft
Pile Penetration	65.00	ft
Pile Top Area	26.10	in2



Res. Shaft = 27 %
(Proportional)

Ultimate Capacity kips	Maximum Compression Stress ksi	Maximum Tension Stress ksi	Blow Count blows/in	Stroke ft	Energy kips-ft
350.0	22.20	0.00	2.8	8.77	23.77
400.0	23.54	0.00	3.4	9.05	24.36
450.0	24.77	0.00	4.2	9.32	25.06
500.0	25.84	0.00	5.3	9.59	25.78
550.0	26.82	0.00	6.7	9.90	26.52
600.0	27.50	0.00	9.2	9.96	26.47
650.0	28.47	0.00	12.6	10.21	27.08
700.0	29.03	0.00	19.5	10.33	27.17
750.0	29.62	0.00	34.2	10.42	27.44
800.0	29.87	0.00	92.8	10.49	27.38

APE Model D19-42 Single Acting Diesel Impact Hammer

D19-42 driving H-beam.



MODEL D19-42 (1.9 metric ton ram)

SPECIFICATIONS

Stroke at maximum rated energy	135 in (343 cm)
Maximum rated energy (Setting 4)	47,132 ft-lbs (63.63 kNm)
Setting 3	39,119 ft-lbs (52.81 kNm)
Setting 2	31,107 ft-lbs (41.99 kNm)
Minimum rated energy (Setting 1)	23,566 ft-lbs (31.81 kNm)
(Variable throttle allows for infinite fuel settings)	
Maximum obtainable stroke	150 in (381 cm)
Maximum obtainable energy	52,362 ft-lbs (71 kNm)
Speed (blows per minute)	34-52

WEIGHTS (Approximate)

Ram	4,189 lbs (1900 kg)
Anvil	749 lbs (340 kg)
Anvil cross sectional area	124.42 in² (802.71 cm²)
Hammer weight (includes trip device)	8,400 lbs (3,810 kg)
Typical operating (weight with DB26 and H-beam insert)	11,052 lbs (5,013 kg)

CAPACITIES

Fuel tank (runs on diesel or bio-diesel)	8.3 gal (31.41 liters)
Oil tank	2.3 gal (8.7 liters)

CONSUMPTION

Diesel or Bio-diesel fuel	1.3 gal/hr (6.6 liters/hr)
Lubrication	0.13 gal/hr (.49 liters/hr)
Grease	8 to 10 pumps every 20 minutes of operation time.

Optional Variable Throttle.



STRIKER PLATE FOR DB 26

Weight	628 lbs (284 kg)
Diameter	22.5 in (57.15 cm)
Area	398 in² (2567.74 cm²)
Thickness	6 in (15.24 cm)

STRIKER PLATE FOR DB 20

Weight	440 lbs (199 kg)
Diameter	17.75 in (45.08 cm)
Area	247 in² (1593.55 cm²)
Thickness	6 in (15.24 cm)

CUSHION MATERIAL

Type	Monocast MC 904
Diameter-DB26	22.5 in (57.15 cm)
Diameter-DB20	17.75 in (45.08 cm)
Thickness	2 in (5.08 cm)
Elastic-modulus	285 ksi (1,965 mpa)
Coeff. of restitution	0.8

Drive Base Assembly.



DRIVE CAP

DB 26:	1,076 lbs (488 kg)
DB 20:	750 lbs (340 kg)

INSERT WEIGHT

H-Beam insert for 12” (305 mm) and 14” (355 mm):	948 lbs (430 kg)
Large pipe insert for sizes 12” to 24” diameter:	1,830 lbs (830 kg)

MINIMUM BOX LEAD SIZE/OPERATING LENGTH

Minimum box leader size	8 in x 21 in (20.32 cm x 53.34 cm)
Operating length w/ base and insert	348 in (883.92 cm)

Corporate Offices
7032 South 196th
Kent, Washington 98032 USA
(800) 248-8498 & (253) 872-0141
(253) 872-8710 Fax

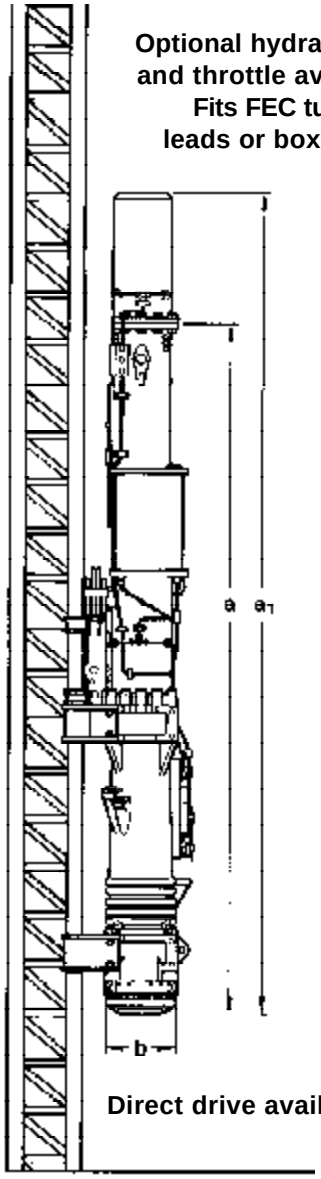
Visit our WEB site:
www.apevibro.com
e-mail: ape@apevibro.com

Note: All specifications are subject to change without notice 08/20/2012

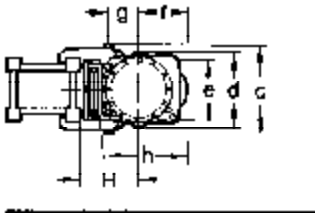
APE/SEMW Model D30-32 Single Acting Impact Hammer

German technology and ISO 9001 quality

Optional hydraulic trip and throttle available. Fits FEC tube leads or box type.



Direct drive available



MODEL D30-32 (3.0 metric ton ram)

(APE offers diesel hammers with ram weights up to 22,000 lbs.)

SPECIFICATIONS

Maximum rated energy	69,898 ft-lbs
Minimum rated energy	35,383 ft-lbs
Stroke at rated energy	10 feet 6 inches
Maximum obtainable stroke	12 feet 5 inches
Speed (blows per minute)	36-52

WEIGHTS

Ram	6,615 lbs
Avil	1,360 lbs
Hammer weight (includes trip device)	12,155 lbs
Typical operating (weight with drive cap)	14,600 lbs

striker plate

STRIKER PLATE

Weight (D^2 X 3.14/4 X 6 X .283=	675 lbs
Diameter	22.5 inches
Thickness (the 6 in above equation is thickness of plate)	6 inches

cushion

CUSHION MATERIAL

Type	Monocast MC 901
Diameter	22.5 inches
Thickness	2 inches
Elastic-Modulus	285 kips per square inch
Coeff. of Restitution	.8

drive cap

DRIVE CAP (HELMET)

Weight (fits 8 by 26" leads)	1,166 lbs
Note: if using 32 inch leads the drive cap will weigh:	1,550 lbs

insert

DRIVE CAP INSERT WEIGHT

Square box inserts size 10" through 20 inch:	1,400 lbs
Pipe inserts for pipe size 12" to 24" diameter:	2,545 lbs

CAPACITIES

Fuel tank (runs on diesel or bio-diesel)	17.70 gal
Oil tank	2.4 gal

CONSUMPTION

Diesel or Bio-diesel fuel	2.64 gal/hr
Lubrication oil	0.26 gal/hr
Grease:	Grease twice per day or after 45 minutes of continous driving

DIMENSIONS OF HAMMER

a	Length overall	207.1 inches
a	Length over cylinder extension	246.4 inches
b	Impact block diameter	22.0 inches
c	Width over bolts	30.7 inches
d	Hammer width overall	28.3 inches
e	Width for guiding- face to face	21.2 inches
f	Hammer center to pump guard	15.9 inches
g	Hammer center to bolt center	9.2 inches
h	Hammer depth overall	28.1 inches
H	Minimum clearance for leads	19.7 inches

AMERICAN PILEDRIVING EQUIPMENT, INC. APE

SHANGHAI JINTAI CO., LTD.

Corporate Offices
7032 South 196th
Kent, Washington 98032 USA
(800) 248-8498 & (253) 872-0141
(253) 872-8710 Fax 10/99

Visit our WEB site:
www.apevibro.com
e-mail: ape@apevibro.com

We reserve the right to modify specifications without notice.

SUMMIT
GEOENGINEERING SERVICES

PILE DRIVING RECORD

PROJECT NAME: _____ PROJECT #: _____

JOB LOCATION: _____ DATE: _____

WEATHER/TEMP: _____ CONTRACTOR: _____

Pile Type: _____ Hammer: _____
Length _____ Energy/Blow: _____
Pile No.: _____ Oper. Rate: _____
Splice Elev. _____ Helmet Weight: _____
Pile Toe Elev.: _____
Pile Cutoff Elev.: _____

Depth (ft)	Blows/ ft	Remarks	Depth (ft)	Blows/ ft	Remarks	Depth (ft)	Blows/ ft	Remarks
1			26			51		
2			27			52		
3			28			53		
4			29			54		
5			30			55		
6			31			56		
7			32			57		
8			33			58		
9			34			59		
10			35			60		
11			36			61		
12			37			62		
13			38			63		
14			39			64		
15			40			65		
16			41			66		
17			42			67		
18			43			68		
19			44			69		
20			45			70		
21			46			71		
22			47			72		
23			48			73		
24			49			74		
25			50			75		

Observations: _____

_____

_____

_____

Pile Inspection By: _____

Docusign Envelope ID: B3034BE4-1A27-43B9-9A54-93064BC1AC5E

Applicants Letter of Authorization

This letter is to authorize Bo Kennedy of Placemaker Partners, LLC, located at 18 Van Aken Way, Portland, ME 04102, Inc. to represent the interest of CPI Management, LLC (Applicant) in all site design and permitting matters for the proposed development project located at 125 Thompson Point, Portland, ME 04102. This authorization shall include any required signatures for local, state and federal permit applications.

Sincerely,

DocuSigned by: Rob Simmons F303420CFE6043A...	Rob Simmons	8/16/2024
Signature	Print Name	Date

ATTACHMENT O

SUMMARY OF EXISTING AND/OR PROPOSED EASEMENTS OR COVENANTS

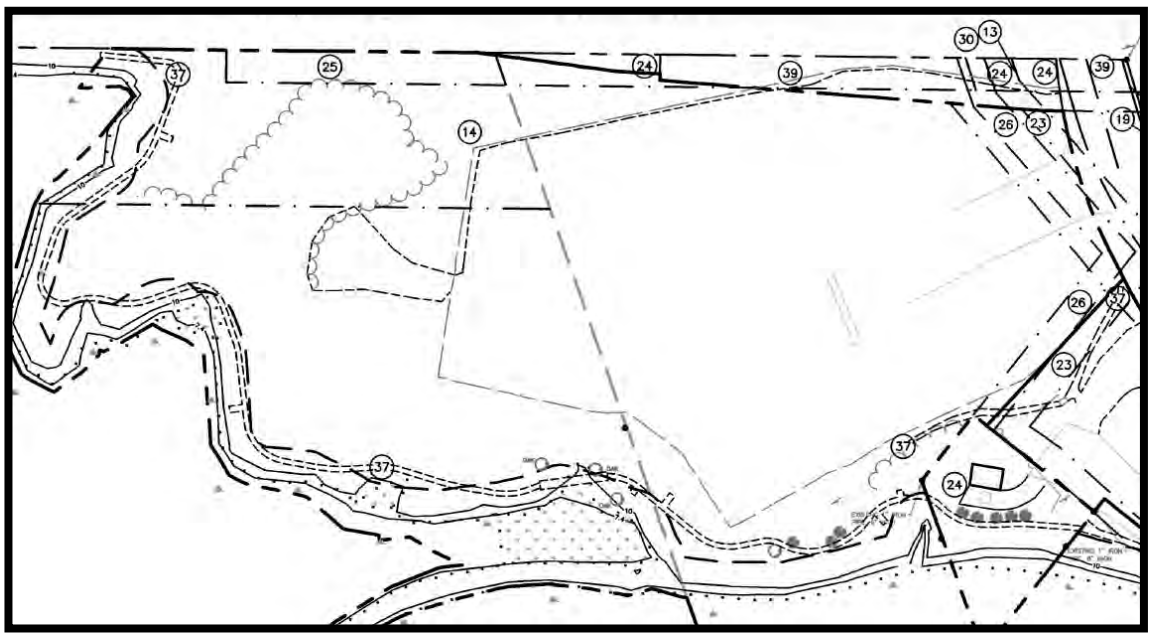
There are several existing easements around the perimeter of the property described as Lot 17 on the Forefront at Thompson's Point Subdivision Sectional 4 Plat, last revised 2024.08.23. Furthermore, a plan sheet titled C-2.0A Subdivision Plan – Easements and Encumbrances dated September 2014, last revised 2016.08.22 and recorded in CCRD Plan book 223, page 133 depicts and lists all existing easements. A summary list of existing easements is noted below.

Existing Easements Encumbering Lot 17:

- CMP Transmission Corridor
- CMP Aerial Power Lines
- CMP Underground Power Lines
- CMP Access Easement (Not Depicted)
- PWD Sanitary Sewer
- PWD CSO Sewer
- PWD Water Main
- PWD water service to pumpstation
- City of Portland Trail Easement
- City of Portland Sewer
- Forefront at Thompson's Point – Declaration of Easements, Covenants and Restrictions

Proposed Easements:

- -Drainage Easement (Thompson's Point ROW)



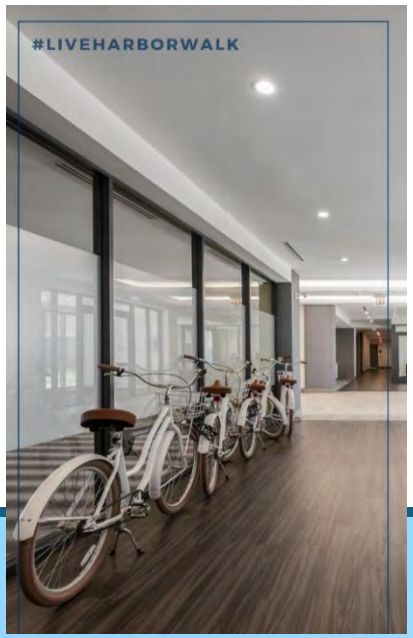
ATTACHMENT P
TDM – Multi-Family Residential

Forefront has prepared a TDM strategy report approved in 2011, updated in 2015, and March 30, 2018. The Thompson's Point TDM Coordinator has provided subsequent annual progress updates to the city in accordance with the City's reporting protocol for all sites participating in TDM strategies. Thompson's Point is proud to be a very proactive member of the TDM program and is always seeking to improve their TDM initiatives. Copies of the TDM materials are on file with the city and are available upon request. The TP TDM coordinator will continue to work with Cathartes to pursue the TDM measures noted below and more.

Cathartes asset management team has TDM programs in place for its residents to take advantage of and reduce their reliance on Single Occupant Vehicles. Some of those initiatives are summarized below:

- Shareable bikes and e-scooters that can be checked out for free by residents (photos attached).
- Promote indoor, secured bike storage. (upwards of 90 bikes)
- Provide work from home spaces so that residents working from home don't have to commute to a co-work or cafe location.
- Tenants can walk to restaurants & entertainment available to them on-campus.
- Tenants have close access to local and regional bus and train lines.
- Tenants have direct connection to local multi-use trails maintained by Portland Trails.
- Thompson's Point reserves space for Portland Bike Share program (Tandem Mobility) to have a Bike Station
- Thompson's Point was named Best Workplace for Commuters site by the Center for Urban Transportation Research in 2019









Type B1 & B2

lumenblade
Bollard
BLDB

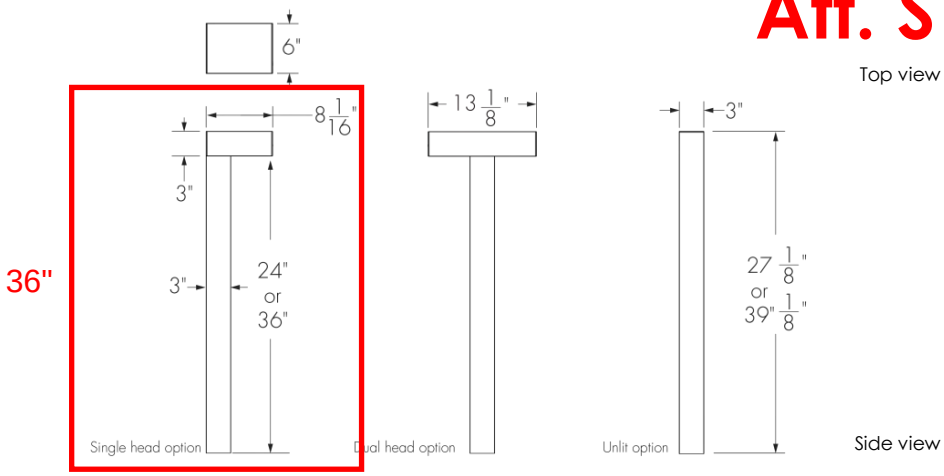
Catalog Number:
BLDG-TM1-VOLTAGE-CSL-N03-30K-CRI80-3-FINISH-CONTROL

Project Name _____ **Qty** _____

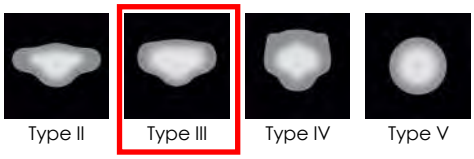
Type _____ **Catalog / Part Number** _____

Att. S


Single head option shown



Distributions


Type II | Type III | Type IV | Type V


Type II backlight shield | Type III backlight shield | Type IV backlight shield | Type V square

Color and Color Temperature


Amber | 2200K | 2700K | 3000K


3500K | 4000K | 5700K

Control

ON/OFF 0-10V LT

Ratings

IP66 (optical chamber) IK06 (lens) IK10* (frame)

*IK10 polycarbonate lens option available, consult factory.

Certifications

Description

The Lumenpulse Lumenblade Bollard is an outdoor LED luminaire that uses a rectilinear version of the Lumencentro light engine to create a continuous line of light. Options include: heights of either two feet or three feet, with a Single or Dual head. Its seen-but-not-seen, minimalist design is sustainable, blends with both contemporary and heritage architectures, provides a high level of security, and is sensitive to the natural environment with low outputs and with a BUG rating of 0.

Features

Mounting	Single head, Dual head, Unlit bollard
Height	2 ft, 3 ft
Color and Color Temperature	Amber, 2200K, 2700K, 3000K, 3500K, 4000K, 5700K
Distributions	Type II, Type III or Type IV (with or without backlight shield), Type V, Type V square
Optical Option (factory installed)	Louver
Vibration Rating	Meets ANSI C136.31-2018 vibration rating for Bridge & Overpass applications
Options	Vibration Rated for Bridge and Overpass, Corrosion-resistant coating for hostile environments, Surge protector, Photoelectric Cell Button Type, Ground Fault Duplex Receptacle, Duplex receptacle with USB A and USB C
Warranty	5-year limited warranty

Performance

Output (nominal lumens)	Minimum 200lm (single head)/ Maximum 2000lm (dual head)
Efficacy	Up to 86 lm/W (N10 lumen output, 4000K, CRI 70+, Type III)
Color Rendering	3 SDCM for CRI 70+, 2 SDCM for CRI 80+ and CRI 90+
Lumen Maintenance	TM-21 L70 > 145,000 hrs (reported, Ta 25 - 50 °C [77 - 122 °F])
Dark Sky	Dark sky compliant (2200K, 2700K, 3000K and Amber color

lumenpulse™
1220 Marie-Victorin Blvd., Longueuil, QC, J4G 2H9, CA **T** United States 617.307.5700 | Canada 1.877.937.3003 | 514.937.3003 **F** 514.937.6289
info@lumenpulse.com **www.lumenpulse.com** **www.lumenpulse.com/products/2323**

LMPG Inc. reserves the right to make changes to this product at any time without prior notice and such modification shall be effective immediately
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temperatures, BUG rating of U0)

Physical

Housing Material	Extruded aluminium 6000 alloy series
Lens Material	Optical tempered clear glass (Clearsite lens), Optical tempered frosted glass (Frostsite lens), Optical tempered half-frosted glass (Half-Frostsite lens)
Head Option	Bollard Head
Surface Finish	Super durable resistant exterior polyester powder coating meets AAMA 2604-98 requirements (5-years Florida exposure) a corrosion resistant finish (CRC) pre-finish is available to meet ASTM B-117 & ASTM D-1654 (salt spray resistance) and ASTM D-2247 requirements (humidity resistance).
Weight	16.53 lbs

Electrical and control

Voltage	120 volts, 208 volts, 240 volts, 277 volts, 347 volts, 480 volts
Control	On/Off control, 0-10V dimming, Lumentalk

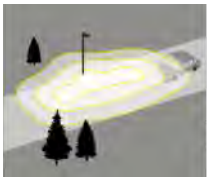
Environmental

Storage Temperature	-40°C to 50°C [-40°F to 122°F] (device must reach start-up temperature value before operating)
Operating Temperature	-40°C [-40 °F] to 50°C [122 °F]
Start-up Temperature	-25°C [-13 °F] to 50°C [122 °F]
Impact Resistance Rating	IK06 (glass lens), IK10 (frame) *IK10 polycarbonate lens option available, consult factory
Ingress Protection Rating	IP66 (optical chamber), Wet location rated
Environment	Dry/damp/wet location

LMPG Inc. reserves the right to make changes to this product at any time without prior notice and such modification shall be effective immediately
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Photometric information

Type II, 4000K, CRI 70+, Clearsite lens



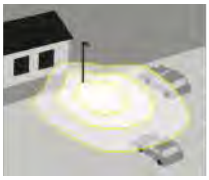
	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
N03	209	70	0 0 0	3
N05	428	71	0 0 0	6
N07	672	75	0 0 0	9
N10	873	79	0 0 0	11

Type III, 4000K, CRI 70+, Clearsite lens



	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
N03	228	76	0 0 0	3
N05	465	78	0 0 0	6
N07	731	81	0 0 0	9
N10	950	86	0 0 0	11

Type IV, 4000K, CRI 70+, Clearsite lens



	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
N03	186	62	0 0 0	3
N05	380	63	0 0 0	6
N07	597	66	0 0 0	9
N10	775	70	0 0 0	11

Type V square, 4000K, CRI 70+, Clearsite lens



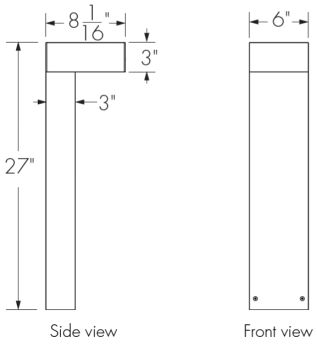
	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
N03	191	64	0 0 0	3
N05	390	65	0 0 0	6
N07	613	68	0 0 0	9
N10	797	72	1 0 1	11

*Photometric performance is measured in compliance with IESNA LM-79-19. Due to rapid and continous advances in LED technology, photometric information is subject to change without notice.

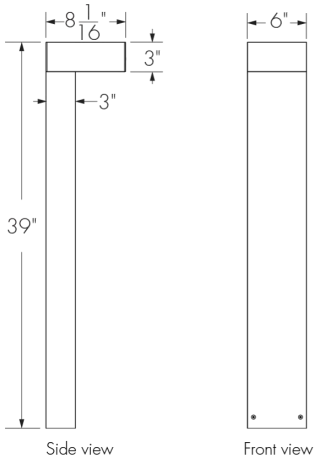
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Configuration dimensions

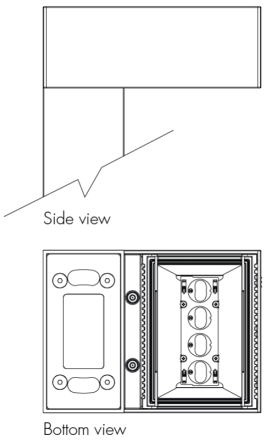
TM1 - Single head bollard, 2 ft



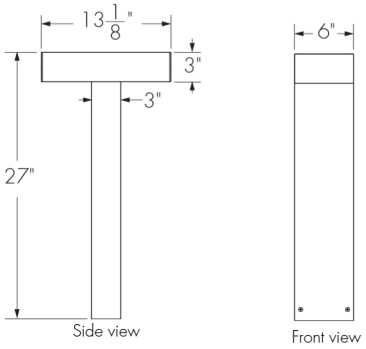
TM1 - Single head bollard, 3 ft



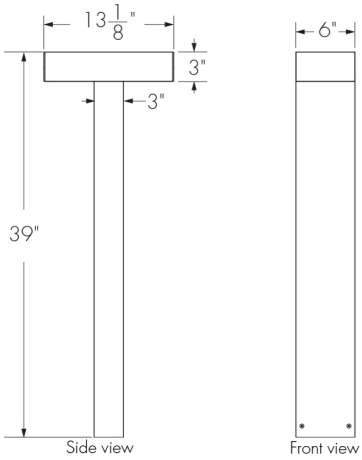
TM1 - Single luminaire head



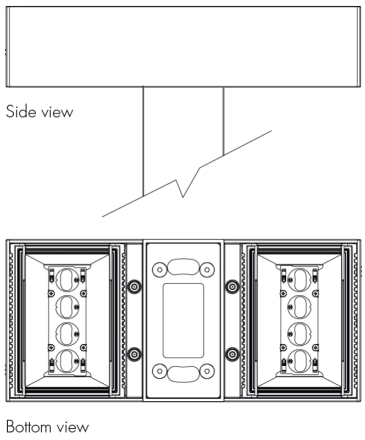
TM2 - Dual head bollard, 2 ft



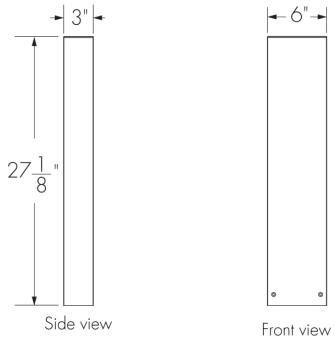
TM2 - Dual head bollard, 3 ft



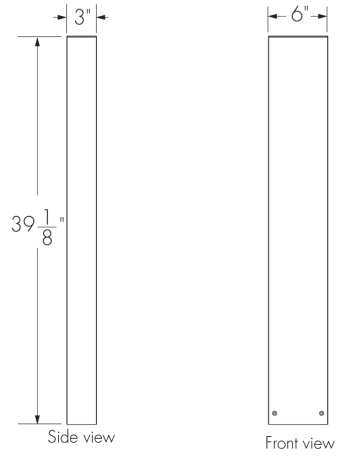
TM2 - Dual luminaire head



UNLIT - Unlit bollard 2 ft



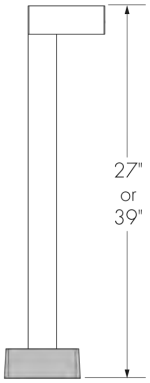
UNLIT - Unlit bollard 3 ft



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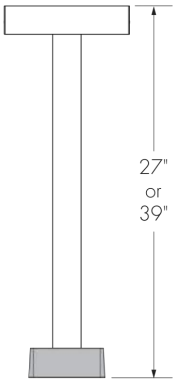
VRBO option dimensions

TM1 - Single head bollard



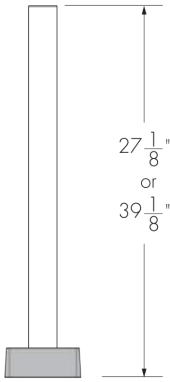
Side view

TM2 - Dual head bollard



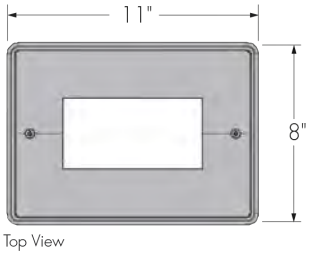
Side view

UNLIT - Unlit bollard



Side view

Base cover



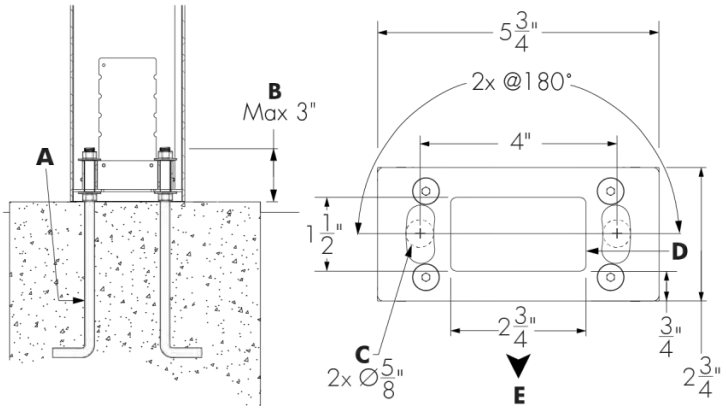
Top View



Front View

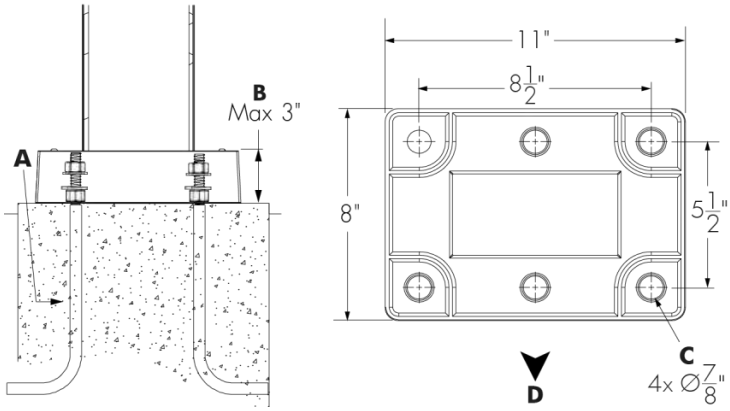
Anchoring details

Standard anchoring



A - (2x) Ø1/2 in by 12 in long anchor bolts with flats washers and nuts for each
B - Between 2.5 in and 3 in of the anchor bolts must be above ground for installation
C - Bolt circle
D - Hole for conduit (conduit by others)
E - Street side/Light side

BLDB-VRBO anchoring

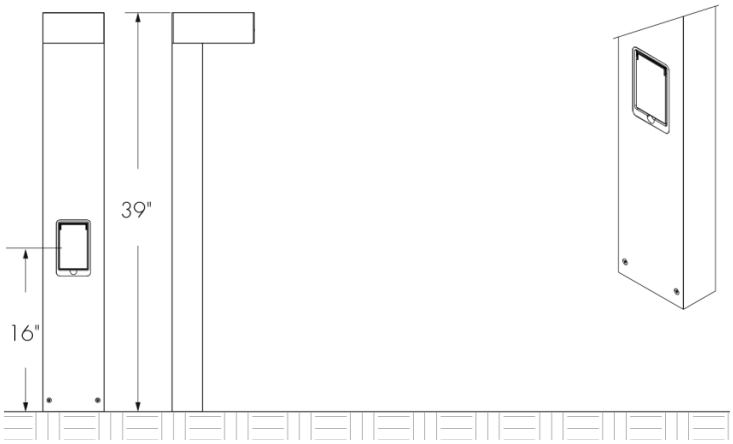


A - (4x) Ø3/4 in by 26 in long anchor bolts with flats washers and nuts for each
B - Between 2.5 in and 3 in of the anchor bolts must be above ground for installation
C - Bolt circle
D - Access door and street side

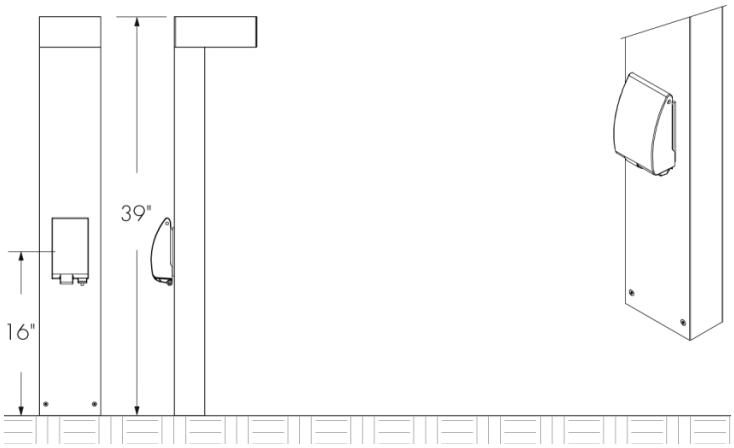
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Duplex Receptacle installation dimensions

DRG - Ground fault duplex receptacle
USB - Duplex receptacle with USB A and USB C



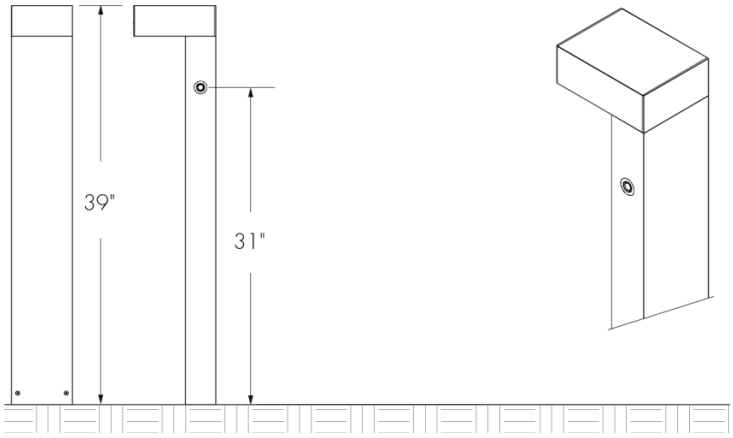
DRG IU - Ground Fault Duplex Receptacle (while in use)
USB IU - Duplex receptacle with USB A and USB C (while in use)



The duplex receptacle must be installed in accordance with applicable national and local electrical and construction codes by a person familiar with the construction and operation of the product and the hazards involved. Refer to national and local electrical codes before selecting a duplex receptacle to ensure all requirements are met.

Photoelectric Cell Button installation dimensions

PB - Photoelectric Cell Button Type



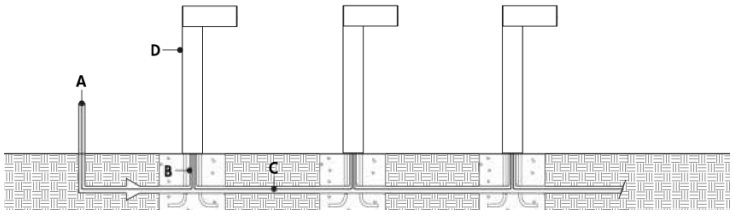
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Typical Wiring Diagrams

Wiring Color Code

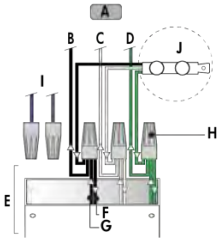
Color	Black	White	Green	Purple	Gray
Use	Line	Line/Neutral	Ground	0 -10V+	0 -10V -

On/Off Control (NO)



A - Power input (120-480V)
B - Conduit (by others)
C - Power wiring (by others)
D - Lumenblade Bollard

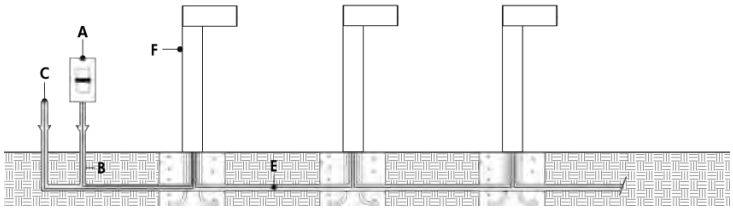
On/Off Control (NO) - wiring detail



A - To fixture
B - Line
C - Line/Neutral
D - Ground
E - Conduit (by others)
F - To next fixture
G - Power input or from previous fixture
H - Wire-nuts (by others)
I - Not required
J - Wiring for SP option

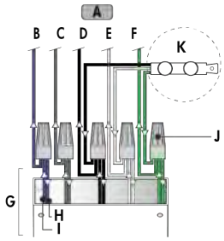
- Consult factory for specific applications and maximum fixture count/cable length recommendations.

0-10V dimming (DIM)



A - Dimmer (by others)
B - Data wiring (by others)
C - Power input (120-480V, wiring by others)
D - Conduit (by others)
E - Power and data wiring (by others)
F - Lumenblade Bollard

0-10V dimming (DIM) - wiring detail

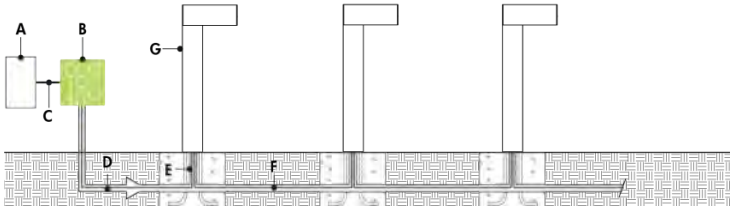


A - To fixture
B - 0-10V +
C - 0-10V -
D - Line
E - Neutral
F - Ground
G - Conduit (by others)
H - To next fixture
I - Power input or from previous fixture
J - Wire-nuts (by others)
K - Wiring for SP option

- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- 0-10V mA ratings: passive dimmer (Current Sink): 3mA per fixture, active dimmer (Current Source): 0.5mA per fixture.
- 1% minimum dimming value.

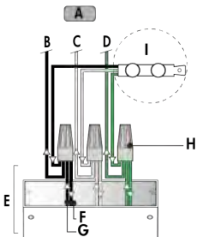
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Lumentalk (LT)



A - Dimmer/controller (order separately from Lumenpulse, or by others)
B - Lumentranslator (LTL-010)
C - Data wiring (by others)
D - Power line (120-277V, wiring by others)
E - Conduct (by others)
F - Power wiring (by others)
G - Lumenblade Bollard

Lumentalk (LT) - wiring detail



A - To fixture
B - Line
C - Line/Neutral
D - Ground
E - Conduit (by others)
F - To next fixture
G - Power input or from previous fixture
H - Wire-nuts (by others)
I - Wiring for SP option

- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Lumentalk enabled fixtures must be commissioned using LumentalkID software and a LID-LT. Consult factory for details.
- Maximum of 1 transmitter (Lumentranslator or Lumenlink) per system.
- No third party fixtures allowed on the same circuit.
- DRG or USB option must be on a separated circuit.

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How to Order

Housing	Mounting	Voltage	Height	Lens [3]	Output (nominal lumens) [8]	Color and Color Temperature	Color Rendering	Distributions	Optical Option	Finish	Control
BLDB Lumenblade Bollard	**TM1** Single head **TM2** Dual head [1] **UNLIT** Unlit bollard	**120** 120 volts **208** 208 volts **240** 240 volts **277** 277 volts **347** 347 volts [2] **480** 480 volts [2]	**2FT** 2 ft **3FT** 3 ft	**CSL** Clearsite lens [4] **FSL** Frostsite lens [5] **HFSL** Half-Frostsite lens [6] [7]	**N02** 200lm (4 LEDs) [4] [9] [10] **N03** 300lm (4 LEDs) **N05** 500lm (4 LEDs) **N07** 700lm (4 LEDs) **N10** 1000lm (4 LEDs)	**AMB** Amber [4] [10] [11] **22K** 2200K [12] **27K** 2700K [13] **30K** 3000K **35K** 3500K **40K** 4000K **57K** 5700K [14]	**CRI 70** CRI 70+ [15] **CRI 80** CRI 80+ [16] **CRI 90** CRI 90+ [17]	**2** Type II **2BLS** Type II backlight shield **3** Type III **3BLS** Type III backlight shield **4** Type IV **4BLS** Type IV backlight shield **5** Type V **5S** Type V square	**LV** Louver [18] [19]	**BK** Black Sandtex® **BRZ** Bronze Sandtex® **SI** Silver Sandtex® **BKTX** Textured Black **BRZTX** Textured Bronze Non-Metallic **GRATX** Textured Medium Gray **GRNTX** Textured Green **WHTX** Textured White **CC** Custom Color & Finish [20] [21] [22]	**DIM** 0-10V dimming [23] **LT** Lumentalk [24] [25]

Notes:

1. A ground fault duplex receptacle (DRG or DRG IU) and a duplex USB receptacle (USB or USB IU) cannot be combined with TM2 mounting.
2. Not available with LT control option.
3. Standard IK06 rating for glass lens. IK10 rated polycarbonate lens available, please consult factory.
4. Not available with type 5 distribution.
5. Available with type 3 and 5 distributions only.
6. Available with type 2, 3 and 4 distributions only.
7. Available for N03, N05, N07 and N10 outputs only.
8. Lumen output will vary according to the lens and distribution specified for the fixture. Please consult the photometric information section of the specification sheet for more details.
9. Available with AMB color temperature only.
10. Not available for FSL and HFSL lens.
11. Available with N02 output only.
12. Available for CRI 80 only.
13. Available for CRI 80 and CRI 90 only.
14. Available for CRI 70 and CRI 80 only.
15. Binning within a 3-step McAdam ellipse, with the exception of 5700K.
16. Binning within a 2-step MacAdam ellipse, with the exception of 2200K and 5700K.
17. Binning within a 2-step MacAdam ellipse
18. Available with CSL and HFSL lenses only.
19. Factory installed, not field changeable.
20. Specify RAL number followed by "TX" for textured finish (ex: RAL9007TX) or STX for Sandtex finish (ex: RAL9007STX). Textured or Sandtex finishes are recommended for the durability of all products. If a finish is not specified with the RAL number (ex: RAL9007), a glossy finish will be provided. Please consult factory for other RAL textures and glosses, or to match alternate color charts. Final color matching results may vary.
21. Setup charges apply for RAL colors. Consult factory for details.
22. Longer lead times can be expected for custom RAL color finishes.
23. DIM control can be used as NO (On/off control) if no data is required.
24. Not available with PB option.
25. When combined with 2 ft height option, Lumentalk cannot be combined with a ground fault duplex receptacle (DRG or DRG IU) or a duplex USB receptacle (USB or USB IU).

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How to Order

Option	Head Option	Head Lens	Head Output	Head Color and Color Temperature	Head Color Rendering	Head Distributions	Head Optical Option
VRBO Vibration Rated for Bridge and Overpass [26] [27] **CRC** Corrosion-resistant coating [28] [29] **SP** Surge protector **PB** Photoelectric Cell Button Type [2] [30] **DRG** Ground Fault Duplex Receptacle [31] **DRG IU** Ground Fault Duplex Receptacle (while in use) [31] **USB** Duplex receptacle with USB A and USB C [31] **USB IU** Duplex receptacle with USB A and USB C in-use [31]	**BH** Bollard Head	**CSL** Clearsite lens [4] **FSL** Frostsite lens [5] **HFSL** Half-Frostsite lens [6] [7]	**N02** 200lm (4 LEDs) [4] [9] [10] **N03** 300lm (4 LEDs) **N05** 500lm (4 LEDs) **N07** 700lm (4 LEDs) **N10** 1000lm (4 LEDs)	**AMB** Amber [4] [10] [11] **22K** 2200K [12] **27K** 2700K [13] **30K** 3000K **35K** 3500K **40K** 4000K **57K** 5700K [14]	**CRI 70** CRI 70+ [15] **CRI 80** CRI 80+ [16] **CRI 90** CRI 90+ [17]	**2** Type II **2BLS** Type II backlight shield **3** Type III **3BLS** Type III backlight shield **4** Type IV **4BLS** Type IV backlight shield **5** Type V **5S** Type V square	**LV** Louver [18]

Notes:

2. Not available with LT control option.
4. Not available with type 5 distribution.
5. Available with type 3 and 5 distributions only.
6. Available with type 2, 3 and 4 distributions only.
7. Available for N03, N05, N07 and N10 outputs only.
9. Available with AMB color temperature only.
10. Not available for FSL and HFSL lens.
11. Available with N02 output only.
12. Available for CRI 80 only.
13. Available for CRI 80 and CRI 90 only.
14. Available for CRI 70 and CRI 80 only.
15. Binning within a 3-step McAdam ellipse, with the exception of 5700K.
16. Binning within a 2-step MacAdam ellipse, with the exception of 2200K and 5700K.
17. Binning within a 2-step MacAdam ellipse
18. Available with CSL and HFSL lenses only.
26. Vibration tested in accordance with ANSI 136.31 2018 for bridge and overpass applications at 5Gv.
27. Specify only if a bridge or overpass application is required.
28. Use only when exposed to salt spray. This option is not required for normal outdoor exposure.
29. Setup charges apply. Consult factory for details.
30. Not available for 480V voltage option.
31. A ground fault duplex receptacle (DRG or DRG IU) and a duplex USB receptacle (USB or USB IU) cannot be combined.

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TYPE SL-1, SL-2, & SL-3

lumenblade
Medium
BLDM

SL-1 Catalog Number:
BLDM-SD-120/277-CSL-M80-30K-CRI 80-2

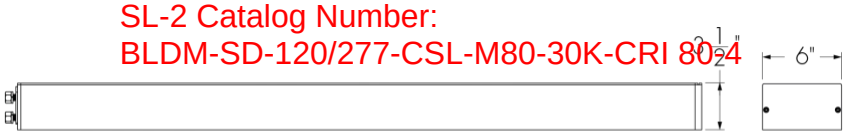
SL-2 Catalog Number:
BLDM-SD-120/277-CSL-M80-30K-CRI 80-3

SL-2 Catalog Number:
BLDM-SD-120/277-CSL-M80-30K-CRI 80-4

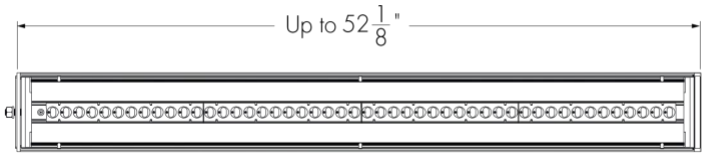
Project Name _____ **Qty** _____

Type _____ **Catalog / Part Number** _____





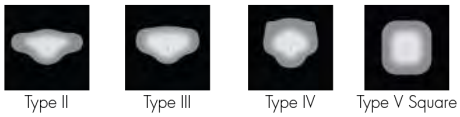
Side and front views



Bottom view

XL180 or XL200 (4 boards) shown

Distributions





SL-1: TYPE II DISTRIBUTION
SL-2: TYPE III DISTRIBUTION
SL-3: TYPE IV DISTRIBUTION

Colors and Color Temperatures



Control

ON/OFF 0-10V LT

Motion Detector Options



Rating

IP66 (optical chamber)

Certifications

Description

The Lumenpulse Lumenblade Medium is an outdoor LED luminaire that uses a rectilinear version of the Lumencentro light engine to create a continuous line of light. Its seen-but-not-seen, minimalist design is sustainable, blends with both contemporary and heritage architectures, provides a high level of security, and is sensitive to the natural environment. The Lumenblade Medium is available in several lengths, a number of distributions and output options, and provides a stellar quality of light that brings the night to life.

Features

Mounting	Side mounting
Color and Color Temperature	2200K, 2700K, 3000K, 3500K, 4000K, 5700K
Distributions	Type II, Type III or Type IV (with or without backlight shield), Type 5 square
1.5G Vibration Rated	Meets 1.5G ANSI C136.31 - 2010 vibration standard for Roadway applications 3G ANSI C136.31-2010 Vibration Rating for bridge applications available for certain configurations, refer to product configurator and website for details
Options	3G ANSI C136.31-2010 Vibration Rating for bridge applications, Corrosion-resistant coating for hostile environments, Surge protector, 3-Pin Receptacle with or without shorting cap, 5-Pin Receptacle with or without shorting cap, 7-Pin Receptacle with or without shorting cap, Motion detector
Pole Mounting Adaptor	Straight pole and Muffler pole adaptor (round and square pole): 6 in Lumentech pole adaptor (square and round pole): 6 in
Warranty	5-year limited warranty

Performance

Output (nominal lumens)	Minimum 4,000lm (1 board) / Maximum 20,000lm (4 boards)

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Efficacy	Up to 107 lm/W (Type 5 square, 4000K, M80 lumen output)
Color Rendering	3 SDCM for CRI 70+, 2 SDCM for CRI 80+ and CRI 90+
Lumen Maintenance	TM-21 L70 > 145,000 hrs (reported, Ta 25 - 50 °C [77 - 122 °F])
Dark Sky	Dark sky compliant (2200K, 2700K and 3000K color temperatures, BUG rating of U0)

Physical

Housing Material	Extruded aluminium 6000 alloy series
Lens Material	Optical tempered clear glass (Clearsite lens)
Surface Finish	Super durable resistant exterior polyester powder coating meets AAMA 2604-98 requirements (5-years Florida exposure). A corrosion resistant finish (CRC) pre-finish is available to meet ASTM B-117 & ASTM D-1654 (salt spray resistance) and ASTM D-2247 requirements (humidity resistance).
Weight	1 board: 12.5 lbs 2 boards: 16 lbs 3 boards: 21 lbs 4 boards: 25 lbs Refer to Fixture Weights Table in complete specification sheet for fixture weights with motion detector installed and double configurations

Electrical and control

Voltage	120 volts, 208 volts, 240 volts, 277 volts, 347 volts, 480 volts
Control	On/Off control, 0-10V dimming, Lumentalk

Environmental

Storage Temperature	-40°C to 50°C [-40°F to 122°F] (device must reach start-up temperature value before operating)
Operating Temperature	-40°C [-40 °F] to 50°C [122 °F]
Start-up Temperature	-25°C [-13 °F] to 50°C [122 °F]
Ingress Protection Rating	IP66 (optical chamber), Wet location rated
Impact Resistance Rating	IK07 (glass lens), IK10 (frame)
Environment	Dry/damp/wet location

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EPA and Fixture Weight Tables

*Fixture weights are estimated.

Standard Fixture

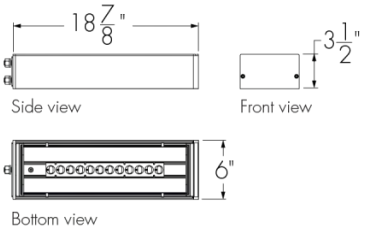
		S40/S60 1 board	M80/M100 2 boards	L120/L140/L160 3 boards	XL180/XL200 4 boards
EPA (sq ft.)	S1E	0.69	1.03	1.46	1.90
	S2E	1.38	2.06	2.92	3.8
Weight* (lbs)	S1E	12.5	16	21	25
	S2E	25	32	42	50

Fixture With Motion Detector Option

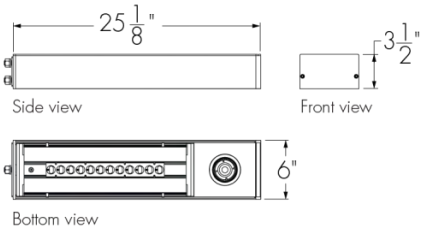
		S40/S60 1 board	M80/M100 2 boards	L120/L140/L160 3 boards	XL180/XL200 4 boards
EPA (sq ft.)	S1E	0.92	1.25	1.69	2.13
	S2E	1.84	2.5	3.38	4.26
Weight* (lbs)	S1E	15	18.5	23.5	27.5
	S2E	30	37	47	55

Dimensions

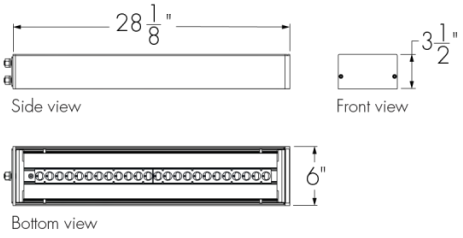
S40 and S60 (1 Board)



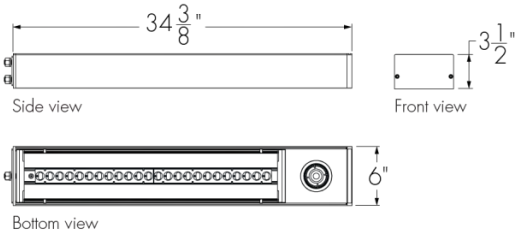
S40 and S60 (1 Board) - Motion Detector Option



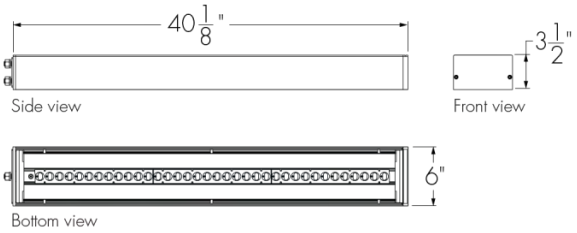
M80 and M100 (2 Boards)



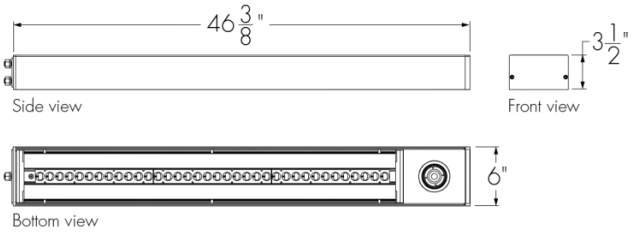
M80 and M100 (2 Boards) - Motion Detector Option



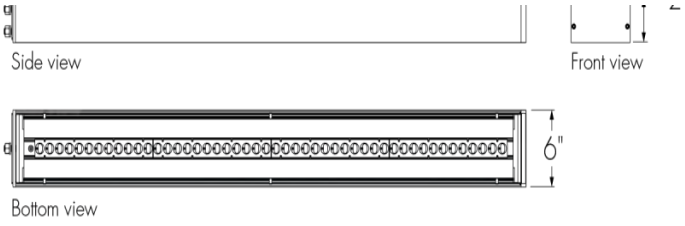
L120, L140 and L160 (3 Boards)



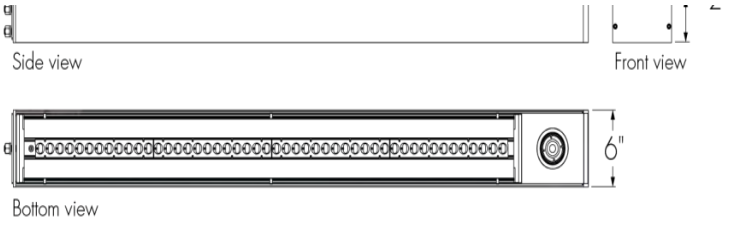
L120, L140 and L160 (3 Boards) - Motion Detector Option



XL180 and XL200 (4 Boards)



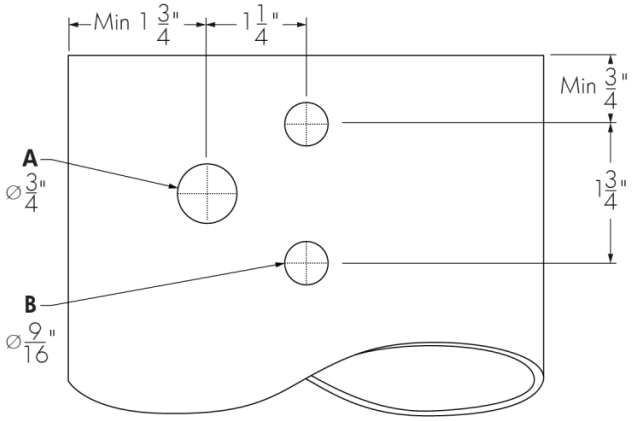
XL180 and XL200 (4 Boards) - Motion Detector Option



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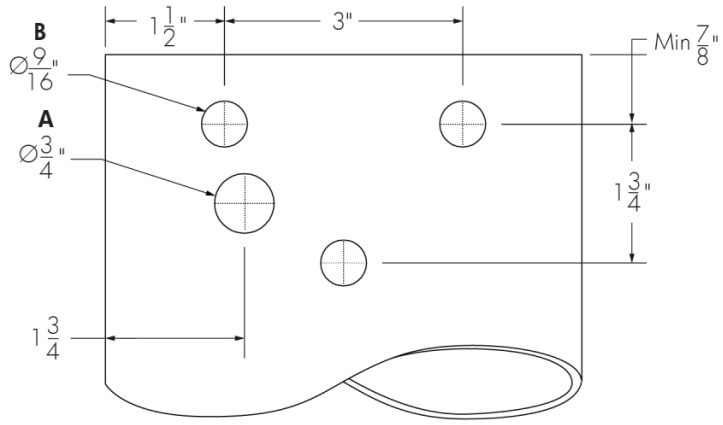
Pole Drilling Pattern

BLDM-S1E and BLDM-S2E Drilling Pattern



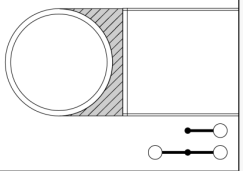
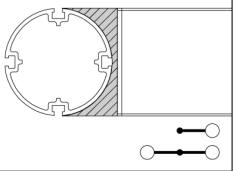
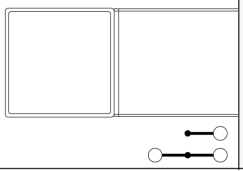
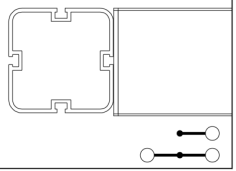
A - Wire feeding location
B - (2X) for Ø1/2-13 bolts (included with luminaire)

BLDM-S1E-3GV and BLDM-S2E-3GV Drilling Pattern



A - Wire feeding location
B - (3X) for Ø1/2-13 bolts (included with luminaire)

Pole Mounting Adaptor

	Straight and muffler poles			Lumentech pole	
	4in	**5in**	**6in**	**5in**	**6in**
Round shape	n/a	n/a	**RPA6M** 	n/a	**RPA6TM** 
Square shape [1]			**SPA6** 		**SPA6T** 

Available configurations*:
S1E —○ Simple
S2E ○—○ Double

[1] Square poles do not require adaptors, specification codes are used by Lumenpulse to provide appropriate hardware for installation only.

*Consult factory for other configurations.

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Photometric Information

Type II, 4000K, CRI 70+



	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
S40	3,236	90	1 0 1	36
S60	4,758	87	1 0 1	55
M80	7,423	95	2 0 2	78
M100	9,897	86	2 0 2	115
L120	11,039	92	2 0 2	120
L140	12,561	90	3 0 3	140
L160	14,274	79	3 0 3	180
XL180	17,890	87	3 0 3	205
XL200	19,032*	79	3* 0* 3*	240

Type III, 4000K, CRI 70+



	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
S40	3,496	97	1 0 1	36
S60	5,141	94	1 0 1	55
M80	8,019	103	2 0 2	78
M100	10,693	93	2 0 2	115
L120	11,926	99	2 0 2	120
L140	13,571	97	3 0 3	140
L160	15,422	86	3 0 3	180
XL180	19,329	94	3 0 3	205
XL200	20,563*	86	3* 0* 3*	240

Type IV, 4000K, CRI 70+



	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
S40	2,989	83	1 0 1	36
S60	4,396	80	1 0 1	55
M80	6,858	88	2 0 2	78
M100	9,144	80	2 0 2	115
L120	10,199	85	2 0 2	120
L140	11,606	83	3 0 3	140
L160	13,189	73	3 0 3	180
XL180	16,530	81	3 0 3	205
XL200	17,585*	73	3* 0* 3*	240

Type V square, 4000K, CRI 70+



	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
S40	3,630	101	2 0 1	36
S60	5,339	97	3 0 1	55
M80	8,328	107	3 0 2	78
M100	11,104	97	4 0 2	115
L120	12,385	103	4 0 2	120
L140	14,094	101	4 0 2	140
L160	16,016	89	4 0 2	180
XL180	20,073	98	4 0 2	205
XL200	21,354*	89	5* 0* 3*	240

*Photometric performance is measured in compliance with IESNA LM-79-08. Due to rapid and continous advance in LED technology, photometric information is subject to change without notice.

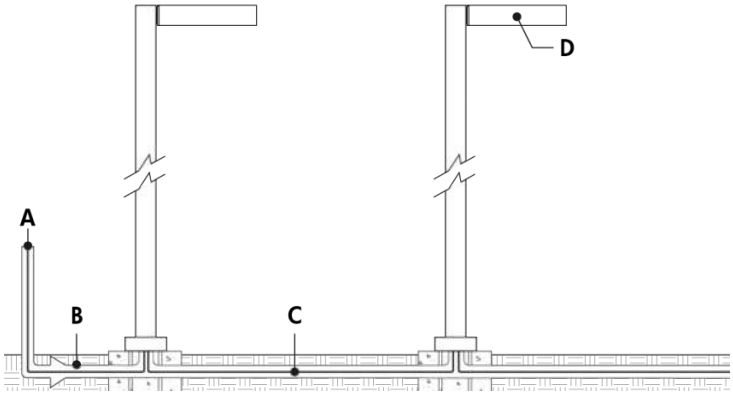
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Typical Wiring Diagrams

Wiring Color Code

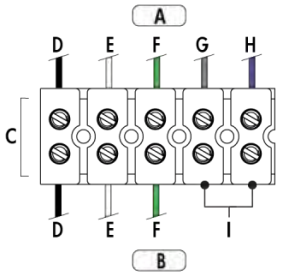
Color	Black	White	Green	Purple	Gray
Use	Line	Line/Neutral	Ground	0-10V+	0-10V -

On/Off Control (NO)



A - Power input (120-480V, wiring by others)
B - Conduit (by others)
C - Power wiring (by others)
D - Lumenblade

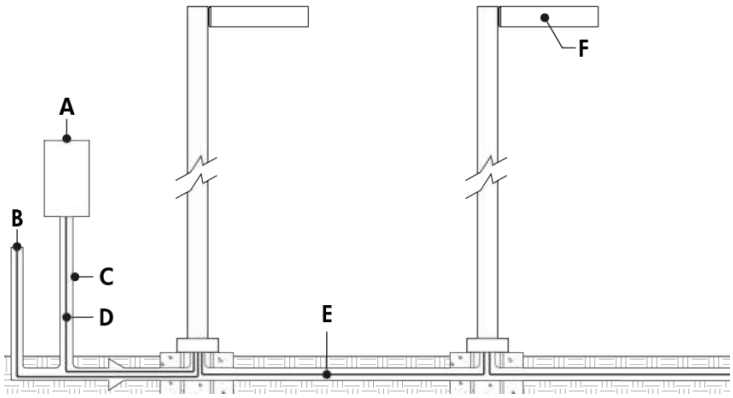
On/Off control (NO) - Terminal Connector Wiring Detail



A - To driver
B - Power input or from previous fixture
C - Terminal connector
D - Line
E - Line/Neutral
F - Ground
G - 0-10V -
H - 0-10V +
I - Not required

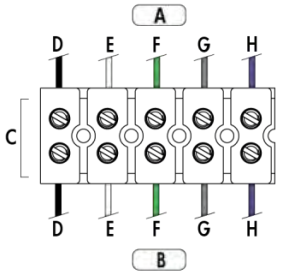
- Consult factory for specific applications and maximum fixture count/cable length recommendations.

0-10V Dimming (DIM)



A - Dimmer (by others)
B - Power input (120-480V, wiring by others)
C - Conduit (by others)
D - Data wiring (by others)
E - Power and data wiring (by others)
F - Lumenblade

0-10V Dimming (DIM) - Terminal Connector Wiring Detail

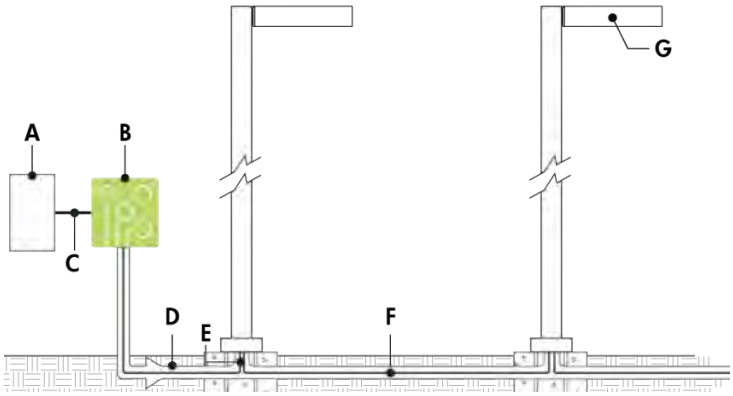


A - To driver
B - Power input or from previous fixture
C - Terminal connector
D - Line
E - Line/Neutral
F - Ground
G - 0-10V -
H - 0-10V +

- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- 0-10V mA ratings: passive dimmer (Current Sink): 3mA per fixture, active dimmer (Current Source): 0.5mA per fixture.
- 1% minimum dimming value.

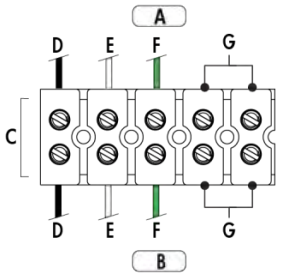
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Lumentalk (LT)



A - Third party dimmer/controller
B - Lumentranslator (LTL-010)
C - Data wiring (by others)
D - Power line (120-277V, wiring by others)
E - Conduct (by others)
F - Power wiring (by others)
G - Lumenblade

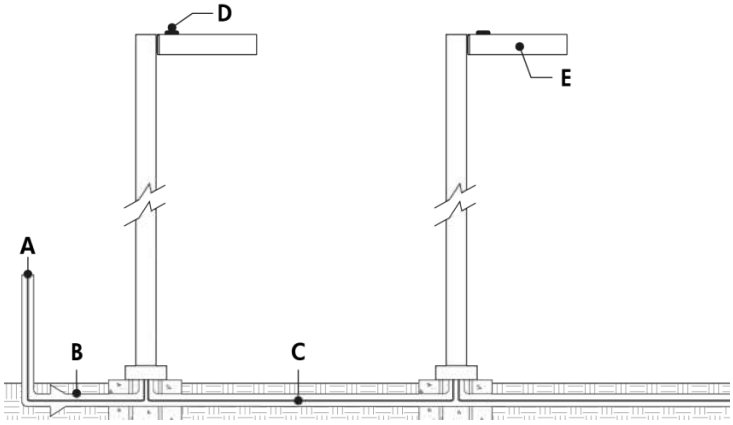
Lumentalk (LT) - Terminal Connector Wiring Detail



A - To driver
B - Power input or from previous fixture
C - Terminal connector
D - Line
E - Line/Neutral
F - Ground
G- Not required

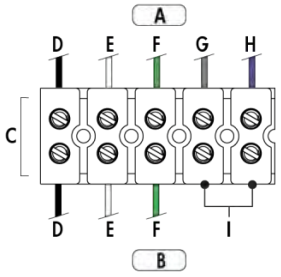
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Lumentalk enabled fixtures must be commissioned using LumentalkID software and a LID-LT. Consult factory for details.
- Maximum of 1 transmitter (Lumentranslator or Lumenlink) per system.
- No third party fixtures allowed on the same circuit

3 pins, 5 pins and 7pins Receptacle Control (SPR3, SPR3 SC, SPR5, SPR5 SC, SPR7, SPR7 SC)



A - Power input (120-480V, wiring by others)
B - Conduit (by others)
C - Power wiring (by others)
D - Photoelectric control
E - Lumenblade

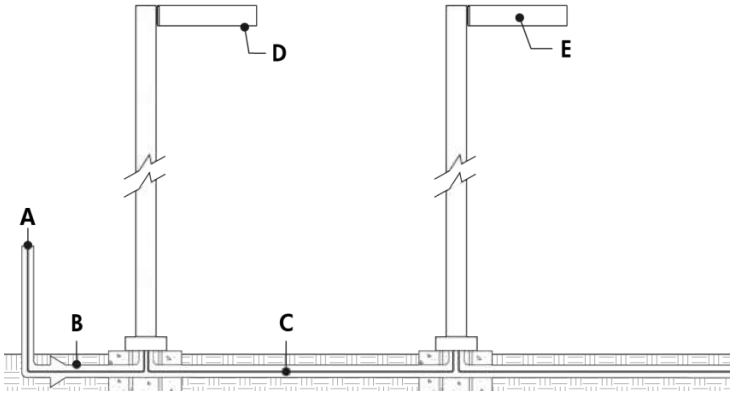
3 pins, 5 pins and 7pins Receptacle Control (SPR3, SPR3 SC,SPR5, SPR5 SC, SPR7, SPR7 SC) - terminal connector wiring detail



A - To driver
B - Power input or from previous fixture
C - Terminal connector
D - Line
E - Line/Neutral
F - Ground
G - 0-10V -
H - 0-10V +
I - SPR3: Not required. SPR5/SPR7: From photocell receptacle

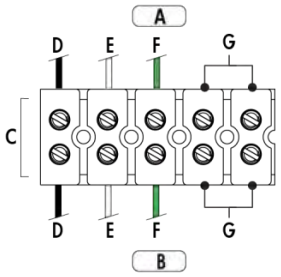
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Motion Detector Control (MDxx)



A - Power input (120-480V, wiring by others)
B - Conduit (by others)
C - Power wiring (by others)
D - Motion detector
E - Lumenblade

Motion Detector (MDxx) - Terminal Connector Wiring Detail



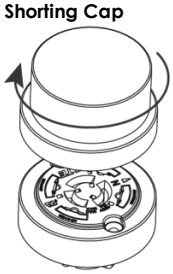
A - To driver
B - Power input or from previous fixture
C - Terminal connector
D - Line
E - Line/Neutral
F - Ground
G- Not required

Options

SPR3, SPR5 and SPR7 - 3-Pin, 5-Pin and 7-Pin Receptacles



SPR3 SC, SPR5 SC and SPR7 SC - 3-Pin, 5-Pin and 7-Pin Receptacles with Shorting Cap



- Dimming receptacle meets ANSI C136.41 Standard

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Motion Detector Options

Programming

	MD10N - Narrow lens, 10% dimming level **MD10W -** Wide lens, 10% dimming level	**MD30N -** Narrow lens, 30% dimming level **MD30W -** Wide lens, 30% dimming level	**MD50N -** Narrow lens, 50% dimming level **MD50W -** Wide lens, 50% dimming level	**MDPN -** Narrow lens, programmable **MDPW -** Wide lens, programmable
	100% (10V) 10% (1V)	100% (10V) 30% (3V)	100% (10V) 50% (5V)	How to provide code:
High mode [1]	10V	10V	10V	• 5V - 10V (Increment: **0.2V**) — 10V
Low mode [2]	1V	3V	5V	• Off • 0V - 9.8V (Increment: **0.2V**) — 2.6V
Time delay [3]	5 min	5 min	5 min	• 1min - 30min (Increment: **30 seconds**) — 10 min
Cut off [4]	1 hr	1 hr	1 hr	• Disable • 1min - 59min (Increment: **30 seconds**) • 1hr - 5hr (Increment: **1 hour**) — 3 hr
Set point [5]	Dis	Dis	Dis	• Disable • Auto • 1fc - 250fc (Increment: **1fc**) — Auto
Sensitivity [6]	Max	Max	Max	• On-Fix • Off-Fix • Low • Med • Max — Med
Ramp up time [7]	3 sec	3 sec	3 sec	• Disable • 1sec - 60sec (Increment: **1 second**) — 10 sec
Fade down time [8]	3 sec	3 sec	3 sec	• Disable • 1sec - 60sec (Increment: **1 second**) — 10 sec
Photocell On/Off [9]	Dis	Dis	Dis	• Disable • 1fc - 250fc (Increment: **1fc**) — Dis

[1] When the sensor detects motion, the dimming control output ramps up to the selected HIGH light level.
[2] After the sensor stops detecting motion and the time delay expires, the dimming control output fades down to the selected LOW light level.
[3] The selected time period that must elapse after the last time the sensor detects motion for the electric lights to fade to LOW mode.
[4] The time period that must elapse after the lights fade to LOW mode, and the sensor detects no motion for the electric lights to turn OFF.
[5] When enabled, the selectable ambient light level threshold that will hold the electric lights off or at LOW level when the sensor detects motion.
[6] The response of the PIR detector to motion within the sensor's coverage area.
[7] Time period for light level to increase from LOW to HIGH.
[8] Time period for light level to decrease from HIGH to LOW.
[9] When enabled, the sensor will force the load OFF after the light level has exceeded the selected photocell setpoint PRIOR SAVE SEND for at least a minute. It will also force the load ON when the light level goes below the setpoint, even if no motion is detected.
[10] The motion detector programming can be modified on site. A remote is required, order separately. See Remote section in the specification sheet for details.

Dimming: When motion is detected within the sensor's coverage area, the sensor sends a signal to ramp the load up to the selectable High Mode level unless the ambient light level is higher than the selected setpoint. When no motion is detected for the duration of the time delay setting, the lights will go to the selectable Low Mode level based on the signal from the sensor. If desired, a cut off time delay will trigger to eventually turn the lights OFF.
Non dimming: When motion is detected within the sensor's coverage area, the sensor sends a signal to turn the load ON unless the ambient light level is higher than the selected setpoint. When no motion is detected for the duration of the time delay setting, the lights will go OFF based on the signal from the sensor.
Dusk to dawn control: When photocell on/off is enabled, and the ambient light falls below the photocell setpoint, the sensor ramps the load up to the selectable High Mode level. If no motion is detected for the duration of the time delay setting, the lights will go to the selectable Low Mode level. If the cut off time delay is disabled, the load will remain on, at High or Low level, based on motion detection, until the ambient light increases above the photocell setpoint.

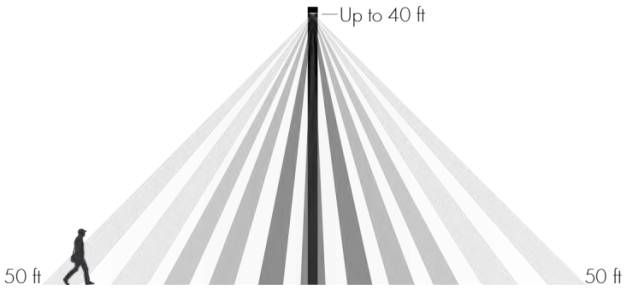
Coverage Area

Narrow Lens (MD10N, MD30N, MD50N and MDPN)*



* Maximum 20 ft height, 40 ft diameter coverage area

Wide Lens (MD10W, MD30W, MD50W and MDPN)*



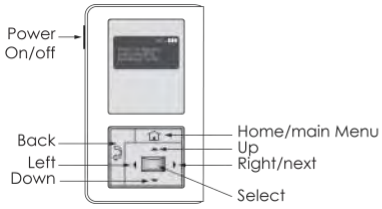
* Maximum 40 ft height, 100 ft diameter coverage area (Lumenpulse maximum pole height: up to 30 ft consult relative pole specification sheets for more details).

High temperatures at the covered area (above 88 °F - 91 °F) reduce the detection zone of the sensor. Consider adding more sensors if the ambient temperatures are expected to be high. Additionally, high floor level temperature may require larger movement for detection. Coverages shown in the diagrams are maximum, measured in linear feet. They represent coverage for walking motion, with no obstacles.

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Remote (Order Separately)

MDRC001 - Remote to Program Motion Detector on Site



- Compatible with all motion detector options.

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How to Order

Housing	Mounting	Voltage	Lens [3]	Output (nominal lumens)	Color and Color Temperature	Color Rendering	Distributions	Finish	Control	Option	Pole Mounting Adaptor [24]
BLDM Lumenblade medium [1]	**SD** Side mounting	**120** 120 volts **208** 208 volts **240** 240 volts **277** 277 volts **347** 347 volts [2] **480** 480 volts [2]	**CSL** Clearsite lens SL-1 & SL-2 SL-3	**S40** 4000lm (1 board, 18 7/8 in) [2] [4] [5] **S60** 6000lm (1 board, 18 7/8 in) [2] [4] **M80** 8000lm (2 boards, 28 1/8 in) [4] **M100** 10000lm (2 boards, 28 1/8 in) [4] **L120** 12000lm (3 boards, 40 1/8 in) [4] **L140** 14000lm (3 boards, 40 1/8 in) [4] **L160** 16000lm (3 boards, 40 1/8 in) [4] **XL180** 18000lm (4 boards, 52 1/8 in) [4] **XL200** 20000lm (4 boards, 52 1/8 in) [4]	**22K** 2200K [6] **27K** 2700K [7] **30K** 3000K **35K** 3500K **40K** 4000K **57K** 5700K [8]	**CRI 70** CRI 70+ [9] **CRI 80** CRI 80+ [10] **CRI 90** CRI 90+ [11]	**2** SL-1 Type II **2BLS** Type II backlight shield **3** SL-2 Type III **3BLS** Type III backlight shield **4** SL-3 Type IV **4BLS** Type IV backlight shield **5S** Type V square	**BK** Black Sandtex® **BRZ** Bronze Sandtex® **SI** Silver Sandtex® **BKTX** Textured Black **BRZTX** Textured Bronze Non-Metallic **GRATX** Textured Medium Gray **GRNTX** Textured Green **WHTX** Textured White **CC** Custom Color & Finish [12] [13] [14]	**DIM** 0-10V dimming [15] **LT** Lumentalk [16]	**3GV** 3G ANSI C136.31-2010 Vibration Rating for bridge applications [16] [17] **CRC** Corrosion-resistant coating [18] [19] **SP** Surge protector **SPR3** 3-Pin Receptacle [20] **SPR3 SC** 3-Pin Receptacle with Shorting Cap [20] **SPR5** 5-Pin Receptacle [20] **SPR5 SC** 5-Pin Receptacle with Shorting Cap [20] **SPR7** 7-Pin Receptacle [20] **SPR7 SC** 7-Pin Receptacle with Shorting Cap [20] **MD10N** Motion detector 10% factory-set dimming level (narrow lens) [21] [22] **MD10W** Motion detector 10% factory-set dimming level (wide lens) [21] [22] **MD30N** Motion detector 30% factory-set dimming level (narrow lens) [21] [22] **MD30W** Motion detector 30% factory-set dimming level (wide lens) [21] [22] **MD50N** Motion detector 50% factory-set dimming level (narrow lens) [21] [22] **MD50W** Motion detector 50% factory-set dimming level (wide lens) [21] [22] **MDPN** Motion detector programmable, factory-set dimming level (narrow lens) [21] [22] [23] **MDPW** Motion detector programmable, factory-set dimming level (wide lens) [21] [22] [23]	**RPA6M** Round pole adaptor for Ø6 in pole **SPA6** Square pole adaptor for Ø6 in pole **RPA6TM** Round pole adaptor for Lumentech Ø6 in pole **SPA6T** Square pole adaptor for Lumentech Ø6 in pole

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Notes:

1. Product code is for a single fixture only (S1E configuration). For double configuration (S2E), a second product code must be completed.
2. Not available with LT control option.
3. Consult factory for Softsite lens option. Available for 3000lm (1 board), 5000lm (2 boards), 7000lm (3 boards) and 10000lm (4 boards) outputs.
4. Motion detector options add 6 1/4 in to total length of fixture.
5. Available up to 277V.
6. Available for CRI 80 only.
7. Available for CRI 80 and CRI 90 only.
8. Available for CRI 70 and CRI 80 only.
9. Binning within a 3-step McAdam ellipse, with the exception of 5700K.
10. Binning within a 2-step MacAdam ellipse, with the exception of 2200K and 5700K.
11. Binning within a 2-step MacAdam ellipse
12. Specify RAL number followed by "TX" for textured finish (ex: RAL9007TX) or STX for Sandtex finish (ex: RAL9007STX). Textured or Sandtex finishes are recommended for the durability of all products. If a finish is not specified with the RAL number (ex: RAL9007), a glossy finish will be provided. Please consult factory for other RAL textures and glosses, or to match alternate color charts. Final color matching results may vary.
13. Setup charges apply for RAL colors. Consult factory for details.
14. Longer lead times can be expected for custom RAL color finishes.
15. DIM control can be used as NO (On/off control) if no data is required.
16. Not available with SPR3, SPR3 SC, SPR5, SPR5 SC, SPR7 and SPR7 SC 3-Pin, 5-Pin, and 7-Pin receptacles options and MD10N, MD10W, MD30N, MD30W, MD50N, MD50W, MDPN and MDPW motion detector options.
17. Available with S40, S60, M80 and M100 output options only.
18. Use only when exposed to salt spray. This option is not required for normal outdoor exposure.
19. Setup charges apply. Consult factory for details.
20. Only one receptacle can be specified per fixture, cannot be combined with motion detector option.
21. The motion detector programming can be modified on site. A remote is required, order separately. See Remote section in the specification sheet for details.
22. Only one motion detector can be specified per fixture, cannot be combined with a receptacle.
23. The motion detector is programmed in the factory, as per the settings requested at the time of the order.
24. Consult Pole Mounting Adaptor section for standard available configurations.

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TYPE SL-4

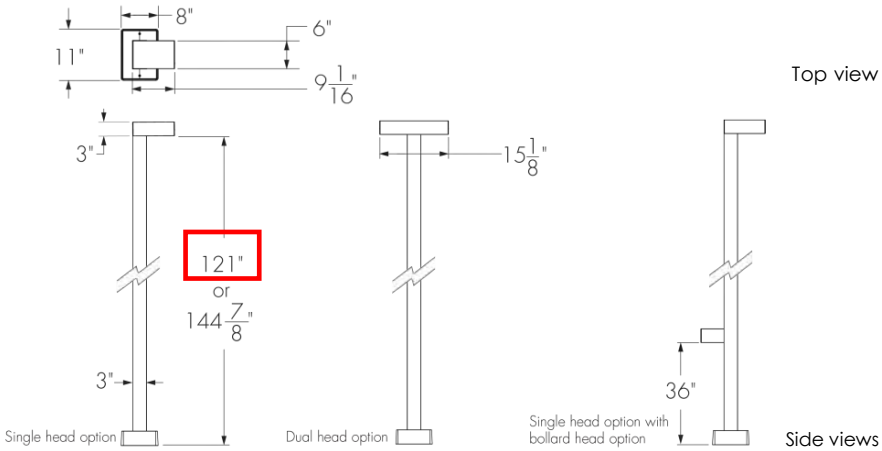
lumenblade
Column
BLDC

Catalog Number:
BLDC-TM1-VOLTAGE-10FT-CSL-XS25-30K-CRI 80-4-FINISH CONTROL

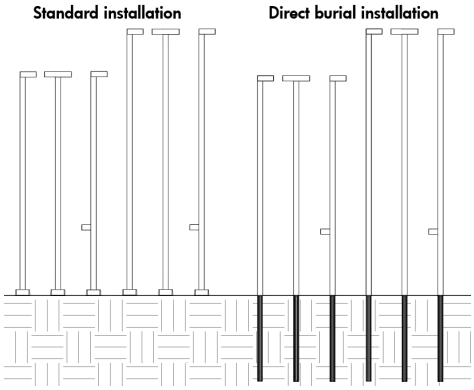
Project Name _____ **Qty** _____

Type _____ **Catalog / Part Number** _____

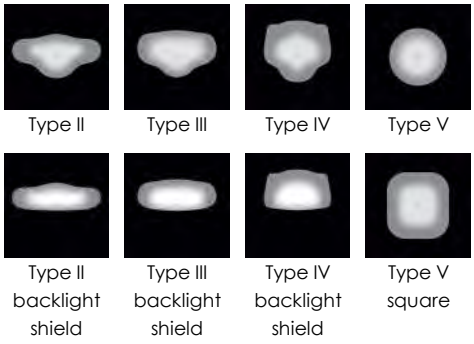

Single head option shown



Configurations



Distributions



Description

The Lumenpulse Lumenblade Column is an outdoor LED luminaire that uses a rectilinear version of the Lumencentro light engine to create a continuous line of light. Options include: heights of either 10 feet or 12 feet, with a Single or Dual head. Its seen-but-not-seen, minimalist design is sustainable, blends with both contemporary and heritage architectures, provides a high level of security, and is sensitive to the natural environment with low outputs and with a BUG rating of 0.

Features

Mounting	Single head, Dual head
Height	10 ft, 12 ft
Color and Color Temperature	Amber, 2200K, 2700K, 3000K, 3500K, 4000K, 5700K
Distributions	Type II, Type III or Type IV (with or without backlight shield), Type V, Type V square
Optical Option (factory installed)	Louver
Vibration Rating	Meets ANSI C136.31-2018 vibration rating for Bridge & Overpass applications
Options	Vibration Rated for Bridge and Overpass, Corrosion-resistant coating for hostile environments, Surge protector, Photoelectric Cell Button Type, Ground Fault Duplex Receptacle, Duplex receptacle with USB A and USB C, 3-Pin Receptacle with or without shorting cap, 5-Pin Receptacle with or without shorting cap, 7-Pin Receptacle with or without shorting cap, Motion detector, Direct Burial
Warranty	5-year limited warranty

Performance

Output (nominal lumens)	Minimum 300lm (single head)/ 200lm for bollard head option, Maximum 5000lm (dual head)
Efficacy	Up to 106 lm/W (XS10 lumen output, 4000K, CRI 70+,Type III)

lumenpulse™
1220 Marie-Victorin Blvd., Longueuil, QC, J4G 2H9, CA **T** United States 617.307.5700 | Canada 1.877.937.3003 | 514.937.3003 **F** 514.937.6289
info@lumenpulse.com **www.lumenpulse.com** **www.lumenpulse.com/products/2322**

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Color and Color Temperature



Control

ON/OFF 0-10V LT

Ratings

IP66 (optical chamber) IK06 (lens) IK10*(frame)

*IK10 polycarbonate lens option available, consult factory.

Motion detector options



Certifications

Color Rendering	3 SDCM for CRI 70+, 2 SDCM for CRI 80+ and CRI 90+
Lumen Maintenance	TM-21 L70 > 145,000 hrs (reported, Ta 25 - 50 °C [77 - 122 °F])
Dark Sky	Dark sky compliant (2200K, 2700K, 3000K and Amber color temperatures, BUG rating of U0)

Physical

Housing Material	Extruded aluminium 6000 alloy series
Lens Material	Optical tempered clear glass (Clearsite lens), Optical tempered frosted glass (Frostsite lens), Optical tempered half-frosted glass (Half-Frostsite lens)
Head Option	Bollard Head, Column head
Head Option Height	3 ft
Surface Finish	Super durable resistant exterior polyester powder coating meets AAMA 2604-98 requirements (5-years Florida exposure) a corrosion resistant finish (CRC) pre-finish is available to meet ASTM B-117 & ASTM D-1654 (salt spray resistance) and ASTM D-2247 requirements (humidity resistance).
Weight	22.5 lbs for single head option (10 ft fixture)

Electrical and control

Voltage	120 volts, 208 volts, 240 volts, 277 volts, 347 volts, 480 volts
Control	On/Off control, 0-10V dimming, Lumentalk

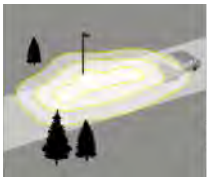
Environmental

Storage Temperature	-40°C to 50°C [-40°F to 122°F] (device must reach start-up temperature value before operating)
Operating Temperature	-40°C to 50°C [-40°F to 122°F]
Start-up Temperature	-25°C [-13 °F] to 50°C [122 °F]
Ingress Protection Rating	IP66 (optical chamber), Wet location rated
Impact Resistance Rating	IK06 (glass lens), IK10 (frame) *IK10 polycarbonate lens option available, consult factory
Environment	Dry/damp/wet location

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Photometric information

Type II, 4000K, CRI 70+, Clearsite lens



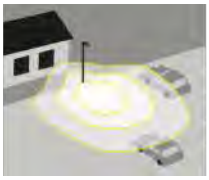
	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
XS10	1,014	101	0 0 0	10
XS15	1,452	85	0 0 0	17
XS20	1,821	73	1 0 1	25
XS25	2,305	77	1 0 1	30

Type III, 4000K, CRI 70+, Clearsite lens



	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
XS10	1,060	106	0 0 0	10
XS15	1,517	89	0 0 0	17
XS20	1,902	76	1 0 1	25
XS25	2,408	80	1 0 1	30

Type IV, 4000K, CRI 70+, Clearsite lens



	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
XS10	883	88	0 0 0	10
XS15	1,265	74	0 0 1	17
XS20	1,586	63	0 0 1	25
XS25	2,007	67	1 0 1	30

Type V square, 4000K, CRI 70+, Clearsite lens



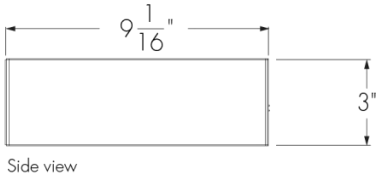
	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
XS10	977	98	1 0 1	10
XS15	1,399	82	1 0 1	17
XS20	1,754	70	1 0 1	25
XS25	2,220	74	1 0 1	30

*Photometric performance is measured in compliance with IESNA LM-79-19. Due to rapid and continous advances in LED technology, photometric information is subject to change without notice.

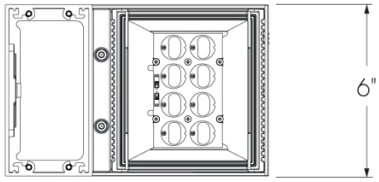
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Luminaire head dimensions

TM1 - Single head

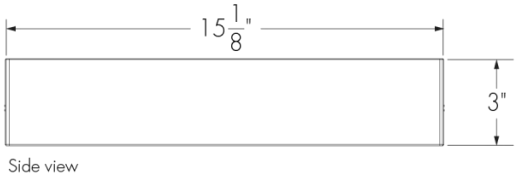


Side view

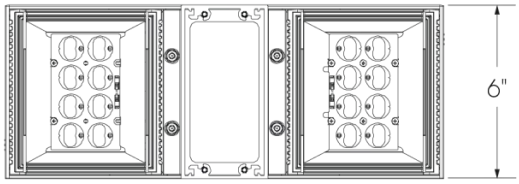


Bottom view

TM2 - Dual head



Side view

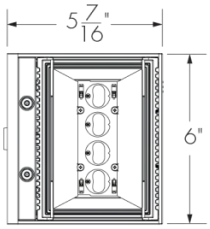


Bottom view

BH - Bollard head

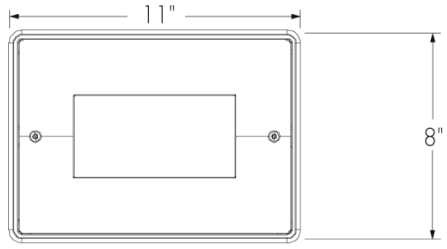


Side view



Bottom view

Base dimensions



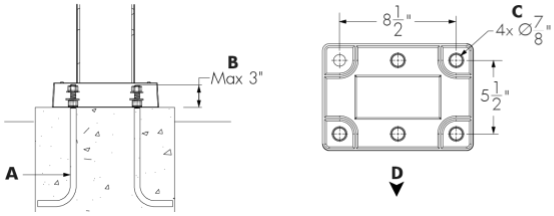
Top View



Side View

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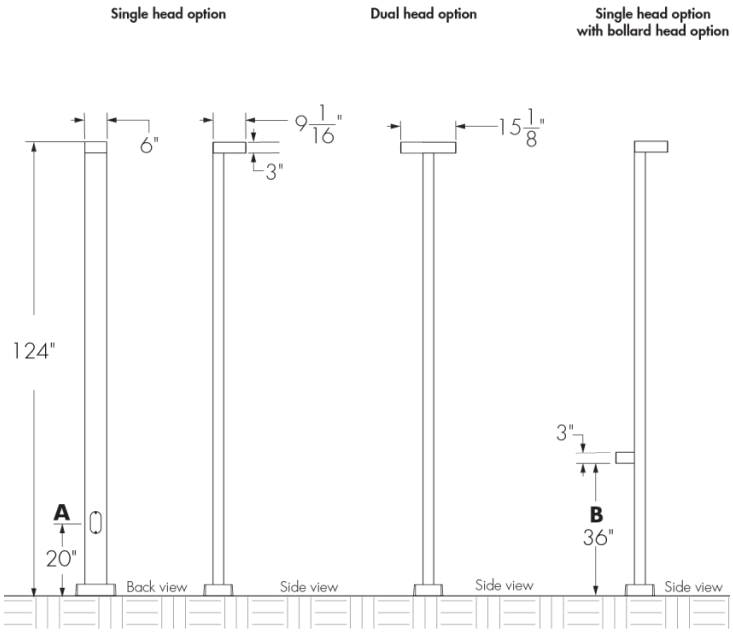
Standard installation assembly details



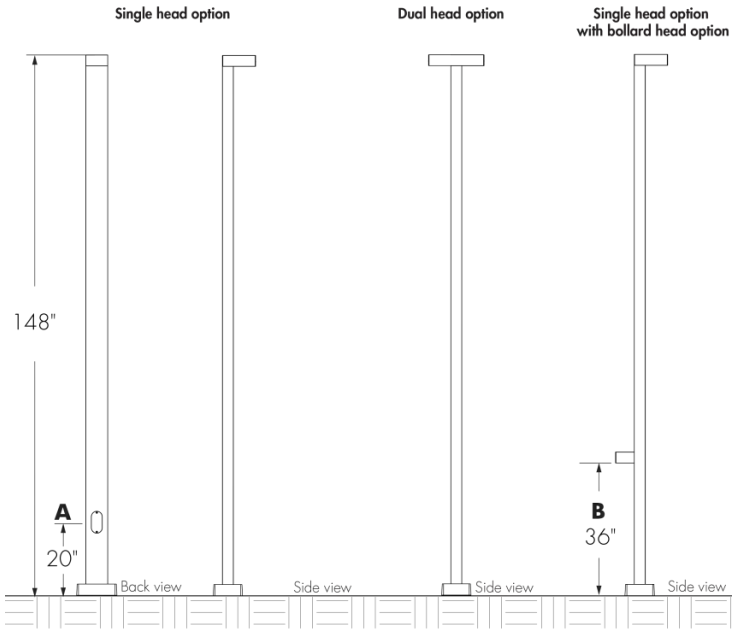
A - (4x) Ø3/4 in by 26 in long anchor bolts with flats washers and nuts for each
B - Between 2.5 in and 3 in of the anchor bolts must be above ground for installation
C - Bolt circle
D - Access door and street side

Standard installation dimensions

10 ft column

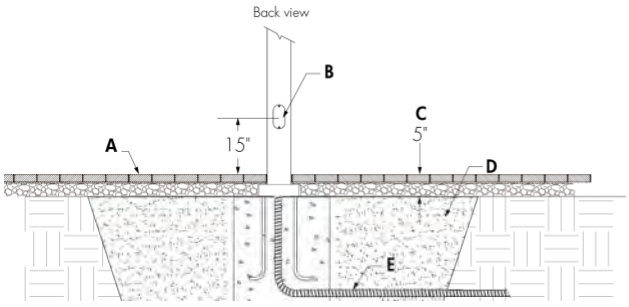


12 ft column



A - Access door (distance from ground to center of access door)
B - Bollard head option (distance from ground to bollard head)

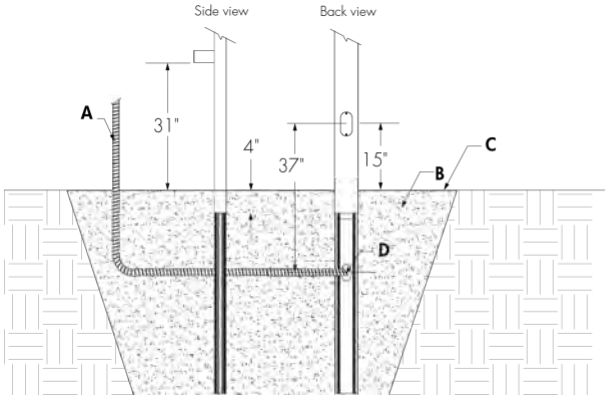
Semi-buried installation assembly details



A - Finished grade
B - Access door
C - Buried section, at least 5 in
D - Filling
E - Conduit (by others)

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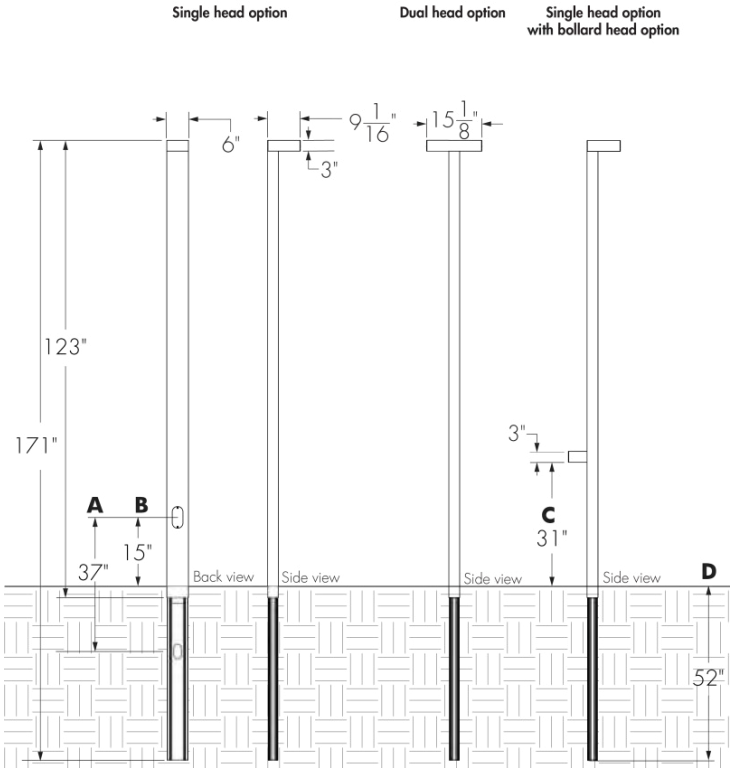
Direct burial installation assembly details



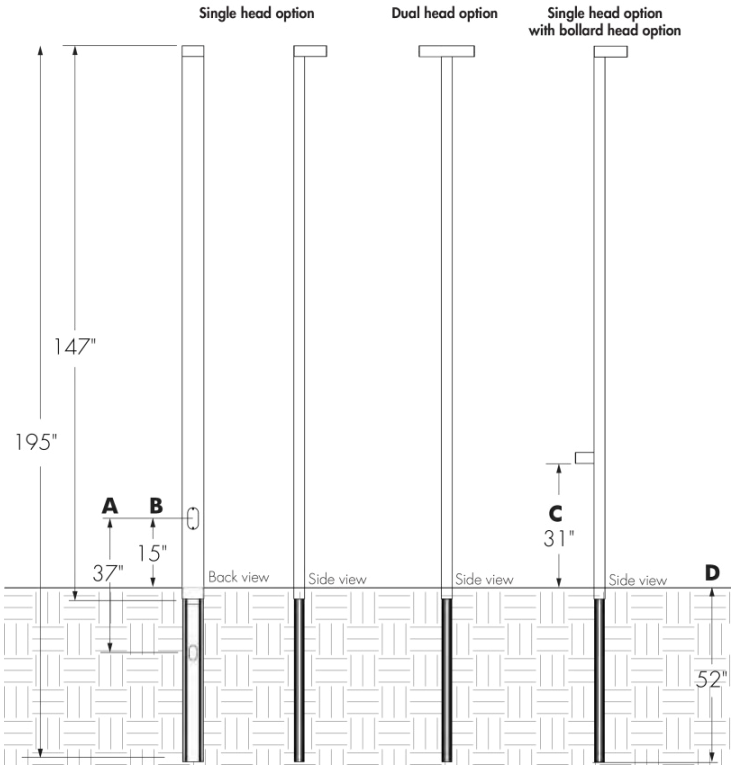
A - Conduit (by others)
B - Filling
C - Finished grade
D - Opening for conduit

Direct burial installation dimensions

10 ft direct burial column



12 ft direct burial column

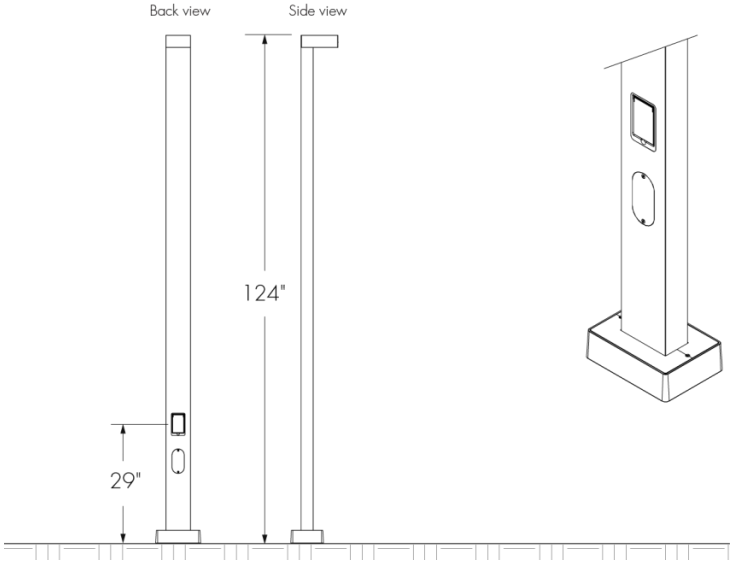


A - Distance from center of access door to opening for conduit
B - Access door (distance from ground to center of access door)
C - Bollard head option (distance from ground to bollard head)
D - Buried section

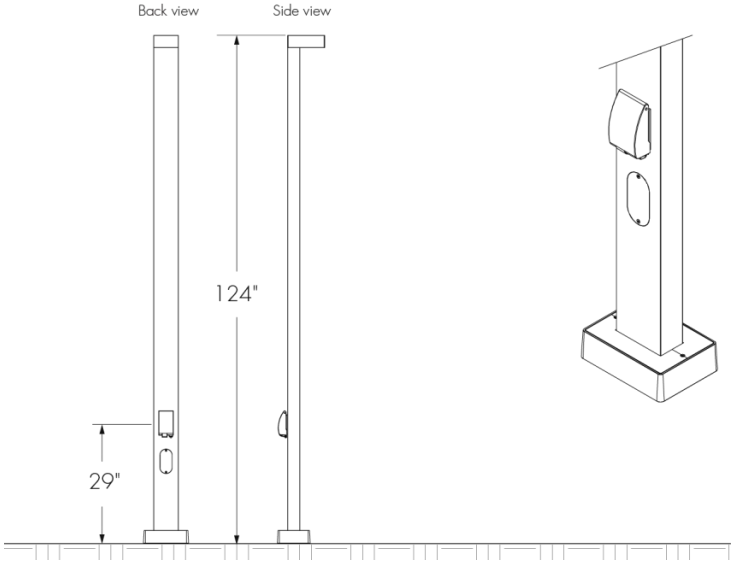
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Duplex Receptacle installation dimensions

DRG - Ground fault duplex receptacle
USB - Duplex receptacle with USB A and USB C



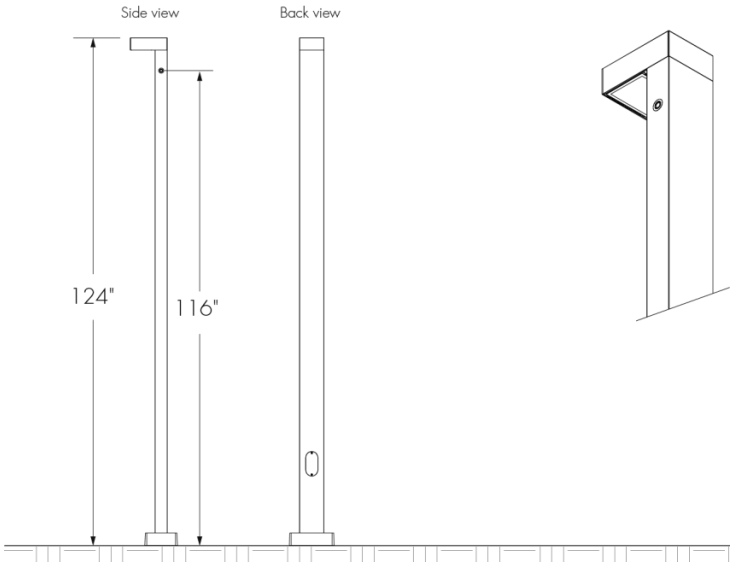
DRG IU - Ground Fault Duplex Receptacle (while in use)
USB IU - Duplex receptacle with USB A and USB C (while in use)



The duplex receptacle must be installed in accordance with applicable national and local electrical and construction codes by a person familiar with the construction and operation of the product and the hazards involved. Refer to national and local electrical codes before selecting a duplex receptacle to ensure all requirements are met.

Photoelectric Cell Button installation dimensions

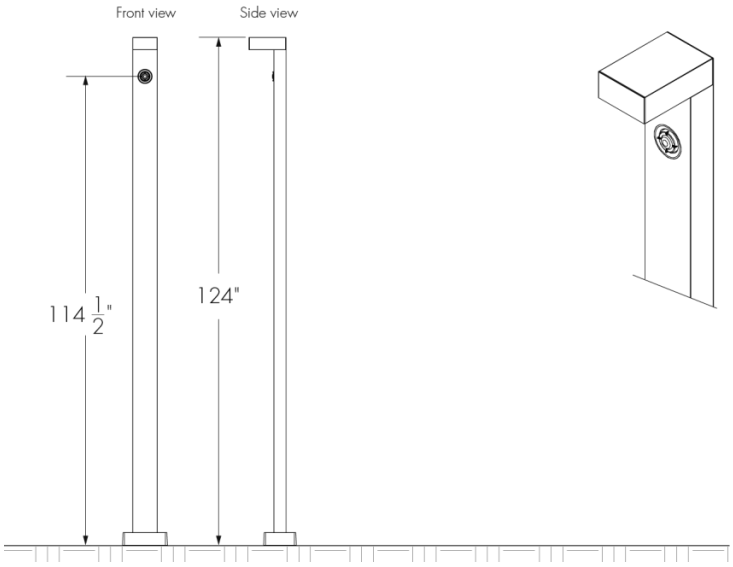
PB - Photoelectric Cell Button Type



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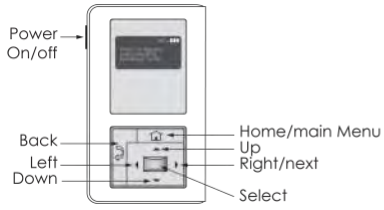
Motion detector installation dimensions

Motion detector (MD10N, MD30N, MD50N, MDNL and MDPN)



Remote (order separately)

MDRC001 - Remote to program motion detector on site



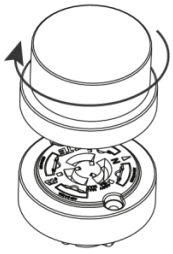
- Compatible with all motion detector options.

3-Pin, 5-Pin and 7-Pin Receptacles Options

SPR3, SPR5 and SPR7 - 3-Pin, 5-Pin and 7-Pin Receptacles



SPR3 SC, SPR5 SC and SPR7 SC - 3-Pin, 5-Pin and 7-Pin Receptacles with Shorting Cap



- Dimming receptacle meets ANSI C136.41 Standard

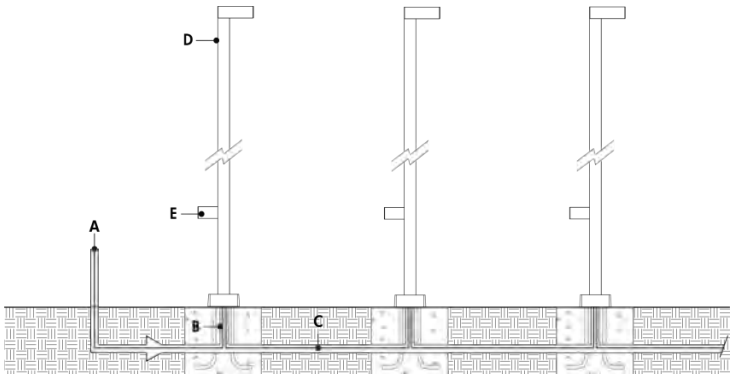
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Typical Wiring Diagrams

Wiring Color Code

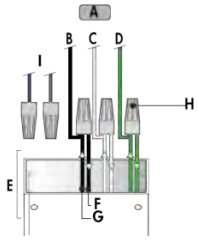
Color	Black	White	Green	Purple	Gray
Use	Line	Line/Neutral	Ground	0 -10V+	0 -10V -

On/Off Control (NO)



A - Power input (120-480V)
B - Conduit (by others)
C - Power wiring (by others)
D - Lumenblade Column
E - Bollard head option

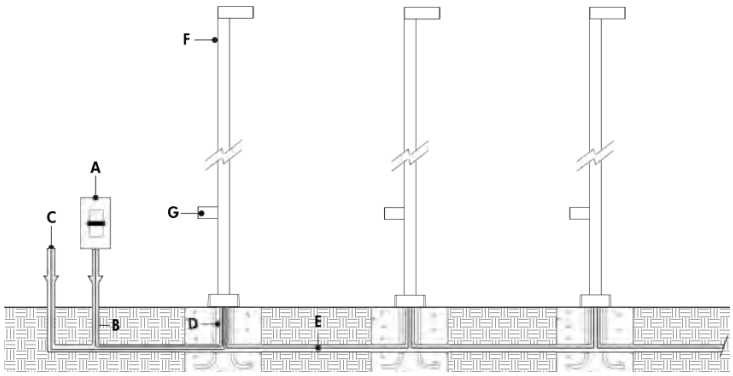
On/Off Control (NO) - wiring detail



A - To fixture
B - Line
C - Line/Neutral
D - Ground
E - Conduit (by others)
F - To next fixture
G - Power input or from previous fixture
H - Wire-nuts (by others)
I - Not required

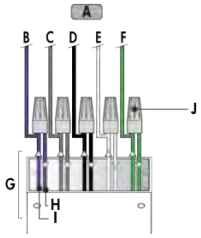
- Consult factory for specific applications and maximum fixture count/cable length recommendations.

0-10V dimming (DIM)



A - Dimmer (by others)
B - Data wiring (by others)
C - Power input (120-480V, wiring by others)
D - Conduit (by others)
E - Power and data wiring (by others)
F - Lumenblade Column
G - Bollard head option

0-10V dimming (DIM) - wiring detail

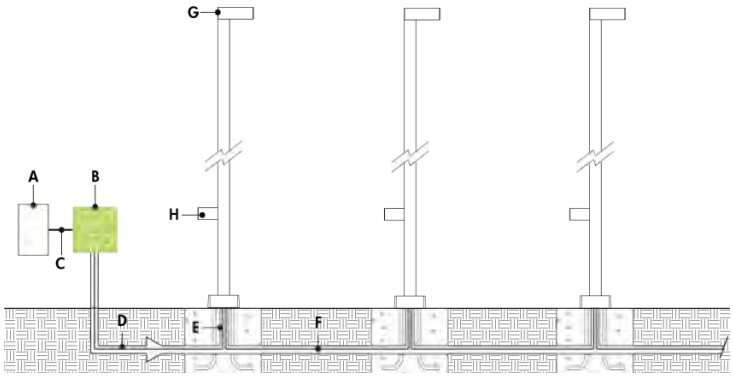


A - To fixture
B - 0-10V +
C - 0-10V -
D - Line
E - Neutral
F - Ground
G - Conduit (by others)
H - To next fixture
I - Power input or from previous fixture
J - Wire-nuts (by others)

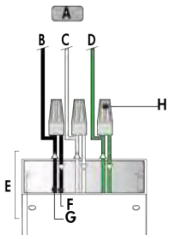
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- 0-10V mA ratings: passive dimmer (Current Sink): 3mA per fixture, active dimmer (Current Source): 0.5mA per fixture.
- 1% minimum dimming value.

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Lumentalk (LT)



A - Third party dimmer/controller
B - Lumentranslator (LTL-010)
C - Data wiring (by others)
D - Power line (120-277V, wiring by others)
E - Conduct (by others)
F - Power wiring (by others)
G - Lumenblade Column
H - Bollard head option



A - To fixture
B - Line
C - Line/Neutral
D - Ground
E - Conduit (by others)
F - To next fixture
G - Power input or from previous fixture
H - Wire-nuts (by others)

- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Lumentalk enabled fixtures must be commissioned using LumentalkID software and a LID-LT. Consult factory for details.
- Maximum of 1 transmitter (Lumentranslator or Lumenlink) per system.
- No third party fixtures allowed on the same circuit.
- DRG or USB option must be on a separated circuit.

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Motion detector options

Programming

	MD10N - Narrow lens, 10% dimming level		**MD30N -** Narrow lens, 30% dimming level		**MD50N -** Narrow lens, 50% dimming level		**MDPN -** Narrow lens, programmable	
	100% (10V)	**10%** (1V)	**100%** (10V)	**30%** (3V)	**100%** (10V)	**50%** (5V)		*How to provide code:*
High mode [1]	10V		10V		10V		• 5V - 10V (Increment: **0.2V**)	10V
Low mode [2]	1V		3V		5V		• Off • 0V - 9.8V (Increment: **0.2V**)	2.6V
Time delay [3]	5 min		5 min		5 min		• 1min - 30min (Increment: **30 seconds**)	10 min
Cut off [4]	1 hr		1 hr		1 hr		• Disable • 1min - 59min (Increment: **30 seconds**) • 1hr - 5hr (Increment: **1 hour**)	3 hr
Set point [5]	Dis		Dis		Dis		• Disable • Auto • 1fc - 250fc (Increment: **1fc**)	Auto
Sensitivity [6]	Max		Max		Max		• On-Fix • Off-Fix • Low • Med • Max	Med
Ramp up [7] **time**	3 sec		3 sec		3 sec		• Disable • 1sec - 60sec (Increment: **1 second**)	10 sec
Fade down [8] **time**	3 sec		3 sec		3 sec		• Disable • 1sec - 60sec (Increment: **1 second**)	10 sec
Photocell [9] **On/Off**	Dis		Dis		Dis		• Disable • 1fc - 250fc (Increment: **1fc**)	Dis

[1] When the sensor detects motion, the dimming control output ramps up to the selected HIGH light level.
[2] After the sensor stops detecting motion and the time delay expires, the dimming control output fades down to the selected LOW light level.
[3] The selected time period that must elapse after the last time the sensor detects motion for the electric lights to fade to LOW mode.
[4] The time period that must elapse after the lights fade to LOW mode, and the sensor detects no motion for the electric lights to turn OFF.
[5] When enabled, the selectable ambient light level threshold that will hold the electric lights off or at LOW level when the sensor detects motion.
[6] The response of the PIR detector to motion within the sensor's coverage area.
[7] Time period for light level to increase from LOW to HIGH.
[8] Time period for light level to decrease from HIGH to LOW.
[9] When enabled, the sensor will force the load OFF after the light level has exceeded the selected photocell setpoint PRIOR SAVE SEND for at least a minute. It will also force the load ON when the light level goes below the setpoint, even if no motion is detected.
[10] The motion detector programming can be modified on site. A remote is required, order separately. See Remote section in the specification sheet for details.

Dimming: When motion is detected within the sensor's coverage area, the sensor sends a signal to ramp the load up to the selectable High Mode level unless the ambient light level is higher than the selected setpoint. When no motion is detected for the duration of the time delay setting, the lights will go to the selectable Low Mode level based on the signal from the sensor. If desired, a cut off time delay will trigger to eventually turn the lights OFF.
Non dimming: When motion is detected within the sensor's coverage area, the sensor sends a signal to turn the load ON unless the ambient light level is higher than the selected setpoint. When no motion is detected for the duration of the time delay setting, the lights will go OFF based on the signal from the sensor.
Dusk to dawn control: When photocell on/off is enabled, and the ambient light falls below the photocell setpoint, the sensor ramps the load up to the selectable High Mode level. If no motion is detected for the duration of the time delay setting, the lights will go to the selectable Low Mode level. If the cut off time delay is disabled, the load will remain on, at High or Low level, based on motion detection, until the ambient light increases above the photocell setpoint.

Coverage area

Narrow lens (MD10N, MD30N, MD50N and MDPN)*



* Maximum 12 ft height, 24 ft diameter coverage area.

High temperatures at the covered area (above 88 °F - 91 °F) reduce the detection zone of the sensor. Consider adding more sensors if the ambient temperatures are expected to be high. Additionally, high floor level temperature may require larger movement for detection. Coverages shown in the diagrams are maximum, measured in linear feet. They represent coverage for walking motion, with no obstacles.

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How to Order

Housing	Mounting	Voltage	Height	Lens [5]	Output (nominal lumens) [8]	Color and Color Temperature	Color Rendering	Distributions	Optical Option	Finish	Control
BLDC Lumenblade Column	**TM1** Single head [1] **TM2** Dual head [2] [3]	**120** 120 volts **208** 208 volts **240** 240 volts **277** 277 volts **347** 347 volts [4] **480** 480 volts [4]	**10FT** 10 ft **12FT** 12 ft	**CSL** Clearsite lens [6] **FSL** Frostsite lens [7]	**XS03** 300lm (8 LEDs) [6] [9] **XS10** 1000lm (8 LEDs) **XS15** 1500lm (8 LEDs) **XS20** 2000lm (8 LEDs) **XS25** 2500lm (8 LEDs)	**AMB** Amber [6] [10] **22K** 2200K [11] **27K** 2700K [12] **30K** 3000K **35K** 3500K **40K** 4000K **57K** 5700K [13]	**CRI 70** CRI 70+ [14] **CRI 80** CRI 80+ [15] **CRI 90** CRI 90+ [16]	**2** Type II **2BLS** Type II backlight shield **3** Type III **3BLS** Type III backlight shield **4** Type IV **4BLS** Type IV backlight shield **5** Type V **5S** Type V square	**LV** Louver [6] [17] [18]	**BK** Black Sandtex® **BRZ** Bronze Sandtex® **SI** Silver Sandtex® **BKTX** Textured Black **BRZTX** Textured Bronze Non-Metallic **GRATX** Textured Medium Gray **GRNTX** Textured Green **WHTX** Textured White **CC** Custom Color & Finish [19] [20] [21]	**DIM** 0-10V dimming [22] **LT** Lumentalk [23]

Notes:

1. Not available with CH head option.
2. Not available with BH head option.
3. Not available with HFSL lens.
4. Not available with LT control option.
5. Standard IK06 rating for glass lens. IK10 rated polycarbonate lens available, please consult factory.
6. Not available with type 5 distribution.
7. Available with type 3 and 5 distributions only.
8. Lumen output will vary according to the lens and distribution specified for the fixture. Please consult the photometric information section of the specification sheet for more details.
9. Available with AMB color temperature only.
10. Available with column head XS03 output only.
11. Available for CRI 80 only.
12. Available for CRI 80 and CRI 90 only.
13. Available for CRI 70 and CRI 80 only.
14. Binning within a 3-step McAdam ellipse, with the exception of 5700K.
15. Binning within a 2-step MacAdam ellipse, with the exception of 2200K and 5700K.
16. Binning within a 2-step MacAdam ellipse
17. Available with CSL lens only.
18. Factory installed, not field changeable.
19. Specify RAL number followed by "TX" for textured finish (ex: RAL9007TX) or STX for Sandtex finish (ex: RAL9007STX). Textured or Sandtex finishes are recommended for the durability of all products. If a finish is not specified with the RAL number (ex: RAL9007), a glossy finish will be provided. Please consult factory for other RAL textures and glosses, or to match alternate color charts. Final color matching results may vary.
20. Setup charges apply for RAL colors. Consult factory for details.
21. Longer lead times can be expected for custom RAL color finishes.
22. DIM control can be used as NO (On/off control) if no data is required.
23. Not available with PB photoelectric cell, SPR3, SPR3 SC, SPR5, SPR5 SC, SPR7 and SPR7 SC 3-Pin, 5-Pin, and 7-Pin receptacles and MD10N, MD30N, MD50N, MDPN and MDNL motion detector options.

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How to Order

Option	Head Option	Head Option Height [1]	Head Lens [5]	Head Output	Head Color and Color Temperature	Head Color Rendering	Head Distributions	Head Optical Option
VRBO Vibration Rated for Bridge and Overpass [24] [25] **CRC** Corrosion-resistant coating [26] [27] **SP** Surge protector **PB** Photoelectric Cell Button Type [4] [28] [29] **DRG** Ground Fault Duplex Receptacle [30] **DRG IU** Ground Fault Duplex Receptacle (while in use) [30] **USB** Duplex receptacle with USB A and USB C [30] **USB IU** Duplex receptacle with USB A and USB C in-use [30] **SPR3** 3-Pin Receptacle [4] [31] [32] **SPR3 SC** 3-Pin Receptacle with Shorting Cap [4] [31] [32] **SPR5** 5-Pin Receptacle [4] [31] [32] **SPR5 SC** 5-Pin Receptacle with Shorting Cap [4] [31] [32] **SPR7** 7-Pin Receptacle [4] [31] [32] **SPR7 SC** 7-Pin Receptacle with Shorting Cap [4] [31] [32] **MD10N** Motion detector 10% factory-set dimming level (narrow lens) [4] [33] [34] [35] **MD30N** Motion detector 30% factory-set dimming level (narrow lens) [4] [33] [34] [35] **MD50N** Motion detector 50% factory-set dimming level (narrow lens) [4] [33] [34] [35] **MDNL** Détecteur de mouvements, pas de niveau de gradation programmé en usine (lentille étroite) [4] [34] [36] [37] [38] **MDPN** Motion detector programmable, factory-set dimming level (narrow lens) [4] [33] [34] [35] [39] **DB** Direct Burial	**BH** Bollard Head [40] **CH** Column head [3] [41]	**3FT** 3 ft	**CSL** Clearsite lens [42] **FSL** Frostsite lens [43] **HFSL** Half-Frostsite lens [44] [45]	**N02** 200lm (4 LEDs) [6] [46] **N03** 300lm (4 LEDs) **N05** 500lm (4 LEDs) **N07** 700lm (4 LEDs) **N10** 1000lm (4 LEDs) **XS03** 300lm (8 LEDs) [6] [46] **XS10** 1000lm (8 LEDs) **XS15** 1500lm (8 LEDs) **XS20** 2000lm (8 LEDs) **XS25** 2500lm (8 LEDs)	**AMB** Amber [6] [47] [48] **22K** 2200K [11] **27K** 2700K [12] **30K** 3000K **35K** 3500K **40K** 4000K **57K** 5700K [13]	**CRI 70** CRI 70+ [14] **CRI 80** CRI 80+ [15] **CRI 90** CRI 90+ [16]	**2** Type II **2BLS** Type II backlight shield **3** Type III **3BLS** Type III backlight shield **4** Type IV **4BLS** Type IV backlight shield **5** Type V **5S** Type V square	**LV** Louver [6] [18] [49]

Notes:

1. Not available with CH head option.
3. Not available with HFSL lens.
4. Not available with LT control option.
5. Standard IK06 rating for glass lens. IK10 rated polycarbonate lens available, please consult factory.
6. Not available with type 5 distribution.
11. Available for CRI 80 only.
12. Available for CRI 80 and CRI 90 only.
13. Available for CRI 70 and CRI 80 only.
14. Binning within a 3-step McAdam ellipse, with the exception of 5700K.
15. Binning within a 2-step MacAdam ellipse, with the exception of 2200K and 5700K.
16. Binning within a 2-step MacAdam ellipse
18. Factory installed, not field changeable.
24. Vibration tested in accordance with ANSI 136.31 2018 for bridge and overpass applications at 5Gv.
25. Specify only if a bridge or overpass application is required.
26. Use only when exposed to salt spray. This option is not required for normal outdoor exposure.
27. Setup charges apply. Consult factory for details.
28. Not available for 480V voltage option.
29. Not available with MD10N, MD30N, MD50N, MDPN and MDNL motion detector options.
30. A ground fault duplex receptacle (DRG or DRG IU) and a duplex USB receptacle (USB or USB IU) cannot be combined.
31. Only one receptacle can be specified per fixture, cannot be combined with motion detector option.
32. Not available with PB option.
33. The motion detector programming can be modified on site. A remote is required, order separately. See Remote section in the specification sheet for details.
34. Only one motion detector can be specified per fixture, cannot be combined with a receptacle.
35. MD10N, MD30N, MD50N and MDPN are Wattstopper motion detectors.
36. MDNL is an N-Light motion detector.
37. Consult factory for details.
38. Not available for 347V and 480V voltage options.
39. The motion detector is programmed in the factory, as per the settings requested at the time of the order.
40. Available for N02, N03, N05, N07 and N10 bollard head outputs only.
41. Available for XS03, XS10, XS15, XS20 and XS25 column head outputs only.
42. Not available with type 5 distribution when head option is specified for the Lumenblade column.
43. Available with type 3 and type 5 distributions when a head option is specified for the Lumenblade column.
44. Available with type 2, type 3 and type 4 distributions when a bollard head is specified for the Lumenblade column.
45. Available for N03, N05, N07 and N10 bollard head outputs only.
46. Available with AMB head color temperature only.
47. Available with N02 output when a bollard head is specified. Available with XS03 output when a second column head is specified for the Lumenblade column.
48. Not available for FSL and HFSL lens.
49. Not available for FSL lens.

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BRICK-OD OUTDOOR

FOR INDOOR, REFER TO MODEL #: 1575

Catalog Number:
7075-12-TW-H08-30K

TYPE WP-1

BROWNLEE



7075-12” in Textured Black (TB)



7075-24” in Textured Black (TB)

7075 LED

The BRICK-OD (outdoor) is a minimal, clean and contemporary exterior sconce with exceptional versatility: Three ADA compliant sizes (8”, 12” and 24”), single direction LED distribution, and three finishes to choose from. Perfect for exterior facades, entryways, columns, and breezeways. Since this is a wet-listed unit, it can also be used in healthcare applications requiring durable luminaires which can be wiped down. Available with integral battery backup.

FINISHES

TB TG TW

BRICK-OD OUTDOOR

FOR INDOOR, REFER TO MODEL #: 1575

PROJECT:
MODEL #:
FIXTURE TYPE:

STANDARD SPECIFICATIONS - *SINGLE DIRECTION DISTRIBUTION (7075)*

OUTER FRAME & MOUNT PLATE
Formed and welded aluminum. Countersunk fasteners located on top of fixture. No exposed hardware on sides or bottom of fixture. Closed cell foam gasket on rear mount plate.

DIFFUSER
UV stabilized frosted acrylic diffuser. Smooth uniform illumination.

LED PERFORMANCE - 3500K STANDARD - TYPE 2 DISTRIBUTION
120-277V - 3500K, L80 rating - 60,000 hrs - L70 rating (projected) - 100,000 hrs
Amperage rated @ 110V input
Operating ambient temperature: -20°C / -4°F - 50°C / 122°F

Delivered 3500K lumens noted. Consult Brownlee.com for performance of all CCTs.
08 Size: C13 – 13W nominal, .10 A input - 1165 lm. Dimmable (0-10V). 82 CRI Standard.
12 Size: H08 – 8W nominal, .07 A input - 860 lm. Dimmable (0-10V). 90+ CRI Standard.
12 Size: H16 – 16W nominal, .14 A input – 1490 lm. Dimmable (0-10V). 90+ CRI Standard.
12 Size: H21 – 21W nominal, .18 A input – 1725 lm. Dimmable (0-10V). 90+ CRI Standard.
24 Size: H16 – 16W nominal, .14 A input – 1470 lm. Dimmable (0-10V). 90+ CRI Standard.
24 Size: H32 – 32W nominal, .27 A input – 3030 lm. Dimmable (0-10V). 90+ CRI Standard.
24 Size: H41 – 41W nominal, .35 A input – 3410 lm. Dimmable (0-10V). 90+ CRI Standard.

MOUNTING
Fixture mounts to a 4x4 junction box (by others).
Wet-listed in the downward orientation only (light source facing down).

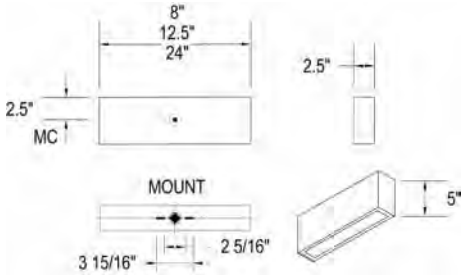
FINISH
Durable corrosion resistant powder coat finish.
Custom colors available, contact factory.

WARRANTY
5 year limited warranty on this LED product.
Consult factory for details.


12" in Textured Black (TB)

Integral Battery Backup
Refer to options section





WET

ADA

ORDERING INFORMATION

7075 - _____ - _____ - _____ - _____ - _____

Model | 2. | 3. | 4. | 5. | 6.

2. SIZE

08	L: 08"
12	L: 12"
24	L: 24"

3. FINISH

TB	Textured Black
TG	Textured Grey
TW	Textured White

Note: TB, TG, TW are ultra fine textured matte finishes. Contact your local representative for color swatches.

CUSTOM
Additional finishes available as a modified option. Refer to Brownlee's Finishes webpage for inspiration.

4. WATTAGE

08 SIZE

C13	13W C Series LED

12 SIZE

H08	08W H Series LED
H16	16W H Series LED
H21	21W H Series LED

24 SIZE

H16	16W H Series LED
H32	32W H Series LED
H41	41W H Series LED

5. COLOR TEMPERATURE

35K	3500K color temperature
27K	2700K color temperature (C Series Only)
30K	3000K color temperature
40K	4000K color temperature

6. AVAILABLE OPTIONS

90R[0]	90 CRI (C-Series Wattages: 30K only)
BAC[1]	Buy American Compliant
BBI[2]	Integral Battery Backup - 10W (32F minimum)
BBC[2]	Integral Battery Backup, Cold Weather - 15W (-4F minimum) (24 Size Only)

Battery must be connected to continuous power supply within 7 Mo. of shipping. See Warranty Note 3.

DTR[4]	Triac (Line Voltage) Dimming (120V) (Cannot be combined with BBI/BBC)
ES[6]	ENERGY STAR® (All except H08, H21, H41)
FCL[7]	French Canadian Label
PO1	Photo Control (120V)
PO2	Photo Control (208, 240, 277V)
T24[9]	Title 24 JA8 Compliant (H16 & H32 only)

Universal Footnotes (only applies if option is listed on spec sheet): (0) 90R - 90 CRI output-loss multiplier: 0.85 (estimate). Cannot be combined with ES. **1) BAC** - cannot be combined with FCL. **(2) BBI/BBS/BBC** - cannot be combined with ECW or EXT. **(3) BLD** - includes integral microwave motion sensor (do not combine with OCC option). Cannot be combined with DTR. **(4) DTR** - cannot be combined with BLD. **(5) ECW** - cannot be combined with BBI, BBC, or DTR. **(6) ES** - cannot be combined with 90R or T24. **(7) FCL** - cannot be combined with BAC. **(8) OCC** - integral microwave motion sensor (ON/OFF). **(9) T24** - includes JA8 labeling and 90 CRI LEDs (do not combine with 90R option). Cannot be combined with ES. **(10) PCH/PC4** - cannot be combined with BLD or OCC. **Add'l Notes: *BBI/BBC** - BBI minimum operating temp: 10C/50F unless otherwise stated. BBC minimum operating temp: -20C/-4F. ****BLD** - integral microwave motion sensor with step-dim control. 1: Motion is detected, illuminate to 100%. 2: Motion no longer detected, dim to set level. 3: Remain in continuous dimmed state or turn off after set period. Configurable via onboard dip switches.

Specifications and dimensions subject to change without notice.
Consult your Brownlee Lighting representative for availability and ordering information.

BROWNLEE LIGHTING
www.brownlee.com

REVISED
2024.05.15

BRICK-OD OUTDOOR

PHOTOMETRIC DATA - For theoretical reference only. Data subject to change without notice.

PROJECT:
MODEL #:
FIXTURE TYPE:

ISOFOOTCANDLE PLOT LEGEND

10 fc 5 fc 2 fc .5 fc .25 fc

Mounting Height: 10'

Calculation Grid: 10' x 10'

POLAR GRAPH LEGEND

1 - Vertical Plane Through Horizontal Angles (5 - 185) (Through Max. Cd.)

2 - Vertical Plane Through Horizontal Angles (90 - 270)

3 - Horizontal Cone Through Vertical Angle (17.5) (Through Max. Cd.)

PHOTOMETRIC DATA

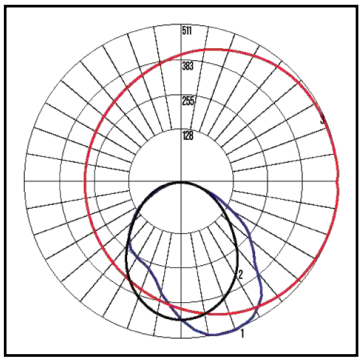
ADDITIONAL LUMEN PACKAGES AVAILABLE. CONTACT FACTORY FOR SUPPORTING PLOTS OR REFER TO IES FILES ONLINE.

Model: 7075-08-C13-35K / QTY: 1
Description: 08" Size, 13W, 1160 lm

ISOFOOTCANDLE PLOT



POLAR GRAPH



BUG RATING
B1-U0-G0

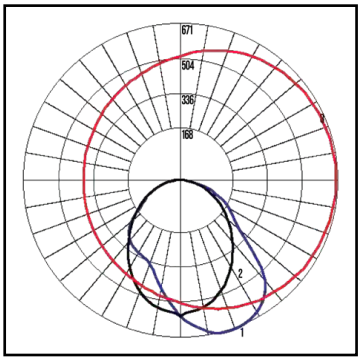
DISTRIBUTION
TYPE 2

Model: 7075-12-H16-35K / QTY: 1
Description: 12" Size, 16W, 1490 lm

ISOFOOTCANDLE PLOT



POLAR GRAPH

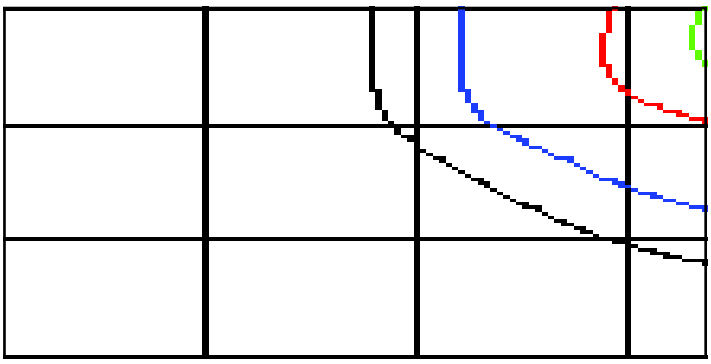


BUG RATING
B1-U0-G1

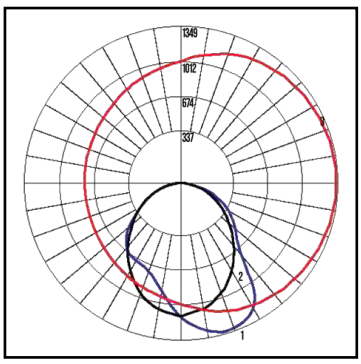
DISTRIBUTION
TYPE 2

Model: 7075-24-H32-35K / QTY: 1
Description: 24" Size, 32W, 3030 lm

ISOFOOTCANDLE PLOT



POLAR GRAPH



BUG RATING
B1-U0-G1

DISTRIBUTION
TYPE 2

Specifications and dimensions subject to change without notice.
Consult your Brownlee Lighting representative for availability and ordering information.

BROWNLEE LIGHTING
www.brownlee.com

REVISED
2024.05.15

Specification Sheet

Catalog Number:
BLDN-WM-VOLTAGE-CSL-XS25-30K-CRI 80-3-FINISH-CONTROL

TYPE WP-2

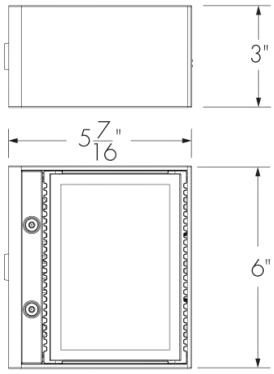
Lumenblade
Nano
BLDN

Project Name _____ **Qty** _____

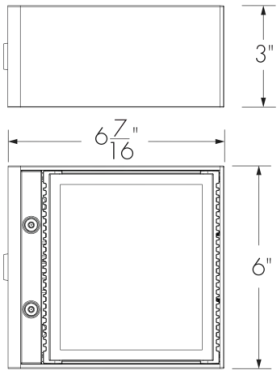
Type _____ **Catalog / Part Number** _____



W1H2 Wall Mount Option Shown



N02, N03, N05, N07 and N10 outputs



XS03, XS10, XS15, XS20 and XS25 outputs

Side views

Bottom views

Distributions


Type II


Type III


Type IV


Type V


Type II Backlight Shield


Type III Backlight Shield


Type IV Backlight Shield


Type V Square

Color and Color Temperature


Amber


2200K


2700K


3000K


3500K


4000K


5700K

Control

ON/OFF 0-10V

Ratings

IP66 (optical chamber) IK06 (lens) IK10*(frame)

*IK10 polycarbonate lens option available, consult factory.

Certifications

c UL us 5 YEARS lumenpulse VRBO

Description

The Lumenpulse Lumenblade Nano is an outdoor LED luminaire that uses a rectilinear version of the Lumencentro light engine to create a continuous line of light. Side Mount or Wall Mount options are available. Its seen-but-not-seen, minimalist design is sustainable, blends with both contemporary and heritage architectures, provides a high level of security, and is sensitive to the natural environment with low outputs and with a BUG rating of 0.

Features

Mounting	Side Mounting, Wall Mounting
Color and Color Temperature	True Amber 585nm-595nm (Turtle-Friendly), 2200K, 2700K, 3000K, 3500K, 4000K
Distributions	Type II, Type III or Type IV (with or without backlight shield), Type V, Type V square
Optical Option (factory installed)	Louver
Vibration Rating	Meets ANSI C136.31-2018 vibration rating for Bridge & Overpass applications
Option	Vibration Rated for Bridge and Overpass Corrosion-resistant Coating for Hostile Environments
Warranty	5-year limited warranty

Performance

Output (Nominal Lumens)	Minimum 200lm/ Maximum 2500lm
Efficacy	Up to 127 lm/W (XS10 lumen output, 4000K, CRI 70+, Type VS)
Color Rendering	3 SDCM for CRI 70+, 2 SDCM for CRI 80+ and CRI 90+
Lumen Maintenance	TM-21 L70 > 145,000 hrs (reported, Ta 25 - 50 °C [77 - 122 °F])
Dark Sky	Dark sky compliant (2200K, 2700K, 3000K and Amber color temperatures, BUG rating of U0)

lumenpulse™
1220 Marie-Victorin Blvd., Longueuil, QC, J4G 2H9, CAN | T 514.937.3003 | Toll-Free 1.877.937.3003 | info@lumenpulse.com
www.lumenpulse.com www.lumenpulse.com/products/2963

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SA - R3

Physical

Housing Material	Extruded aluminium 6000 alloy series
Lens Material	Optical tempered clear glass (Clearsite lens), Optical tempered frosted glass (Frostsite lens), Optical tempered half-frosted glass (Half-Frostsite lens)
Surface Finish	Super durable resistant exterior polyester powder coating meets AAMA 2604-98 requirements (5-years Florida exposure). A corrosion resistant finish (CRC) pre-finish is available to meet ASTM B-117 & ASTM D-1654 (salt spray resistance) and ASTM D-2247 requirements (humidity resistance).
Weight	1.87 lbs to 4.84 lbs, refer to EPA and fixture weight tables for details

Electrical and Control

Voltage	120 volts, 208 volts, 240 volts, 277 volts
Control	On/Off Control, 0-10V Dimming

Environmental

Storage Temperature	-40°C to 50°C [-40°F to 122°F] (device must reach start-up temperature value before operating)
Operating Temperature	-40°C to 50°C [-40°F to 122°F]
Start-up Temperature	-25°C to 50°C [-13°F to 122°F]
Ingress Protection Rating	IP66 (optical chamber) Wet location rated
Impact Resistance Rating	IK06 (glass lens) IK10 (frame) *IK10 polycarbonate lens option available, consult factory
Environment	Dry/damp/wet location

EPA And Fixture Weight Tables

*Fixture weights are estimated.

N02, N03, N05, N07 And N10 Output (Board With 4 LEDs)

		SD-RPA6N SD-RPA6TN	SD-SPA6N	SD-SPA6TN	SD-RPA8N SD-RPA8TN	SD-SPA8N SD-SPA8TN
EPA (sq ft.)	S1E	0.171	0.170	0.170	0.171	0.170
	S2E	0.342	0.340	0.340	0.342	0.340
Weight* (lbs)	S1E	2.22	1.87	1.90	2.06	1.87
	S2E	4.44	3.74	3.80	4.12	3.74

	WM-W1H2	WM-W1H4	WM-W1HSJB
EPA (sq ft.)	0.170	0.170	0.293
Weight* (lbs)	1.87	2.20	3.86

XS03, XS10, XS15, XS20 And XS25 Output (Board With 8 LEDs)

		SD-RPA6N SD-RPA6TN	SD-SPA6N	SD-SPA6TN	SD-RPA8N SD-RPA8TN	SD-SPA8N SD-SPA8TN
EPA (sq ft.)	S1E	0.197	0.201	0.201	0.197	0.201
	S2E	0.394	0.402	0.402	0.394	0.402
Weight* (lbs)	S1E	2.42	2.07	2.10	2.26	2.07
	S2E	4.84	4.14	4.20	4.52	4.14

	WM-W1H2	WM-W1H4	WM-W1HSJB
EPA (sq ft.)	0.201	0.201	0.324
Weight* (lbs)	2.07	2.40	4.06

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Photometric Information

Type II, 4000K, CRI 70+, Clearsite Lens



Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
N03	233	78	0 0 0	3
N05	476	79	0 0 0	6
N07	748	83	0 0 0	9
N10	971	88	0 0 0	11
XS10	1,113	111	0 0 0	10
XS15	1,594	94	1 0 1	17
XS20	1,999	80	1 0 1	25
XS25	2,531	84	1 0 1	30

Type III, 4000K, CRI 70+, Clearsite Lens



Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
N03	255	85	0 0 0	3
N05	520	87	0 0 0	6
N07	818	91	0 0 0	9
N10	1,062	97	0 0 0	11
XS10	1,174	117	0 0 0	10
XS15	1,681	99	1 0 1	17
XS20	2,107	84	1 0 1	25
XS25	2,668	89	1 0 1	30

Type IV, 4000K, CRI 70+, Clearsite Lens



Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
N03	214	71	0 0 0	3
N05	437	73	0 0 0	6
N07	687	76	0 0 0	9
N10	892	81	0 0 0	11
XS10	1,004	100	0 0 0	10
XS15	1,438	85	1 0 1	17
XS20	1,803	72	1 0 1	25
XS25	2,282	76	1 0 1	30

Type V Square, 4000K, CRI 70+, Clearsite Lens



Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
N03	258	86	0 0 0	3
N05	526	88	0 0 0	6
N07	827	92	0 0 0	9
N10	1,074	98	0 0 0	11
XS10	1,267	127	0 0 0	10
XS15	1,813	107	1 0 1	17
XS20	2,274	91	1 0 1	25
XS25	2,879	96	1 0 1	30

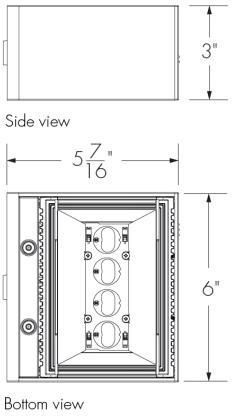
*Photometric performance is measured in compliance with IESNA LM-79-19. Due to rapid and continous advances in LED technology, photometric information is subject to change without notice.

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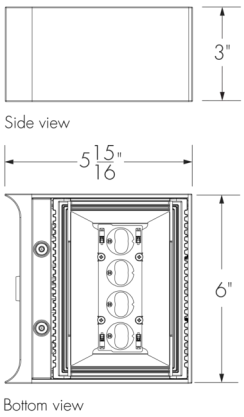
Dimensions

N02, N03, N05, N07 And N10 Output (Board With 4 LEDs)

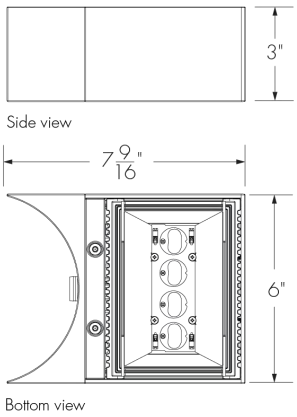
W1H2, SPA6N, SPA8N and SPA8TN



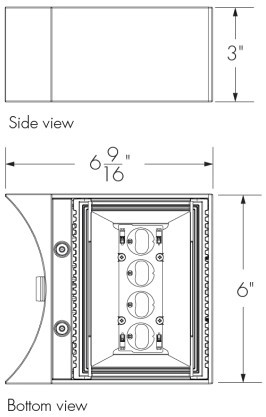
SPA6TN



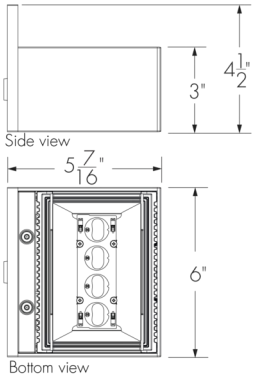
RPA6N And RPA6TN



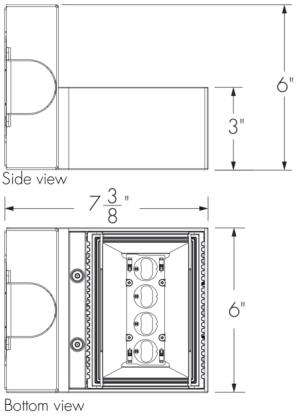
RPA8N And RPA8TN



W1H4



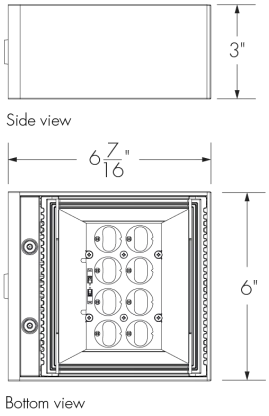
W1HSJB



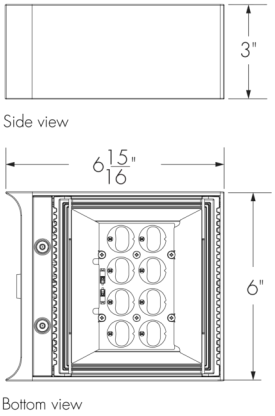
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XS03, XS10, XS15, XS20 And XS25 Output (Board With 8 LEDs)

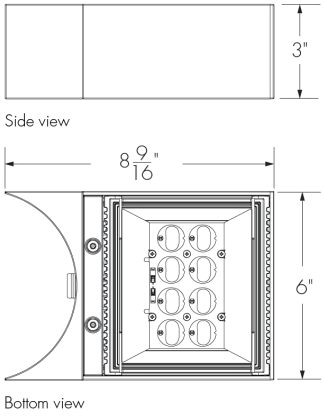
W1H2, SPA6N, SPA8N and SPA8TN



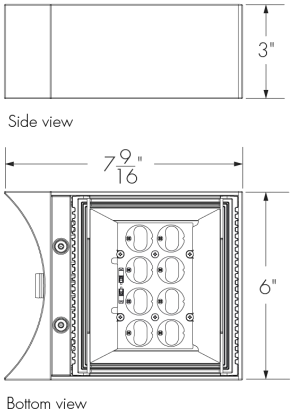
SPA6TN



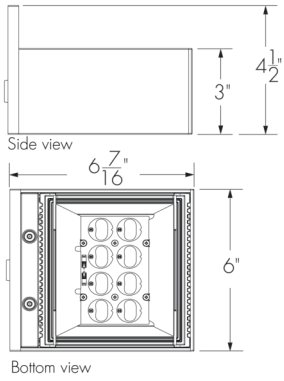
RPA6N And RPA6TN



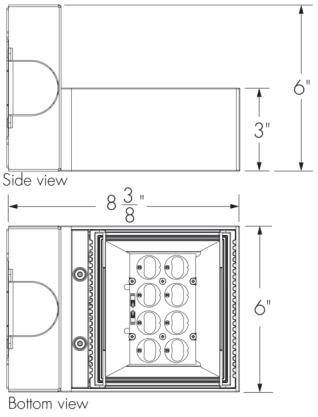
RPA8N And RPA8TN



W1H4



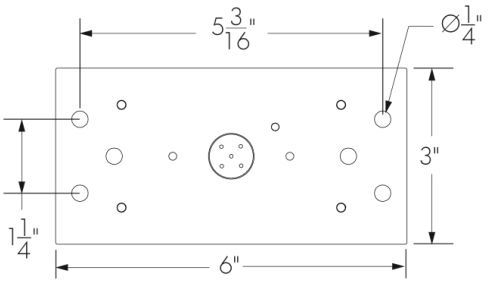
W1HSJB



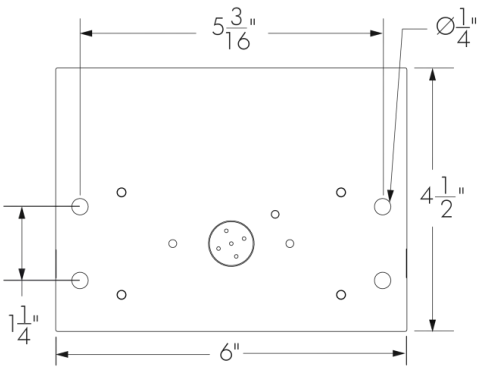
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Mounting Details

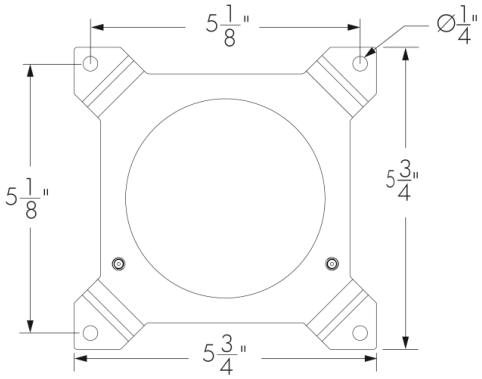
BLDN-WM-W1H2 Mounting Plate Details



BLDN-WM-W1H4 Mounting Plate Details



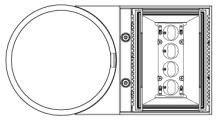
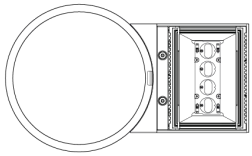
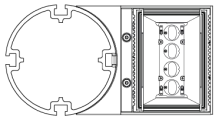
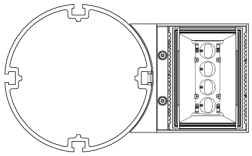
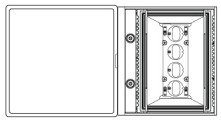
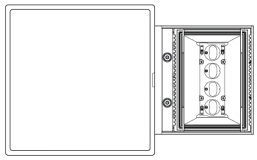
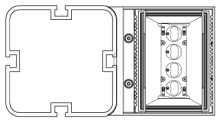
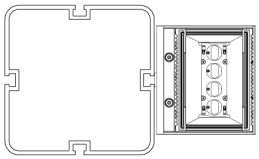
BLDN-WM-W1HSJB Mounting Plate Details



The WM-W1HSJB mounting is designed for installation on a round exterior (weatherproof) surface junction box (Ø4 in diameter and 1 5/8 in deep) that accommodates up to 3/4" NPT trade size conduit. For all other types of junction boxes, consult the factory.

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BLDN-SD Pole Mounting Option

	Straight and muffler poles		Lumentech pole	
	6in	8in	6in	8in
Round shape	RPA6N 	RPA8N 	RPA6TN 	RPA8TN 
Square shape	SPA6N 	SPA8N 	SPA6TN 	SPA8TN 

BLDN-SD with 4 LEDs shown.
Available configurations:

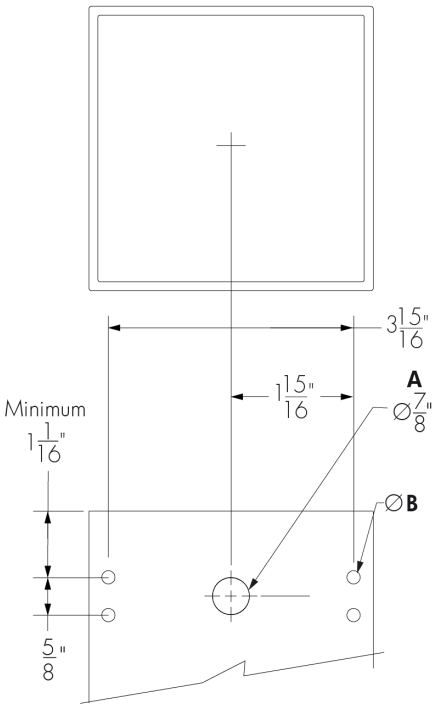
S1E Single pole-top
S2E Double pole-top
S1X Variable Height Mounting Arm

*Consult factory for other configurations.

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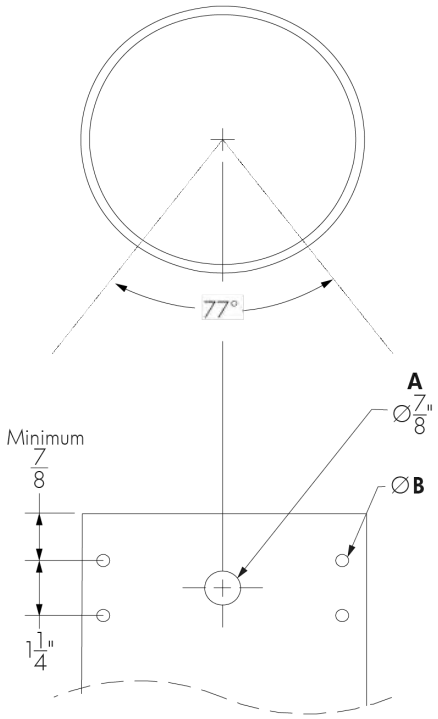
BLDN-SD Poles Drilling Patterns

SPA6N, SPA6TN, SPA8N and SPA8TN



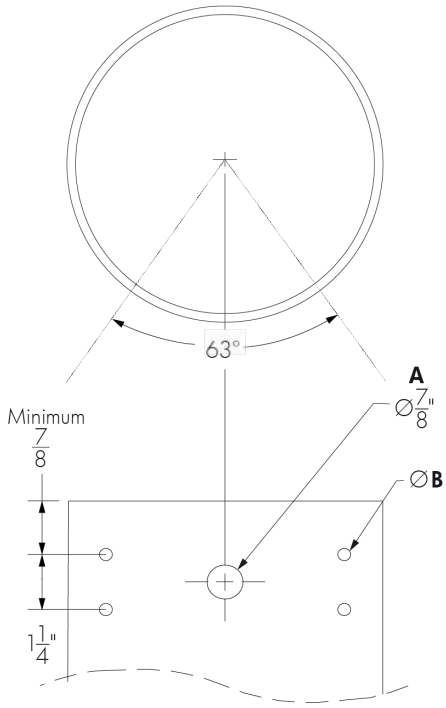
6 in or 8 in Square pole mount.

RPA6N And RPA6TN



6 in Ø round pole mounting.

RPA8N And RPA8TN



8 in Ø round pole mounting.

A - Wire feeding location

B - **S1E and S2E pole configuration**

9/32 in drilling holes. Nylon nuts (x4) and screws (4x) 1/4-20 x 1.25 in provided by lumenpulse.

S1X pole configuration

1/4-20 threaded holes. Screws (4x) 1/4-20 x 1.25 in provided by lumenpulse.

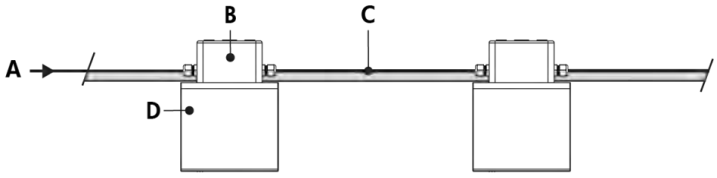
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Typical Wiring Diagrams

Wiring Color Code

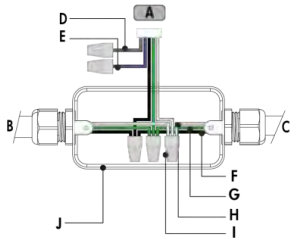
Color	Black	White	Green	Purple	Gray
Use	Line	Line/Neutral	Ground	0 -10V+	0 -10V -

On/Off Control (NO)



A - Power input (120-277V)
B - Junction box (by others)
C - Power wiring (by others)
D - Lumenblade Nano Wall Mount

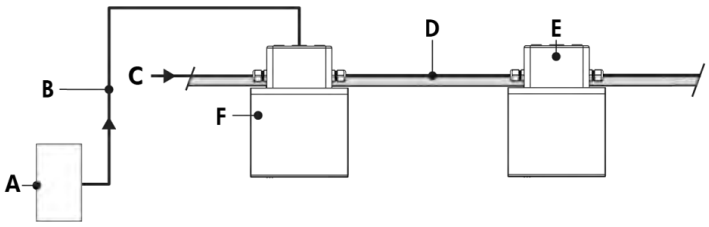
On/Off Control (NO) - Wiring Detail



A - To fixture
B - Power input or from previous fixture
C - To next fixture
D - Not required
E - Not required
F - Line
G - Ground
H - Neutral
I - Wire-nuts
J - Junction box (by others)

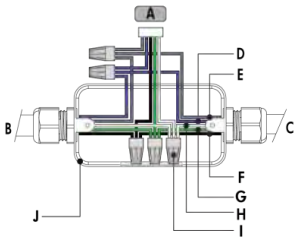
- Consult factory for specific applications and maximum fixture count/cable length recommendations.

0-10V Dimming (DIM)



A - Dimmer (by others)
B - Data wiring (by others)
C - Power input (120-277V, wiring by others)
D - Conduit (by others)
E - Junction box (by others)
F - Lumenblade Nano Wall mount

0-10V Dimming (DIM) - Wiring Detail



A - To fixture
B - Power input or from previous fixture
C - To next fixture
D - 0-10V +
E - 0-10V -
F - Line
G - Ground
H - Neutral
I - Wire-nuts
J - Junction box (by others)

- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- 0-10V mA ratings: passive dimmer (Current Sink): 3mA per fixture, active dimmer (Current Source): 0.5mA per fixture.
- 1% minimum dimming value.

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How to Order

Housing	Mounting	Voltage	Lens [5]	Output (Nominal Lumens) [9]	Color and Color Temperature	Color Rendering	Distributions	Optical Option	Finish	Control	Option	Mounting Adaptor
BLDN Lumenblade Nano	**SD** Side Mounting [1] **WM** Wall Mounting [2] [3] [4]	**120** 120 volts **208** 208 volts **240** 240 volts **277** 277 volts	**CSL** Clearsite Lens [6] **FSL** Frostsite Lens [7] **HFSL** Half-Frosted Site Lens [4] [8]	**N02** 200lm (4 LEDs) [6] [10] [11] **N03** 300lm (4 LEDs) **N05** 500lm (4 LEDs) **N07** 700lm (4 LEDs) **N10** 1000lm (4 LEDs) **XS03** 300lm (8 LEDs) [6] [10] [11] **XS10** 1000lm (8 LEDs) **XS15** 1500lm (8 LEDs) **XS20** 2000lm (8 LEDs) **XS25** 2500lm (8 LEDs)	**AMB** Amber [6] [11] [12] [13] **22K** 2200K [14] **27K** 2700K [15] **30K** 3000K **35K** 3500K **40K** 4000K **57K** 5700K [16]	**CRI 70** CRI 70+ [17] **CRI 80** CRI 80+ [18] **CRI 90** CRI 90+ [19]	**2** Type II **2BLS** Type II Backlight Shield **3** Type III **3BLS** Type III Backlight Shield **4** Type IV **4BLS** Type IV Backlight Shield **5** Type V **5S** Type V Square	**LV** Louver [6] [20] [21]	**BK** Black Sandtex® **BRZ** Bronze Sandtex® **SI** Silver Sandtex® **BKTX** Textured Black **BRZTX** Textured Bronze Non-Metallic **GRATX** Textured Medium Gray **GRNTX** Textured Green **WHTX** Textured White **CC** Custom Color & Finish [22] [23] [24]	**DIM** 0-10V Dimming [25]	**VRBO** Vibration Rated for Bridge and Overpass [26] [27] [28] **CRC** Corrosion-resistant coating [29] [30]	**RPA6N** Round Pole Adaptor for Ø6 in Pole **SPA6N** Square Pole Adaptor for Ø6 in Pole **RPA8N** Round Pole Adaptor for Ø8 in Pole **SPA8N** Square Pole Adaptor for Ø8 in Pole **RPA6TN** Round Pole Adaptor for Lumentech Ø6 in Pole **SPA6TN** Square Pole Adaptor for Lumentech Ø6 in Pole **RPA8TN** Round Pole Adaptor for Lumentech Ø8 in Pole **SPA8TN** Square Pole Adaptor for Lumentech Ø8 in Pole **W1H2** Horizontal Wall Mount Adaptor for 2 in x 4 in Recessed Junction Box **W1H4** Horizontal Wall Mounting Adaptor for 4 in x 4 in Recessed Junction Box **W1HSJB** Horizontal Wall Mounting Adaptor for Ø4 in Round Exterior Surface Junction Box [31] [32]

Notes:

1. Available with all pole mounting options.
2. Available with W1H2, WIH4 and W1HSJB adaptors only.
3. When combined with CSL lens, only AMB color temperature is available.
4. Available with Type 2, 3 and 4 distributions only.
5. Standard IK06 rating for glass lens. IK10 rated polycarbonate lens available, please consult factory.
6. Not available with type 5 distribution.
7. Available with type 3 and 5 distributions only.
8. Available for N03, N05, N07 and N10 outputs only.
9. Lumen output will vary according to the lens and distribution specified for the fixture. Please consult the photometric information section of the specification sheet for more details.
10. Available with AMB color temperature only.
11. Not available for FSL and HFSL lens.
12. Available with N02 and XS03 outputs only.
13. Backlight shield distributions not available if combined with WM option.
14. Available for CRI 80 only.
15. Available for CRI 80 and CRI 90 only.
16. Available for CRI 70 and CRI 80 only.
17. Binning within a 3-step McAdam ellipse, with the exception of 5700K.
18. Binning within a 2-step MacAdam ellipse, with the exception of 2200K and 5700K.
19. Binning within a 2-step MacAdam ellipse.
20. Available with CSL and HFSL lenses only.
21. Factory installed, not field changeable.
22. Specify RAL number followed by "TX" for textured finish (ex: RAL9007TX) or STX for Sandtex finish (ex: RAL9007STX). Textured or Sandtex finishes are recommended for the durability of all products. If a finish is not specified with the RAL number (ex: RAL9007), a glossy finish will be provided. Please consult factory for other RAL textures and glosses, or to match alternate color charts. Final color matching results may vary.
23. Longer lead times can be expected for custom RAL color finishes.
24. Setup charges apply for RAL colors. Consult factory for details.
25. DIM control can be used as NO (On/Off control) if no data is required.
26. Vibration tested in accordance with ANSI 136.31 2018 for bridge and overpass applications at 5Gv.
27. Specify only if a bridge or overpass application is required.
28. Not available for W1HSJB mounting adaptor.
29. Use only when exposed to salt spray. This option is not required for normal outdoor exposure.
30. Setup charges apply. Consult factory for details.
31. The WM-W1HSJB mounting is designed for installation on a round exterior (weatherproof) surface junction box (Ø4 in diameter and 1 5/8 in deep). For all other types of junction box, consult the factory.
32. Not available with VRBO option.

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LUMINIS®

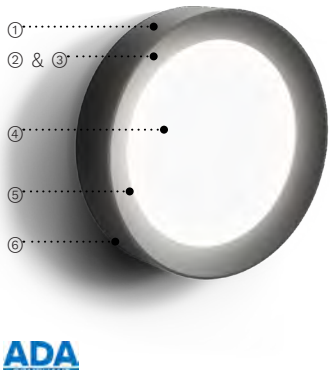
Type C

Catalog Number:
SN800C-L1L11-30K-VOLTAGE-CONDUIT-PHOTOCELL-LOUVERS-FINISH-XX

SN800/SN800C
SCENA
WALL/CEILING

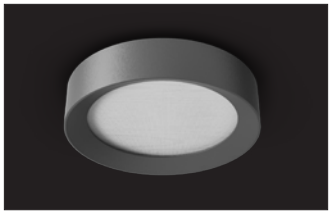
PROJECT NAME: QUANTITY: TYPE:

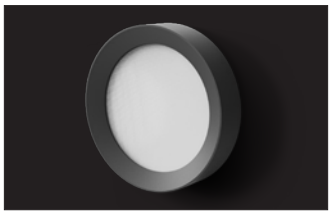
ORDERING CODE:



ADA COMPLIANT

① Corrosion resistant diecast aluminum housing.
② Integrated standard 0-10V driver.
③ Light guide LED technology for uniform lambertian light distribution.
④ Impact resistant patterned tempered glass.
⑤ Sealed enclosure with durable gaskets.
⑥ All hardware in stainless steel.


SN800C


SN800

MATERIALS

Scena is made of aluminum diecast offering exceptional precision and durability. The main housing is perfectly sealed with durable gaskets. The integrated LED light module and 0-10V driver are protected by a patterned tempered glass. With a distinctive look and perceptible quality, Scena is designed for uniform lighting performance.

ELECTRICAL DRIVER

Standard driver is 0-10V dimming-ready (min. dim 5% / dim-to-off)* with: 120-277 multivolt compatibility, operating temperature range of -40°C/-40°F to 85°C/185°F*, over current and output short circuit protection.

LED LIGHT ENGINE

Offered in 2700K, 3000K, 3500K & 4000K / 80CRI.
70% LED lumen maintenance at 60,000 hours (L70/B50) based on IESNA LM-80-08 LED extrapolated life, calculated per IESNA TM-21-21.

FINISH

Five-stage preparation process includes preheating of cast aluminum parts for air extraction. Polyester powder coating is applied through an electrostatic process, and oven cured for long term finish.

CERTIFICATION

UL certified to Canadian and U.S. safety standards. Certified for use in wet locations. Rated IP65 / IK10. Photometric testing performed by an independent laboratory in accordance with IES LM-79-08 standards at 25°C. Actual performance may differ as a result of end-user environment and application.

WARRANTY

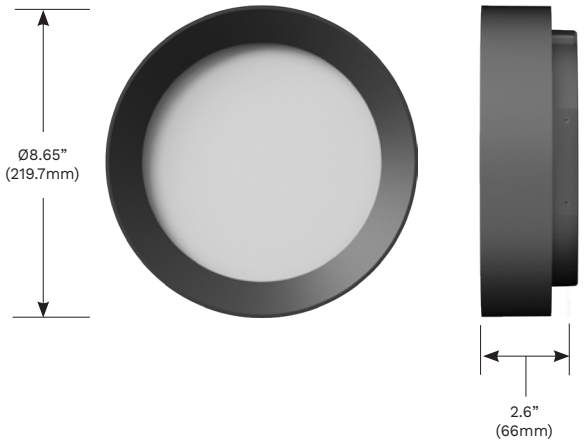
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: https://www.luminis.com/technical/warranty/

MOUNTING

The mounting plate is designed to fit on a 4" (102mm) octagonal electrical box using 3.5" (89mm) C/C mounting holes. Fixture must be installed on a wall or a finished ceiling for exterior applications and/or when exposed to inclement weather.

MEASUREMENTS

Maximum weight: 3.8 lbs (1.7 kg)



* L1L23 light output dims to min. 1% / dim-to-off and has an operating temperature of -20°C/-4°F to 50°C/122°F

LUMINIS.COM
Toll free: (866) 586-4647 | Fax: (514) 683-8872 | Email: info@luminis.com
260 Labrosse, Pointe-Claire (QC) Canada H9R 5L5

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ORDERING CODE

*SERIES	*LIGHT OUTPUT	*CCT	*VOLTAGE	CONDUIT COVER
SN800  **SN800C** 	**L1L11** 1189 lm / 14w **L1L23** 2306 lm / 29w **Delivered lumens calculated at 4000K/80CRI. Typical power consumption. Refer to LCF table for outputs at other CCTs.**	**27K** 2700K **30K** 3000K **35K** 3500K **40K** 4000K	**120** 120V **277** 277V **MVOLT** 120V-277V	**SWK** Decorative cover for 3/4" conduit junction box

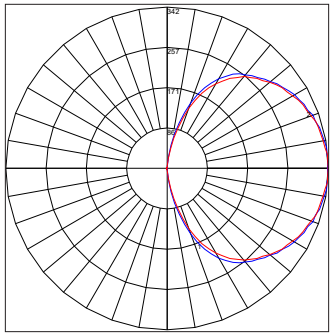
PHOTOCELL	LOUVERS	*FINISH	ENVIRONMENT
PH Photocell	**CB** Cross blade louvers	**BKT** Jet black **BZT** Bronze **CHT** Champagne **DGT** Gun metal **GRT** Titanium gray **MST** Matte silver **SGT** Steel gray **WHT** Snow white **CMC** Custom matched color[1] **RAL** RAL color[2]	**MG** Marine grade paint[3] **NT** Natatorium suitable[4]

NOTES
*- Denotes a required field
1- Contact factory to coordinate custom matching color.
2- Specify RAL number.
3- Marine grade paint for harsh, coastal environment and exposure to salt water. Additional delay required.
4- Available only in WHT and BKT.

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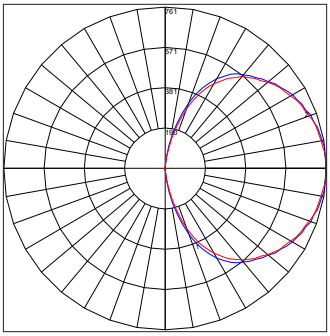
TYPICAL PHOTOMETRY SUMMARY

SN800-L1L11



Total Lms: 1189 Lumens
Total Input Watts: 14 W
Efficacy: 85 Lumens/Watt
CCT/CRI: 4000K/80
Maximum Candela: 342.45 @ 0°H/92.5°V
BUG Rating: B0-U3-G2

SN800-L1L23



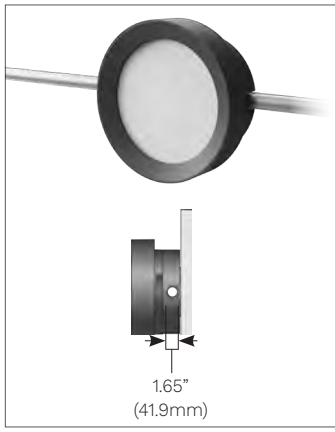
Total Lms: 2306 Lumens
Total Input Watts: 29 W
Efficacy: 79.5 Lumens/Watt
CCT/CRI: 4000K/80
Maximum Candela: 761 @ 0°H/92.5°V
BUG Rating: B0-U5-G3

LUMEN CONVERSION FACTOR (LCF)		
CCT	CRI	LCF
2700K	80	0.92
3000K	80	0.94
3500K	80	0.98
4000K	80	1.00

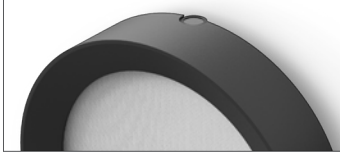
All Photometry shown use the 80CRI 4000K LEDs.
Please visit our web site www.luminis.com for complete I.E.S. file.

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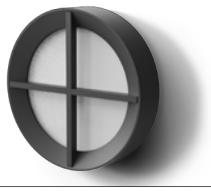
OPTION DETAILS



SWK
Surface (wall or ceiling) mounting option for Ø4” weatherproof junction box (3/4” conduit trade size). Weatherproof junction box, conduit and connectors by others. The SWK option adds 1.65" to the total depth of the product. (Not ADA compliant).



PH
Button-size photocell mounted on top casted housing. Instant turn-on, standard 5-10 second turn-off time delay.



CB
Decorative cross blades. (LCF 0.93)

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Att. T

BUILDING G

(MULTI FAMILY RESIDENTIAL)

PHOTOS OF EXISTING AREA

(BUILDING AREA)



PROJECT ENTRANCE AREA LOOKING NORTHERLY



PROJECT ENTRANCE AREA LOOKING NORTHERLY



PROJECT ENTRANCE AREA LOOKING WESTERLY



PROJECT EAST WING AREA
LOOKING SOUTHWESTERLY



PROJECT EAST WING AREA
LOOKING SOUTHERLY



PROJECT GARAGE AREA
LOOKING WESTERLY



CMP TRANSMISSION LINE ALONG NORTHWESTERLY CORNER OF PROJECT



PROJECT FIRE SAFETY TURNAROUND AREA LOOKING SOUTHWESTERLY



PROJECT GARAGE AREA
LOOKING EASTERLY



EXISTING FILL SLOPE
LOOKING WESTERLY



PROJECT STORMWATER OUTFALL AND WETLAND FILL LOOKING SOUTHERLY

Att. U

BUILDING G

(MULTI FAMILY RESIDENTIAL)

PHOTOS OF EXISTING AREA

(TRAIL AREA)



EXISTING WEST END OF TRAIL LOOKING WESTERLY



EXISTING TRAIL NEAR PROPOSED WEST WING LOOKING EASTERLY



EXISTING TRAIL NEAR PROPOSED WEST WING LOOKING WESTERLY



EXISTING TRAIL FOOTBRIDGE NEAR CENTRAL COURTYARD



EXISTING OAK TREE NEAR CENTRAL COURTYARD -TO BE PRESERVED



EXISTING OAK TREE NEAR CENTRAL COURTYARD -TO BE PRESERVED



EXISTING TRAIL NEAR PROPOSED EAST WING LOOKING NORTHWESTERLY



EXISTING TRAIL NEAR PROPOSED EAST WING LOOKING WESTERLY



EXISTING TRAIL NEAR EAST COURTYARD LOOKING NORTHWESTERLY



EXISTING WATER DISTRICT PUMP STATION - PROPOSED FIRE LANE LOOKING NORTHERLY

Type B1 & B2

lumenblade
Bollard
BLDB

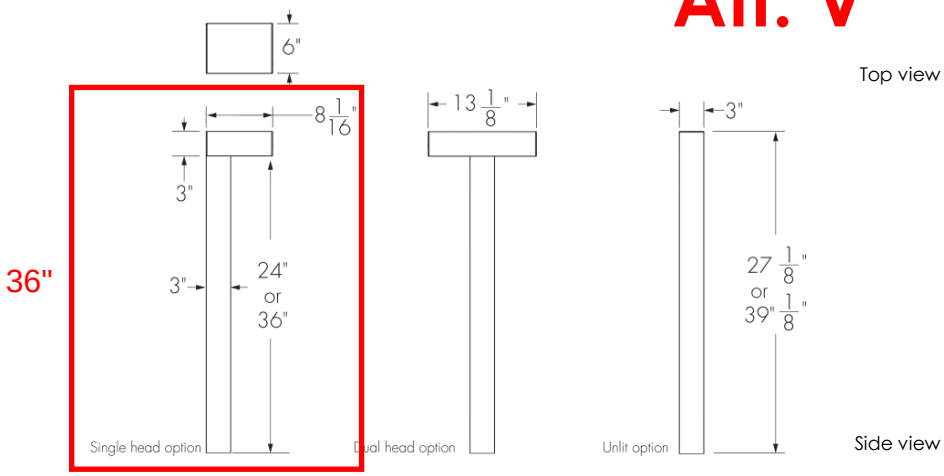
Catalog Number:
BLDG-TM1-VOLTAGE-CSL-N03-30K-CRI80-3-FINISH-CONTROL

Project Name _____ **Qty** _____

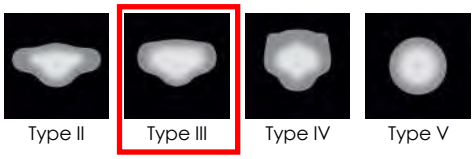
Type _____ **Catalog / Part Number** _____

Att. V


Single head option shown



Distributions


Type II | Type III | Type IV | Type V


Type II backlight shield | Type III backlight shield | Type IV backlight shield | Type V square

Color and Color Temperature


Amber | 2200K | 2700K | 3000K


3500K | 4000K | 5700K

Control

ON/OFF 0-10V LT

Ratings

IP66 (optical chamber) IK06 (lens) IK10* (frame)

*IK10 polycarbonate lens option available, consult factory.

Certifications

c UL us | 5 YEARS lumenpulse | VRBO

Description

The Lumenpulse Lumenblade Bollard is an outdoor LED luminaire that uses a rectilinear version of the Lumencentro light engine to create a continuous line of light. Options include: heights of either two feet or three feet, with a Single or Dual head. Its seen-but-not-seen, minimalist design is sustainable, blends with both contemporary and heritage architectures, provides a high level of security, and is sensitive to the natural environment with low outputs and with a BUG rating of 0.

Features

Mounting	Single head, Dual head, Unlit bollard
Height	2 ft, 3 ft
Color and Color Temperature	Amber, 2200K, 2700K, 3000K, 3500K, 4000K, 5700K
Distributions	Type II, Type III or Type IV (with or without backlight shield), Type V, Type V square
Optical Option (factory installed)	Louver
Vibration Rating	Meets ANSI C136.31-2018 vibration rating for Bridge & Overpass applications
Options	Vibration Rated for Bridge and Overpass, Corrosion-resistant coating for hostile environments, Surge protector, Photoelectric Cell Button Type, Ground Fault Duplex Receptacle, Duplex receptacle with USB A and USB C
Warranty	5-year limited warranty

Performance

Output (nominal lumens)	Minimum 200lm (single head)/ Maximum 2000lm (dual head)
Efficacy	Up to 86 lm/W (N10 lumen output, 4000K, CRI 70+, Type III)
Color Rendering	3 SDCM for CRI 70+, 2 SDCM for CRI 80+ and CRI 90+
Lumen Maintenance	TM-21 L70 > 145,000 hrs (reported, Ta 25 - 50 °C [77 - 122 °F])
Dark Sky	Dark sky compliant (2200K, 2700K, 3000K and Amber color

lumenpulse™
1220 Marie-Victorin Blvd., Longueuil, QC, J4G 2H9, CA **T** United States 617.307.5700 | Canada 1.877.937.3003 | 514.937.3003 **F** 514.937.6289
info@lumenpulse.com **www.lumenpulse.com** **www.lumenpulse.com/products/2323**

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temperatures, BUG rating of U0)

Physical

Housing Material	Extruded aluminium 6000 alloy series
Lens Material	Optical tempered clear glass (Clearsite lens), Optical tempered frosted glass (Frostsite lens), Optical tempered half-frosted glass (Half-Frostsite lens)
Head Option	Bollard Head
Surface Finish	Super durable resistant exterior polyester powder coating meets AAMA 2604-98 requirements (5-years Florida exposure) a corrosion resistant finish (CRC) pre-finish is available to meet ASTM B-117 & ASTM D-1654 (salt spray resistance) and ASTM D-2247 requirements (humidity resistance).
Weight	16.53 lbs

Electrical and control

Voltage	120 volts, 208 volts, 240 volts, 277 volts, 347 volts, 480 volts
Control	On/Off control, 0-10V dimming, Lumentalk

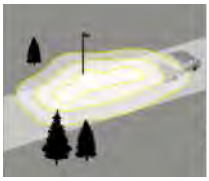
Environmental

Storage Temperature	-40°C to 50°C [-40°F to 122°F] (device must reach start-up temperature value before operating)
Operating Temperature	-40°C [-40 °F] to 50°C [122 °F]
Start-up Temperature	-25°C [-13 °F] to 50°C [122 °F]
Impact Resistance Rating	IK06 (glass lens), IK10 (frame) *IK10 polycarbonate lens option available, consult factory
Ingress Protection Rating	IP66 (optical chamber), Wet location rated
Environment	Dry/damp/wet location

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Photometric information

Type II, 4000K, CRI 70+, Clearsite lens



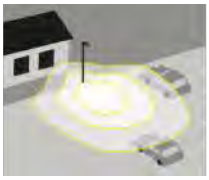
	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
N03	209	70	0 0 0	3
N05	428	71	0 0 0	6
N07	672	75	0 0 0	9
N10	873	79	0 0 0	11

Type III, 4000K, CRI 70+, Clearsite lens



	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
N03	228	76	0 0 0	3
N05	465	78	0 0 0	6
N07	731	81	0 0 0	9
N10	950	86	0 0 0	11

Type IV, 4000K, CRI 70+, Clearsite lens



	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
N03	186	62	0 0 0	3
N05	380	63	0 0 0	6
N07	597	66	0 0 0	9
N10	775	70	0 0 0	11

Type V square, 4000K, CRI 70+, Clearsite lens



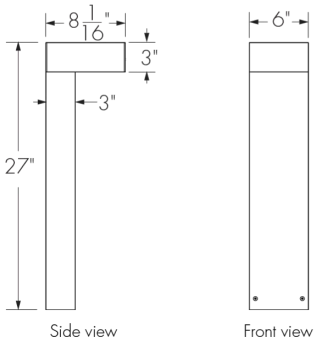
	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
N03	191	64	0 0 0	3
N05	390	65	0 0 0	6
N07	613	68	0 0 0	9
N10	797	72	1 0 1	11

*Photometric performance is measured in compliance with IESNA LM-79-19. Due to rapid and continous advances in LED technology, photometric information is subject to change without notice.

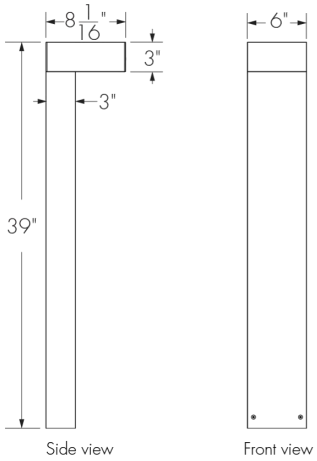
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Configuration dimensions

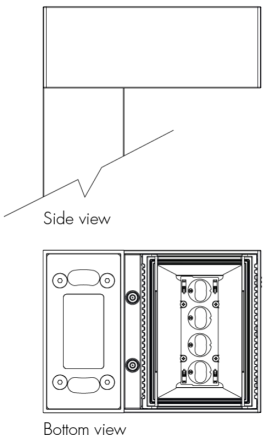
TM1 - Single head bollard, 2 ft



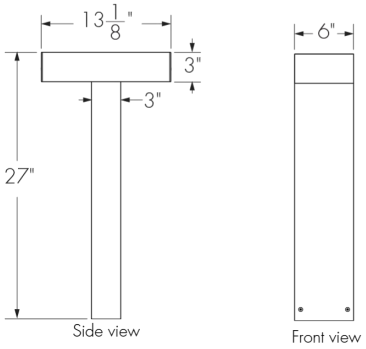
TM1 - Single head bollard, 3 ft



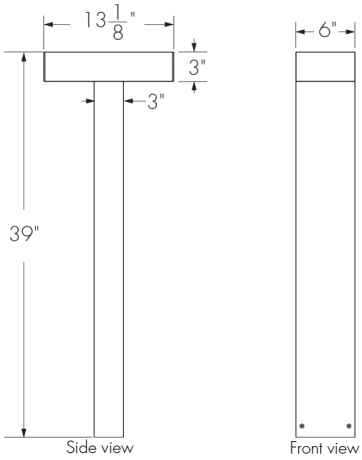
TM1 - Single luminaire head



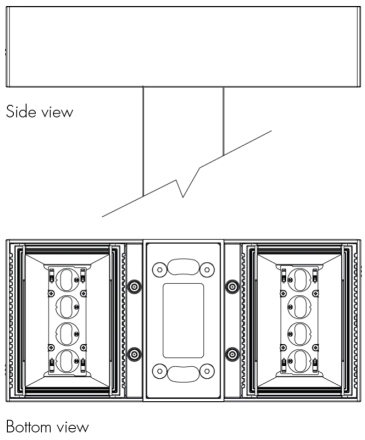
TM2 - Dual head bollard, 2 ft



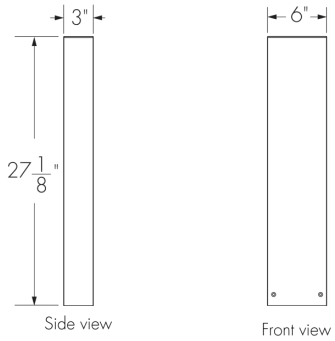
TM2 - Dual head bollard, 3 ft



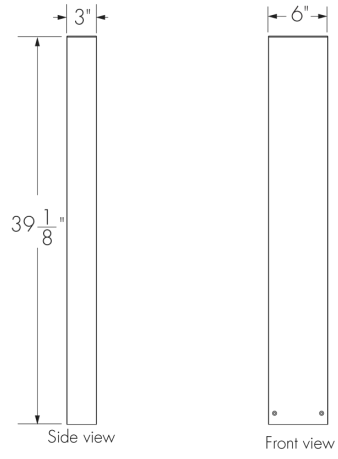
TM2 - Dual luminaire head



UNLIT - Unlit bollard 2 ft



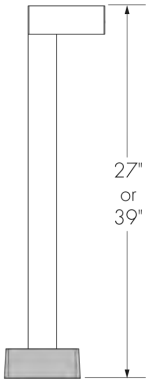
UNLIT - Unlit bollard 3 ft



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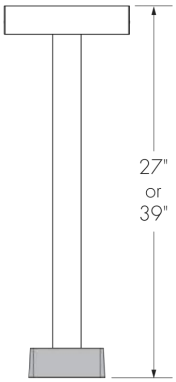
VRBO option dimensions

TM1 - Single head bollard



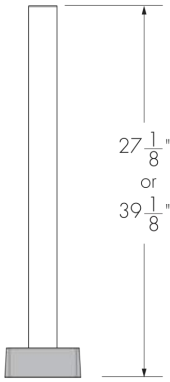
Side view

TM2 - Dual head bollard



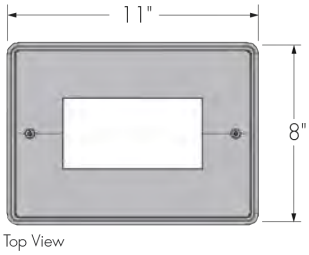
Side view

UNLIT - Unlit bollard



Side view

Base cover



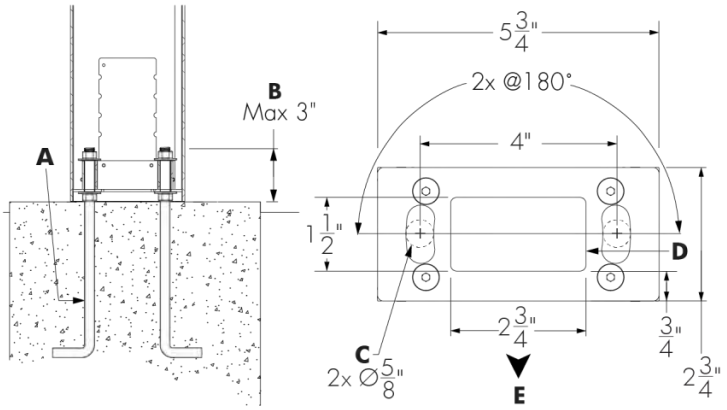
Top View



Front View

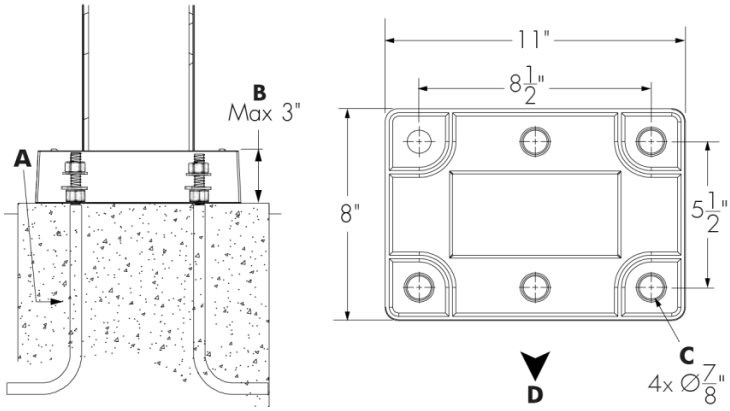
Anchoring details

Standard anchoring



A - (2x) Ø1/2 in by 12 in long anchor bolts with flats washers and nuts for each
B - Between 2.5 in and 3 in of the anchor bolts must be above ground for installation
C - Bolt circle
D - Hole for conduit (conduit by others)
E - Street side/Light side

BLDB-VRBO anchoring

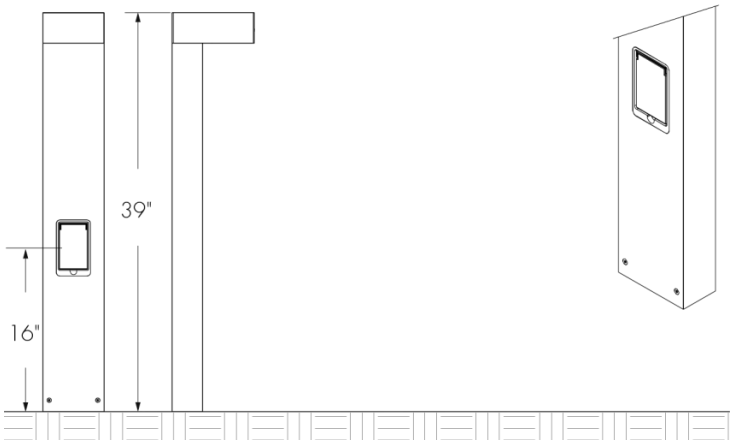


A - (4x) Ø3/4 in by 26 in long anchor bolts with flats washers and nuts for each
B - Between 2.5 in and 3 in of the anchor bolts must be above ground for installation
C - Bolt circle
D - Access door and street side

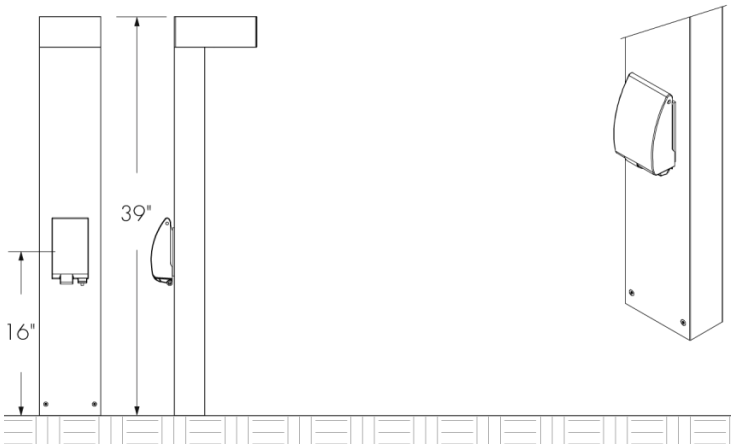
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Duplex Receptacle installation dimensions

DRG - Ground fault duplex receptacle
USB - Duplex receptacle with USB A and USB C



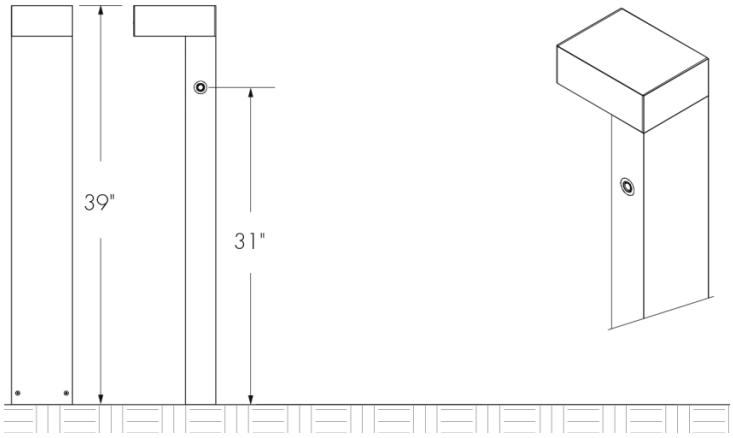
DRG IU - Ground Fault Duplex Receptacle (while in use)
USB IU - Duplex receptacle with USB A and USB C (while in use)



The duplex receptacle must be installed in accordance with applicable national and local electrical and construction codes by a person familiar with the construction and operation of the product and the hazards involved. Refer to national and local electrical codes before selecting a duplex receptacle to ensure all requirements are met.

Photoelectric Cell Button installation dimensions

PB - Photoelectric Cell Button Type



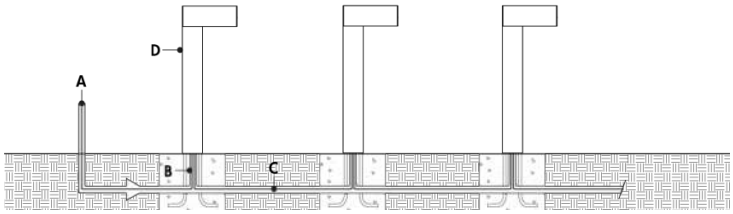
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Typical Wiring Diagrams

Wiring Color Code

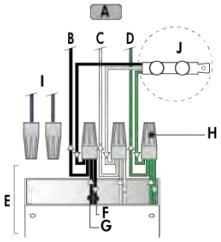
Color	Black	White	Green	Purple	Gray
Use	Line	Line/Neutral	Ground	0 -10V+	0 -10V -

On/Off Control (NO)



A - Power input (120-480V)
B - Conduit (by others)
C - Power wiring (by others)
D - Lumenblade Bollard

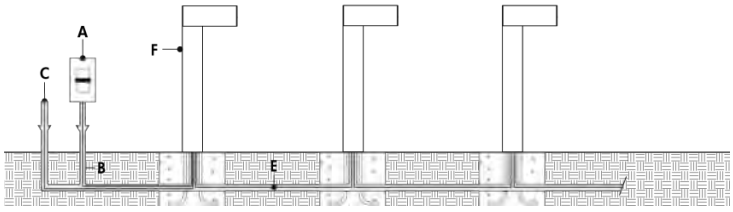
On/Off Control (NO) - wiring detail



A - To fixture
B - Line
C - Line/Neutral
D - Ground
E - Conduit (by others)
F - To next fixture
G - Power input or from previous fixture
H - Wire-nuts (by others)
I - Not required
J - Wiring for SP option

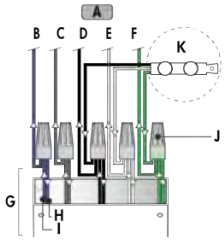
- Consult factory for specific applications and maximum fixture count/cable length recommendations.

0-10V dimming (DIM)



A - Dimmer (by others)
B - Data wiring (by others)
C - Power input (120-480V, wiring by others)
D - Conduit (by others)
E - Power and data wiring (by others)
F - Lumenblade Bollard

0-10V dimming (DIM) - wiring detail

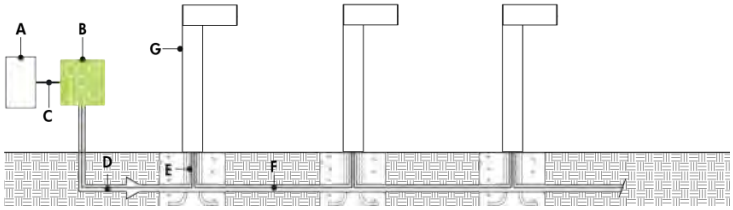


A - To fixture
B - 0-10V +
C - 0-10V -
D - Line
E - Neutral
F - Ground
G - Conduit (by others)
H - To next fixture
I - Power input or from previous fixture
J - Wire-nuts (by others)
K - Wiring for SP option

- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- 0-10V mA ratings: passive dimmer (Current Sink): 3mA per fixture, active dimmer (Current Source): 0.5mA per fixture.
- 1% minimum dimming value.

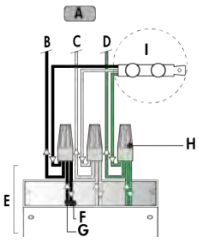
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Lumentalk (LT)



A - Dimmer/controller (order separately from Lumenpulse, or by others)
B - Lumentranslator (LTL-010)
C - Data wiring (by others)
D - Power line (120-277V, wiring by others)
E - Conduct (by others)
F - Power wiring (by others)
G - Lumenblade Bollard

Lumentalk (LT) - wiring detail



A - To fixture
B - Line
C - Line/Neutral
D - Ground
E - Conduit (by others)
F - To next fixture
G - Power input or from previous fixture
H - Wire-nuts (by others)
I - Wiring for SP option

- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Lumentalk enabled fixtures must be commissioned using LumentalkID software and a LID-LT. Consult factory for details.
- Maximum of 1 transmitter (Lumentranslator or Lumenlink) per system.
- No third party fixtures allowed on the same circuit.
- DRG or USB option must be on a separated circuit.

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How to Order

Housing	Mounting	Voltage	Height	Lens [3]	Output (nominal lumens) [8]	Color and Color Temperature	Color Rendering	Distributions	Optical Option	Finish	Control
BLDB Lumenblade Bollard	**TM1** Single head **TM2** Dual head [1] **UNLIT** Unlit bollard	**120** 120 volts **208** 208 volts **240** 240 volts **277** 277 volts **347** 347 volts [2] **480** 480 volts [2]	**2FT** 2 ft **3FT** 3 ft	**CSL** Clearsite lens [4] **FSL** Frostsite lens [5] **HFSL** Half-Frostsite lens [6] [7]	**N02** 200lm (4 LEDs) [4] [9] [10] **N03** 300lm (4 LEDs) **N05** 500lm (4 LEDs) **N07** 700lm (4 LEDs) **N10** 1000lm (4 LEDs)	**AMB** Amber [4] [10] [11] **22K** 2200K [12] **27K** 2700K [13] **30K** 3000K **35K** 3500K **40K** 4000K **57K** 5700K [14]	**CRI 70** CRI 70+ [15] **CRI 80** CRI 80+ [16] **CRI 90** CRI 90+ [17]	**2** Type II **2BLS** Type II backlight shield **3** Type III **3BLS** Type III backlight shield **4** Type IV **4BLS** Type IV backlight shield **5** Type V **5S** Type V square	**LV** Louver [18] [19]	**BK** Black Sandtex® **BRZ** Bronze Sandtex® **SI** Silver Sandtex® **BKTX** Textured Black **BRZTX** Textured Bronze Non-Metallic **GRATX** Textured Medium Gray **GRNTX** Textured Green **WHTX** Textured White **CC** Custom Color & Finish [20] [21] [22]	**DIM** 0-10V dimming [23] **LT** Lumentalk [24] [25]

Notes:

1. A ground fault duplex receptacle (DRG or DRG IU) and a duplex USB receptacle (USB or USB IU) cannot be combined with TM2 mounting.
2. Not available with LT control option.
3. Standard IK06 rating for glass lens. IK10 rated polycarbonate lens available, please consult factory.
4. Not available with type 5 distribution.
5. Available with type 3 and 5 distributions only.
6. Available with type 2, 3 and 4 distributions only.
7. Available for N03, N05, N07 and N10 outputs only.
8. Lumen output will vary according to the lens and distribution specified for the fixture. Please consult the photometric information section of the specification sheet for more details.
9. Available with AMB color temperature only.
10. Not available for FSL and HFSL lens.
11. Available with N02 output only.
12. Available for CRI 80 only.
13. Available for CRI 80 and CRI 90 only.
14. Available for CRI 70 and CRI 80 only.
15. Binning within a 3-step McAdam ellipse, with the exception of 5700K.
16. Binning within a 2-step MacAdam ellipse, with the exception of 2200K and 5700K.
17. Binning within a 2-step MacAdam ellipse
18. Available with CSL and HFSL lenses only.
19. Factory installed, not field changeable.
20. Specify RAL number followed by "TX" for textured finish (ex: RAL9007TX) or STX for Sandtex finish (ex: RAL9007STX). Textured or Sandtex finishes are recommended for the durability of all products. If a finish is not specified with the RAL number (ex: RAL9007), a glossy finish will be provided. Please consult factory for other RAL textures and glosses, or to match alternate color charts. Final color matching results may vary.
21. Setup charges apply for RAL colors. Consult factory for details.
22. Longer lead times can be expected for custom RAL color finishes.
23. DIM control can be used as NO (On/off control) if no data is required.
24. Not available with PB option.
25. When combined with 2 ft height option, Lumentalk cannot be combined with a ground fault duplex receptacle (DRG or DRG IU) or a duplex USB receptacle (USB or USB IU).

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How to Order

Option	Head Option	Head Lens	Head Output	Head Color and Color Temperature	Head Color Rendering	Head Distributions	Head Optical Option
VRBO Vibration Rated for Bridge and Overpass [26] [27] **CRC** Corrosion-resistant coating [28] [29] **SP** Surge protector **PB** Photoelectric Cell Button Type [2] [30] **DRG** Ground Fault Duplex Receptacle [31] **DRG IU** Ground Fault Duplex Receptacle (while in use) [31] **USB** Duplex receptacle with USB A and USB C [31] **USB IU** Duplex receptacle with USB A and USB C in-use [31]	**BH** Bollard Head	**CSL** Clearsite lens [4] **FSL** Frostsite lens [5] **HFSL** Half-Frostsite lens [6] [7]	**N02** 200lm (4 LEDs) [4] [9] [10] **N03** 300lm (4 LEDs) **N05** 500lm (4 LEDs) **N07** 700lm (4 LEDs) **N10** 1000lm (4 LEDs)	**AMB** Amber [4] [10] [11] **22K** 2200K [12] **27K** 2700K [13] **30K** 3000K **35K** 3500K **40K** 4000K **57K** 5700K [14]	**CRI 70** CRI 70+ [15] **CRI 80** CRI 80+ [16] **CRI 90** CRI 90+ [17]	**2** Type II **2BLS** Type II backlight shield **3** Type III **3BLS** Type III backlight shield **4** Type IV **4BLS** Type IV backlight shield **5** Type V **5S** Type V square	**LV** Louver [18]

Notes:

2. Not available with LT control option.
4. Not available with type 5 distribution.
5. Available with type 3 and 5 distributions only.
6. Available with type 2, 3 and 4 distributions only.
7. Available for N03, N05, N07 and N10 outputs only.
9. Available with AMB color temperature only.
10. Not available for FSL and HFSL lens.
11. Available with N02 output only.
12. Available for CRI 80 only.
13. Available for CRI 80 and CRI 90 only.
14. Available for CRI 70 and CRI 80 only.
15. Binning within a 3-step McAdam ellipse, with the exception of 5700K.
16. Binning within a 2-step MacAdam ellipse, with the exception of 2200K and 5700K.
17. Binning within a 2-step MacAdam ellipse
18. Available with CSL and HFSL lenses only.
26. Vibration tested in accordance with ANSI 136.31 2018 for bridge and overpass applications at 5Gv.
27. Specify only if a bridge or overpass application is required.
28. Use only when exposed to salt spray. This option is not required for normal outdoor exposure.
29. Setup charges apply. Consult factory for details.
30. Not available for 480V voltage option.
31. A ground fault duplex receptacle (DRG or DRG IU) and a duplex USB receptacle (USB or USB IU) cannot be combined.

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TYPE SL-1, SL-2, & SL-3

lumenblade
Medium
BLDM

SL-1 Catalog Number:
BLDM-SD-120/277-CSL-M80-30K-CRI 80-2

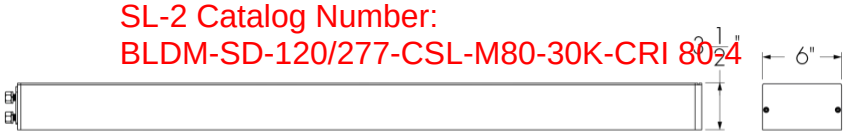
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BLDM-SD-120/277-CSL-M80-30K-CRI 80-3

SL-2 Catalog Number:
BLDM-SD-120/277-CSL-M80-30K-CRI 80-4

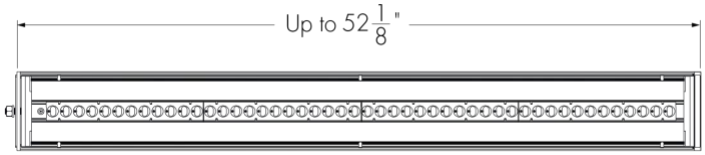
Project Name _____ **Qty** _____

Type _____ **Catalog / Part Number** _____





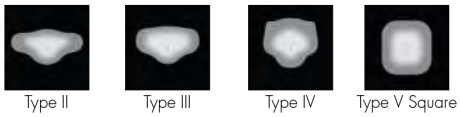
Side and front views



Bottom view

XL180 or XL200 (4 boards) shown

Distributions





SL-1: TYPE II DISTRIBUTION
SL-2: TYPE III DISTRIBUTION
SL-3: TYPE IV DISTRIBUTION

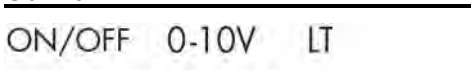
Description

The Lumenpulse Lumenblade Medium is an outdoor LED luminaire that uses a rectilinear version of the Lumencentro light engine to create a continuous line of light. Its seen-but-not-seen, minimalist design is sustainable, blends with both contemporary and heritage architectures, provides a high level of security, and is sensitive to the natural environment. The Lumenblade Medium is available in several lengths, a number of distributions and output options, and provides a stellar quality of light that brings the night to life.

Colors and Color Temperatures



Control



Motion Detector Options



Rating

IP66 (optical chamber)

Certifications

Features

Mounting	Side mounting
Color and Color Temperature	2200K, 2700K, 3000K, 3500K, 4000K, 5700K
Distributions	Type II, Type III or Type IV (with or without backlight shield), Type 5 square
1.5G Vibration Rated	Meets 1.5G ANSI C136.31 - 2010 vibration standard for Roadway applications 3G ANSI C136.31-2010 Vibration Rating for bridge applications available for certain configurations, refer to product configurator and website for details
Options	3G ANSI C136.31-2010 Vibration Rating for bridge applications, Corrosion-resistant coating for hostile environments, Surge protector, 3-Pin Receptacle with or without shorting cap, 5-Pin Receptacle with or without shorting cap, 7-Pin Receptacle with or without shorting cap, Motion detector
Pole Mounting Adaptor	Straight pole and Muffler pole adaptor (round and square pole): 6 in Lumentech pole adaptor (square and round pole): 6 in
Warranty	5-year limited warranty

Performance

Output (nominal lumens)	Minimum 4,000lm (1 board) / Maximum 20,000lm (4 boards)

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Efficacy	Up to 107 lm/W (Type 5 square, 4000K, M80 lumen output)
Color Rendering	3 SDCM for CRI 70+, 2 SDCM for CRI 80+ and CRI 90+
Lumen Maintenance	TM-21 L70 > 145,000 hrs (reported, Ta 25 - 50 °C [77 - 122 °F])
Dark Sky	Dark sky compliant (2200K, 2700K and 3000K color temperatures, BUG rating of U0)

Physical

Housing Material	Extruded aluminium 6000 alloy series
Lens Material	Optical tempered clear glass (Clearsite lens)
Surface Finish	Super durable resistant exterior polyester powder coating meets AAMA 2604-98 requirements (5-years Florida exposure). A corrosion resistant finish (CRC) pre-finish is available to meet ASTM B-117 & ASTM D-1654 (salt spray resistance) and ASTM D-2247 requirements (humidity resistance).
Weight	1 board: 12.5 lbs 2 boards: 16 lbs 3 boards: 21 lbs 4 boards: 25 lbs Refer to Fixture Weights Table in complete specification sheet for fixture weights with motion detector installed and double configurations

Electrical and control

Voltage	120 volts, 208 volts, 240 volts, 277 volts, 347 volts, 480 volts
Control	On/Off control, 0-10V dimming, Lumentalk

Environmental

Storage Temperature	-40°C to 50°C [-40°F to 122°F] (device must reach start-up temperature value before operating)
Operating Temperature	-40°C [-40 °F] to 50°C [122 °F]
Start-up Temperature	-25°C [-13 °F] to 50°C [122 °F]
Ingress Protection Rating	IP66 (optical chamber), Wet location rated
Impact Resistance Rating	IK07 (glass lens), IK10 (frame)
Environment	Dry/damp/wet location

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EPA and Fixture Weight Tables

*Fixture weights are estimated.

Standard Fixture

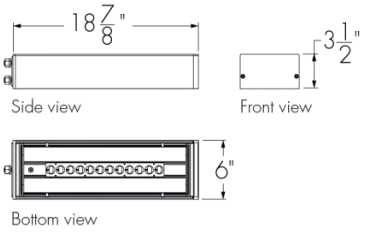
		S40/S60 1 board	M80/M100 2 boards	L120/L140/L160 3 boards	XL180/XL200 4 boards
EPA (sq ft.)	S1E	0.69	1.03	1.46	1.90
	S2E	1.38	2.06	2.92	3.8
Weight* (lbs)	S1E	12.5	16	21	25
	S2E	25	32	42	50

Fixture With Motion Detector Option

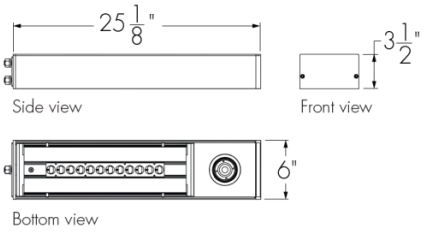
		S40/S60 1 board	M80/M100 2 boards	L120/L140/L160 3 boards	XL180/XL200 4 boards
EPA (sq ft.)	S1E	0.92	1.25	1.69	2.13
	S2E	1.84	2.5	3.38	4.26
Weight* (lbs)	S1E	15	18.5	23.5	27.5
	S2E	30	37	47	55

Dimensions

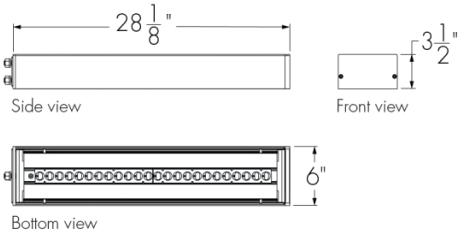
S40 and S60 (1 Board)



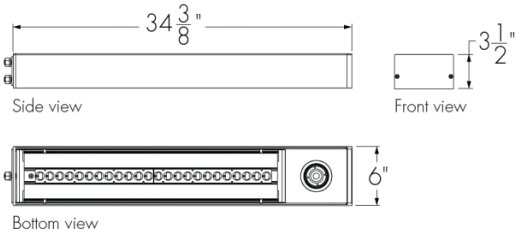
S40 and S60 (1 Board) - Motion Detector Option



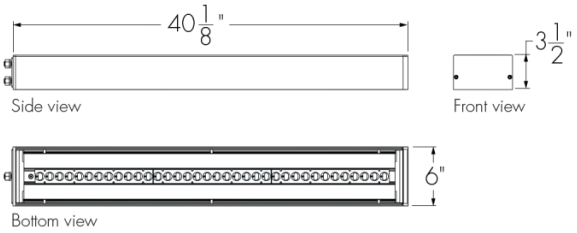
M80 and M100 (2 Boards)



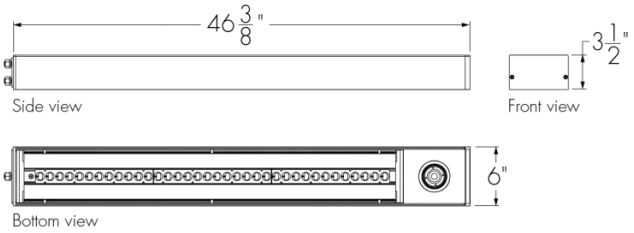
M80 and M100 (2 Boards) - Motion Detector Option



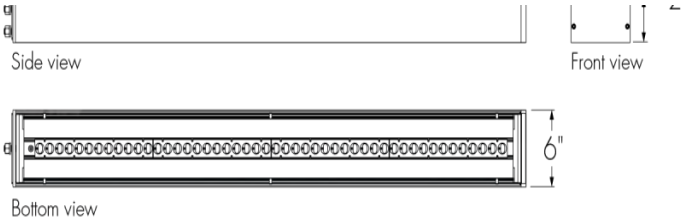
L120, L140 and L160 (3 Boards)



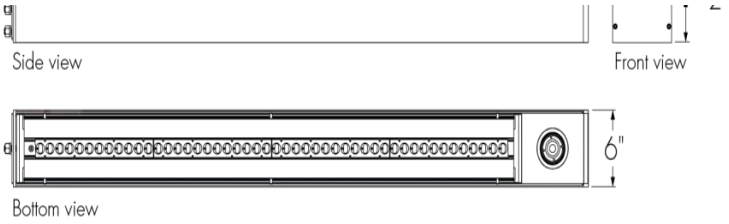
L120, L140 and L160 (3 Boards) - Motion Detector Option



XL180 and XL200 (4 Boards)



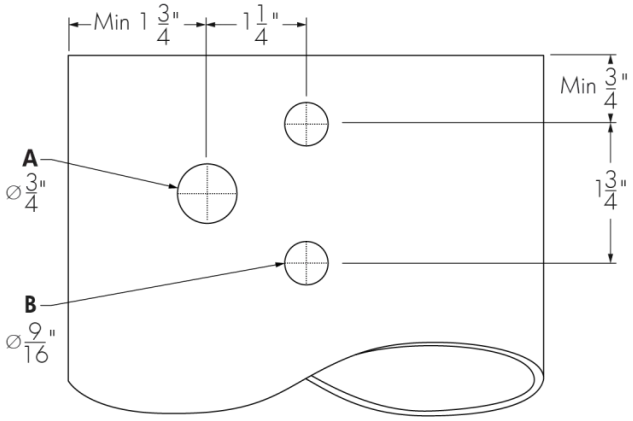
XL180 and XL200 (4 Boards) - Motion Detector Option



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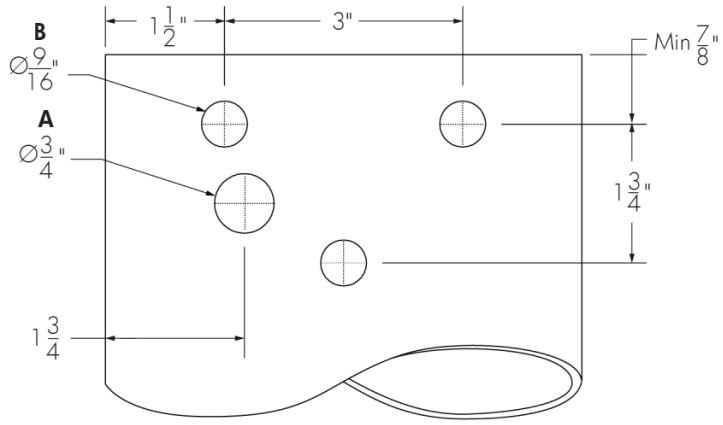
Pole Drilling Pattern

BLDM-S1E and BLDM-S2E Drilling Pattern



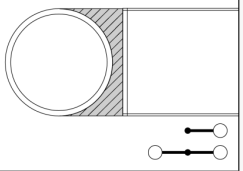
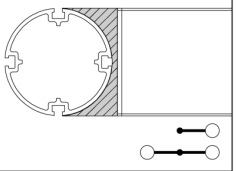
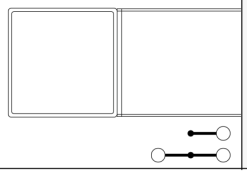
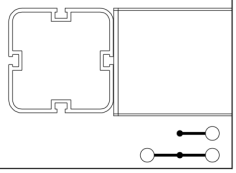
A - Wire feeding location
B - (2X) for Ø1/2-13 bolts (included with luminaire)

BLDM-S1E-3GV and BLDM-S2E-3GV Drilling Pattern



A - Wire feeding location
B - (3X) for Ø1/2-13 bolts (included with luminaire)

Pole Mounting Adaptor

	Straight and muffler poles			Lumentech pole	
	4in	**5in**	**6in**	**5in**	**6in**
Round shape	n/a	n/a	**RPA6M** 	n/a	**RPA6TM** 
Square shape [1]			**SPA6** 		**SPA6T** 

Available configurations*:
S1E —○ Simple
S2E ○—○ Double

[1] Square poles do not require adaptors, specification codes are used by Lumenpulse to provide appropriate hardware for installation only.

*Consult factory for other configurations.

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Photometric Information

Type II, 4000K, CRI 70+



	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
S40	3,236	90	1 0 1	36
S60	4,758	87	1 0 1	55
M80	7,423	95	2 0 2	78
M100	9,897	86	2 0 2	115
L120	11,039	92	2 0 2	120
L140	12,561	90	3 0 3	140
L160	14,274	79	3 0 3	180
XL180	17,890	87	3 0 3	205
XL200	19,032*	79	3* 0* 3*	240

Type III, 4000K, CRI 70+



	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
S40	3,496	97	1 0 1	36
S60	5,141	94	1 0 1	55
M80	8,019	103	2 0 2	78
M100	10,693	93	2 0 2	115
L120	11,926	99	2 0 2	120
L140	13,571	97	3 0 3	140
L160	15,422	86	3 0 3	180
XL180	19,329	94	3 0 3	205
XL200	20,563*	86	3* 0* 3*	240

Type IV, 4000K, CRI 70+



	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
S40	2,989	83	1 0 1	36
S60	4,396	80	1 0 1	55
M80	6,858	88	2 0 2	78
M100	9,144	80	2 0 2	115
L120	10,199	85	2 0 2	120
L140	11,606	83	3 0 3	140
L160	13,189	73	3 0 3	180
XL180	16,530	81	3 0 3	205
XL200	17,585*	73	3* 0* 3*	240

Type V square, 4000K, CRI 70+



	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
S40	3,630	101	2 0 1	36
S60	5,339	97	3 0 1	55
M80	8,328	107	3 0 2	78
M100	11,104	97	4 0 2	115
L120	12,385	103	4 0 2	120
L140	14,094	101	4 0 2	140
L160	16,016	89	4 0 2	180
XL180	20,073	98	4 0 2	205
XL200	21,354*	89	5* 0* 3*	240

*Photometric performance is measured in compliance with IESNA LM-79-08. Due to rapid and continous advance in LED technology, photometric information is subject to change without notice.

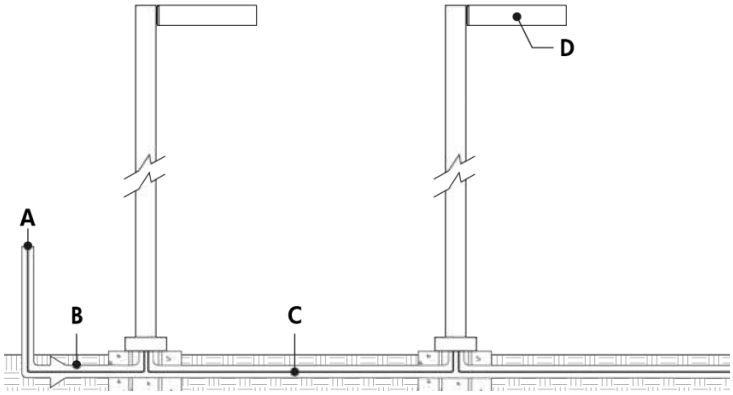
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Typical Wiring Diagrams

Wiring Color Code

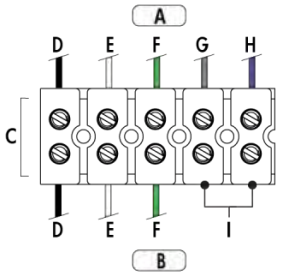
Color	Black	White	Green	Purple	Gray
Use	Line	Line/Neutral	Ground	0-10V+	0-10V -

On/Off Control (NO)



A - Power input (120-480V, wiring by others)
B - Conduit (by others)
C - Power wiring (by others)
D - Lumenblade

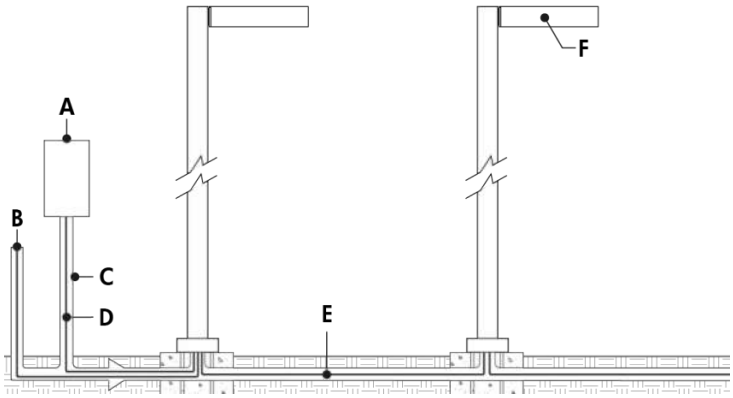
On/Off control (NO) - Terminal Connector Wiring Detail



A - To driver
B - Power input or from previous fixture
C - Terminal connector
D - Line
E - Line/Neutral
F - Ground
G - 0-10V -
H - 0-10V +
I - Not required

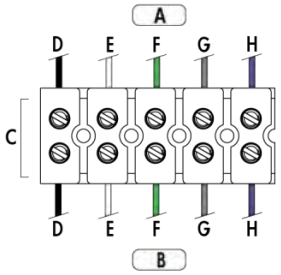
- Consult factory for specific applications and maximum fixture count/cable length recommendations.

0-10V Dimming (DIM)



A - Dimmer (by others)
B - Power input (120-480V, wiring by others)
C - Conduit (by others)
D - Data wiring (by others)
E - Power and data wiring (by others)
F - Lumenblade

0-10V Dimming (DIM) - Terminal Connector Wiring Detail

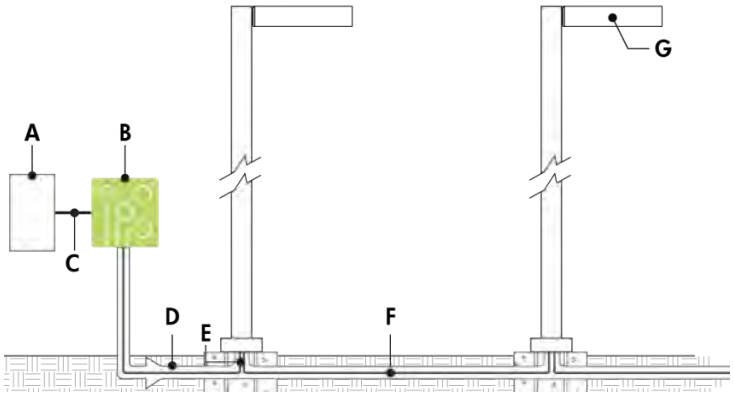


A - To driver
B - Power input or from previous fixture
C - Terminal connector
D - Line
E - Line/Neutral
F - Ground
G - 0-10V -
H - 0-10V +

- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- 0-10V mA ratings: passive dimmer (Current Sink): 3mA per fixture, active dimmer (Current Source): 0.5mA per fixture.
- 1% minimum dimming value.

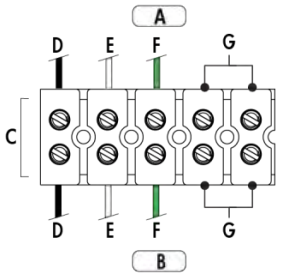
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Lumentalk (LT)



A - Third party dimmer/controller
B - Lumentranslator (LTL-010)
C - Data wiring (by others)
D - Power line (120-277V, wiring by others)
E - Conduct (by others)
F - Power wiring (by others)
G - Lumenblade

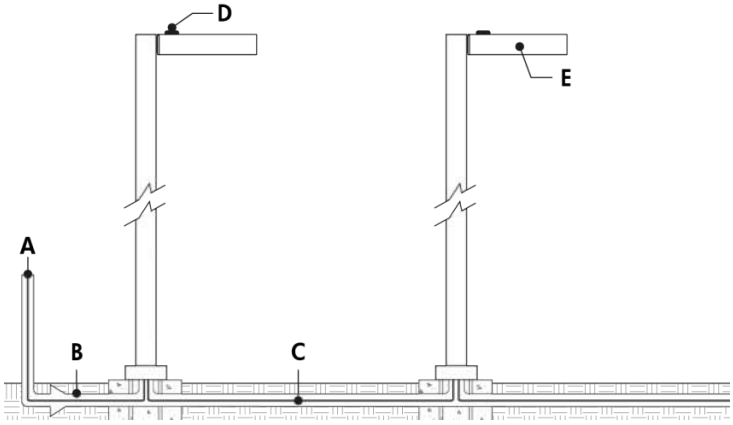
Lumentalk (LT) - Terminal Connector Wiring Detail



A - To driver
B - Power input or from previous fixture
C - Terminal connector
D - Line
E - Line/Neutral
F - Ground
G- Not required

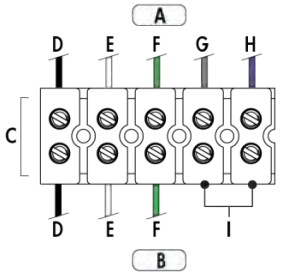
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Lumentalk enabled fixtures must be commissioned using LumentalkID software and a LID-LT. Consult factory for details.
- Maximum of 1 transmitter (Lumentranslator or Lumenlink) per system.
- No third party fixtures allowed on the same circuit

3 pins, 5 pins and 7pins Receptacle Control (SPR3, SPR3 SC, SPR5, SPR5 SC, SPR7, SPR7 SC)



A - Power input (120-480V, wiring by others)
B - Conduit (by others)
C - Power wiring (by others)
D - Photoelectric control
E - Lumenblade

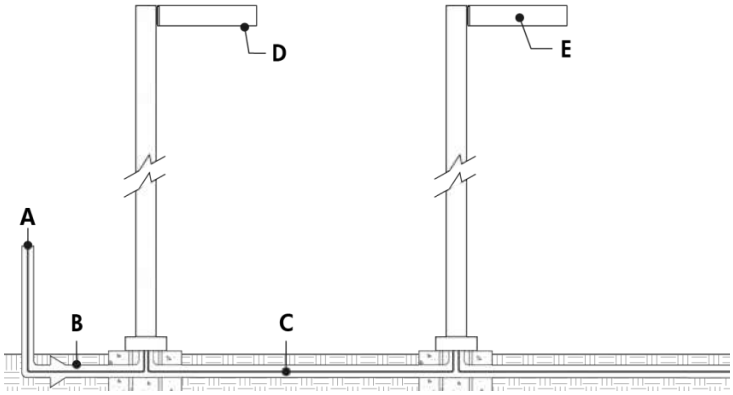
3 pins, 5 pins and 7pins Receptacle Control (SPR3, SPR3 SC,SPR5, SPR5 SC, SPR7, SPR7 SC) - terminal connector wiring detail



A - To driver
B - Power input or from previous fixture
C - Terminal connector
D - Line
E - Line/Neutral
F - Ground
G - 0-10V -
H - 0-10V +
I - SPR3: Not required. SPR5/SPR7: From photocell receptacle

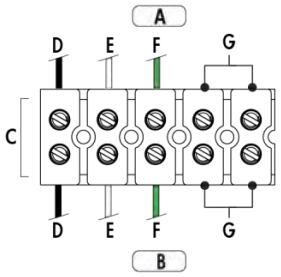
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Motion Detector Control (MDxx)



A - Power input (120-480V, wiring by others)
B - Conduit (by others)
C - Power wiring (by others)
D - Motion detector
E - Lumenblade

Motion Detector (MDxx) - Terminal Connector Wiring Detail



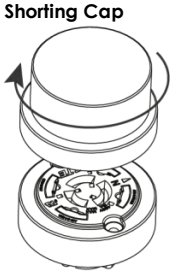
A - To driver
B - Power input or from previous fixture
C - Terminal connector
D - Line
E - Line/Neutral
F - Ground
G- Not required

Options

SPR3, SPR5 and SPR7 - 3-Pin, 5-Pin and 7-Pin Receptacles



SPR3 SC, SPR5 SC and SPR7 SC - 3-Pin, 5-Pin and 7-Pin Receptacles with Shorting Cap



- Dimming receptacle meets ANSI C136.41 Standard

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Motion Detector Options

Programming

	MD10N - Narrow lens, 10% dimming level **MD10W -** Wide lens, 10% dimming level	**MD30N -** Narrow lens, 30% dimming level **MD30W -** Wide lens, 30% dimming level	**MD50N -** Narrow lens, 50% dimming level **MD50W -** Wide lens, 50% dimming level	**MDPN -** Narrow lens, programmable **MDPW -** Wide lens, programmable
	100% (10V) / 10% (1V)	100% (10V) / 30% (3V)	100% (10V) / 50% (5V)	*How to provide code:*
High mode [1]	10V	10V	10V	• 5V - 10V (Increment: **0.2V**) — 10V
Low mode [2]	1V	3V	5V	• Off • 0V - 9.8V (Increment: **0.2V**) — 2.6V
Time delay [3]	5 min	5 min	5 min	• 1min - 30min (Increment: **30 seconds**) — 10 min
Cut off [4]	1 hr	1 hr	1 hr	• Disable • 1min - 59min (Increment: **30 seconds**) • 1hr - 5hr (Increment: **1 hour**) — 3 hr
Set point [5]	Dis	Dis	Dis	• Disable • Auto • 1fc - 250fc (Increment: **1fc**) — Auto
Sensitivity [6]	Max	Max	Max	• On-Fix • Off-Fix • Low • Med • Max — Med
Ramp up time [7]	3 sec	3 sec	3 sec	• Disable • 1sec - 60sec (Increment: **1 second**) — 10 sec
Fade down time [8]	3 sec	3 sec	3 sec	• Disable • 1sec - 60sec (Increment: **1 second**) — 10 sec
Photocell On/Off [9]	Dis	Dis	Dis	• Disable • 1fc - 250fc (Increment: **1fc**) — Dis

[1] When the sensor detects motion, the dimming control output ramps up to the selected HIGH light level.
[2] After the sensor stops detecting motion and the time delay expires, the dimming control output fades down to the selected LOW light level.
[3] The selected time period that must elapse after the last time the sensor detects motion for the electric lights to fade to LOW mode.
[4] The time period that must elapse after the lights fade to LOW mode, and the sensor detects no motion for the electric lights to turn OFF.
[5] When enabled, the selectable ambient light level threshold that will hold the electric lights off or at LOW level when the sensor detects motion.
[6] The response of the PIR detector to motion within the sensor's coverage area.
[7] Time period for light level to increase from LOW to HIGH.
[8] Time period for light level to decrease from HIGH to LOW.
[9] When enabled, the sensor will force the load OFF after the light level has exceeded the selected photocell setpoint PRIOR SAVE SEND for at least a minute. It will also force the load ON when the light level goes below the setpoint, even if no motion is detected.
[10] The motion detector programming can be modified on site. A remote is required, order separately. See Remote section in the specification sheet for details.

Dimming: When motion is detected within the sensor's coverage area, the sensor sends a signal to ramp the load up to the selectable High Mode level unless the ambient light level is higher than the selected setpoint. When no motion is detected for the duration of the time delay setting, the lights will go to the selectable Low Mode level based on the signal from the sensor. If desired, a cut off time delay will trigger to eventually turn the lights OFF.
Non dimming: When motion is detected within the sensor's coverage area, the sensor sends a signal to turn the load ON unless the ambient light level is higher than the selected setpoint. When no motion is detected for the duration of the time delay setting, the lights will go OFF based on the signal from the sensor.
Dusk to dawn control: When photocell on/off is enabled, and the ambient light falls below the photocell setpoint, the sensor ramps the load up to the selectable High Mode level. If no motion is detected for the duration of the time delay setting, the lights will go to the selectable Low Mode level. If the cut off time delay is disabled, the load will remain on, at High or Low level, based on motion detection, until the ambient light increases above the photocell setpoint.

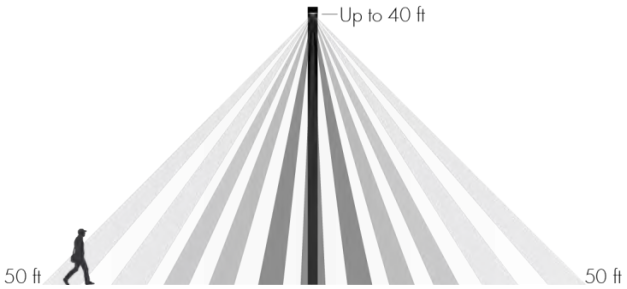
Coverage Area

Narrow Lens (MD10N, MD30N, MD50N and MDPN)*



* Maximum 20 ft height, 40 ft diameter coverage area

Wide Lens (MD10W, MD30W, MD50W and MDPN)*



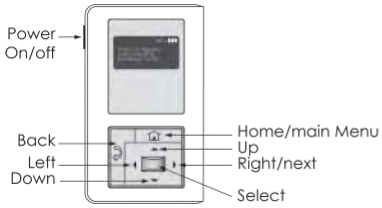
* Maximum 40 ft height, 100 ft diameter coverage area (Lumenpulse maximum pole height: up to 30 ft consult relative pole specification sheets for more details).

High temperatures at the covered area (above 88 °F - 91 °F) reduce the detection zone of the sensor. Consider adding more sensors if the ambient temperatures are expected to be high. Additionally, high floor level temperature may require larger movement for detection. Coverages shown in the diagrams are maximum, measured in linear feet. They represent coverage for walking motion, with no obstacles.

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Remote (Order Separately)

MDRC001 - Remote to Program Motion Detector on Site



- Compatible with all motion detector options.

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How to Order

Housing	Mounting	Voltage	Lens [3]	Output (nominal lumens)	Color and Color Temperature	Color Rendering	Distributions	Finish	Control	Option	Pole Mounting Adaptor [24]
BLDM Lumenblade medium [1]	**SD** Side mounting	**120** 120 volts **208** 208 volts **240** 240 volts **277** 277 volts **347** 347 volts [2] **480** 480 volts [2]	**CSL** Clearsite lens SL-1 & SL-2 SL-3	**S40** 4000lm (1 board, 18 7/8 in) [2] [4] [5] **S60** 6000lm (1 board, 18 7/8 in) [2] [4] **M80** 8000lm (2 boards, 28 1/8 in) [4] **M100** 10000lm (2 boards, 28 1/8 in) [4] **L120** 12000lm (3 boards, 40 1/8 in) [4] **L140** 14000lm (3 boards, 40 1/8 in) [4] **L160** 16000lm (3 boards, 40 1/8 in) [4] **XL180** 18000lm (4 boards, 52 1/8 in) [4] **XL200** 20000lm (4 boards, 52 1/8 in) [4]	**22K** 2200K [6] **27K** 2700K [7] **30K** 3000K **35K** 3500K **40K** 4000K **57K** 5700K [8]	**CRI 70** CRI 70+ [9] **CRI 80** CRI 80+ [10] **CRI 90** CRI 90+ [11]	**2** SL-1 Type II **2BLS** Type II backlight shield **3** SL-2 Type III **3BLS** Type III backlight shield **4** SL-3 Type IV **4BLS** Type IV backlight shield **5S** Type V square	**BK** Black Sandtex® **BRZ** Bronze Sandtex® **SI** Silver Sandtex® **BKTX** Textured Black **BRZTX** Textured Bronze Non-Metallic **GRATX** Textured Medium Gray **GRNTX** Textured Green **WHTX** Textured White **CC** Custom Color & Finish [12] [13] [14]	**DIM** 0-10V dimming [15] **LT** Lumentalk [16]	**3GV** 3G ANSI C136.31-2010 Vibration Rating for bridge applications [16] [17] **CRC** Corrosion-resistant coating [18] [19] **SP** Surge protector **SPR3** 3-Pin Receptacle [20] **SPR3 SC** 3-Pin Receptacle with Shorting Cap [20] **SPR5** 5-Pin Receptacle [20] **SPR5 SC** 5-Pin Receptacle with Shorting Cap [20] **SPR7** 7-Pin Receptacle [20] **SPR7 SC** 7-Pin Receptacle with Shorting Cap [20] **MD10N** Motion detector 10% factory-set dimming level (narrow lens) [21] [22] **MD10W** Motion detector 10% factory-set dimming level (wide lens) [21] [22] **MD30N** Motion detector 30% factory-set dimming level (narrow lens) [21] [22] **MD30W** Motion detector 30% factory-set dimming level (wide lens) [21] [22] **MD50N** Motion detector 50% factory-set dimming level (narrow lens) [21] [22] **MD50W** Motion detector 50% factory-set dimming level (wide lens) [21] [22] **MDPN** Motion detector programmable, factory-set dimming level (narrow lens) [21] [22] [23] **MDPW** Motion detector programmable, factory-set dimming level (wide lens) [21] [22] [23]	**RPA6M** Round pole adaptor for Ø6 in pole **SPA6** Square pole adaptor for Ø6 in pole **RPA6TM** Round pole adaptor for Lumentech Ø6 in pole **SPA6T** Square pole adaptor for Lumentech Ø6 in pole

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Notes:

1. Product code is for a single fixture only (S1E configuration). For double configuration (S2E), a second product code must be completed.
2. Not available with LT control option.
3. Consult factory for Softsite lens option. Available for 3000lm (1 board), 5000lm (2 boards), 7000lm (3 boards) and 10000lm (4 boards) outputs.
4. Motion detector options add 6 1/4 in to total length of fixture.
5. Available up to 277V.
6. Available for CRI 80 only.
7. Available for CRI 80 and CRI 90 only.
8. Available for CRI 70 and CRI 80 only.
9. Binning within a 3-step McAdam ellipse, with the exception of 5700K.
10. Binning within a 2-step MacAdam ellipse, with the exception of 2200K and 5700K.
11. Binning within a 2-step MacAdam ellipse
12. Specify RAL number followed by "TX" for textured finish (ex: RAL9007TX) or STX for Sandtex finish (ex: RAL9007STX). Textured or Sandtex finishes are recommended for the durability of all products. If a finish is not specified with the RAL number (ex: RAL9007), a glossy finish will be provided. Please consult factory for other RAL textures and glosses, or to match alternate color charts. Final color matching results may vary.
13. Setup charges apply for RAL colors. Consult factory for details.
14. Longer lead times can be expected for custom RAL color finishes.
15. DIM control can be used as NO (On/off control) if no data is required.
16. Not available with SPR3, SPR3 SC, SPR5, SPR5 SC, SPR7 and SPR7 SC 3-Pin, 5-Pin, and 7-Pin receptacles options and MD10N, MD10W, MD30N, MD30W, MD50N, MD50W, MDPN and MDPW motion detector options.
17. Available with S40, S60, M80 and M100 output options only.
18. Use only when exposed to salt spray. This option is not required for normal outdoor exposure.
19. Setup charges apply. Consult factory for details.
20. Only one receptacle can be specified per fixture, cannot be combined with motion detector option.
21. The motion detector programming can be modified on site. A remote is required, order separately. See Remote section in the specification sheet for details.
22. Only one motion detector can be specified per fixture, cannot be combined with a receptacle.
23. The motion detector is programmed in the factory, as per the settings requested at the time of the order.
24. Consult Pole Mounting Adaptor section for standard available configurations.

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TYPE SL-4

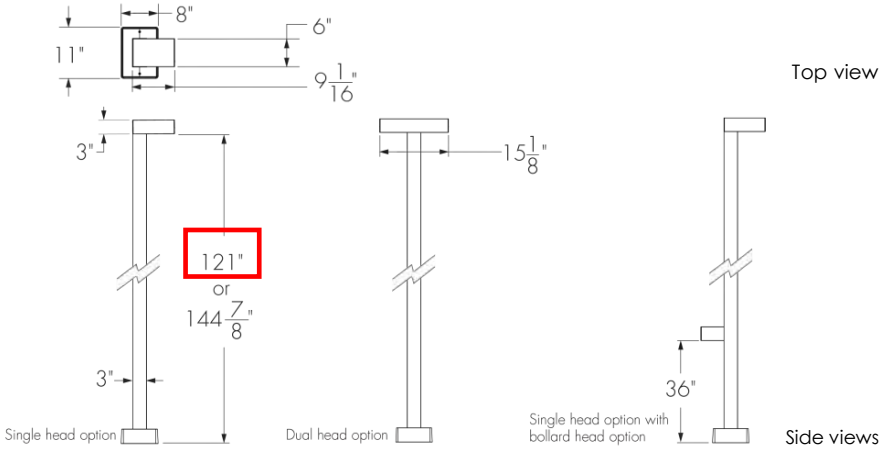
lumenblade
Column
BLDC

Catalog Number:
BLDC-TM1-VOLTAGE-10FT-CSL-XS25-30K-CRI 80-4-FINISH CONTROL

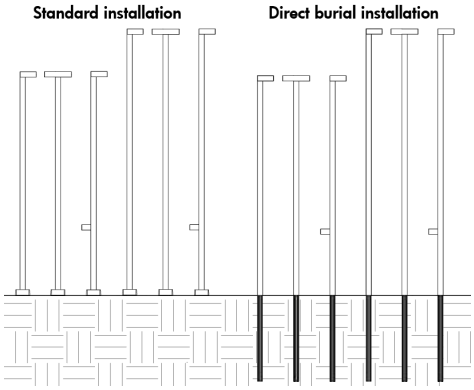
Project Name _____ **Qty** _____

Type _____ **Catalog / Part Number** _____

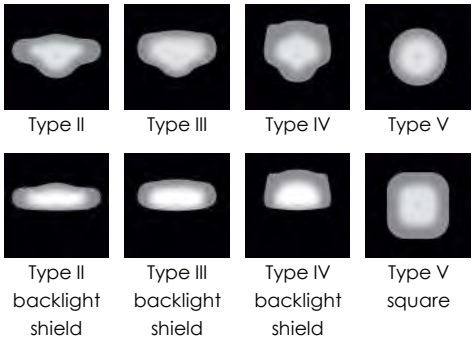

Single head option shown



Configurations



Distributions



Description

The Lumenpulse Lumenblade Column is an outdoor LED luminaire that uses a rectilinear version of the Lumencentro light engine to create a continuous line of light. Options include: heights of either 10 feet or 12 feet, with a Single or Dual head. Its seen-but-not-seen, minimalist design is sustainable, blends with both contemporary and heritage architectures, provides a high level of security, and is sensitive to the natural environment with low outputs and with a BUG rating of 0.

Features

Mounting	Single head, Dual head
Height	10 ft, 12 ft
Color and Color Temperature	Amber, 2200K, 2700K, 3000K, 3500K, 4000K, 5700K
Distributions	Type II, Type III or Type IV (with or without backlight shield), Type V, Type V square
Optical Option (factory installed)	Louver
Vibration Rating	Meets ANSI C136.31-2018 vibration rating for Bridge & Overpass applications
Options	Vibration Rated for Bridge and Overpass, Corrosion-resistant coating for hostile environments, Surge protector, Photoelectric Cell Button Type, Ground Fault Duplex Receptacle, Duplex receptacle with USB A and USB C, 3-Pin Receptacle with or without shorting cap, 5-Pin Receptacle with or without shorting cap, 7-Pin Receptacle with or without shorting cap, Motion detector, Direct Burial
Warranty	5-year limited warranty

Performance

Output (nominal lumens)	Minimum 300lm (single head)/ 200lm for bollard head option, Maximum 5000lm (dual head)
Efficacy	Up to 106 lm/W (XS10 lumen output, 4000K, CRI 70+,Type III)

lumenpulse™
1220 Marie-Victorin Blvd., Longueuil, QC, J4G 2H9, CA **T** United States 617.307.5700 | Canada 1.877.937.3003 | 514.937.3003 **F** 514.937.6289
info@lumenpulse.com **www.lumenpulse.com** **www.lumenpulse.com/products/2322**

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Color and Color Temperature



Control

ON/OFF 0-10V LT

Ratings

IP66 (optical chamber) IK06 (lens) IK10*(frame)
*IK10 polycarbonate lens option available, consult factory.

Motion detector options



Certifications

Color Rendering	3 SDCM for CRI 70+, 2 SDCM for CRI 80+ and CRI 90+
Lumen Maintenance	TM-21 L70 > 145,000 hrs (reported, Ta 25 - 50 °C [77 - 122 °F])
Dark Sky	Dark sky compliant (2200K, 2700K, 3000K and Amber color temperatures, BUG rating of U0)

Physical

Housing Material	Extruded aluminium 6000 alloy series
Lens Material	Optical tempered clear glass (Clearsite lens), Optical tempered frosted glass (Frostsite lens), Optical tempered half-frosted glass (Half-Frostsite lens)
Head Option	Bollard Head, Column head
Head Option Height	3 ft
Surface Finish	Super durable resistant exterior polyester powder coating meets AAMA 2604-98 requirements (5-years Florida exposure) a corrosion resistant finish (CRC) pre-finish is available to meet ASTM B-117 & ASTM D-1654 (salt spray resistance) and ASTM D-2247 requirements (humidity resistance).
Weight	22.5 lbs for single head option (10 ft fixture)

Electrical and control

Voltage	120 volts, 208 volts, 240 volts, 277 volts, 347 volts, 480 volts
Control	On/Off control, 0-10V dimming, Lumentalk

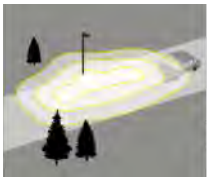
Environmental

Storage Temperature	-40°C to 50°C [-40°F to 122°F] (device must reach start-up temperature value before operating)
Operating Temperature	-40°C to 50°C [-40°F to 122°F]
Start-up Temperature	-25°C [-13 °F] to 50°C [122 °F]
Ingress Protection Rating	IP66 (optical chamber), Wet location rated
Impact Resistance Rating	IK06 (glass lens), IK10 (frame) *IK10 polycarbonate lens option available, consult factory
Environment	Dry/damp/wet location

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Photometric information

Type II, 4000K, CRI 70+, Clearsite lens



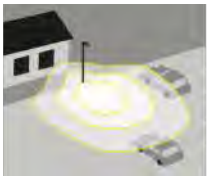
	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
XS10	1,014	101	0 0 0	10
XS15	1,452	85	0 0 0	17
XS20	1,821	73	1 0 1	25
XS25	2,305	77	1 0 1	30

Type III, 4000K, CRI 70+, Clearsite lens



	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
XS10	1,060	106	0 0 0	10
XS15	1,517	89	0 0 0	17
XS20	1,902	76	1 0 1	25
XS25	2,408	80	1 0 1	30

Type IV, 4000K, CRI 70+, Clearsite lens



	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
XS10	883	88	0 0 0	10
XS15	1,265	74	0 0 1	17
XS20	1,586	63	0 0 1	25
XS25	2,007	67	1 0 1	30

Type V square, 4000K, CRI 70+, Clearsite lens



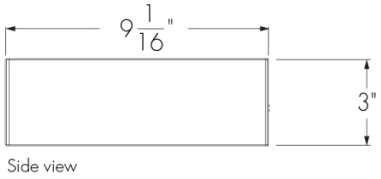
	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
XS10	977	98	1 0 1	10
XS15	1,399	82	1 0 1	17
XS20	1,754	70	1 0 1	25
XS25	2,220	74	1 0 1	30

*Photometric performance is measured in compliance with IESNA LM-79-19. Due to rapid and continous advances in LED technology, photometric information is subject to change without notice.

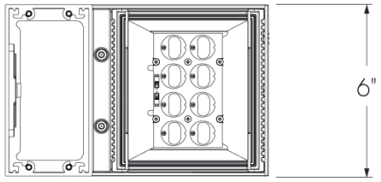
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Luminaire head dimensions

TM1 - Single head

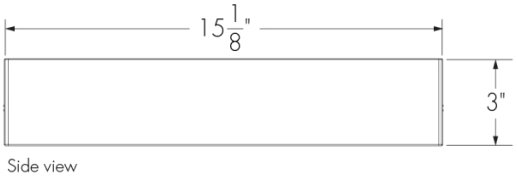


Side view

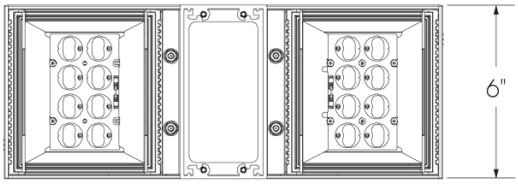


Bottom view

TM2 - Dual head



Side view

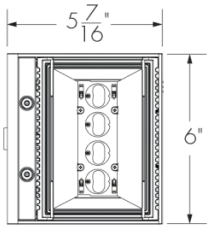


Bottom view

BH - Bollard head

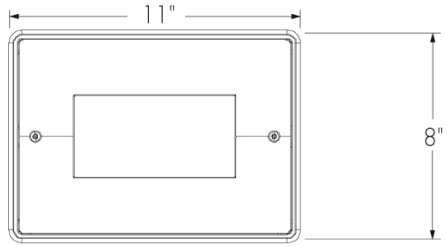


Side view



Bottom view

Base dimensions



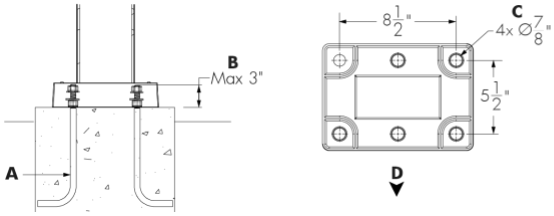
Top View



Side View

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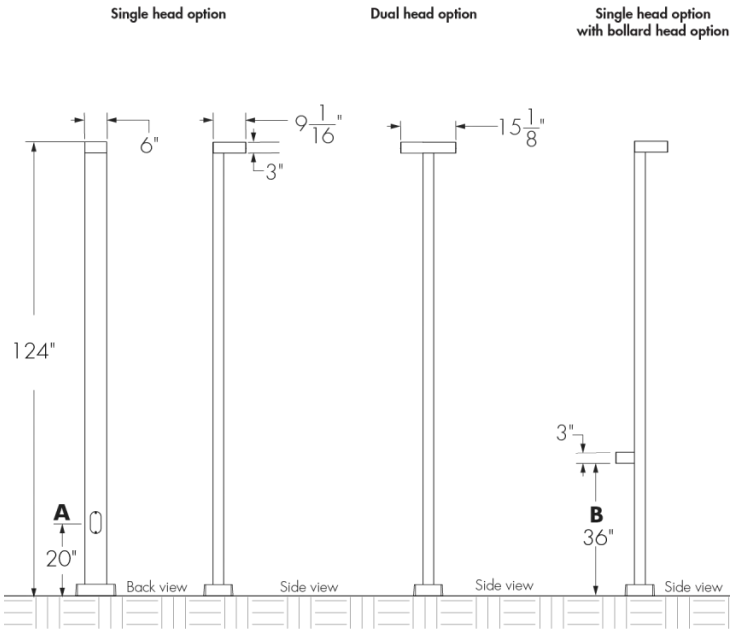
Standard installation assembly details



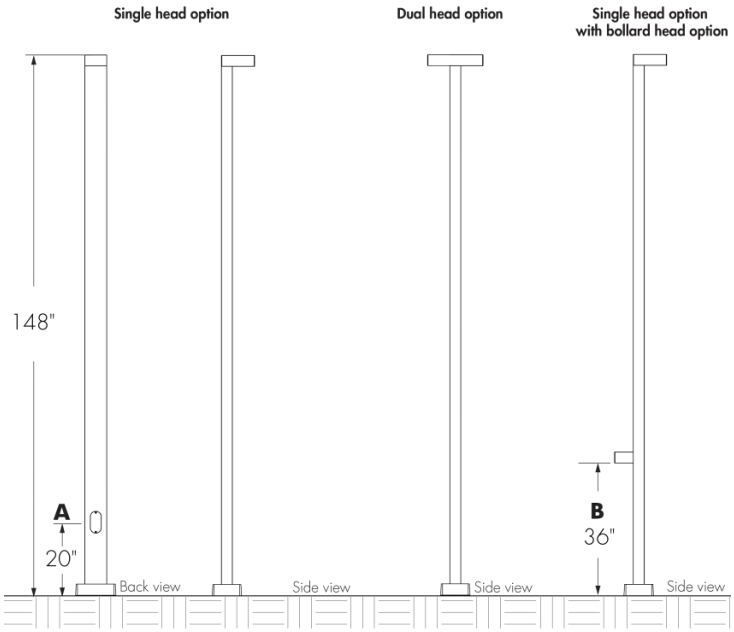
A - (4x) Ø3/4 in by 26 in long anchor bolts with flats washers and nuts for each
B - Between 2.5 in and 3 in of the anchor bolts must be above ground for installation
C - Bolt circle
D - Access door and street side

Standard installation dimensions

10 ft column

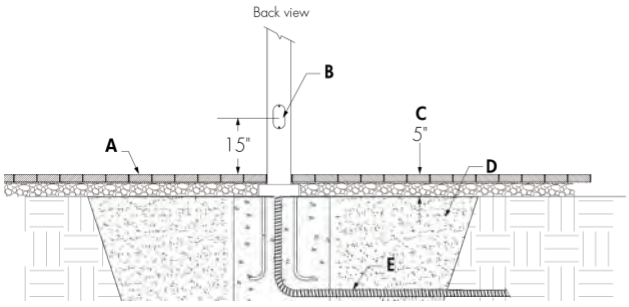


12 ft column



A - Access door (distance from ground to center of access door)
B - Bollard head option (distance from ground to bollard head)

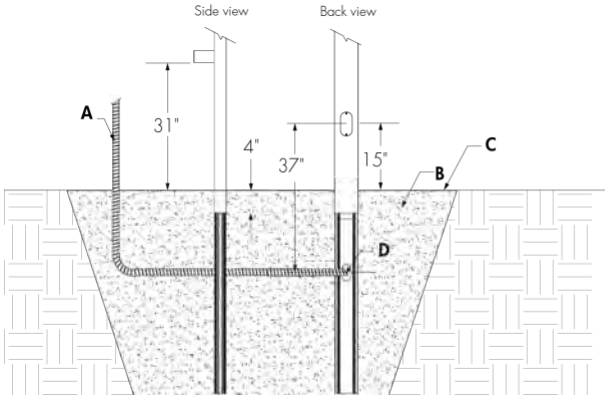
Semi-buried installation assembly details



A - Finished grade
B - Access door
C - Buried section, at least 5 in
D - Filling
E - Conduit (by others)

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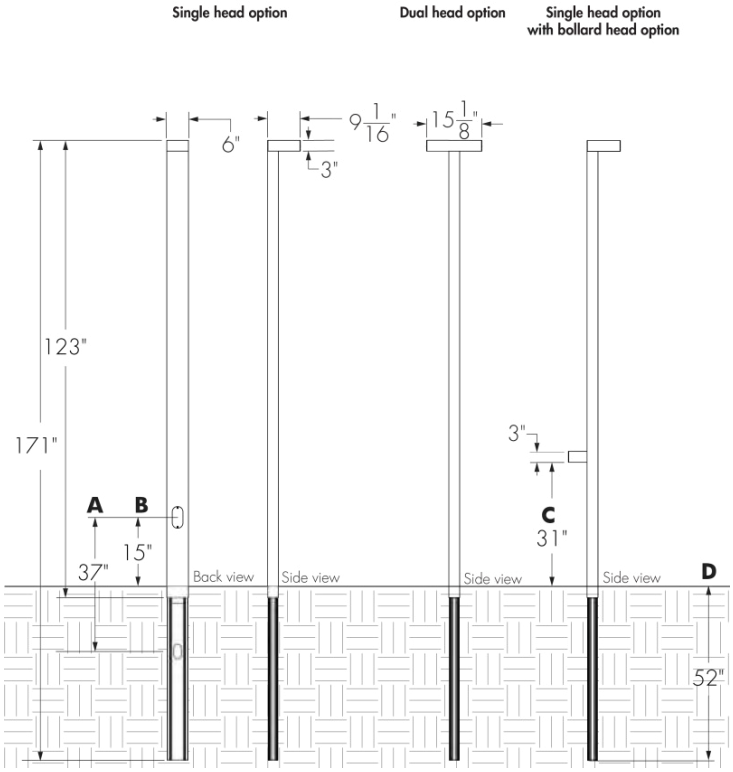
Direct burial installation assembly details



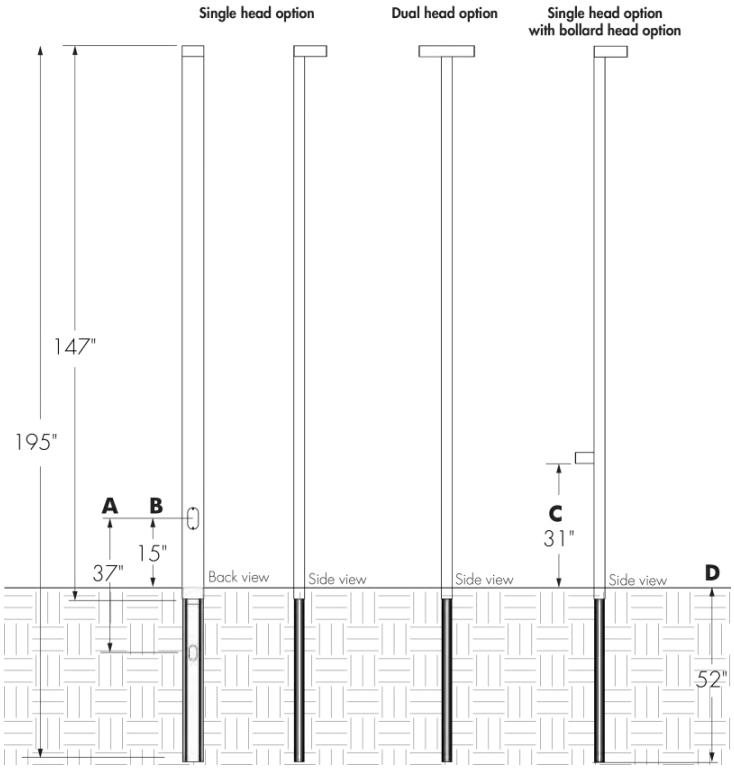
A - Conduit (by others)
B - Filling
C - Finished grade
D - Opening for conduit

Direct burial installation dimensions

10 ft direct burial column



12 ft direct burial column

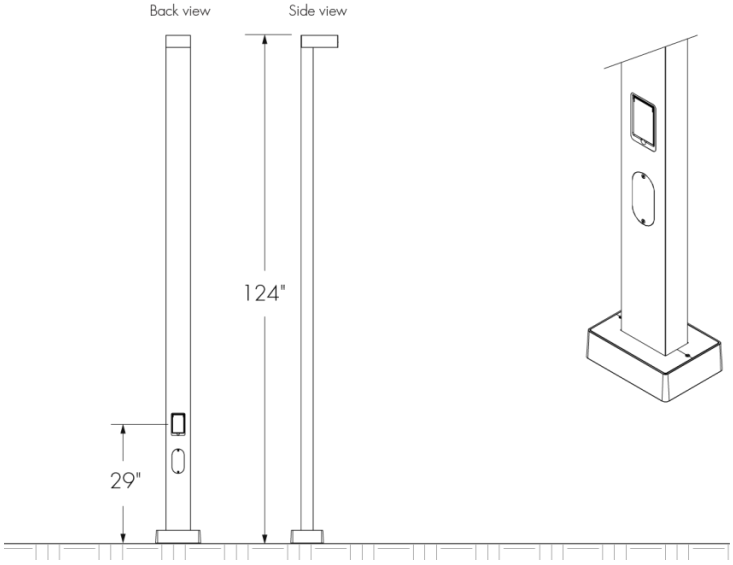


A - Distance from center of access door to opening for conduit
B - Access door (distance from ground to center of access door)
C - Bollard head option (distance from ground to bollard head)
D - Buried section

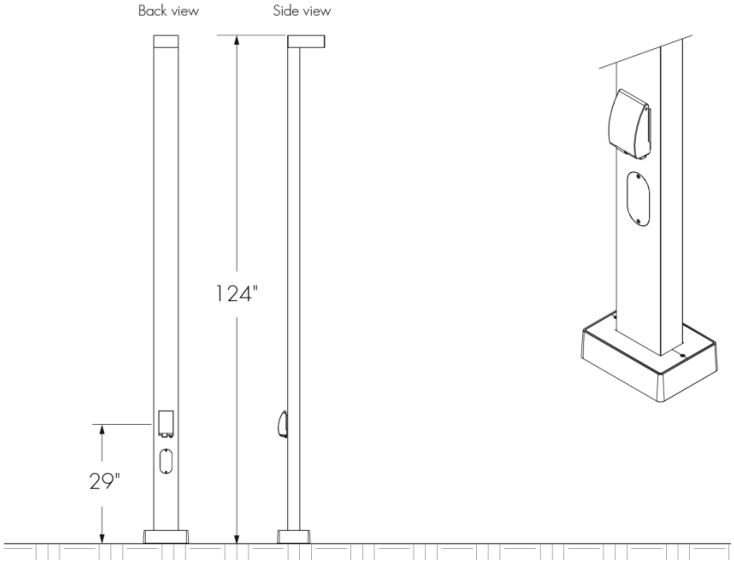
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Duplex Receptacle installation dimensions

DRG - Ground fault duplex receptacle
USB - Duplex receptacle with USB A and USB C



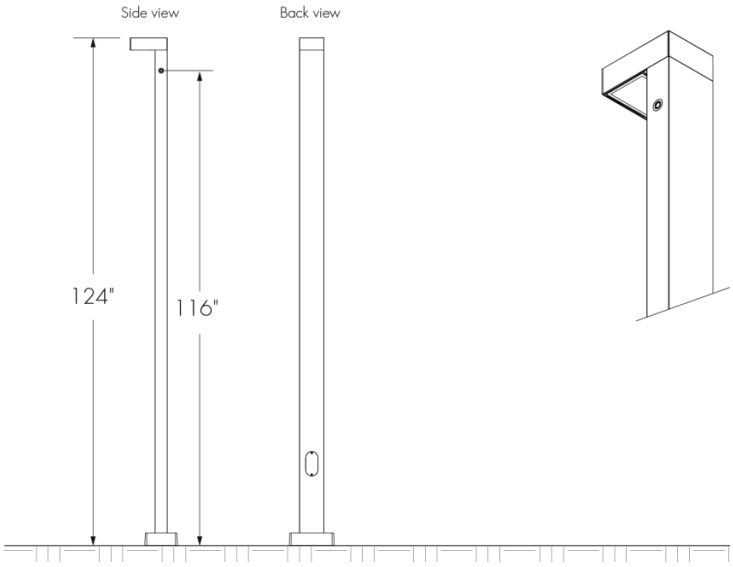
DRG IU - Ground Fault Duplex Receptacle (while in use)
USB IU - Duplex receptacle with USB A and USB C (while in use)



The duplex receptacle must be installed in accordance with applicable national and local electrical and construction codes by a person familiar with the construction and operation of the product and the hazards involved. Refer to national and local electrical codes before selecting a duplex receptacle to ensure all requirements are met.

Photoelectric Cell Button installation dimensions

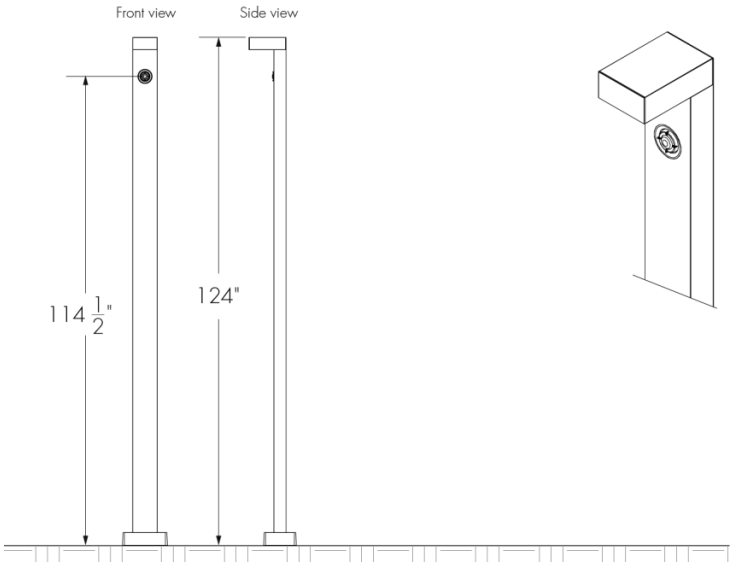
PB - Photoelectric Cell Button Type



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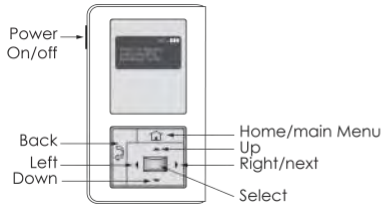
Motion detector installation dimensions

Motion detector (MD10N, MD30N, MD50N, MDNL and MDPN)



Remote (order separately)

MDRC001 - Remote to program motion detector on site



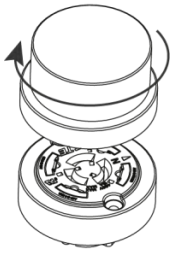
- Compatible with all motion detector options.

3-Pin, 5-Pin and 7-Pin Receptacles Options

SPR3, SPR5 and SPR7 - 3-Pin, 5-Pin and 7-Pin Receptacles



SPR3 SC, SPR5 SC and SPR7 SC - 3-Pin, 5-Pin and 7-Pin Receptacles with Shorting Cap



- Dimming receptacle meets ANSI C136.41 Standard

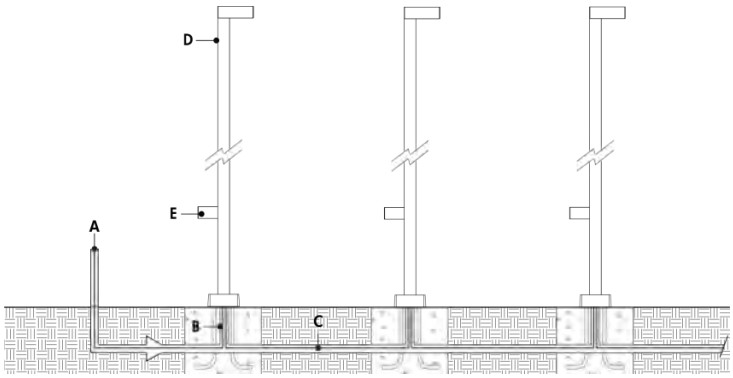
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Typical Wiring Diagrams

Wiring Color Code

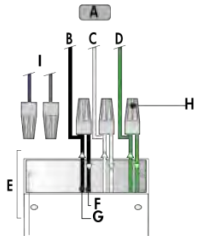
Color	Black	White	Green	Purple	Gray
Use	Line	Line/Neutral	Ground	0 -10V+	0 -10V -

On/Off Control (NO)



A - Power input (120-480V)
B - Conduit (by others)
C - Power wiring (by others)
D - Lumenblade Column
E - Bollard head option

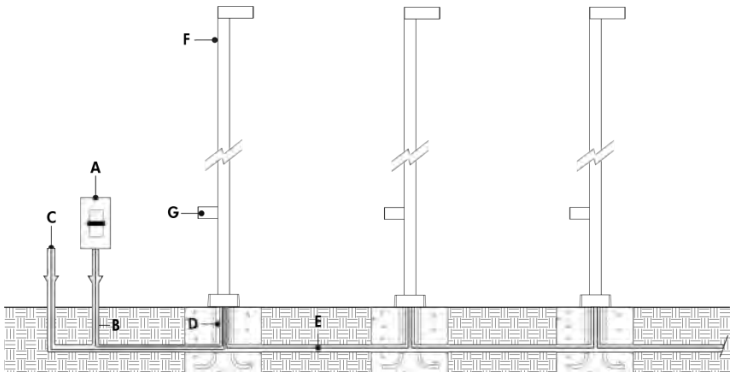
On/Off Control (NO) - wiring detail



A - To fixture
B - Line
C - Line/Neutral
D - Ground
E - Conduit (by others)
F - To next fixture
G - Power input or from previous fixture
H - Wire-nuts (by others)
I - Not required

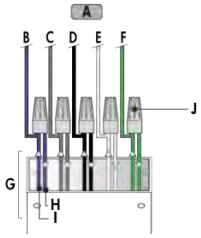
- Consult factory for specific applications and maximum fixture count/cable length recommendations.

0-10V dimming (DIM)



A - Dimmer (by others)
B - Data wiring (by others)
C - Power input (120-480V, wiring by others)
D - Conduit (by others)
E - Power and data wiring (by others)
F - Lumenblade Column
G - Bollard head option

0-10V dimming (DIM) - wiring detail

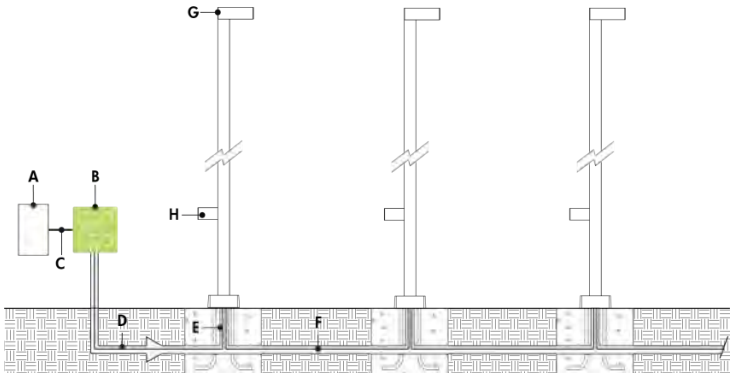


A - To fixture
B - 0-10V +
C - 0-10V -
D - Line
E - Neutral
F - Ground
G - Conduit (by others)
H - To next fixture
I - Power input or from previous fixture
J - Wire-nuts (by others)

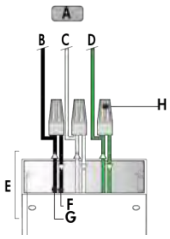
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- 0-10V mA ratings: passive dimmer (Current Sink): 3mA per fixture, active dimmer (Current Source): 0.5mA per fixture.
- 1% minimum dimming value.

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Lumentalk (LT)



A - Third party dimmer/controller
B - Lumentranslator (LTL-010)
C - Data wiring (by others)
D - Power line (120-277V, wiring by others)
E - Conduct (by others)
F - Power wiring (by others)
G - Lumenblade Column
H - Bollard head option



A - To fixture
B - Line
C - Line/Neutral
D - Ground
E - Conduit (by others)
F - To next fixture
G - Power input or from previous fixture
H - Wire-nuts (by others)

- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Lumentalk enabled fixtures must be commissioned using LumentalkID software and a LID-LT. Consult factory for details.
- Maximum of 1 transmitter (Lumentranslator or Lumenlink) per system.
- No third party fixtures allowed on the same circuit.
- DRG or USB option must be on a separated circuit.

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Motion detector options

Programming

	MD10N - Narrow lens, 10% dimming level		**MD30N -** Narrow lens, 30% dimming level		**MD50N -** Narrow lens, 50% dimming level		**MDPN -** Narrow lens, programmable	
	100% (10V)	10% (1V)	100% (10V)	30% (3V)	100% (10V)	50% (5V)		*How to provide code:*
High mode [1]	10V		10V		10V		• 5V - 10V (Increment: **0.2V**)	10V
Low mode [2]	1V		3V		5V		• Off • 0V - 9.8V (Increment: **0.2V**)	2.6V
Time delay [3]	5 min		5 min		5 min		• 1min - 30min (Increment: **30 seconds**)	10 min
Cut off [4]	1 hr		1 hr		1 hr		• Disable • 1min - 59min (Increment: **30 seconds**) • 1hr - 5hr (Increment: **1 hour**)	3 hr
Set point [5]	Dis		Dis		Dis		• Disable • Auto • 1fc - 250fc (Increment: **1fc**)	Auto
Sensitivity [6]	Max		Max		Max		• On-Fix • Off-Fix • Low • Med • Max	Med
Ramp up [7] **time**	3 sec		3 sec		3 sec		• Disable • 1sec - 60sec (Increment: **1 second**)	10 sec
Fade down [8] **time**	3 sec		3 sec		3 sec		• Disable • 1sec - 60sec (Increment: **1 second**)	10 sec
Photocell [9] **On/Off**	Dis		Dis		Dis		• Disable • 1fc - 250fc (Increment: **1fc**)	Dis

[1] When the sensor detects motion, the dimming control output ramps up to the selected HIGH light level.
[2] After the sensor stops detecting motion and the time delay expires, the dimming control output fades down to the selected LOW light level.
[3] The selected time period that must elapse after the last time the sensor detects motion for the electric lights to fade to LOW mode.
[4] The time period that must elapse after the lights fade to LOW mode, and the sensor detects no motion for the electric lights to turn OFF.
[5] When enabled, the selectable ambient light level threshold that will hold the electric lights off or at LOW level when the sensor detects motion.
[6] The response of the PIR detector to motion within the sensor's coverage area.
[7] Time period for light level to increase from LOW to HIGH.
[8] Time period for light level to decrease from HIGH to LOW.
[9] When enabled, the sensor will force the load OFF after the light level has exceeded the selected photocell setpoint PRIOR SAVE SEND for at least a minute. It will also force the load ON when the light level goes below the setpoint, even if no motion is detected.
[10] The motion detector programming can be modified on site. A remote is required, order separately. See Remote section in the specification sheet for details.

Dimming: When motion is detected within the sensor's coverage area, the sensor sends a signal to ramp the load up to the selectable High Mode level unless the ambient light level is higher than the selected setpoint. When no motion is detected for the duration of the time delay setting, the lights will go to the selectable Low Mode level based on the signal from the sensor. If desired, a cut off time delay will trigger to eventually turn the lights OFF.
Non dimming: When motion is detected within the sensor's coverage area, the sensor sends a signal to turn the load ON unless the ambient light level is higher than the selected setpoint. When no motion is detected for the duration of the time delay setting, the lights will go OFF based on the signal from the sensor.
Dusk to dawn control: When photocell on/off is enabled, and the ambient light falls below the photocell setpoint, the sensor ramps the load up to the selectable High Mode level. If no motion is detected for the duration of the time delay setting, the lights will go to the selectable Low Mode level. If the cut off time delay is disabled, the load will remain on, at High or Low level, based on motion detection, until the ambient light increases above the photocell setpoint.

Coverage area

Narrow lens (MD10N, MD30N, MD50N and MDPN)*



* Maximum 12 ft height, 24 ft diameter coverage area.

High temperatures at the covered area (above 88 °F - 91 °F) reduce the detection zone of the sensor. Consider adding more sensors if the ambient temperatures are expected to be high. Additionally, high floor level temperature may require larger movement for detection. Coverages shown in the diagrams are maximum, measured in linear feet. They represent coverage for walking motion, with no obstacles.

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How to Order

Housing	Mounting	Voltage	Height	Lens [5]	Output (nominal lumens) [8]	Color and Color Temperature	Color Rendering	Distributions	Optical Option	Finish	Control
BLDC Lumenblade Column	**TM1** Single head [1] **TM2** Dual head [2] [3]	**120** 120 volts **208** 208 volts **240** 240 volts **277** 277 volts **347** 347 volts [4] **480** 480 volts [4]	**10FT** 10 ft **12FT** 12 ft	**CSL** Clearsite lens [6] **FSL** Frostsite lens [7]	**XS03** 300lm (8 LEDs) [6] [9] **XS10** 1000lm (8 LEDs) **XS15** 1500lm (8 LEDs) **XS20** 2000lm (8 LEDs) **XS25** 2500lm (8 LEDs)	**AMB** Amber [6] [10] **22K** 2200K [11] **27K** 2700K [12] **30K** 3000K **35K** 3500K **40K** 4000K **57K** 5700K [13]	**CRI 70** CRI 70+ [14] **CRI 80** CRI 80+ [15] **CRI 90** CRI 90+ [16]	**2** Type II **2BLS** Type II backlight shield **3** Type III **3BLS** Type III backlight shield **4** Type IV **4BLS** Type IV backlight shield **5** Type V **5S** Type V square	**LV** Louver [6] [17] [18]	**BK** Black Sandtex® **BRZ** Bronze Sandtex® **SI** Silver Sandtex® **BKTX** Textured Black **BRZTX** Textured Bronze Non-Metallic **GRATX** Textured Medium Gray **GRNTX** Textured Green **WHTX** Textured White **CC** Custom Color & Finish [19] [20] [21]	**DIM** 0-10V dimming [22] **LT** Lumentalk [23]

Notes:

1. Not available with CH head option.
2. Not available with BH head option.
3. Not available with HFSL lens.
4. Not available with LT control option.
5. Standard IK06 rating for glass lens. IK10 rated polycarbonate lens available, please consult factory.
6. Not available with type 5 distribution.
7. Available with type 3 and 5 distributions only.
8. Lumen output will vary according to the lens and distribution specified for the fixture. Please consult the photometric information section of the specification sheet for more details.
9. Available with AMB color temperature only.
10. Available with column head XS03 output only.
11. Available for CRI 80 only.
12. Available for CRI 80 and CRI 90 only.
13. Available for CRI 70 and CRI 80 only.
14. Binning within a 3-step McAdam ellipse, with the exception of 5700K.
15. Binning within a 2-step MacAdam ellipse, with the exception of 2200K and 5700K.
16. Binning within a 2-step MacAdam ellipse
17. Available with CSL lens only.
18. Factory installed, not field changeable.
19. Specify RAL number followed by "TX" for textured finish (ex: RAL9007TX) or STX for Sandtex finish (ex: RAL9007STX). Textured or Sandtex finishes are recommended for the durability of all products. If a finish is not specified with the RAL number (ex: RAL9007), a glossy finish will be provided. Please consult factory for other RAL textures and glosses, or to match alternate color charts. Final color matching results may vary.
20. Setup charges apply for RAL colors. Consult factory for details.
21. Longer lead times can be expected for custom RAL color finishes.
22. DIM control can be used as NO (On/off control) if no data is required.
23. Not available with PB photoelectric cell, SPR3, SPR3 SC, SPR5, SPR5 SC, SPR7 and SPR7 SC 3-Pin, 5-Pin, and 7-Pin receptacles and MD10N, MD30N, MD50N, MDPN and MDNL motion detector options.

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How to Order

Option	Head Option	Head Option Height [1]	Head Lens [5]	Head Output	Head Color and Color Temperature	Head Color Rendering	Head Distributions	Head Optical Option
VRBO Vibration Rated for Bridge and Overpass [24] [25] **CRC** Corrosion-resistant coating [26] [27] **SP** Surge protector **PB** Photoelectric Cell Button Type [4] [28] [29] **DRG** Ground Fault Duplex Receptacle [30] **DRG IU** Ground Fault Duplex Receptacle (while in use) [30] **USB** Duplex receptacle with USB A and USB C [30] **USB IU** Duplex receptacle with USB A and USB C in-use [30] **SPR3** 3-Pin Receptacle [4] [31] [32] **SPR3 SC** 3-Pin Receptacle with Shorting Cap [4] [31] [32] **SPR5** 5-Pin Receptacle [4] [31] [32] **SPR5 SC** 5-Pin Receptacle with Shorting Cap [4] [31] [32] **SPR7** 7-Pin Receptacle [4] [31] [32] **SPR7 SC** 7-Pin Receptacle with Shorting Cap [4] [31] [32] **MD10N** Motion detector 10% factory-set dimming level (narrow lens) [4] [33] [34] [35] **MD30N** Motion detector 30% factory-set dimming level (narrow lens) [4] [33] [34] [35] **MD50N** Motion detector 50% factory-set dimming level (narrow lens) [4] [33] [34] [35] **MDNL** Détecteur de mouvements, pas de niveau de gradation programmé en usine (lentille étroite) [4] [34] [36] [37] [38] **MDPN** Motion detector programmable, factory-set dimming level (narrow lens) [4] [33] [34] [35] [39] **DB** Direct Burial	**BH** Bollard Head [40] **CH** Column head [3] [41]	**3FT** 3 ft	**CSL** Clearsite lens [42] **FSL** Frostsite lens [43] **HFSL** Half-Frostsite lens [44] [45]	**N02** 200lm (4 LEDs) [6] [46] **N03** 300lm (4 LEDs) **N05** 500lm (4 LEDs) **N07** 700lm (4 LEDs) **N10** 1000lm (4 LEDs) **XS03** 300lm (8 LEDs) [6] [46] **XS10** 1000lm (8 LEDs) **XS15** 1500lm (8 LEDs) **XS20** 2000lm (8 LEDs) **XS25** 2500lm (8 LEDs)	**AMB** Amber [6] [47] [48] **22K** 2200K [11] **27K** 2700K [12] **30K** 3000K **35K** 3500K **40K** 4000K **57K** 5700K [13]	**CRI 70** CRI 70+ [14] **CRI 80** CRI 80+ [15] **CRI 90** CRI 90+ [16]	**2** Type II **2BLS** Type II backlight shield **3** Type III **3BLS** Type III backlight shield **4** Type IV **4BLS** Type IV backlight shield **5** Type V **5S** Type V square	**LV** Louver [6] [18] [49]

Notes:

1. Not available with CH head option.
3. Not available with HFSL lens.
4. Not available with LT control option.
5. Standard IK06 rating for glass lens. IK10 rated polycarbonate lens available, please consult factory.
6. Not available with type 5 distribution.
11. Available for CRI 80 only.
12. Available for CRI 80 and CRI 90 only.
13. Available for CRI 70 and CRI 80 only.
14. Binning within a 3-step McAdam ellipse, with the exception of 5700K.
15. Binning within a 2-step MacAdam ellipse, with the exception of 2200K and 5700K.
16. Binning within a 2-step MacAdam ellipse
18. Factory installed, not field changeable.
24. Vibration tested in accordance with ANSI 136.31 2018 for bridge and overpass applications at 5Gv.
25. Specify only if a bridge or overpass application is required.
26. Use only when exposed to salt spray. This option is not required for normal outdoor exposure.
27. Setup charges apply. Consult factory for details.
28. Not available for 480V voltage option.
29. Not available with MD10N, MD30N, MD50N, MDPN and MDNL motion detector options.
30. A ground fault duplex receptacle (DRG or DRG IU) and a duplex USB receptacle (USB or USB IU) cannot be combined.
31. Only one receptacle can be specified per fixture, cannot be combined with motion detector option.
32. Not available with PB option.
33. The motion detector programming can be modified on site. A remote is required, order separately. See Remote section in the specification sheet for details.
34. Only one motion detector can be specified per fixture, cannot be combined with a receptacle.
35. MD10N, MD30N, MD50N and MDPN are Wattstopper motion detectors.
36. MDNL is an N-Light motion detector.
37. Consult factory for details.
38. Not available for 347V and 480V voltage options.
39. The motion detector is programmed in the factory, as per the settings requested at the time of the order.
40. Available for N02, N03, N05, N07 and N10 bollard head outputs only.
41. Available for XS03, XS10, XS15, XS20 and XS25 column head outputs only.
42. Not available with type 5 distribution when head option is specified for the Lumenblade column.
43. Available with type 3 and type 5 distributions when a head option is specified for the Lumenblade column.
44. Available with type 2, type 3 and type 4 distributions when a bollard head is specified for the Lumenblade column.
45. Available for N03, N05, N07 and N10 bollard head outputs only.
46. Available with AMB head color temperature only.
47. Available with N02 output when a bollard head is specified. Available with XS03 output when a second column head is specified for the Lumenblade column.
48. Not available for FSL and HFSL lens.
49. Not available for FSL lens.

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BRICK-OD OUTDOOR

FOR INDOOR, REFER TO MODEL #: 1575

Catalog Number:
7075-12-TW-H08-30K

TYPE WP-1

BROWNLEE



7075-12” in Textured Black (TB)



7075-24” in Textured Black (TB)

7075 LED

The BRICK-OD (outdoor) is a minimal, clean and contemporary exterior sconce with exceptional versatility: Three ADA compliant sizes (8”, 12” and 24”), single direction LED distribution, and three finishes to choose from. Perfect for exterior facades, entryways, columns, and breezeways. Since this is a wet-listed unit, it can also be used in healthcare applications requiring durable luminaires which can be wiped down. Available with integral battery backup.

FINISHES

TB TG TW

BRICK-OD OUTDOOR

FOR INDOOR, REFER TO MODEL #: 1575

PROJECT:
MODEL #:
FIXTURE TYPE:

STANDARD SPECIFICATIONS - *SINGLE DIRECTION DISTRIBUTION (7075)*

OUTER FRAME & MOUNT PLATE
Formed and welded aluminum. Countersunk fasteners located on top of fixture. No exposed hardware on sides or bottom of fixture. Closed cell foam gasket on rear mount plate.

DIFFUSER
UV stabilized frosted acrylic diffuser. Smooth uniform illumination.

LED PERFORMANCE - 3500K STANDARD - TYPE 2 DISTRIBUTION
120-277V - 3500K, L80 rating - 60,000 hrs - L70 rating (projected) - 100,000 hrs
Amperage rated @ 110V input
Operating ambient temperature: -20°C / -4°F - 50°C / 122°F

Delivered 3500K lumens noted. Consult Brownlee.com for performance of all CCTs.
08 Size: C13 – 13W nominal, .10 A input - 1165 lm. Dimmable (0-10V). 82 CRI Standard.
12 Size: H08 – 8W nominal, .07 A input - 860 lm. Dimmable (0-10V). 90+ CRI Standard.
12 Size: H16 – 16W nominal, .14 A input – 1490 lm. Dimmable (0-10V). 90+ CRI Standard.
12 Size: H21 – 21W nominal, .18 A input – 1725 lm. Dimmable (0-10V). 90+ CRI Standard.
24 Size: H16 – 16W nominal, .14 A input – 1470 lm. Dimmable (0-10V). 90+ CRI Standard.
24 Size: H32 – 32W nominal, .27 A input – 3030 lm. Dimmable (0-10V). 90+ CRI Standard.
24 Size: H41 – 41W nominal, .35 A input – 3410 lm. Dimmable (0-10V). 90+ CRI Standard.

MOUNTING
Fixture mounts to a 4x4 junction box (by others).
Wet-listed in the downward orientation only (light source facing down).

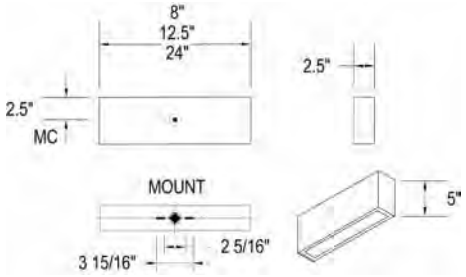
FINISH
Durable corrosion resistant powder coat finish.
Custom colors available, contact factory.

WARRANTY
5 year limited warranty on this LED product.
Consult factory for details.


12" in Textured Black (TB)

Integral Battery Backup
Refer to options section





WET

ADA

ORDERING INFORMATION

7075 - _____ - _____ - _____ - _____ - _____

Model | 2. | 3. | 4. | 5. | 6.

2. SIZE

08	L: 08"
12	L: 12"
24	L: 24"

3. FINISH

TB	Textured Black
TG	Textured Grey
TW	Textured White

Note: TB, TG, TW are ultra fine textured matte finishes. Contact your local representative for color swatches.

CUSTOM
Additional finishes available as a modified option. Refer to Brownlee's Finishes webpage for inspiration.

4. WATTAGE

08 SIZE

C13	13W C Series LED

12 SIZE

H08	08W H Series LED
H16	16W H Series LED
H21	21W H Series LED

24 SIZE

H16	16W H Series LED
H32	32W H Series LED
H41	41W H Series LED

5. COLOR TEMPERATURE

35K	3500K color temperature
27K	2700K color temperature (C Series Only)
30K	3000K color temperature
40K	4000K color temperature

6. AVAILABLE OPTIONS

90R[0]	90 CRI (C-Series Wattages: 30K only)
BAC[1]	Buy American Compliant
BBI[2]	Integral Battery Backup - 10W (32F minimum)
BBC[2]	Integral Battery Backup, Cold Weather - 15W (-4F minimum) (24 Size Only)

Battery must be connected to continuous power supply within 7 Mo. of shipping. See Warranty Note 3.

DTR[4]	Triac (Line Voltage) Dimming (120V) (Cannot be combined with BBI/BBC)
ES[6]	ENERGY STAR® (All except H08, H21, H41)
FCL[7]	French Canadian Label
PO1	Photo Control (120V)
PO2	Photo Control (208, 240, 277V)
T24[9]	Title 24 JA8 Compliant (H16 & H32 only)

Universal Footnotes (only applies if option is listed on spec sheet): (0) 90R - 90 CRI output-loss multiplier: 0.85 (estimate). Cannot be combined with ES. **1) BAC** - cannot be combined with FCL. **(2) BBI/BBS/BBC** - cannot be combined with ECW or EXT. **(3) BLD** - includes integral microwave motion sensor (do not combine with OCC option). Cannot be combined with DTR. **(4) DTR** - cannot be combined with BLD. **(5) ECW** - cannot be combined with BBI, BBC, or DTR. **(6) ES** - cannot be combined with 90R or T24. **(7) FCL** - cannot be combined with BAC. **(8) OCC** - integral microwave motion sensor (ON/OFF). **(9) T24** - includes JA8 labeling and 90 CRI LEDs (do not combine with 90R option). Cannot be combined with ES. **(10) PCH/PC4** - cannot be combined with BLD or OCC. **Add'l Notes: *BBI/BBC** - BBI minimum operating temp: 10C/50F unless otherwise stated. BBC minimum operating temp: -20C/-4F. ****BLD** - integral microwave motion sensor with step-dim control. 1: Motion is detected, illuminate to 100%. 2: Motion no longer detected, dim to set level. 3: Remain in continuous dimmed state or turn off after set period. Configurable via onboard dip switches.

Specifications and dimensions subject to change without notice.
Consult your Brownlee Lighting representative for availability and ordering information.

BROWNLEE LIGHTING
www.brownlee.com

REVISED
2024.05.15

BRICK-OD OUTDOOR

PHOTOMETRIC DATA - For theoretical reference only. Data subject to change without notice.

PROJECT:
MODEL #:
FIXTURE TYPE:

ISOFOOTCANDLE PLOT LEGEND

10 fc 5 fc 2 fc .5 fc .25 fc

Mounting Height: 10'

Calculation Grid: 10' x 10'

POLAR GRAPH LEGEND

1 - Vertical Plane Through Horizontal Angles (5 - 185) (Through Max. Cd.)

2 - Vertical Plane Through Horizontal Angles (90 - 270)

3 - Horizontal Cone Through Vertical Angle (17.5) (Through Max. Cd.)

PHOTOMETRIC DATA

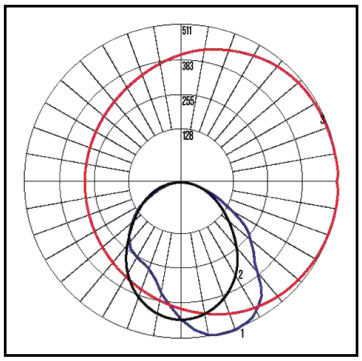
ADDITIONAL LUMEN PACKAGES AVAILABLE. CONTACT FACTORY FOR SUPPORTING PLOTS OR REFER TO IES FILES ONLINE.

Model: 7075-08-C13-35K / QTY: 1
Description: 08" Size, 13W, 1160 lm

ISOFOOTCANDLE PLOT



POLAR GRAPH



BUG RATING
B1-U0-G0

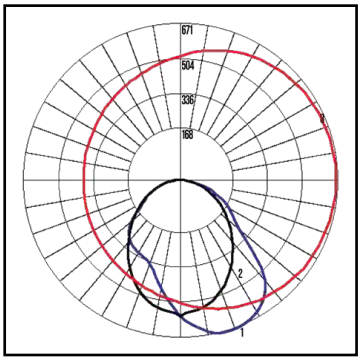
DISTRIBUTION
TYPE 2

Model: 7075-12-H16-35K / QTY: 1
Description: 12" Size, 16W, 1490 lm

ISOFOOTCANDLE PLOT



POLAR GRAPH

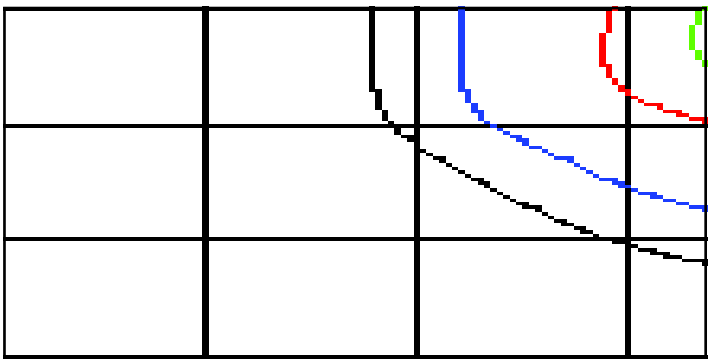


BUG RATING
B1-U0-G1

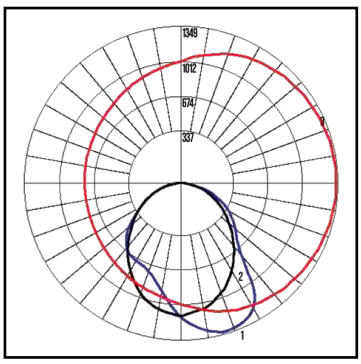
DISTRIBUTION
TYPE 2

Model: 7075-24-H32-35K / QTY: 1
Description: 24" Size, 32W, 3030 lm

ISOFOOTCANDLE PLOT



POLAR GRAPH



BUG RATING
B1-U0-G1

DISTRIBUTION
TYPE 2

Specifications and dimensions subject to change without notice.
Consult your Brownlee Lighting representative for availability and ordering information.

BROWNLEE LIGHTING
www.brownlee.com

REVISED
2024.05.15

Catalog Number:
BLDN-WM-VOLTAGE-CSL-XS25-30K-CRI80-3-FINISH-CONTROL

TYPE WP-2

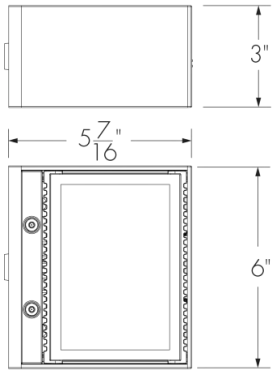
Lumenblade
Nano
BLDN

Project Name _____ **Qty** _____

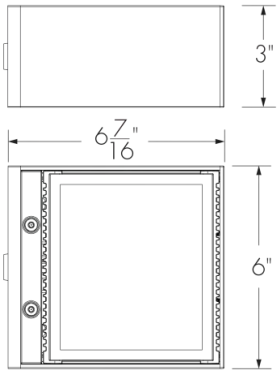
Type _____ **Catalog / Part Number** _____



W1H2 Wall Mount Option Shown



N02, N03, N05, N07 and N10 outputs



XS03, XS10, XS15, XS20 and XS25 outputs

Side views

Bottom views

Distributions


Type II


Type III


Type IV


Type V


Type II Backlight Shield


Type III Backlight Shield


Type IV Backlight Shield


Type V Square

Color and Color Temperature


Amber


2200K


2700K


3000K


3500K


4000K


5700K

Control

ON/OFF 0-10V

Ratings

IP66 (optical chamber) IK06 (lens) IK10* (frame)

*IK10 polycarbonate lens option available, consult factory.

Certifications

Description

The Lumenpulse Lumenblade Nano is an outdoor LED luminaire that uses a rectilinear version of the Lumencentro light engine to create a continuous line of light. Side Mount or Wall Mount options are available. Its seen-but-not-seen, minimalist design is sustainable, blends with both contemporary and heritage architectures, provides a high level of security, and is sensitive to the natural environment with low outputs and with a BUG rating of 0.

Features

Mounting	Side Mounting, Wall Mounting
Color and Color Temperature	True Amber 585nm-595nm (Turtle-Friendly), 2200K, 2700K, 3000K, 3500K, 4000K
Distributions	Type II, Type III or Type IV (with or without backlight shield), Type V, Type V square
Optical Option (factory installed)	Louver
Vibration Rating	Meets ANSI C136.31-2018 vibration rating for Bridge & Overpass applications
Option	Vibration Rated for Bridge and Overpass Corrosion-resistant Coating for Hostile Environments
Warranty	5-year limited warranty

Performance

Output (Nominal Lumens)	Minimum 200lm/ Maximum 2500lm
Efficacy	Up to 127 lm/W (XS10 lumen output, 4000K, CRI 70+, Type VS)
Color Rendering	3 SDCM for CRI 70+, 2 SDCM for CRI 80+ and CRI 90+
Lumen Maintenance	TM-21 L70 > 145,000 hrs (reported, Ta 25 - 50 °C [77 - 122 °F])
Dark Sky	Dark sky compliant (2200K, 2700K, 3000K and Amber color temperatures, BUG rating of U0)

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Physical

Housing Material	Extruded aluminium 6000 alloy series
Lens Material	Optical tempered clear glass (Clearsite lens), Optical tempered frosted glass (Frostsite lens), Optical tempered half-frosted glass (Half-Frostsite lens)
Surface Finish	Super durable resistant exterior polyester powder coating meets AAMA 2604-98 requirements (5-years Florida exposure). A corrosion resistant finish (CRC) pre-finish is available to meet ASTM B-117 & ASTM D-1654 (salt spray resistance) and ASTM D-2247 requirements (humidity resistance).
Weight	1.87 lbs to 4.84 lbs, refer to EPA and fixture weight tables for details

Electrical and Control

Voltage	120 volts, 208 volts, 240 volts, 277 volts
Control	On/Off Control, 0-10V Dimming

Environmental

Storage Temperature	-40°C to 50°C [-40°F to 122°F] (device must reach start-up temperature value before operating)
Operating Temperature	-40°C to 50°C [-40°F to 122°F]
Start-up Temperature	-25°C to 50°C [-13°F to 122°F]
Ingress Protection Rating	IP66 (optical chamber) Wet location rated
Impact Resistance Rating	IK06 (glass lens) IK10 (frame) *IK10 polycarbonate lens option available, consult factory
Environment	Dry/damp/wet location

EPA And Fixture Weight Tables

*Fixture weights are estimated.

N02, N03, N05, N07 And N10 Output (Board With 4 LEDs)

		SD-RPA6N SD-RPA6TN	SD-SPA6N	SD-SPA6TN	SD-RPA8N SD-RPA8TN	SD-SPA8N SD-SPA8TN
EPA (sq ft.)	S1E	0.171	0.170	0.170	0.171	0.170
	S2E	0.342	0.340	0.340	0.342	0.340
Weight* (lbs)	S1E	2.22	1.87	1.90	2.06	1.87
	S2E	4.44	3.74	3.80	4.12	3.74

	WM-W1H2	WM-W1H4	WM-W1HSJB
EPA (sq ft.)	0.170	0.170	0.293
Weight* (lbs)	1.87	2.20	3.86

XS03, XS10, XS15, XS20 And XS25 Output (Board With 8 LEDs)

		SD-RPA6N SD-RPA6TN	SD-SPA6N	SD-SPA6TN	SD-RPA8N SD-RPA8TN	SD-SPA8N SD-SPA8TN
EPA (sq ft.)	S1E	0.197	0.201	0.201	0.197	0.201
	S2E	0.394	0.402	0.402	0.394	0.402
Weight* (lbs)	S1E	2.42	2.07	2.10	2.26	2.07
	S2E	4.84	4.14	4.20	4.52	4.14

	WM-W1H2	WM-W1H4	WM-W1HSJB
EPA (sq ft.)	0.201	0.201	0.324
Weight* (lbs)	2.07	2.40	4.06

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Photometric Information

Type II, 4000K, CRI 70+, Clearsite Lens



Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
N03	233	78	0 0 0	3
N05	476	79	0 0 0	6
N07	748	83	0 0 0	9
N10	971	88	0 0 0	11
XS10	1,113	111	0 0 0	10
XS15	1,594	94	1 0 1	17
XS20	1,999	80	1 0 1	25
XS25	2,531	84	1 0 1	30

Type III, 4000K, CRI 70+, Clearsite Lens



Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
N03	255	85	0 0 0	3
N05	520	87	0 0 0	6
N07	818	91	0 0 0	9
N10	1,062	97	0 0 0	11
XS10	1,174	117	0 0 0	10
XS15	1,681	99	1 0 1	17
XS20	2,107	84	1 0 1	25
XS25	2,668	89	1 0 1	30

Type IV, 4000K, CRI 70+, Clearsite Lens



Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
N03	214	71	0 0 0	3
N05	437	73	0 0 0	6
N07	687	76	0 0 0	9
N10	892	81	0 0 0	11
XS10	1,004	100	0 0 0	10
XS15	1,438	85	1 0 1	17
XS20	1,803	72	1 0 1	25
XS25	2,282	76	1 0 1	30

Type V Square, 4000K, CRI 70+, Clearsite Lens



Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating B U G	Typical maximum power 120/277V (W)
N03	258	86	0 0 0	3
N05	526	88	0 0 0	6
N07	827	92	0 0 0	9
N10	1,074	98	0 0 0	11
XS10	1,267	127	0 0 0	10
XS15	1,813	107	1 0 1	17
XS20	2,274	91	1 0 1	25
XS25	2,879	96	1 0 1	30

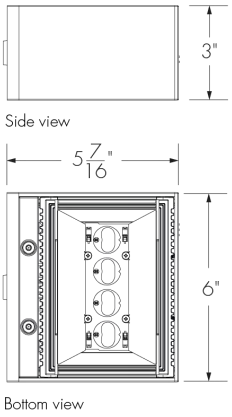
*Photometric performance is measured in compliance with IESNA LM-79-19. Due to rapid and continous advances in LED technology, photometric information is subject to change without notice.

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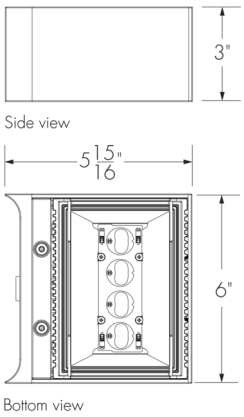
Dimensions

N02, N03, N05, N07 And N10 Output (Board With 4 LEDs)

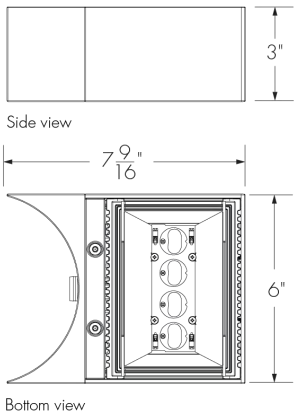
W1H2, SPA6N, SPA8N and SPA8TN



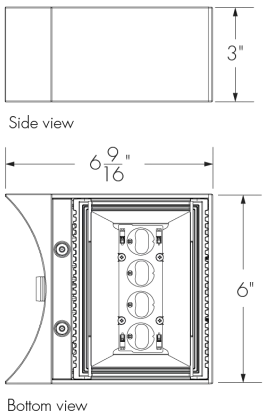
SPA6TN



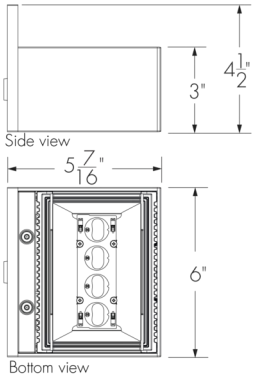
RPA6N And RPA6TN



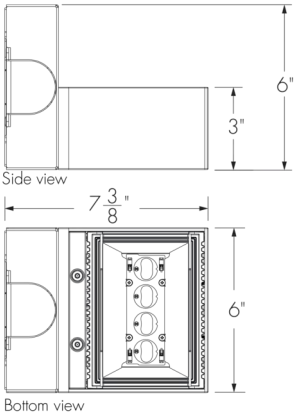
RPA8N And RPA8TN



W1H4



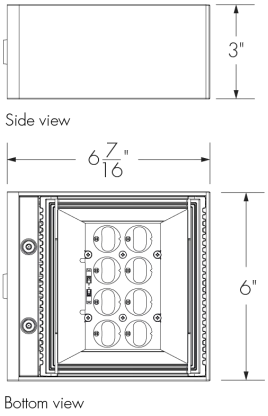
W1HSJB



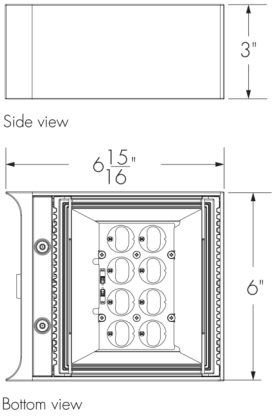
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XS03, XS10, XS15, XS20 And XS25 Output (Board With 8 LEDs)

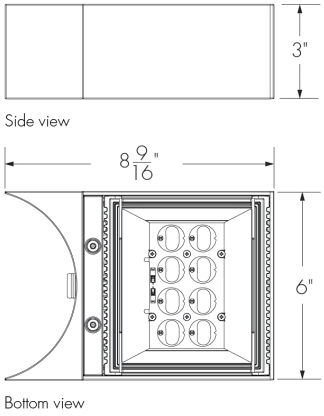
W1H2, SPA6N, SPA8N and SPA8TN



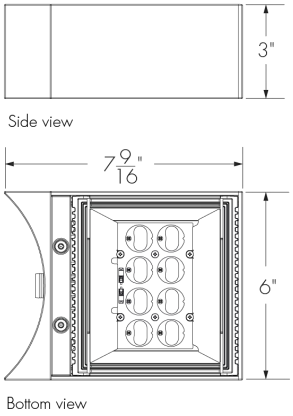
SPA6TN



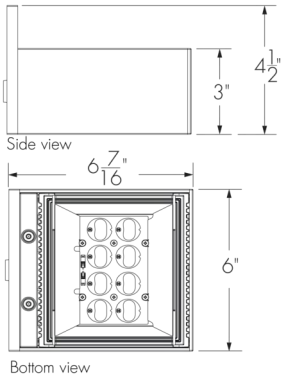
RPA6N And RPA6TN



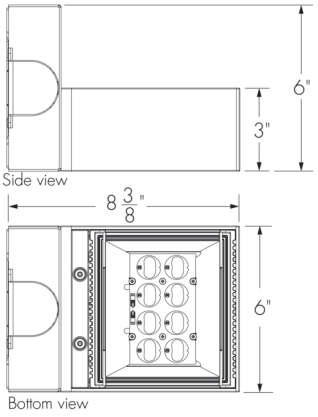
RPA8N And RPA8TN



W1H4



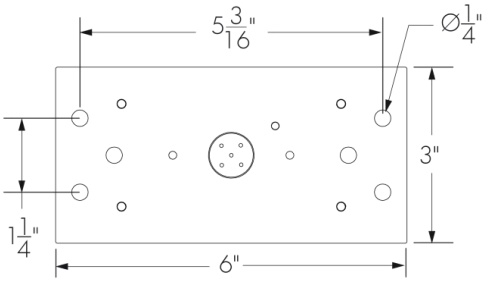
W1HSJB



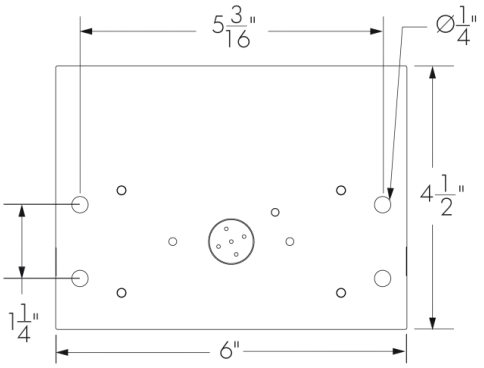
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Mounting Details

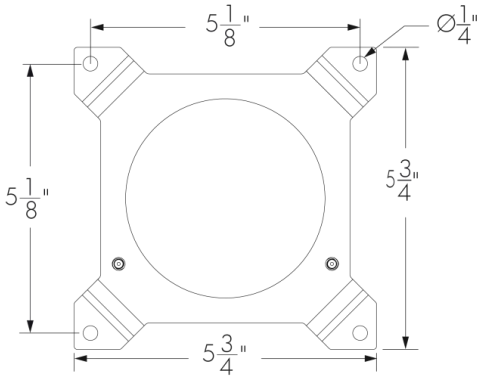
BLDN-WM-W1H2 Mounting Plate Details



BLDN-WM-W1H4 Mounting Plate Details



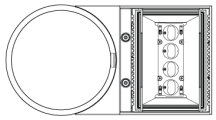
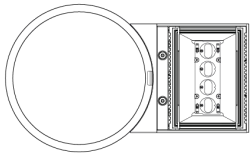
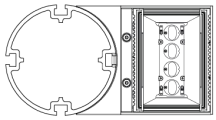
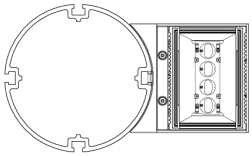
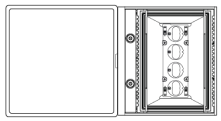
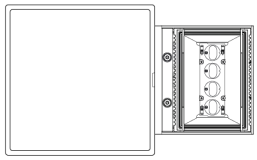
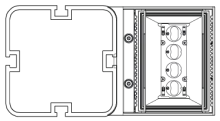
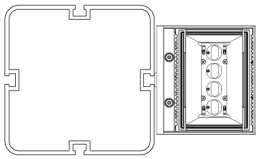
BLDN-WM-W1HSJB Mounting Plate Details



The WM-W1HSJB mounting is designed for installation on a round exterior (weatherproof) surface junction box (Ø4 in diameter and 1 5/8 in deep) that accommodates up to 3/4" NPT trade size conduit. For all other types of junction boxes, consult the factory.

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BLDN-SD Pole Mounting Option

	Straight and muffler poles		Lumentech pole	
	6in	8in	6in	8in
Round shape	RPA6N 	RPA8N 	RPA6TN 	RPA8TN 
Square shape	SPA6N 	SPA8N 	SPA6TN 	SPA8TN 

BLDN-SD with 4 LEDs shown.
Available configurations:

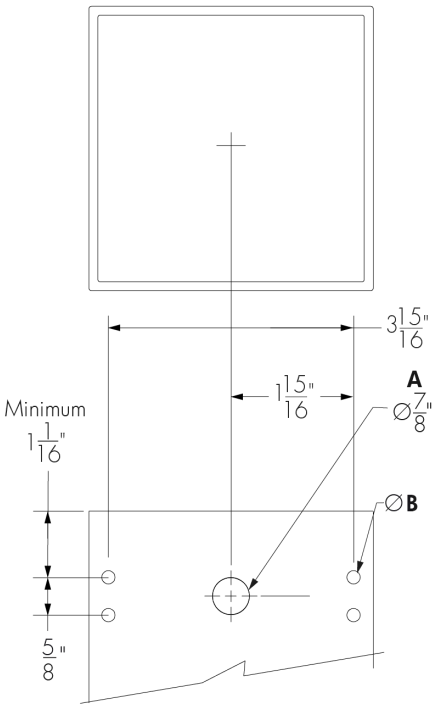
S1E Single pole-top
S2E Double pole-top
S1X Variable Height Mounting Arm

*Consult factory for other configurations.

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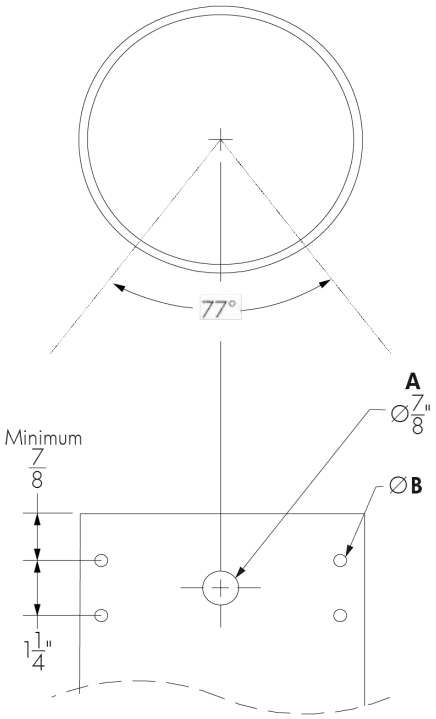
BLDN-SD Poles Drilling Patterns

SPA6N, SPA6TN, SPA8N and SPA8TN



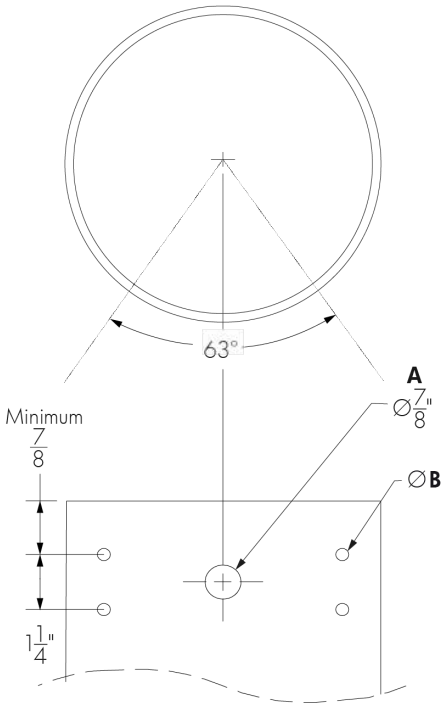
6 in or 8 in Square pole mount.

RPA6N And RPA6TN



6 in Ø round pole mounting.

RPA8N And RPA8TN



8 in Ø round pole mounting.

A - Wire feeding location

B - **S1E and S2E pole configuration**

9/32 in drilling holes. Nylon nuts (x4) and screws (4x) 1/4-20 x 1.25 in provided by lumenpulse.

S1X pole configuration

1/4-20 threaded holes. Screws (4x) 1/4-20 x 1.25 in provided by lumenpulse.

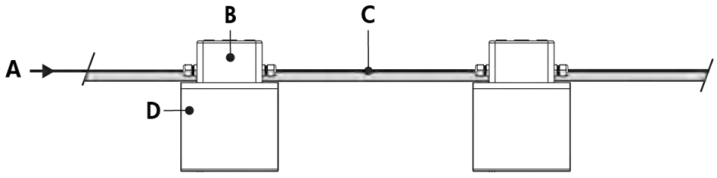
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Typical Wiring Diagrams

Wiring Color Code

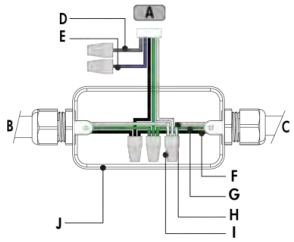
Color	Black	White	Green	Purple	Gray
Use	Line	Line/Neutral	Ground	0 -10V+	0 -10V -

On/Off Control (NO)



A - Power input (120-277V)
B - Junction box (by others)
C - Power wiring (by others)
D - Lumenblade Nano Wall Mount

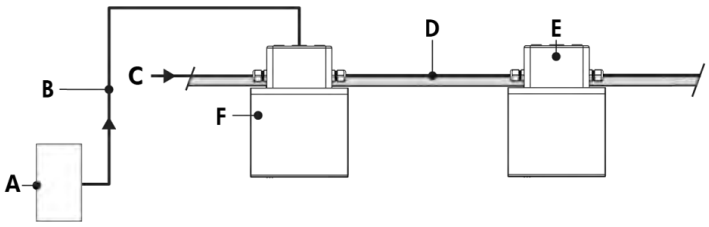
On/Off Control (NO) - Wiring Detail



A - To fixture
B - Power input or from previous fixture
C - To next fixture
D - Not required
E - Not required
F - Line
G - Ground
H - Neutral
I - Wire-nuts
J - Junction box (by others)

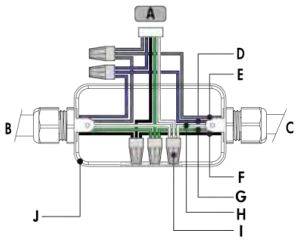
- Consult factory for specific applications and maximum fixture count/cable length recommendations.

0-10V Dimming (DIM)



A - Dimmer (by others)
B - Data wiring (by others)
C - Power input (120-277V, wiring by others)
D - Conduit (by others)
E - Junction box (by others)
F - Lumenblade Nano Wall mount

0-10V Dimming (DIM) - Wiring Detail



A - To fixture
B - Power input or from previous fixture
C - To next fixture
D - 0-10V +
E - 0-10V -
F - Line
G - Ground
H - Neutral
I - Wire-nuts
J - Junction box (by others)

- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- 0-10V mA ratings: passive dimmer (Current Sink): 3mA per fixture, active dimmer (Current Source): 0.5mA per fixture.
- 1% minimum dimming value.

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How to Order

Housing	Mounting	Voltage	Lens [5]	Output (Nominal Lumens) [9]	Color and Color Temperature	Color Rendering	Distributions	Optical Option	Finish	Control	Option	Mounting Adaptor
BLDN Lumenblade Nano	**SD** Side Mounting [1] **WM** Wall Mounting [2] [3] [4]	**120** 120 volts **208** 208 volts **240** 240 volts **277** 277 volts	**CSL** Clearsite Lens [6] **FSL** Frostsite Lens [7] **HFSL** Half-Frosted Site Lens [4] [8]	**N02** 200lm (4 LEDs) [6] [10] [11] **N03** 300lm (4 LEDs) **N05** 500lm (4 LEDs) **N07** 700lm (4 LEDs) **N10** 1000lm (4 LEDs) **XS03** 300lm (8 LEDs) [6] [10] [11] **XS10** 1000lm (8 LEDs) **XS15** 1500lm (8 LEDs) **XS20** 2000lm (8 LEDs) **XS25** 2500lm (8 LEDs)	**AMB** Amber [6] [11] [12] [13] **22K** 2200K [14] **27K** 2700K [15] **30K** 3000K **35K** 3500K **40K** 4000K **57K** 5700K [16]	**CRI 70** CRI 70+ [17] **CRI 80** CRI 80+ [18] **CRI 90** CRI 90+ [19]	**2** Type II **2BLS** Type II Backlight Shield **3** Type III **3BLS** Type III Backlight Shield **4** Type IV **4BLS** Type IV Backlight Shield **5** Type V **5S** Type V Square	**LV** Louver [6] [20] [21]	**BK** Black Sandtex® **BRZ** Bronze Sandtex® **SI** Silver Sandtex® **BKTX** Textured Black **BRZTX** Textured Bronze Non-Metallic **GRATX** Textured Medium Gray **GRNTX** Textured Green **WHTX** Textured White **CC** Custom Color & Finish [22] [23] [24]	**DIM** 0-10V Dimming [25]	**VRBO** Vibration Rated for Bridge and Overpass [26] [27] [28] **CRC** Corrosion-resistant coating [29] [30]	**RPA6N** Round Pole Adaptor for Ø6 in Pole **SPA6N** Square Pole Adaptor for Ø6 in Pole **RPA8N** Round Pole Adaptor for Ø8 in Pole **SPA8N** Square Pole Adaptor for Ø8 in Pole **RPA6TN** Round Pole Adaptor for Lumentech Ø6 in Pole **SPA6TN** Square Pole Adaptor for Lumentech Ø6 in Pole **RPA8TN** Round Pole Adaptor for Lumentech Ø8 in Pole **SPA8TN** Square Pole Adaptor for Lumentech Ø8 in Pole **W1H2** Horizontal Wall Mount Adaptor for 2 in x 4 in Recessed Junction Box **W1H4** Horizontal Wall Mounting Adaptor for 4 in x 4 in Recessed Junction Box **W1HSJB** Horizontal Wall Mounting Adaptor for Ø4 in Round Exterior Surface Junction Box [31] [32]

Notes:

1. Available with all pole mounting options.
2. Available with W1H2, WIH4 and W1HSJB adaptors only.
3. When combined with CSL lens, only AMB color temperature is available.
4. Available with Type 2, 3 and 4 distributions only.
5. Standard IK06 rating for glass lens. IK10 rated polycarbonate lens available, please consult factory.
6. Not available with type 5 distribution.
7. Available with type 3 and 5 distributions only.
8. Available for N03, N05, N07 and N10 outputs only.
9. Lumen output will vary according to the lens and distribution specified for the fixture. Please consult the photometric information section of the specification sheet for more details.
10. Available with AMB color temperature only.
11. Not available for FSL and HFSL lens.
12. Available with N02 and XS03 outputs only.
13. Backlight shield distributions not available if combined with WM option.
14. Available for CRI 80 only.
15. Available for CRI 80 and CRI 90 only.
16. Available for CRI 70 and CRI 80 only.
17. Binning within a 3-step McAdam ellipse, with the exception of 5700K.
18. Binning within a 2-step MacAdam ellipse, with the exception of 2200K and 5700K.
19. Binning within a 2-step MacAdam ellipse.
20. Available with CSL and HFSL lenses only.
21. Factory installed, not field changeable.
22. Specify RAL number followed by "TX" for textured finish (ex: RAL9007TX) or STX for Sandtex finish (ex: RAL9007STX). Textured or Sandtex finishes are recommended for the durability of all products. If a finish is not specified with the RAL number (ex: RAL9007), a glossy finish will be provided. Please consult factory for other RAL textures and glosses, or to match alternate color charts. Final color matching results may vary.
23. Longer lead times can be expected for custom RAL color finishes.
24. Setup charges apply for RAL colors. Consult factory for details.
25. DIM control can be used as NO (On/Off control) if no data is required.
26. Vibration tested in accordance with ANSI 136.31 2018 for bridge and overpass applications at 5Gv.
27. Specify only if a bridge or overpass application is required.
28. Not available for W1HSJB mounting adaptor.
29. Use only when exposed to salt spray. This option is not required for normal outdoor exposure.
30. Setup charges apply. Consult factory for details.
31. The WM-W1HSJB mounting is designed for installation on a round exterior (weatherproof) surface junction box (Ø4 in diameter and 1 5/8 in deep). For all other types of junction box, consult the factory.
32. Not available with VRBO option.

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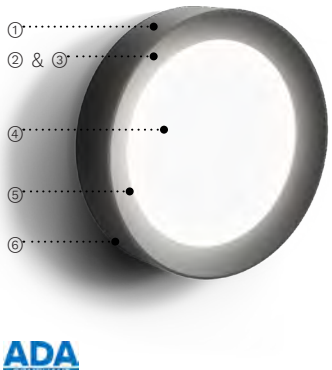
Type C

Catalog Number:
SN800C-L1L11-30K-VOLTAGE-CONDUIT-PHOTOCELL-LOUVERS-FINISH-XX

SN800/SN800C
SCENA
WALL/CEILING

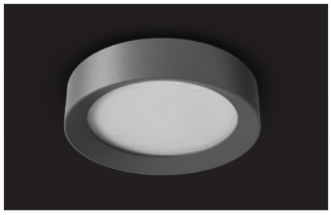
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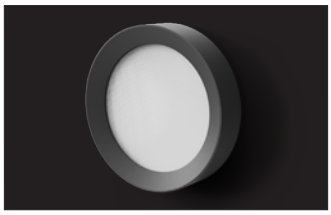
ORDERING CODE:



ADA COMPLIANT

① Corrosion resistant diecast aluminum housing.
② Integrated standard 0-10V driver.
③ Light guide LED technology for uniform lambertian light distribution.
④ Impact resistant patterned tempered glass.
⑤ Sealed enclosure with durable gaskets.
⑥ All hardware in stainless steel.


SN800C


SN800

MATERIALS

Scena is made of aluminum diecast offering exceptional precision and durability. The main housing is perfectly sealed with durable gaskets. The integrated LED light module and 0-10V driver are protected by a patterned tempered glass. With a distinctive look and perceptible quality, Scena is designed for uniform lighting performance.

ELECTRICAL DRIVER

Standard driver is 0-10V dimming-ready (min. dim 5% / dim-to-off)* with: 120-277 multivolt compatibility, operating temperature range of -40°C/-40°F to 85°C/185°F*, over current and output short circuit protection.

LED LIGHT ENGINE

Offered in 2700K, 3000K, 3500K & 4000K / 80CRI.
70% LED lumen maintenance at 60,000 hours (L70/B50) based on IESNA LM-80-08 LED extrapolated life, calculated per IESNA TM-21-21.

FINISH

Five-stage preparation process includes preheating of cast aluminum parts for air extraction. Polyester powder coating is applied through an electrostatic process, and oven cured for long term finish.

CERTIFICATION

UL certified to Canadian and U.S. safety standards. Certified for use in wet locations. Rated IP65 / IK10. Photometric testing performed by an independent laboratory in accordance with IES LM-79-08 standards at 25°C. Actual performance may differ as a result of end-user environment and application.

WARRANTY

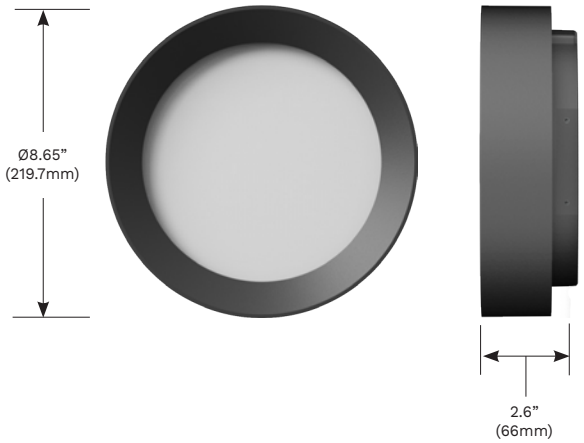
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: https://www.luminis.com/technical/warranty/

MOUNTING

The mounting plate is designed to fit on a 4" (102mm) octagonal electrical box using 3.5" (89mm) C/C mounting holes. Fixture must be installed on a wall or a finished ceiling for exterior applications and/or when exposed to inclement weather.

MEASUREMENTS

Maximum weight: 3.8 lbs (1.7 kg)



* L1L23 light output dims to min. 1% / dim-to-off and has an operating temperature of -20°C/-4°F to 50°C/122°F

LUMINIS.COM
Toll free: (866) 586-4647 | Fax: (514) 683-8872 | Email: info@luminis.com
260 Labrosse, Pointe-Claire (QC) Canada H9R 5L5

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ORDERING CODE

*SERIES	*LIGHT OUTPUT	*CCT	*VOLTAGE	CONDUIT COVER
SN800  **SN800C** 	**L1L11** 1189 lm / 14w **L1L23** 2306 lm / 29w **Delivered lumens calculated at 4000K/80CRI. Typical power consumption. Refer to LCF table for outputs at other CCTs.**	**27K** 2700K **30K** 3000K **35K** 3500K **40K** 4000K	**120** 120V **277** 277V **MVOLT** 120V-277V	**SWK** Decorative cover for 3/4" conduit junction box

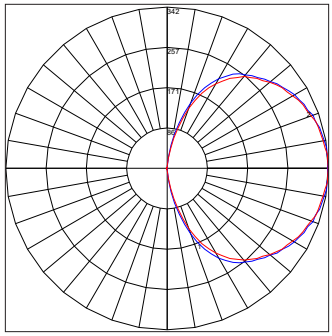
PHOTOCELL	LOUVERS	*FINISH	ENVIRONMENT
PH Photocell	**CB** Cross blade louvers	**BKT** Jet black **BZT** Bronze **CHT** Champagne **DGT** Gun metal **GRT** Titanium gray **MST** Matte silver **SGT** Steel gray **WHT** Snow white **CMC** Custom matched color[1] **RAL** RAL color[2]	**MG** Marine grade paint[3] **NT** Natatorium suitable[4]

NOTES
*- Denotes a required field
1- Contact factory to coordinate custom matching color.
2- Specify RAL number.
3- Marine grade paint for harsh, coastal environment and exposure to salt water. Additional delay required.
4- Available only in WHT and BKT.

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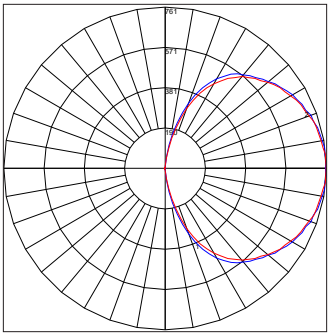
TYPICAL PHOTOMETRY SUMMARY

SN800-L1L11



Total Lms: 1189 Lumens
Total Input Watts: 14 W
Efficacy: 85 Lumens/Watt
CCT/CRI: 4000K/80
Maximum Candela: 342.45 @ 0°H/92.5°V
BUG Rating: B0-U3-G2

SN800-L1L23



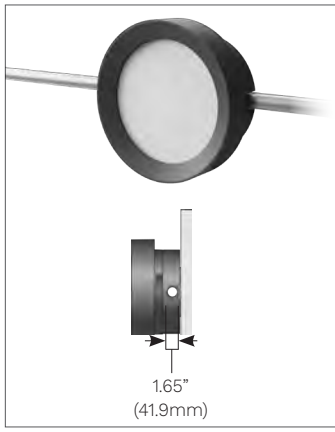
Total Lms: 2306 Lumens
Total Input Watts: 29 W
Efficacy: 79.5 Lumens/Watt
CCT/CRI: 4000K/80
Maximum Candela: 761 @ 0°H/92.5°V
BUG Rating: B0-U5-G3

LUMEN CONVERSION FACTOR (LCF)		
CCT	CRI	LCF
2700K	80	0.92
3000K	80	0.94
3500K	80	0.98
4000K	80	1.00

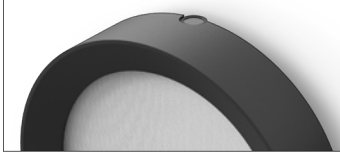
All Photometry shown use the 80CRI 4000K LEDs.
Please visit our web site www.luminis.com for complete I.E.S. file.

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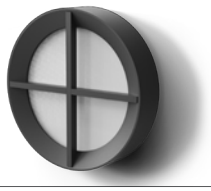
OPTION DETAILS



SWK
Surface (wall or ceiling) mounting option for Ø4” weatherproof junction box (3/4” conduit trade size). Weatherproof junction box, conduit and connectors by others. The SWK option adds 1.65" to the total depth of the product. (Not ADA compliant).



PH
Button-size photocell mounted on top casted housing. Instant turn-on, standard 5-10 second turn-off time delay.



CB
Decorative cross blades. (LCF 0.93)

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Neighborhood Meeting Certification

I, Bo Kennedy, P.E. hereby certify that a neighborhood meeting was held on October 16th, 2024 at 20 Van Aken Way, Portland, ME 04102 -Halo at the Point at 5:30 PM for the proposed project located at 125 Thompson's Point Road, Portland, ME 04102.

I also certify that on October 4th, 2024, notices were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development (1,000 feet for subdivisions within an industrial zone or industrial zone changes).

2. Residents on the “interested parties” list.

Signed,

Bo Kennedy

2024.10.30

Attachments

1. Copy of the notice sent
2. Sign-in sheet
3. Record of feedback

PLACEMAKER PARTNERS, LLC
18 Van Aken Way
Portland, ME 04102

October 4, 2024

Neighborhood Meeting Invitation

Subject: Multi-Family Residential – Major Site Plan Applicant CPI Management, LLC (Cathartes)

Dear Neighbor:

Please join us for a neighborhood meeting to discuss our plans for a proposed 255 Unit Residential Development to be located at 125 Thompson's Point Road. The proposed Multi-Family Residential Building with structured parking and outdoor living amenities will be located in the northwestern most portion of The Forefront at Thompson's Point Subdivision lots 17 thru 19, an area anecdotally referred to as the "panhandle". Cathartes, a prominent developer in the northeast with a driven focus on quality of life, has entered into an agreement with Forefront Partners I, LP to bring a vibrant and transformative residential development to Thompson's Point as contemplated in the approved Master Development Plan.

Meeting Location: **20 Van Aken Way – Halo at the Point – Portland, ME 04101**
Meeting Date: **October 16th, 2024**
Meeting Time: **5:30 PM**

(The City code requires that property owners within 500 feet (1000 feet for proposed industrial subdivisions and industrial zone changes) of the proposed development and residents on an "interested parties list", be invited to participate in a neighborhood meeting. A sign-in sheet will be circulated, and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board.)

If you have any questions, please call 207-747-5288 Ext 5.

Sincerely,

PLACEMAKER PARTNERS, LLC

Bo Kennedy, P.E.
Project Manager/Engineer

Note:
Under the City of Portland land use code, an applicant for a major site plan, master development plan, subdivision of over five lots, or zoning map amendment is required to hold a neighborhood meeting within 30 days of an application being deemed complete and no less than seven calendar days before a public hearing. Should you wish to offer additional comments on this proposed development, you may forward them by email to planning@portlandmaine.gov or by mail to the Planning and Urban Development Department, Planning Division, 4th Floor, 389 Congress Street Portland, ME 04101.

G:\Development Projects\Thompson's Point\Panhandle\Site Permitting and Engineering\Permitting\Major Site Plan Application - Panhandle Resi\Neighborhood Meeting\Neighborhood Meeting Notice.docx

Neighborhood Meeting Sign-In Sheet

Date: October 16, 2024
Meeting Location: 20 VAN AKEN WAY - HALO at THE POINT
Project Name/Location: Multi-Family Residential - 125 Thompson's Point Road

Developer and Consultant Team in Attendance:

Name	Email
Bo Kennedy - Placemaker Partners, LLC	Bo@placemakerpartners.com
Rob Simmons, Cathartes	robs@cathartes.com
Pat Bowler, Cathartes	patb@cathartes.com
Matt Phillips, Carroll Associates	mphillips@carroll-assoc.com
Robert Del Savio, Embarc Designs	rdelsavio@embarcdesign.com

Members of the Public in Attendance:

Name	Email
DANA KNAPP	dknappe Cornood Construction.com
Francisco Lopez	francisco.lopez119@gmail.com
Chris Thompson	Parallax Partners@gmail.com
Jed Troubh	Jtroubh@gmail.com

Minutes from Neighborhood Meeting
Major Site Plan Application (PL-003090-2024)

Cathartes / Forefront Partners Residential Project

Date: **October 16, 2024**

Start Time: **5:30pm EST**
End Time: **6:15 pm EST**

Location: **Halo at the Point,20 Van Aken Way, Thompson's Point, Portland ME 04102**

Meeting was called to order at 5:35pm by Bo Kennedy, P.E., of Placemaker Partners (BK), who represents the applicant.

BK reminded participants to please sign in.

There were two members of the public. One was a neighbor who lives on Powsland Street and is a member of the Libbytown Neighborhood Association. The other was the station manager for Concord Coach Lines.

BK introduced himself and the project team at Cathartes (residential developer/applicant), Embarc (architect) and Carroll Associates (landscape architect), and invited attendees to interrupt at any time with questions or requests for clarification.

BK presented a thorough overview of project, beginning with the aerial view of entire campus and noting proximity to the Portland Transportation Center, Portland Trails, and the Libbytown neighborhood.

BK then presented the residential project site plan, first focusing on orientation, access, and vehicular/pedestrian circulation, noting that it is a 255-unit multi-family residential building with common space and amenities on first floor and a 463-car parking garage with 24 EV charging stalls and adjacent surface parking.

BK gave a detailed overview of the project's common areas/amenity spaces, fire/emergency access lanes, and trail areas.

BK then introduced Matt Phillips from Carroll Associates (MP).

MP walked the attendees through the landscape plan, focusing especially on the attention to planting plan and buffer treatment, and describing the relation of landscape plan design elements to project components, particularly the entry areas, exterior programming areas, and

adjacencies to the trail. He noted that the site is to be heavily planted, in addition to the already extensive growth on the westerly and northwesterly portions of the site, and underscored the developer's attempt to create a thoughtful design that integrates the building with the natural landscape and also with the urban campus it is connected to.

At this point, the design team received the first question from the residential neighbor (Neighbor), who asked if there would be a fence.

MP replied that there will be fenced areas following the trail and grade change areas, and along the rail corridor on northerly border.

The Neighbor asked about the height of the fence along the northerly property line.

BK replied that the fence would be a typical 6' fence.

The Concord Coach employee asked what type of fence would be used.

BK answered that it would be chain link; and further noted that there is significant vegetation along north and northwest portions of the site, including the Central Maine Power corridor which he pointed to on the aerial, explaining that this forested area will stay intact.

Embarc then presented the building plans and elevations, and emphasized the guiding design principle being to break down the mass of the building, get away from the look of an unbroken wall façade and work to create a more dynamic façade that feels more welcoming and integrated with the site.

Embarc shared the rendered elevations, noting that the building is a 6-story structure as well as the outdoor walkway areas and amenity spaces, front entrance/dropoff views, and the elevation including the front and corner of the parking structure. Finally, they shared the view of the building from the water on southerly edge, and samples of building material choices.

The Neighbor offered up several questions that had been generated by Libbytown residents and shared through the Libbytown Neighborhood Association.

These were as follows:

1. Is the garage the same height as the building?

   Embarc answered in the affirmative.

2. Will neighbors only see garage?

   Embarc noted that one elevation of the garage would be visible from the north, and further explained that this would be seen as an integrated façade together with the

northerly and northwesterly facades of the building. He referred to a rendering view by way of example, noting that the view, which will also be buffered by vegetation, will not be a stark look at the wall of a parking garage.

3. Why is the garage so large? A more pedestrian and bike-centric approach would be nice.

   BK noted that the project includes significant indoor and outdoor space for bike storage, and it is anticipated that many residents will take advantage of this. He also noted that the parking spaces provided by the residential project in excess of those required for the use of residents will also be available for their invited guests and will be part of the managed parking supply of the Thompson's Point campus.

4. Is there a plan for a hotel?

   BK replied that the hotel is on track to break ground in 2024. He then took a few minutes to pull up the master existing campus plan and walk the audience through the hotel orientation and basic scope.

5. Are there options to make the building more green by having solar?

   Embarc replied that the roof is indeed being designed to handle solar.

6. Will there be condos?

   BK replied that there are no condos, only apartments.

7. Most of the people in the neighborhood are comfortable with wanting more residential density. There's the recent Avesta project nearby, which was generally well-received by the neighborhood. And I should have prefaced my comments by saying that I personally love the idea of more residential, and am in support of the project.

8. What will you do if a train is crossing and emergency services need to access the site?

   BK noted that as this is a public rail crossing as designated by MaineDOT, the crossing is rarely blocked, and when it is, it is usually for no more than a few minutes (compared with a private crossing, where there can be virtually no limit on length of time for a crossing to be blocked). The representative from Concord Coach explained that freight train passage through the crossing is very infrequent (once/twice weekly) and that Amtrak service operates such that trains stop at the platform to the east of the crossing. BK further outlined the ways in which the crossing was designed for emergency vehicles to still get through via the center lane, showing how even when the crossing gates drop, they do not obstruct the travel lanes. He noted that the public crossing had been designed and approved with the full buildout of the master plan in mind, in coordination with city, state, and federal rail and public safety guidelines.

9. I think it's a cool project! That's the full list of questions I had from folks in the neighborhood. Actually, just one more: what is the timing of construction start?

   BK replied that the project aims to break ground next fall.

10. Actually, just one more. What is the apartment mix?

    Embarc walked through the mix of apartment types (studio, one- and two-bedroom, and some three-bedroom).

At this point, there were no further questions or comments and the meeting was adjourned.

PLACEMAKER PARTNERS, LLC
18 Van Aken Way
Portland, ME 04102

December 23, 2024

Ms. Natasha Kypfer, Senior Planner
Planning and Development Department
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509

Subject: **The Forefront at Thompson's Point – 125 Thompson's Point Rd** (PL-003090-2024)
Major Site Plan Application – Review Comment Letter of Response # 1

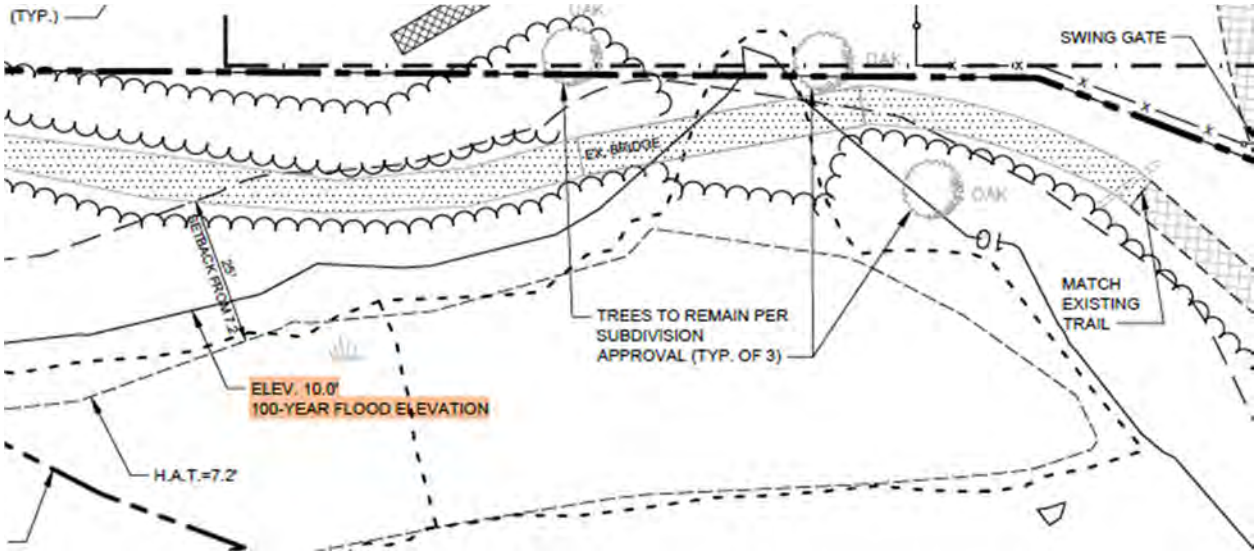
Dear Natasha:

We have received and reviewed staff and peer review comments submitted to date and offer our responses to these comments. For ease of reference, we have repeated each comment in *italics* with our response following.

GENERAL COMMENTS FROM PLANNING STAFF

Comment 1:
Please add the AE flood zone on the current FEMA map as an overlay on the site plan.

Response:
The AE Flood Zone is currently shown on site plans as shown below. Zone AE flood elevation for the Thompson's Point Area has been listed on FEMA mapping as Elevation 10.0 until the most recent updated effective date 6/20/2024. Enclosed (Attachment A) with this letter is a current FIRMETTE map downloaded 11/21/2024 and shows a Zone AE flood elevation of 9.0 based on NAVD88 vertical datum. When converted to the project datum, Elevation 9.0 (NAVD88 vertical datum) converts to elevation 9.79 (NGVD29 vertical datum). Whereas this updated elevation is lower (than 10.0), a more conservative assumption, and easier to depict in plan, the applicant would prefer to use the 10 ft contour as the assumed flood elevation. A note has been added to the existing conditions plan to document the origin of these elevations.



Comment 2:
Please update the title of the supporting narrative to Major Site Plan, instead of Minor (Att. B).

Response:
This Attachment has been updated and reloaded to the CSS Portal and city's eplan.

Comment 3:
A number of permits have been received throughout the development of the Master Development Plan from State and Federal agencies and it is unclear what is relevant to this phase and which permits may still be active. Submit a summary of what permits are relevant specifically to this project, including the agency, permit, the date of original issue, dates of expirations, and dates of extensions or notifications as applicable. For example, it is noted that an Army Corps of Engineers self-verification form was included that was submitted for work to be completed for 2023 into 2024, which will likely need to be resubmitted unless the Army Corps has noted that it will remain valid.

Response:
The project summary of applicable permits is noted as follows and listed on the cover sheet C-1.0.

Permit	Agency	Date of Original Issue	Date of Updated Approval
Master Development Plan	City of Portland	2014-03-11	2020-04-02
Subdivision Plan	City of Portland	2016-01-12	2020-04-02
NRPA Individual Permit	Maine DEP	2012-07-01	2023-06-15
Site Location of Development	Maine DEP	2012-06-05	2016-01-01 (Overall) Updated Each Site Plan Application
Maine VRAP - NAAL	Maine DEP	2012-03-06	2019-12-17
General Permit	ACOE	2012-08-24	2023-10-24
Traffic Movement Permit	MDOT	2012-06-13	2024-03-01

- Master Development Plan approval remains in effect with active development pursuant to letter from Director of Planning Authority. An updated Master Plan with this project reflected has been submitted for review by the Planning Authority. As this multi-family project complies with the approved Master Plan, any individual reviews will occur as a separate application.
- Subdivision Plans have been recorded in the Cumberland County Registry of Deeds and modified by minor amendments as development requires. This project requires minor amendments to Sectional Subdivision Plats 2 & 4 to consolidate lots 17-19. The updated subdivision plats have been submitted for review and approval.
- NRPA Individual Permit approval covers the multi-family proposed stormwater discharges in the shoreland zone. The final plan will be provided to the MeDEP as part of the Maine Construction General Permit 14-day notification prior to the start of construction.
- The Site Location of Development permit update for this project is being reviewed and approved by the City of Portland as part of their delegated review authority.
- Maine VRAP letter is an ongoing plan that the owner will comply with to maintain all the beneficial coverages the No Action Assurance Letter provides. The active work plan never expires and does not require modification for this project.
- The ACOE General permit covers the proposed wetland fill associated with the proposed stormwater outfalls for this phase of the project. This permit was just updated in late 2023 and is authorized for work until October 14, 2025, and can be extended for a year afterwards with contract

to commence work. The signed Maine General Permit conditions are enclosed with this letter in Attachment B and included in the revised Attachment D of the application submission.

- Traffic Movement Permit is within the active permit extension granted on March 10, 2024 and extends through March 1, 2027.

REVIEW COMMENTS – TRANSPORTATION (SECTION 14.6.1) STANDARDS:

Comment 1:
Staff would like to review the trip generation calculations for all of the uses, regardless if previously approved from a documentation perspective. However, one initial comment on the trip generation estimate is as follows:

- *The Brewery & Sit-Down Restaurant (14,644 SF) noted in the table should match the area used in the trip generation calculation (4,624 SF).*

Response:
Trip generation for the "Brewery & Sit-Down Restaurant" was based on previously accepted "Bissell Brewery & Restaurant" methodology, where the restaurant trip generation is based on LUC 932 – High Turnover (Sit Down) Restaurant (4,624 SF), and trip generation for the brewery portion (10,020 SF) is based on the 7 employees. An updated Trip Generation and Parking Demand Summary is included with this letter.

Additionally, Gorrill Palmer has prepared a "Traffic Supplemental Package" which includes the backup documentation supporting the Trip Generation and Parking Demand Summary. This package is included in Attachment C of this letter.

Comment 2 – Access and Circulation :

- *Show limits of removal and replacement of sidewalk/pavement for Utility trenching on site plan.*
- *Update application documents to include current Technical Manual details or reference to each of the City standard details (figure # and name). CAD files can be obtained upon request.*
- *Update the plan set to replace the detectable warning ramps in ROW at drive entrance to align with Standard Detail I-7 of the Technical Manual.*
- *Update the plan set to include dimensions for all interior and exterior parking areas and roadways.*
- *Submit sight distance measurements for the access road intersection with Thompson's Point Road.*

Response:

- The limits of sidewalk and roadway trench repair have been shown on sheet C-3.1A Site Layout Plan Without Easements. This plan has been uploaded to the City's eplan project site.
- The project plans have been updated to include the relevant city details required by the Technical Manual.
- The Site Layout Plan has a call-out for detectable warning panels per the city's detail I-7. The Detectable Warning Panel Detail B on sheet C-8.1 Curbing and Sidewalk Details has been replaced with the city's detail shown on Figure I-7.
- Plan Sheet C-3.1 Site Layout Plan shows typical and specific layout dimensions for all exterior parking spaces and roadways. A revised Plan Sheet A1.1-A1.4 Floor Plan Views show typical dimensions for parking spaces inside the garage structure. These 4 sheets have been uploaded to the project eplan.
- Sight distances have been added to the plan view sheet C-3.1 Site Layout Plan and noted herein to be as follows: Looking left 334 ft -Horizontal Obstruction; Looking right – 542' Horizontal Obstruction

Comment 3 -Parking :

- *Update project documents to list a consistent number of proposed parking spaces for the parking garage structure.*

- *The applicant has conducted a parking analysis for the proposed residential use. City Staff find the estimate of 334 parking spaces per ITE methods to be reasonable, but would also request that the applicant provide a parking management plan if the proposed parking spaces are to be shared with other uses on Thompson's Point.*
- *The applicant also conducted a parking demand analysis for the entire Thompson's Point site, without an outdoor concert/event. The estimate is based upon a mix of methodologies: methods from ITE, client supplied information, and customized calculations. Similar to the trip generation comment above, all back up information shall be provided for documentation purposes. Staff would further note that a parking supply analysis should also be provided with this submission.*

Response:

- All plan view labels have been updated to the correct number of parking spaces in the garage. There are four hundred sixty-three (463) proposed spaces in the garage. Plan Sheets C-3.1A, 3.1B, 4.0, 5.0, 5.2, & 6.0 have been updated for consistency with the project documents.
- The parking demand analysis included in Gorrill Palmer's design memo is derived from the ITE Parking Generation Manual and was taken into careful consideration when evaluating the maximum parking demand for the residential project. The applicant has evaluated and scrutinized their project parking needs based their long history of residential project delivery and management. The proposed garage parking supply breaks down as follows:
    - 463 Total Parking Stalls
        - 377 Residential Stalls (Gated Access 2nd-6th Floors)
        - 86 Managed Stalls (Gated Access 1st Floor)

  The applicant will enter into a private parking agreement with Forefront Partners I, LP or its assigns ("Forefront") to allow for the use of 110 total managed parking stalls (86 garage spaces & 24 surface spaces). The 110 designated spaces will be used at Forefront's discretion as part of the managed parking supply for the Thompson's Point Campus and primarily considered for uses such as, but not limited to, valet parking and employee parking.
- Pursuant to the reviewer's request, the backup to the parking demand study is included in the supplied "Supplemental Package" Dated December 12th, 2024. A Parking Supply Summary Table has been added to sheet C-3.0 Overall Campus Plan and demonstrates that the parking supply meets the maximum parking demand with events in Brick South and Halo.

Comment 4 - TDM:
In satisfying this standard, the applicant shall update their Transportation Demand Management Plan and incorporate data, as well as updated data, on concerts and other significant events that occur on the Thompson's Point campus, so that the City can better understand current parking demand and assess whether the mitigation strategies in place are sufficient.

Response:
See enclosed letter in Attachment D with a summarized update to the Forefront's TDM regular reporting and implemented strategies. All reports, numerical updates, and survey data is on file with the city as part of our annual reporting requirements.

REVIEW COMMENTS - ENVIRONMENTAL QUALITY STANDARDS (SECTION 14.6.2) :

Comment 1 – Landscape Preservation:

Submit a tree survey for the site that meets the standards of Section 4.3.1. of the Technical Manual.

Response:
On November 14, 2024, the project civil engineer and landscape architect performed a site visit to inventory existing trees 10" and greater DBH on the subject property. The trees that qualify were identified and their location, size, and species have been added to the site plans. The enclosed figure (Attachment E) shows the trees larger than 10" on the property and which will be preserved.

Comment 2 – Site Landscape and Buffers:
Identify what street tree alternatives are proposed to meet the standards of Section 4.6.4. of the Technical Manual.

Response:
The Technical Manual requires that "multi-family residential developments shall provide a minimum of one tree per unit, planted in the City right of way and/or along private roadways unless otherwise approved and spaced twenty-five (25) to thirty-five (35) feet on center". This results in 255 trees being required. There is not enough frontage to achieve this nor do the existing conditions allow for any street tree planting in the right-of-way due to the high density of underground utilities that are located in that zone. In the past the Arborist has allowed us to take credit for any trees that could be reasonably seen from the right-of-way to count towards the project street tree requirement. We presume that standard still applies, in which case we would propose to provide 17 trees around the driveway and arrival/entry to count, thus needing to provide a fee in lieu for 238 trees, for a total of $95,200, paid into the Tree Fund by the applicant.

Comment 2 – WQ, SWM and Erosion Control:

- *The project is required to comply with MaineDEP Chapter 500 and City of Portland Technical Manual Section 5 standards for stormwater management, including to be reviewed for a Site Location of Development (SLOD) Permit. As was noted as part of the MDP, this can be reviewed by the City of Portland, but requires evaluation of the site as a whole. This would modify how the amount of required treatment is evaluated, and it is expected based on what information has been provided that the project will meet the requirements for SLOD.*
    - *Basic Standards – The Applicant has provided plans and details as required for erosion and sedimentation controls.*
        - *Double rows of sediment barrier should be provided adjacent to any resources, including coastal wetlands.*
        - *Temporary sediment barrier will also be required downstream of any outfall installations during construction in addition to any of the permanent erosion control measures that have been shown.*
    - *General/Redevelopment Standards – The Applicant has provided a detailed description of stormwater treatment for this project, and has related it to the overall site. Based on the information provided, it appears that the project will meet the required thresholds for the State for Stormwater and Site requirements, and the City's thresholds for redevelopment as well. As noted above, the project should provide documentation for the Site Location of Development Permit. Comments on the proposed stormwater systems are provided separately below as well.*
- *Flooding Standards – The Applicant has noted that the Flooding Standard has previously been waived due to the site's discharge to a tidal water body. This remains valid for this phase of the project.*
- *We did not see structure information, including rims and inverts, for stormwater or utility structures included on any of the plans provided. This should be provided as part of the site plan submission.*

- *The site grading should be checked with the proposed stormwater systems. With variations in fill over the tops of the stormwater storage systems, and the need for emergency vehicular access over one of the systems, the layout and inverts of the systems and connecting structures should be reviewed to ensure there are no concerns with cover (either too much or too little). This will require providing invert information for the associated manholes as well.*
- *The Applicant should review the proposed HydroCAD model, specifically, the way that the diversion structures are modeled may not accurately represent what is happening on the site. The models include a 1.4" vertical orifice/grate as part of the model, but this is not shown on the diversion manhole details. In addition, the way the model is routed, with all flow primary, it does not appear to show how flow is diverted into the Jellyfish filters. In addition, the model should be checked to make sure that it matches with other features on the plans, including pipe materials, inverts, and the number of chambers within the storage systems.*
- *The Applicant has noted that the intent of the Inspection and Maintenance Manual has remained the same since approval in June 2012. The Applicant should confirm that the systems proposed as part of this phase of work are specifically included in their O&M plan, and these systems should be added to the Stormwater Maintenance Agreement.*
- *Any floor drains located within the lower levels of the parking garage should be directed through an oil-water separator and be discharged into the sanitary sewer system. It is unclear if any such internal drains are being proposed. The stormwater management plans clearly show that stormwater runoff from the uncovered top parking level will be directed into the storm drain system, which makes sense.*

Response:

The Forefront development received SLOD approval in 2014 with the MDP and Subdivision approvals. The SLOD has been updated and revised with each Site Plan Application reviewed by the city. This Major Site Plan application includes information required for the new development area as well as the cumulative evaluation of the entire campus to date.

- Basic Standards: Plan Sheet C-6.0 Erosion Control and Construction Management Plan shows multiple rows of temporary sediment barrier on all slopes and in larger tributary areas. The project details and plan notes require additional measures as required by the contractor, engineer of record, or third-party inspector in order to meet the MeDEP Basic Standards. Plan Sheet C-6.0 has been updated to show a temporary Sediment Barrier on the down-stream side.
- General Standards: Attachment J – Supplemental Stormwater Memo for Multi-Family Residential submitted with the application provides the information demonstrating how the project and campus continues to meet the General Standards requirements of the SLOD.
- Flooding Standard: The applicant concurs.
- The structure and pipe information for the storm drainage and utility systems have been shown on plan sheets C-11.0 and C-12.0 thru C-12.2. Plan sheets have been uploaded to the eplan website.
- The site grading has been checked in relationship to the subsurface chamber systems and the cover depth is detailed on plan sheet C-7.1 Stormwater Details – Subsurface Water Quality Volume Storage Details. Additional details have been added to make the cover restrictions clearer.
- Detailed orifice information has been added to the details on plan sheet C-7.0 Stormwater Details – Jellyfish Systems to reflect the HydroCAD model and stormwater quality volume drawdown requirements
- The proposed stormwater systems for this phase of the project are located on multiple lots across the campus. These existing systems are being maintained in accordance with the

aforementioned Stormwater O&M manual. A copy of the Manual is on file with the city and recorded in the Cumberland County Registry of Deeds as an attachment to the Stormwater agreement between Forefront Partners I, LP and The City of Portland.

- The review is correct that the intent of runoff from garage roof deck is that it be drained to the stormwater management systems. The floor drains to the lower levels of the garage are plumbed to the sanitary sewer system as shown on the plan sheet C-4.0 Utility Plan. The city's oil/grit separator detail on Figure II-20 of the Technical Manual has been added to the project plan sheet C-8.4 Stormwater and Sanitary Sewer Details and C-4.0 Utility Plan.

REVIEW COMMENTS - INFRASTRUCTURE AND COMMUNITY SAFETY STANDARDS (SECTION 14.6.3) :

Comment 1 -Public Safety and Fire Prevention:
Submit a feasibility analysis of establishing a fire lane from Hobart Street and Powsland Street that meets the standards of Section 3 of the Technical Manual. Based on the materials submitted, additional information and/or implementation of a fire lane may be requested by City Staff.

Response:
This suggestion is infeasible, and further review is not warranted. Forefront worked hand in hand with city and state agencies to fully and exhaustively vet adequate access and public safety infrastructure appropriate to support the full build out of the Master Development Plan and overall Subdivision. In partnership with the City of Portland, State of Maine, and Federal government, all supporting infrastructure was installed in totality in 2015 in anticipation of the complete build out of the Master Development Plan and in satisfaction of all its appurtenant requirements.

Comment 2- Public Utilities :

- *Submit a written response documenting if consideration has been made in installing backflow preventers on the private sanitary lines.*
- *Submit a written response documenting the feasibility of relocating the two transformers to a less obtrusive location, including, but not limited to plan left of the parking structure in the landscaped area.*
- *When available, submit copies of ability to serve letters from utility providers.*

Response:

- The applicant has reviewed the existing city infrastructure and believes the private sewer lines are elevated enough that backflow prevention is not needed. The building is substantially higher than the 100-yr flood elevation and well above the overflow weir discharging to the CSO outfall line. The system should flow into the gravity public sanitary sewer system as it typically does around the city.
- The proposed transformer location has been carefully selected to maximize distance (and consequently visibility) from the street and front entrance while keeping the length of secondaries to the utility room as close as feasibly possible. Additionally, Central Maine Power (CMP) does not permit transformers to be located behind parking without alternative vehicular access to with-in 15 ft. The transformers will have vegetative screening between them and site access.
- Forefront has received an Ability To Serve ("ATS") letters from all utility agencies for the overall development. However, the applicant has submitted project specific ATS letters from Unitil (gas) and CMP (power) in the previously submitted Attachment K – Utility Correspondence. The applicant has been notified an ABS letter from PWD (water and sewer) is imminent and will be forwarded to the city upon receipt.

REVIEW COMMENTS - SITE DESIGN STANDARDS (SECTION 14.6.4) :

Comment 1 – NOISE AND VIBRATION :
When available, provide an updated roof plan that includes selected HVAC equipment with screening details.

Response:
The plan sheet A1.4 Roof Plan shows that HVAC equipment is centrally located on the roof and either screened from view by a parapet or located far enough away from the roof edge that a parapet is not needed to block the view of equipment from the entry to the site. Three site line studies demonstrate this point and are shown on sheet A1.7 Site Lines to Mechanical Equipment. This sheet has been uploaded to the eplan portal.

The majority of the roof top mounted HVAC equipment, which includes electric heat pumps for each dwelling unit, are low in height and average between 57" above the roof. A select number of units will be 69" above the roof. There will be no cooling towers, chillers or generators that could create unwarranted noise to emanate from the site.

Comment 2 – Design Standards:
Provide revisions based on the attached Design Review Memo, dated October 28, 2024.

Excerpt of October 28, 2024 Letter
Comment 2a – Master Development Plan:
Staff suggests that the applicant consider an increase to the proposed building height, as shown in figure 1, to add vertical scale towards the center of the proposed building footprint.

Response:
A taller building would place it under a different building code category and require a change in construction type, which would significantly increase costs and make the project financially unfeasible. Maintaining the current height is essential to keeping the project viable.

Comment 2b – Urban Commercial Business Zone – Standard 1a:
Staff recommends a reduction in angled parking spaces to provide prioritization of the pedestrian facilities into the primary building entrance. To encourage the drop-off court as a pedestrian plaza that only allow infrequent vehicular drop-off that is more conducive with a transit-oriented and walkable development.

Response:
The visitor parking is essential for prospective tenants and visitors, as it provides the convenience and accessibility needed to support leasing operations and the overall success of the development. Removing these spaces could negatively impact the project's ability to attract and retain tenants, which is critical to its long-term viability.

Comment 2c – Urban Commercial Business Zone – Standard 1b:
Staff recommends that the applicant provide additional ground-floor activation and pedestrian oriented uses (eg. articulated building entries or active use) to achieve an architectural presence and focus at the street.

Response:
We explored numerous layouts for the building footprint but were unable to position the building closer to the street due to the bottleneck design, which made it challenging to accommodate the

access drive and navigate the numerous utility easements. Additionally, positioning the building's leasing and amenity spaces more centrally was essential for the success of the project, as it provides direct access to the courtyards and ensures better proximity to all units, creating a more functional and cohesive design for residents.

Comment 2d – Urban Commercial Business Zone – Standard 1c:
Staff suggests the applicant create a more pedestrian scaled façade and building orientation towards the Thompson Point roadway. Staff recommends a more cohesive arrangement of exterior façade materials that respond to the existing character of buildings, particularly at the street-facing facades of Brick North & South buildings. Staff suggest a replacement of exterior material at the ground level facing the street for brick and detailing around fenestrations to provide greater articulation at the pedestrian scale.

Response:
When developing the architectural language and material palette for the proposed building, the design team carefully considered the distance, use types, and forms of the existing brick buildings on Thompson's Point. While Brick North and South possess historic merit and architectural quality, replicating their materials on a new building of a significantly different typology and scale did not seem appropriate. For example, despite its proximity to Brick North and South, the Children's Museum is clad in metal panels and represents a stylistic departure from the historic structures. Similarly, our approach aims to respect the context while ensuring the building's materials and design are aligned with its contemporary use and scale.

Comment 2e – Urban Commercial Business Zone – Standard 1d:
Staff finds that the structured parking will be visible from abutting properties at the north and recommends that the applicant provide additional screening as appropriate (eg. architectural perforation, vertical landscaping or other façade-fixed material).

Response:
While the garage will have limited visibility due to its location behind the train tracks, the electrical sub-station, and the wooded areas along the rail corridor which naturally obscure views from the neighborhood to the northwest, we have nevertheless designed what we consider to be an attractive façade for the garage which is complementary to the design of the surrounding residential wings of the building. Furthermore, we believe that many of the screening options available tend to magnify the visual presence of the structure rather than mitigate it, making them unsuitable for this context.

Comment 2f – Urban Commercial Business Zone – Standard 1d:
In addition, Staff finds the head-in parking spaces after the garage entrance to be unnecessary and recommends this driveway extension function for emergency access only with either a change of surface material (eg. grasscrete) or narrowing of drive aisle with mountable curb. Narrowing the drive aisle may allow for additional screening adjacent to the parking garage façade to reduce the visual impact to abutting properties with views towards Thompson Point.

Response:
We feel the head-in parking along the garage is critical for not only the project but the strategic overall parking management plan. These spaces contribute to the necessary overall managed parking supply. These spaces do not fit in the proposed garage structure and maximize the development area with a necessary use. The roadway width and pavement surface design are both required by the City of Portland Technical Manual for parking areas, Central Maine Power access easement agreement, and the City of Portland Fire Department safety review.

Comment 2g – Multi- Family :
Staff observes building form variation with roof line expression at several building wings and suggest that the applicant explore additional building height that increases building massing height towards the center of the proposed building footprint.

Response:
A taller building would place it under a different building code category and require a change in construction type, which would significantly increase costs and make the project financially unfeasible. Maintaining the current height is essential to keeping the project viable.

Comment 2h – Multi- Family :
Staff suggest that the applicant consider greater pedestrian activation at the transition space between the sidewalk and building façade fronting the street that includes an articulated building entry for residents, in addition to potential outdoor space programming (eg. retail use component, outdoor plaza and pedestrian amenities within close proximity to the street).

Response:
The challenges with making substantive revisions to the building layout are addressed in our response to Comment 2(c) above.

Comment 2i – Multi- Family :
Staff recommends a pathway connection directly from the Thompson Point roadway to the existing Portland Trail shoreline path.

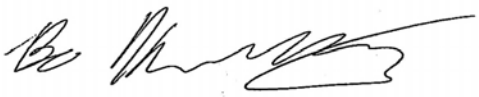
Response:
The applicant proposes a stone dust trail connection to from the Portland Trails "Thompson's Point Trail" to Thompson's Point Road from the Portland Trails trailhead along the northerly side of the proposed access driveway at the north end of development Lot 5 as shown on the revised plan sheet C-3.1 Site Layout Plan.

End of Comments.

If you have any questions regarding these materials, please contact this office.

Sincerely,

PLACEMAKER PARTNERS, LLC



Bo Kennedy, P.E.
Project Manager/Engineer
Attachments
c: Rob Simmons, Cathartes
Matt Grooms, City of Portland Planning
Chris Thompson, Forefront Partners I, LP
Jed Troubh, Forefront Partners, I, LP

ATTACHMENT A
FIRMETTE -FEMA FLOOD MAP

National Flood Hazard Layer FIRMette

FEMA

70°17'56"W 43°39'15"N



70°17'19"W 43°38'49"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/21/2024 at 5:21 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

ATTACHMENT B
ACOE Maine General Permit Conditions

Applicant: General Public, State of Maine

Effective Date: October 14, 2020
Expiration Date: October 14, 2025

DEPARTMENT OF THE ARMY
GENERAL PERMITS FOR
THE STATE OF MAINE

The New England District of the U.S. Army Corps of Engineers (Corps) hereby issues 23 General Permits (GPs), listed below, for activities subject to Corps jurisdiction in waters of the United States within the boundaries of the State of Maine including tribal lands, and in adjacent ocean waters to the seaward limit of the outer continental shelf. These GPs are issued in accordance with Corps regulations at 33 CFR 320 – 332 and specifically 33 CFR 325.2(e)(2). These GPs will protect the aquatic environment and the public interest while effectively authorizing activities that have no more than minimal individual and cumulative adverse environmental effects.

This document contains the following sections:		Pages
I.	CORPS JURISDICTION	1
II.	GENERAL CRITERIA	2
III.	PROCEDURES	3 – 4
IV.	GENERAL CONDITIONS	5 – 19
V.	MAINE GENERAL PERMITS	20 – 35
VI.	SELF-VERIFICATION NOTIFICATION FORM	36
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VIII.	AGENCY CONTACTS	43 – 45
IX.	DEFINITIONS	46 – 51

I. CORPS JURISDICTION

1. Permits are required from the Corps for the following work:

a. The construction of any structure in, over, or under any navigable water of the U.S. (see 33 CFR 328), the excavating or dredging from or depositing of material in such waters, or the accomplishment of any other work affecting the course, location, condition, or capacity of such waters. The Corps regulates these activities under Section 10 of the Rivers and Harbors Act of 1899 (see 33 CFR 322);

b. The discharge of dredged or fill material and certain discharges associated with excavation into waters of the U.S. including wetlands. The Corps regulates these activities under Section 404 of the Clean Water Act (see 33 CFR 323); and

c. The transportation of dredged material for the purpose of disposal in the ocean. The Corps regulates these activities under Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (see 33 CFR 324).

2. Related laws: Section 408 of the Rivers and Harbors Act of 1899, Section 401 of the Clean Water Act, Section 402 of the Clean Water Act, Section 307(c) of the Coastal Zone Management Act of 1972, Section 106 of the National Historic Preservation Act of 1966, Section 7 of the Endangered Species Act, the Fish and Wildlife Coordination Act of 1956, the Magnuson-Stevens Fishery Conservation and Management Act, Section 302 of the Marine Protection, Research and Sanctuaries Act of 1972, and Section 7(a) of the Wild and Scenic Rivers Act.

II. GENERAL CRITERIA

1. In order for activities to qualify for these General Permits (GPs), they shall meet the GPs terms and eligibility criteria on pages 1-4, all applicable general conditions (GCs) in Section IV, and terms of the Maine General Permits in Section V. Any activity not specifically listed may still be eligible for authorization under these GPs; prospective permittees are advised to contact the Corps for specific eligibility determination.

2. Under these GPs, activities may qualify for the following:

- **SELF-VERIFICATION (SV)**: Notification to the Corps is required at least two weeks before work commences; the Corps will acknowledge receipt and GP eligibility of the SV activity in writing.
- **PRE-CONSTRUCTION NOTIFICATION (PCN)**: Notification to and written verification from the Corps is required. *No work under PCN may proceed until written verification from the Corps is received.*

The thresholds for activities eligible for SV and PCN are defined in the general conditions in Section IV and Maine General Permits in Section V.

3. Prospective permittees shall review:

a. Section I to determine if the activity requires Corps authorization.

b. Sections III , IV, and V to determine if the activity is eligible for authorization under these GPs, and specifically whether it is eligible for SV, or whether a PCN is required.

4. Prospective permittees are encouraged to contact the Corps with questions at any time (U.S. Army Corps of Engineers, Maine Project Office, 442 Civic Center Drive, Suite 350, Augusta, Maine 04330, ph. 207-623-8367). Pre-application meetings, whether arranged by the Corps or requested by a prospective permittee, are encouraged to facilitate the review of projects. Pre-application meetings and/or site visits help streamline the authorization process by alerting the prospective permittee to potentially time-consuming factors that are likely to arise during the evaluation of their project (e.g. avoidance, minimization and compensatory mitigation requirements, historic properties, endangered species, essential fish habitat, vernal pools, and dredging of contaminated sediments).

5. Permittees shall ensure compliance with all applicable GCs in Section IV and GPs in Section V. Non-compliance with these GPs and GCs may subject the permittee to criminal, civil, or administrative criminal penalties, and/or an ordered restoration, and/or the permit may be modified, suspended or revoked by the Corps.

III. PROCEDURES

1. State Approvals. Applicants are responsible for applying for and obtaining any required state or local approvals. Federal and state jurisdiction and review criteria may differ in some instances. State permits may be required for specific projects regardless of the GP category.

In order for authorizations under these GPs to be valid, when any of the following state approvals or statutorily-required reviews is also required, the approvals shall be obtained prior to the commencement of work in Corps jurisdiction:

- Maine Department of Environmental Protection (DEP): Natural Resources Protection Act (NRPA) permit, including permit-by-rule (PBR) and general permit authorizations; Site Location of Development Act permit; Maine Waterway Development and Conservation Act permit; and Maine Hazardous Waste, Septage, and Solid Waste Management Act license.
- Maine Department of Agriculture, Conservation and Forestry: Land Use Planning Commission (LUPC) permit.
- Maine Department of Marine Resources: Aquaculture Leases and Licenses.
- Maine Department of Agriculture, Conservation and Forestry, Bureau of Parks and Lands, Submerged Lands: Submerged Lands Lease.

2. How to Obtain/Apply for Corps Authorization.

a. **Self-Verification (SV)**: Prospective permittees shall confirm that the activity meets all the applicable terms and conditions of SV. Consultation with the Corps and/or other relevant federal and state agencies may be necessary to ensure compliance with the applicable general conditions (GCs) and related federal laws such as the National Historic Preservation Act (GC 15), the Endangered Species Act (GC 16), the Magnuson-Stevens Fishery Conservation and Management Act (GC 17), and the Wild and Scenic Rivers Act (GC 13). Activities that are eligible for SV are authorized under these GPs provided the prospective permittee has:

i. Confirmed that the activity meets all applicable terms and conditions of SV.

ii. Provided notifications to the State Historic Preservation Officer (SHPO) (the SHPO in the State of Maine is the Maine Historic Preservation Commission, or MHPC) and all five federally-recognized tribes in the State of Maine (Tribal Historic Preservation Officers, or THPOs) listed in Section VIII before submitting the SV to the Corps in order to be reviewed for the presence of historic, archeological, architectural, or tribal resources in the action area that the activity may affect (see GC 15). Prospective permittees are not required to wait for a response to their notifications before submitting the SV to the Corps.

iii. At least two weeks before work is to commence, submitted to the Corps a Self-Verification Notification Form (SVNF, page 36) with all of the following attachments: location map, project plans, and an Official Species List of federally threatened and endangered species that may occur in the activity's action area and the email address of the person who generated the list (see GC 16).

NOTE: A copy of a state permit application form may be an acceptable surrogate for the SVNF itself; however, the applicant shall not rely on the state permitting agency to provide the Corps a copy of their state permit application.

b. **Pre-Construction Notification (PCN)**: Notification to, and written verification from the Corps is required. For activities that do not qualify for SV or where otherwise required by the terms and conditions of the GPs, the prospective permittee shall submit a PCN and obtain written verification from the Corps before starting work in Corps jurisdiction. The Corps will coordinate review of all PCN activities with other federal and state agencies, as appropriate. The Corps will attempt to issue written verification of the PCN within 60 days of receiving a complete application.

All prospective permittees for PCN activities shall follow the instructions on found on pages 37 – 42, and in particular:

i. Submit directly to the Corps application form *ENG Form 4345* (pages 40 – 42), or the surrogate state permit application form as noted above.

ii. Provide project information outlined on pages 37 – 42 (Content of a Pre-Construction Notification).
iii. Submit an Official Species List of federally threatened and endangered species that may occur in the activity's action area and the email address of the person who generated the list (GC 16).
iv. Provide notifications to the SHPO (MHPC) and all five THPOs in the State of Maine listed in Section VIII before submitting the PCN to the Corps in order to be reviewed for the presence of historic, archeological, architectural, or tribal resources in the action area that the activity may affect (see GC 15). The PCN shall include documentation that MHPC and all of the THPOs were notified (a copy of the prospective permittee's cover letter or emails to MHPC and the THPOs is acceptable). Prospective permittees are not required to wait for a response to their notifications before submitting a PCN to the Corps.

c. **Individual Permit (IP):** Projects that are not eligible for these GPs require an IP (33 CFR 325.5(b)) and prospective permittees shall submit an application directly to the Corps. These GPs do not affect the Corps IP review process or activities exempt from Corps regulation. For general information regarding IPs prospective permittees are encouraged to contact the Corps. ***In addition, the Corps retains discretionary authority on a case-by-case basis to elevate GP-eligible activities to an IP based on concerns for the aquatic environment or for any other factor of the public interest (33 CFR 320.4(a)). Whenever the Corps notifies a prospective permittee that an IP is required, no work in Corps jurisdiction may be conducted until the Corps issues the required authorization in writing indicating that the work may proceed.***

d. **Emergency Situations:** Contact the Corps immediately in the event of an emergency situation for information on the verification process. Emergency situations are limited to sudden, unexpected occurrences that could potentially result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process an application under standard procedures. Emergency work is subject to the same terms and conditions of these GPs as non-emergency work, and similarly, must qualify for authorization under these GPs; otherwise an IP is required. The Corps will work with all applicable agencies to expedite verification according to established procedures in emergency situations.

IV. GENERAL CONDITIONS

An activity is authorized under the General Permits (GPs) only if that activity and the permittee satisfy all of the applicable GPs terms and following general conditions (GCs):

1. Federal Jurisdiction.
2. Minimal Direct, Secondary and Cumulative Effects.
3. Other Permits.
4. Water Quality and Coastal Zone Management.
5. Fills Within 100-Year Floodplains.
6. Discretionary Authority.
7. Single and Complete Project.
8. Use of Multiple General Permits.
9. Mitigation (Avoidance, Minimization, and Compensatory Mitigation).
10. Corps Projects and Property.
11. Navigation.
12. National Lands.
13. Wild and Scenic Rivers.
14. St. John/St. Croix Rivers.
15. Historic Properties.
16. Federal Threatened and Endangered Species.
17. Essential Fish Habitat.
18. Aquatic Life Movements and Management of Water Flows.
19. Spawning, Breeding, and Migratory Areas.
20. Vernal Pools.
21. Restoration of Special Aquatic Sites (Including Wetland Areas).
22. Invasive and Other Unacceptable Species.
23. Soil Erosion, Sediment, and Turbidity Controls.
24. Time-of-Year Work Windows/Restrictions.
25. Pile Driving and Pile Removal in Navigable Waters.
26. Temporary Fill.
27. Heavy Equipment in Wetlands or Mudflats.
28. Bank and Shoreline Stabilization Including Living Shorelines.
29. Stream Work and Crossings, and Wetland Crossings.
30. Utility Line Installation and Removal.
31. Storage of Seasonal Structures.
32. Aquaculture.
33. Permit(s)/Authorization Letter On-Site.
34. Inspections.
35. Maintenance.
36. Federal Liability.
37. Property Rights.
38. Previously Authorized Activities.
39. Transfer of GP Verifications.
40. Modification, Suspension, and Revocation.
41. Special Conditions.
42. False or Incomplete Information.
43. Abandonment.
44. Enforcement Cases.
45. Duration of Authorization.

1. Federal Jurisdiction.

a. Applicability of these GPs shall be evaluated with reference to federal jurisdictional boundaries (e.g. mean high water mark, high tide line, ordinary high water mark, and wetland boundary). Activities shall be evaluated with reference to "waters of the U.S." under the Clean Water Act (33 CFR 328) and "navigable waters of the U.S." under Section 10 of the Rivers and Harbors Act of 1899 (33 CFR 329). Prospective permittees are responsible for ensuring that the boundaries used satisfy the federal criteria defined at 33 CFR 328 – 229. These sections prescribe the policy, practice and procedures to be used in determining the extent of the Corps jurisdiction. Note: Waters of the U.S. includes all waters pursuant to 33 CFR 328.3(a), and in adjacent wetlands as that term is defined in 33 CFR 328.3(c).

b. Permittees shall identify on project plans wetlands, other special aquatic sites (SAS) including vegetated shallows (or submerged aquatic vegetation, SAV) and mudflats, and other waters, such as lakes and ponds, and perennial and intermittent streams on the project site. Wetlands shall be delineated in accordance with the Corps of Engineers Wetlands Delineation Manual and the most recent regional supplement pertaining to the State of Maine. GP-eligible activities may utilize wetland determinations conducted by State of Maine staff in-lieu of a wetland delineation. For activities located in Essential Fish Habitat (GC 17), permittees shall also identify on project plans natural rocky habitats and shellfish areas in order to satisfy the Magnuson-Stevens Fishery Conservation and Management Act.

2. Minimal Direct, Secondary and Cumulative Effects. To be eligible and subsequently authorized by these GPs, an activity shall result in no more than minimal individual and cumulative effects on the aquatic environment as determined by the Corps in accordance with the criteria listed within these GPs and GCs. This may require project modifications involving avoidance, minimization, or compensatory mitigation for unavoidable impacts to ensure that the net adverse effects of an activity are no more than minimal.

3. Other Permits. Permittees shall obtain other Federal, State, or local authorizations as required by law. Permittees are responsible for applying for and obtaining all required State of Maine or local approvals including a Flood Hazard Development Permit issued by the town/city. Work that is not regulated by the State of Maine, but is subject to Corps jurisdiction, may still be eligible for authorization under these GPs.

4. Water Quality and Coastal Zone Management.

a. Permittees shall satisfy any conditions imposed by the State of Maine and EPA, where applicable, in their Clean Water Act Section 401 Water Quality Certification (WQC) for these GPs, or in any Individual Section 401 WQC. See Section VIII for state-specific contact info and to determine if any action is required to obtain a 401 WQC. The Corps may require additional water quality management measures to ensure that the authorized activity does not cause or contribute to a violation of water quality standards. All projects authorized by these GPs shall be designed, constructed and operated to minimize or eliminate the discharge of pollutants.

b. Permittees shall satisfy any additional conditions imposed by the State of Maine in their Coastal Zone Management (CZM) Act of 1972 consistency concurrences for these GPs, or in any Individual CZM consistency concurrences. The Corps may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

5. Fills Within 100-Year Floodplains. The activity shall comply with applicable Federal Emergency Management Agency (FEMA) approved State of Maine or municipal floodplain management requirements. Permittees should contact FEMA and/or the State of Maine Floodplain Management Program regarding floodplain management requirements (see Section VIII for Federal and state-specific contact info).

6. Discretionary Authority. Notwithstanding compliance with the terms and conditions of these GPs, the Corps retains discretionary authority to require a PCN or IP review based on concerns for the aquatic environment or for any other factor of the public interest (see 33 CFR 320.4(a)). This authority is invoked on a case-by-case basis whenever the Corps determines that the potential consequences of the proposal warrant a higher level of review based on the concerns stated above. This authority may be invoked for projects that may contribute to cumulative environmental impacts that are more than minimal or if there is a special resource or concern associated with a particular project.

7. Single and Complete Project. The term "single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. These GPs shall not be used for piecemeal work and shall be applied to single and complete projects and as such, the same GP shall not be used more than once for the same single and complete project.

a. For non-linear projects, a single and complete project shall have independent utility. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

b. Unless the Corps determines the activity has independent utility, all components of a single project and/or all planned phases of a multi-phased project (e.g., subdivisions should include all work such as roads, utilities, and lot development) shall be treated together as constituting one single and complete project. If any component of a single and complete project requires a PCN, the entire single and complete project shall be reviewed under PCN.

c. For linear projects such as power lines or pipelines with multiple crossings, a "single and complete project" is all crossings of a single water of the U.S. (i.e. single waterbody) at a specific location. For linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly-shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

8. Use of Multiple General Permits. The use of more than one GP for a single and complete project is prohibited, except when the acreage loss of waters of the U.S. authorized by the GPs does not exceed the acreage limit of the GPs with the highest specified acreage limit. For example, if a road crossing over waters is constructed under GP 10, with an associated utility line crossing authorized by GP 9, if the maximum acreage loss of waters of the U.S. for the total project is ≥3 acres it shall be evaluated as an IP.

9. Mitigation (Avoidance, Minimization, and Compensatory Mitigation).

a. Activities shall be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the U.S. to the maximum extent practicable to ensure that adverse effects to the aquatic environment are no more than minimal.

b. Compensatory mitigation for unavoidable impacts to waters of the U.S., including direct, secondary and temporal loss, will generally be required for permanent impacts that exceed the SV limits (SV limits are detailed in Section V), and may be required for temporary impacts that exceed the SV limits, to offset unavoidable impacts which remain after all appropriate and practicable avoidance and minimization has been achieved and to ensure that the adverse effects to the aquatic environment are no more than minimal. Proactive restoration projects or temporary impact work with no secondary effects may generally be excluded from this requirement.

c. Mitigation proposals shall follow the guidelines found in the Compensatory Mitigation for Losses of Aquatic Resources; Final Rule April 10, 2008; 33 CFR 332 (which can be found at: *www.nae.usace.army.mil/Missions/Regulatory/Mitigation* under "Compensatory Mitigation for Losses of Aquatic Resources, 33 CFR 332 (Compensatory Mitigation Rule)") and any other regulation. Permittees considering the use of a monetary payment *in-lieu* of permittee-responsible mitigation as compensation for unavoidable impacts to waters of the U.S. in the State of Maine may utilize the Maine Natural Resources Conservation Program (MNRCP). Information regarding this compensatory program can be found at: *www.mnrcp.org* For unavoidable jurisdictional impacts affecting federally-endangered Atlantic salmon and/or its critical habitat, permittees may be required to compensate for the impacts by utilizing the Maine Atlantic Salmon Restoration and Conservation Program. Information regarding this *in-lieu-fee* compensatory program can be found at: *www.maine.gov/dmr/science-research/searun/programs/ilffacts.html*

10. Corps Projects and Property.

a. Corps projects and property can be found at: *www.nae.usace.army.mil/Missions/Civil-Works*

b. In addition to any authorization under these GPs, prospective permittees shall contact the Corps Real Estate Division at (978) 318-8585 for work occurring on or potentially affecting Corps properties and/or Corps-controlled easements to initiate reviews and determine what real estate instruments are necessary to perform work. Permittees may not commence work on Corps properties and/or Corps-controlled easements until they

have received any required Corps real estate documents evidencing site-specific permission to work.

c. Any proposed temporary or permanent modification or use of a Federal project (including but not limited to a levee, dike, floodwall, channel, anchorage, breakwater, seawall, bulkhead, jetty, wharf, pier, or other work built or maintained but not necessarily owned by the United States), which may obstruct or impair the usefulness of the Federal project in any manner, is not eligible for SV and requires review and approval by the Corps pursuant to 33 USC 408 (Section 408).

d. A PCN is required for all work in, over, under, or within a distance of three times the authorized depth of a Corps Federal Navigation Project (FNP) and may require permission under Section 408.

e. Any structure or work that extends closer to the horizontal limits of any FNP than a distance of three times the project's authorized depth shall be subject to removal at the owner's expense prior to any future Corps dredging or the performance of periodic hydrographic surveys.

f. Where a Section 408 permission is applicable, written verification for the PCN will not be issued prior to the decision on the Section 408 permission request.

11. Navigation

a. There shall be no unreasonable interference with general navigation by the existence or use of the activity authorized herein, and no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized herein.

b. Work in, over, under, or within a distance of three times the authorized depth of an FNP shall specifically comply with GC 10.

c. Any safety lights and/or signals prescribed by the U.S. Coast Guard, State of Maine or municipality, through regulations or otherwise, shall be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the U.S.

d. The permittee understands and agrees that, if future operations by the U.S. require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the U.S. No claim shall be made against the U.S. on account of any such removal or alteration.

12. National Lands. Activities that impinge upon the value of any National Lands or Federal Properties including but not limited to a National Wildlife Refuge, National Forest, or any area administered by the National Park Service , U.S. Fish and Wildlife Service or U.S. Forest Service are not eligible for SV and require PCN.

13. Wild and Scenic Rivers.

a. The following activities in designated rivers of the National Wild and Scenic River (NWSR) System, or in a river designated by Congress as a "study river" for possible inclusion in the system, require a PCN unless the National Park Service has determined in writing to the prospective permittee that the proposed work will not adversely affect the NWSR designation or study status:

i. Activities that occur in NWSR segments, in and 0.25 miles up or downstream of NWSR segments, or in tributaries within 0.25 miles of NWSR segments.
ii. Activities that occur in wetlands within 0.25 miles of NWSR segments.
iii. Activities that have the potential to alter free-flowing characteristics in NWSR segments.

b. As of October 14, 2020, National Wild and Scenic Rivers and congressional study rivers in Maine include: the Allagash River beginning at Telos Dam continuing to Allagash checkpoint at Eliza Hole Rapids, approximately 3 miles upstream of the confluence with the St. John River (length = 92 92.5 miles); and 11.25 miles of the York River, in the State of Maine, from its headwaters at York Pond to the mouth of the river at York Harbor, plus tributaries (the York River is currently under study).

14. St. John/St. Croix Rivers. A PCN is required for any work within the Saint John and Saint Croix River basins that requires approval of the International Joint Commission. In addition, a PCN is required if any temporary or permanent use, obstruction or diversion of international boundary waters could affect the natural flow or levels of waters on the Canadian side of the line; or if any construction or maintenance of remedial works,

protective works, dams, or other obstructions in waters downstream from boundary waters could raise the natural level of water on the Canadian side of the boundary.

15. Historic Properties.

a. No undertaking shall cause effects (as defined at 33 CFR 325 Appendix C and 36 CFR 800) on properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unknown historic properties within the permit area, unless the Corps or another federal action agency has satisfied the consultation requirements of Section 106 of the National Historic Preservation Act (NHPA). The majority of historic properties are not listed on the National Register of Historic Places and may require identification and evaluation by qualified historic preservation and/or archeological consultants in coordination with the Corps and the State Historic Preservation Officer (SHPO) (the SHPO in the State of Maine is the Maine Historic Preservation Commission, MHPC) and/or the five federally-recognized tribes in the State of Maine (Tribal Historic Preservation Officers, or THPOs). The MHPC, the THPOs, and the National Register of Historic Places can assist with locating information on:

i. Previously identified historic properties; and

ii. Areas with potential for the presence of historic resources, which may require identification and evaluation by qualified historic preservation and/or archaeological consultants in consultation with the Corps and MHPC and/or the THPO(s).

b. For activities eligible for these GPs, permittees shall ensure that the activity will not cause effects as stated above in 15(a). In order to comply with this condition, both SV and PCN prospective permittees shall notify MHPC and all five THPOs for their identification of historic properties. MHPC and the THPOs will generally respond within 30 days of receiving the notification if they believe that the activity may have an adverse effect to historic properties. A PCN is required if an activity may have an adverse effect to historic properties. The PCN shall be submitted as soon as possible if a proposed activity may cause effects as stated above in 15(a) a to ensure that the Corps is aware of any potential effects of the proposed activity on any historic property to ensure all Section 106 requirements are met.

c. All PCNs shall:

i. Show notification to MHPC and all five THPOs for their identification of historic properties;

ii. State which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties; and

iii. Include any available documentation from MHPC or the THPO(s) indicating that there are or are not historic properties affected.

d. The requirements to comply with Section 106 of the NHPA may be satisfied by a Programmatic Agreement (PA) or Programmatic Consultation (PC) with the Corps, New England District or another federal agency. New England District PAs and PCs are found at *www.nae.usace.army.mil/Missions/Regulatory*

e. If the permittee discovers any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by these permits, the permittee shall immediately notify the district engineer of what was found, and avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

f. Federal agencies should follow their own procedures for complying with the requirements of Section 106 of the NHPA. Federal permittees shall provide the Corps with the appropriate documentation to demonstrate compliance with those requirements.

g. Federal and non-federal applicants should coordinate with the Corps before conducting any onsite archeological work (reconnaissance, surveys, recovery, etc.) requested by MHPC or the THPOs, as the Corps will determine the Permit Area for the consideration of historic properties based on 33 CFR 325 Appendix C. This is to ensure that work done is in accordance with Corps requirements.

16. Federal Threatened and Endangered Species.

a. No activity is authorized by these GPs which:

i. Is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat or proposed critical habitat of such species;

ii. "May affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed;

iii. Is "likely to adversely affect" a listed species or critical habitat unless Section 7 consultation has been completed by the Corps or another lead action agency in coordination with the Corps under the provisions of a Programmatic Agreement (PA) or Programmatic Consultation (PC); or

iv. Violates the ESA.

b. All prospective permittees shall attach to their SVNF or PCN an Official Species List obtained from the U.S. Fish and Wildlife Service's Information for Planning and Consultation (IPaC) found at: *https://ecos.fws.gov/ipac* and provide the email address of the person who generated the list.

c. For proposed activities in tidal waters, prospective permittees should also refer to the National Oceanic and Atmospheric Administration (NOAA) Fisheries' Section 7 Mapper for federally-listed species found at: *https://noaa.maps.arcgis.com/apps/webappviewer/index.html*

d. A PCN is required if a threatened or endangered species, a species proposed for listing as threatened or endangered, or designated or proposed critical habitat (all hereinafter referred to as "listed species or habitat"), as identified under the ESA, may be affected by the proposed work. An activity may remain eligible for SV if the only listed species affected is the northern long-eared bat (*Myotis septrionalis*), and only after Section 7 consultation has been completed by the Corps under the 4(d) Rule Streamlined Consultation.

e. Federal agencies shall follow their own procedures for complying with the requirements of the ESA while ensuring that the Corps and any other federal action agencies are included in the consultation process.

f. Non-federal representatives designated by the Corps to conduct informal consultation or prepare a biological assessment shall follow the requirements in the designation document(s) and the ESA. Non-federal representatives shall also provide the Corps with the appropriate documentation to demonstrate compliance with those requirements. The Corps will review the documentation and determine whether it is sufficient to address ESA compliance for the GP activity, or whether additional ESA consultation is necessary.

g. The requirements to comply with Section 7 of the ESA may be satisfied by a Programmatic Agreement (PA) or Programmatic Consultation (PC) with the Corps, New England District or another federal agency. New England District PAs and PCs are found at: *www.nae.usace.army.mil/Missions/Regulatory*

17. Essential Fish Habitat (EFH).

a. PCN activities in tidal waters and the following rivers and streams, including all tributaries to the extent that they are currently or were historically accessible for salmon migration, shall be reviewed for the potential to adversely affect EFH (activities meeting SV criteria have been determined to result in no more than minimal adverse effects to EFH and therefore need no additional review):

Androscoggin River	Aroostook River	Boyden River	Dennys River
Ducktrap River	East Machias River	Hobart Stream	Kennebec River
Machias River	Narraguagus River	Orland River	Passagassawaukeag River
Patten Stream	Penobscot River	Pleasant River	Presumpscot River
Saco River	Sheepscot River	St. Croix River	Tunk Stream
Union River			

b. Prospective permittees may be required to describe and identify potential adverse effects to EFH and should refer to the NOAA Fisheries' EFH Mapper found at: *www.fisheries.noaa.gov/resource/map/essential-fish-habitat-mapper*

c. The requirements to comply with the Magnuson-Stevens Fishery Conservation and Management Act may be satisfied by a Programmatic Agreement (PA) or Programmatic Consultation (PC) with the Corps, New England District or another federal agency. New England District PAs and PCs are found at: *www.nae.usace.army.mil/Missions/Regulatory*

18. Aquatic Life Movements and Management of Water Flows.

a. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Unless otherwise stated, activities permanently impounding water in a stream require a PCN to ensure impacts to aquatic life species are avoided and minimized. All permanent and temporary crossings of waterbodies and wetlands shall be:

i. Suitably spanned, bridged, culverted, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species; and

ii. Properly aligned and constructed to prevent bank erosion or streambed scour both adjacent to and inside the crossing.

b. To avoid adverse impacts on aquatic organisms, the low flow channel/thalweg shall remain unobstructed during periods of low flow, except when it is necessary to perform the authorized work.

c. For work in tidal waters, in-stream controls (e.g. cofferdams) should be installed in such a way as to not obstruct fish passage.

d. To the maximum extent practicable, the preconstruction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity shall not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g. stream restoration or relocation activities).

e. Activities that temporarily or permanently adversely impact upstream or downstream flood conditions require a PCN.

19. Spawning, Breeding, and Migratory Areas.

a. Jurisdictional activities in waters of the U.S. such as certain excavations, discharges of dredged or fill material, and/or suspended sediment producing activities that provide value as fish migratory areas, fish and shellfish spawning or nursery areas, or amphibian and migratory bird breeding areas, during spawning or breeding seasons shall be avoided and minimized to the maximum extent practicable.

b. Jurisdictional activities in waters of the U.S. that provide value as breeding areas for migratory birds must be avoided to the maximum extent practicable. The permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the U.S. Fish and Wildlife's Maine Field Office (see Section VIII for contact info) to determine applicable measures to reduce impacts to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Vernal Pools.

a. A PCN is required if a discharge of dredged or fill material is proposed within a vernal pool depression located within waters of the U.S.

b. GC 20(a) above does not apply to projects that are within a municipality that meets the provisions of a Corps-approved vernal pool Special Area Management Plan (SAMP) and are otherwise eligible for SV, and the applicant meets the requirements to utilize the vernal pool SAMP.

21. Restoration of Special Aquatic Sites (Including Wetland Areas).

a. In areas of authorized temporary disturbance, if trees are cut they shall be cut at or above ground level and not uprooted in order to prevent disruption to the wetland soil structure and to allow stump sprouts to revegetate the work area, unless otherwise authorized.

b. The introduction or spread of invasive plant species in disturbed areas shall be controlled. If construction mats are to be used in areas of invasive plant species, they shall be thoroughly cleaned before re-use.

c. Wetland areas where permanent disturbance is not authorized shall be restored to their original condition and elevation. Original condition means protection and/or removal of existing soil and vegetation, and replacement back to the original location such that the original soil layering and vegetation schemes are

approximately the same, unless otherwise authorized. Restoration shall typically commence no later than the completion of construction.

d. Upon completion of construction, all areas of authorized disturbed wetland area shall be stabilized with a wetland seed mix containing only plant species native to New England and shall not contain any species listed in the "Invasive and Other Unacceptable Plant Species" Appendix K in the "New England District Compensatory Mitigation Guidance" found at: *www.nae.usace.army.mil/Missions/Regulatory/Mitigation*

22. Invasive and Other Unacceptable Species.

a. The introduction or spread of invasive or other unacceptable plant or animal species on the project site or areas adjacent to the project site caused by the site work shall be avoided to the maximum extent practicable. For example, construction mats and equipment shall be thoroughly cleaned and free of vegetation and soil before and after use. The introduction or spread of invasive plant or animal species on the project site caused by the site work shall be controlled.

b. No cultivars, invasive or other unacceptable plant species may be used for any mitigation, bioengineering, vegetative bank stabilization or any other work authorized by these GPs. However, non-native species and cultivars may be used when it is appropriate and specified in a written verification, such as using *Secale cereale* (Annual Rye) to quickly stabilize a site. All PCNs shall justify the use of non-native species or cultivars.

c. For the purposes of these GPs, plant species that are considered invasive and unacceptable are provided in Appendix K "Invasive and Other Unacceptable Plant Species" of the most recent "New England District Compensatory Mitigation Guidance" and is found at: *www.nae.usace.army.mil/Missions/Regulatory/Mitigation* The June 2009 "U.S. Army Corps of Engineers Invasive Species Policy" provides policy, goals and objectives and is located at *www.nae.usace.army.mil/Missions/Regulatory/Invasive-Species* If an Invasive Species Control/Management Plan has been prepared it should be included with any SV or PCN.

23. Soil Erosion, Sediment, and Turbidity Controls.

a. Adequate sedimentation and erosion control management measures, practices and devices, such as phased construction, installation of sediment control barriers (i.e. silt fence, vegetated filter strips, geotextile silt fences, erosion control mixes, hay bales or other devices) downhill of all exposed areas, retention of existing vegetated buffers, application of temporary mulching during construction, and permanent seeding and stabilization shall be installed and properly maintained to reduce erosion and retain sediment on-site during and after construction. They shall be capable of preventing erosion; of collecting sediment, suspended and floating materials; and of filtering fine sediment.

b. Temporary sediment control barriers shall be removed upon completion of work, but not until all disturbed areas are permanently stabilized. The sediment collected by these sediment barriers shall be removed and placed at an upland location and stabilized to prevent its later erosion into a waterway or wetland.

c. All exposed soil and other fills shall be permanently stabilized at the earliest practicable date.

24. Time-of-Year Work (TOY) Windows/Restrictions. In-water work shall be conducted during the following TOY work windows (work allowed) under SV and any in-water work proposed during the following TOY restrictions (no work) shall be reviewed under PCN (and shall contain written justification for deviation from the work allowed windows). The term "in-water work" does not include conditions where the work site is "in-the-dry" (e.g. intertidal areas exposed at low tide). The term also does not include work contained in a cofferdam so long as the cofferdam was installed and subsequently removed within the work allowed window.

	TOY Restriction (***no work***)	TOY Work Window (***work allowed***)
Non-tidal waters	Oct. 1st to Jul. 14th	Jul. 15th to Sep. 30th
Tidal waters	Apr. 10th to Nov. 7th	Nov. 8th to Apr. 9th

Alternate work windows proposed under PCN will generally be coordinated with the U.S. Fish and Wildlife Service, National Marine Fisheries Service, Maine Department of Inland Fisheries and Wildlife, and/or Maine Department of Marine Resources and resulting written verifications may include species-specific work allowed windows.

25. Pile Driving and Pile Removal in Navigable Waters.

a. Derelict, degraded, or abandoned piles and sheet piles in the project area shall be removed in their entirety as practicable and properly disposed of in an upland location and not in wetlands. In areas of fine-grained substrates, piles/sheets shall be removed by direct, vibratory, or clamshell pull method in order to minimize potential turbidity and sedimentation impacts. If removal is not practicable, said piles/sheets shall be cut off or driven to a depth of at least one foot below substrate.

b. Work involving pile installation and/or removal should adhere to one of the five methods below:

i. "In-the-dry", or

ii. In-water between Nov. 8th to Apr. 9th, or

iii. Drilled and pinned to ledge, or

iv. Vibratory hammers used to install any size and quantity of wood, concrete, or steel, or impact hammers limited to one hammer and <50 piles installed/day with the following: wood piles of any diameter, concrete piles ≤18-inches diameter, steel piles ≤12-inches diameter if: (1) the hammer is ≤3,000 pounds and a wood cushion or equivalent is used between the hammer and steel pile, or (2) a soft start is used. Soft starts require an initial set of three strikes from the impact hammer at 40% energy, followed by a 1-minute waiting period between subsequent three-strike sets. The soft-start procedure shall be conducted any time hammering ceases for more than 30 minutes.

26. Temporary Fill.

a. Temporary fills, including but not limited to construction mats and corduroy roads shall be entirely removed as soon as they are no longer needed to construct the authorized work. Temporary fill shall be placed in its original location or disposed of at an upland site and suitably contained to prevent its subsequent erosion into waters of the U.S.

b. All temporary fill and disturbed soils shall be stabilized to prevent its eroding into waters of the U.S. where it is not authorized. Work shall include phased or staged development to ensure only areas under active development are exposed and to allow for stabilization practices as soon as practicable. Temporary fill shall be placed in a manner that will prevent it from being eroded by expected high flows.

c. Unconfined temporary fill authorized for discharge into waters of the U.S. shall consist of material that minimizes impacts to water quality (e.g. washed stone, stone, etc.).

d. Appropriate measures shall be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Materials shall be placed in a location and manner that does not adversely impact surface or subsurface water flow into or out of the wetland. Temporary fill authorized for discharge into wetlands shall be placed on geotextile fabric or other appropriate material laid on the pre-construction wetland grade where practicable to minimize impacts and to facilitate restoration to the original grade. Construction mats are excluded from this requirement.

e. Construction debris and/or deteriorated materials shall not be placed or otherwise located in waters of the U.S.

27. **Heavy Equipment in Wetlands or Mudflats.** Operating heavy equipment (drill rigs, fixed cranes, etc.) within wetlands shall be minimized, and to the maximum extent practicable such equipment shall not be stored, maintained or repaired in wetlands. Where construction requires heavy equipment operation in wetlands, the equipment shall: a) have low ground pressure (typically <3 psi); b) be placed on swamp/construction/timber mats (herein referred to as "mats") that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation; or c) be operated on adequately dry or frozen wetlands such that shear pressure does not cause subsidence of the wetlands immediately beneath equipment and upheaval of adjacent wetlands. Mats are to be placed in the wetland from the upland or from equipment positioned on mats if already working within a wetland. Other support structures that are capable of safely supporting equipment may be used with written Corps authorization. Similarly, the permittee may request written authorization from the Corps to waive use of mats during frozen or dry conditions. Construction mats should be managed in accordance with construction mat best management practices (BMPs) found at:
www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Maine-General-Permit

28. Bank and Shoreline Stabilization Including Living Shorelines.

a. Projects involving construction of or repair, replacement, and maintenance of bank or shoreline stabilization structures including living shorelines within Corps jurisdiction shall be designed to minimize environmental effects, effects to neighboring properties, scour, etc. to the maximum extent practicable.

b. Prospective permittees shall design and construct these stabilization projects using this sequential avoidance and minimization process: avoidance of aquatic resource impacts, diversion of overland flow, vegetative stabilization, living shorelines, stone-sloped surfaces, and walls/bulkheads. New vertical walls/bulkheads shall only be used in situations where reflected wave energy can be tolerated. Prospective permittees proposing new vertical walls/bulkheads shall provide written justification demonstrating why other methods of stabilization are not practicable and how the surrounding area would be affected by the resulting reflected wave energy.

Additional conditions to meet SV eligibility criteria for *non-tidal* bank and shoreline stabilization activities:

a. Fill shall be ≤500 linear feet in total length as measured below the plane of the ordinary high water mark (OHWM), includes total if more than one stream bank.
b. Fill placed below the plane of the OHWM shall be ≤1 cubic yard per linear foot.
c. Fill shall not be angled steeper than 1H:1V.
d. No discharge of fill in special aquatic sites other than wetlands.
e. Stone revetment shall be comprised of angular material.
f. No material shall be of the type, or placed in any location, or in any manner, to impair surface water flow into or out of any water of the U.S.
g. No material shall be placed in a manner that will be eroded by normal or expected high flows (properly anchored trees and treetops may be used in low energy areas).
h. The activity shall not be a stream channelization activity.

Additional conditions to meet SV eligibility criteria for *tidal* bank and shoreline stabilization activities:

a. All in-water work shall be conducted "in-the-dry".
b. Fill shall be ≤500 linear feet in total length as measured below the plane of the high tide line (HTL) and shall be ≤200 linear feet in total length as measured below the plane of the mean high water mark (MHWM), includes total for more than one bank. Vertical structures shall be ≤200 linear feet in total length as measured below the plane of the MHWM and shall be ≤18 inches waterward of the existing vertical face.
c. Fill placed below the plane of the HTL shall be ≤1 cubic yard per linear foot.
d. Stone revetment shall be comprised of angular material.
e. Shall not impact special aquatic sites (SAS, incl. submerged aquatic vegetation, SAV), impacts to natural rocky habitats are ≤100 square feet, and impacts to intertidal and shellfish areas are ≤1,000 square feet).
f. No structures/fill shall be steeper than 1H:1V.
g. No new groins, breakwaters, or jetties.

29. Stream Work and Crossings, and Wetland Crossings.

a. A PCN is required for all new and replacement crossings in navigable waters.

b. In order to effectively size and configure crossings in navigable waters, new and replacement crossings shall consider factors including but not limited to: local tidal elevations over the range of tidal heights, basin topography and bathymetry, existing and proposed road elevations. Flood risk tolerance, conditions of habitat and natural community types present, and sea level rise during the useful life of the crossing.

c. A PCN is required for activities that result in unavoidable impacts to wetlands in excess of SV thresholds.

d. In-stream work and crossings and wetland crossings shall adhere to all applicable GCs including but not limited to:

i. GC 16 (Federally Threatened and Endangered Species)
ii. GC 17 (Essential Fish Habitat)
iii. GC 18 (Aquatic Life Movements and Management of Water Flows)

iv. GC 23 (Soil Erosion, Sediment and Turbidity Controls)
v. GC 24 (Time-of-Year Work Windows/Restrictions)
vi. GC 26 (Temporary Fill)
vii. GC 28 (Bank Stabilization)

e. Slip Lining. Work resulting in a decreased width, height, or diameter of an existing crossing (e.g. slip lining and invert lining) is discouraged and requires PCN. Written justification shall be provided for this activity.

f. Culvert Extensions. A PCN is required for any extension to an existing culvert.

g. Scour protection or armoring of the inlet and/or outlet of a crossing shall not disrupt normal flow patterns or substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area (see GC 18).

h. The permittee shall maintain the work authorized herein in good condition and in conformance with the terms and general conditions of this permit to facilitate aquatic life passage as stated in GC 18. Culverts that develop "hanging" inlets or outlets, result in bed washout, or a stream that doesn't match the characteristics of the substrate in the natural stream channel such as mobility, slope, stability confinement will require maintenance or repair to comply with this GC (this does not apply to temporary stream crossings).

Additional conditions to meet SV eligibility criteria for Stream Work and Crossings:

a. Crossings shall be designed and constructed using the techniques and principles outlined in Stream Simulation, Stream Smart, Habitat Connectivity Design.
b. Crossings shall be designed to be at least 1.2 times bankfull width. Any footings, abutments, and/or abutment armoring shall also be at least 1.2 times bankfull width.
c. Crossings shall have a natural bottom substrate under or within the structure matching the characteristics of the substrate in the natural stream channel. Crossings shall be designed and constructed with appropriate streambed forms and streambed characteristics so that water depths and velocities are comparable to those found in the adjacent natural channel at a variety of flows.
d. Crossings shall include a bank on both sides of the stream matching the horizontal profile of the existing stream and banks in order to allow terrestrial passage for wildlife and to prevent undermining of the footings as applicable.
e. Closed bottom culverts shall be embedded at least 25 percent of the maximum height of the culvert.
f. No unconfined fill or excavation in flowing waters is allowed. In-stream construction work shall be conducted "in-the-dry" under no-flow conditions or by using cofferdams, temporary flume pipes, culverts, etc. Downstream flows shall be maintained during in-stream construction. It is recommended that project plans include pertinent details for working in-the-dry and maintaining downstream flows.
g. Conditions (a) thru (e) immediately above do not apply to temporary stream crossings; however, in addition to conditions (f) immediately above, temporary stream crossings shall adhere to the following:
    i. Be placed on geotextile fabric or other material where practicable to ensure restoration to the original grade. Soil may not be used to construct or stabilize these structures and rock shall be large enough to allow for easy removal without disrupting the streambed.
    ii. Be designed and maintained to withstand and pass high flows. Water height shall be no higher than the top of the culvert's inlet. A minimum culvert diameter of two feet is required to pass debris. Culverts shall be aligned to prevent bank erosion or streambed scour.
    iii. Be equipped with energy dissipating devices installed downstream if necessary to prevent scour.
    iv. Be designed and maintained to prevent soil from entering the waterbody.
    v. Be removed upon the completion of work. Impacts to the streambed or banks requires restoration to their original condition using the methods in (a) above.

PCN Conditions for Stream Work and Crossings:

a. Crossings are recommended to meet the conditions for SV; written justification shall be provided for any deviation from SV conditions.

b. Crossings shall be designed using the least intrusive and environmentally damaging method following this sequential minimization process: 1) spans with no stream impacts, 2) spans with stream impacts, and 3) embedded culverts with Stream Simulation, Stream Smart, or Habitat Connectivity.

Additional Conditions for Wetland Crossings:

a. New and replacement wetland crossings that are permanent shall be constructed in such a manner as to preserve hydraulic and ecological connectivity, at its present level, between the wetlands on either side of the road. Crossing structures commonly include but are not limited to spans and culverts. To meet this condition, spans or culverts should be placed at least every 50 feet with an opening at least 2 feet high and 3 feet wide at ground level. Closed bottom culverts should be embedded at least 6 inches and should have a natural bottom substrate within the structure. Alternative crossing designs that preserve wetland hydraulic and ecological connectivity (e.g. "rock sandwiches) may also be considered.

b. Any work that results in flooding, or impacts to wetland drainage from the upgradient side of the wetland crossing does not qualify for SV.

c. In the case of non-compliance, the permittee shall take necessary measures to correct wetland damage due to lack of hydraulic and ecological connectivity.

30. Utility Line Installation and Removal.

a. Utility lines in jurisdictional waters should be installed subsurface and shall be maintained in such a way so that they remain subsurface. If it is necessary to discharge dredged or filled material to keep such utility lines buried or restore them to their original subsurface condition, a PCN and written verification from the Corps may be required (e.g., in the case of side casting into wetlands from utility trenches).

b. For subsurface utility lines the bottom and side slope cover associated with the initial installation under Federal Navigation Projects (FNPs) is a technical determination. The depth requirement varies based on geotechnical (composition of bottom materials and layering), hydraulic (current, or wave induced scour depth), navigation (propeller induced scour depth and ships' anchor penetration), maintenance dredging (penetration of barge spuds), construction factors (energy from blasting potentially transmitted to utility crossings), physical conditions (exposed open water conditions or sheltered/harbor conditions), and the proposed location of the utility crossing within any FNP or within navigable waters, including areas dredged by others. On a case-by-case basis, the Corps will determine the depth and cover requirements for each proposed utility crossing. Additional conditions to the GP will be attached to address pre and post installation requirements. In waterways that do not have existing FNPs, this depth should be taken as two feet below the existing bottom or maximum depth of proposed dredging, as applicable.

c. Aerial utility lines crossing navigable waters require PCN and shall meet minimum clearances per 33 CFR 322.5(i).

d. For horizontal directional drilling work, returns of drilling fluids to the surface (i.e., frac-outs) are not authorized and require restoration to the maximum extent practicable in accordance with the terms and conditions of these GPs. The permittee and its contractor shall have onsite and shall implement the procedures detailed in a frac-out contingency plan for monitoring drilling operations and for the immediate containment, control and recovery/removal of drilling fluids released into the environment should a discharge of material occur during drilling operations.

e. For new installations within waters of the U.S., any abandoned or inactive utility lines should be removed and faulty lines (e.g., leaking hazardous substances, petroleum products, etc.) shall be removed or repaired to the extent practicable. A PCN is required if they are to remain in place, e.g., to protect sensitive areas or ensure safety.

f. No work shall drain a water of the U.S. by providing a conduit for water on or below the surface. Trench plugs installed along pipelines may be effective.

g. Trenches should be backfilled with native sediment immediately after completion of work.

h. Pre-construction elevations should be re-established. Any additional material needed to accomplish this should be of consistent type and grain-size as the existing substrate sediment.

i. Utility line activities in non-tidal waters adjacent to special aquatic sites, and all work in tidal waters should utilize horizontal directional drilling as practicable.

31. Storage of Seasonal Structures. Seasonal or recreational structures such as pier sections, floats, aquaculture structures, etc. that are removed from the waterway for a portion of the year shall be stored in an upland location and not in wetlands, tidal wetlands, their substrate, or on mudflats. These seasonal structures may be stored on the fixed, pile-supported portion of a structure that is waterward of the mean high water mark or the ordinary high water mark, e.g. the storage of a ramp or gangway on the pile-supported pier. Seasonal storage of structures in navigable waters, e.g., in a protected cove, requires prior Corps approval and local harbormaster approval.

32. Aquaculture. Activities involving the cultivation of Atlantic salmon and other salmonids, or other federally-listed threatened or endangered species are not eligible for authorization under these GPs. All other aquaculture activities shall adhere to all applicable GCs including but not limited to:

a. GC 3 (Other Permits) In particular, permittees shall maintain a current State of Maine Department of Marine Resources lease or license.
b. GC 10 (Corps Projects and Property)
c. GC 11 (Navigation)
d. GC 16 (Federal Threatened and Endangered Species)
e. GC 17 (Essential Fish Habitat)
f. GC 18 (Aquatic Life Movements and Management of Water Flows)
g. GC 31 (Storage of Seasonal Structures)

Additional conditions to meet SV eligibility criteria for Tidal Aquaculture:

a. Shall not exceed 400 square feet in area.
b. Shall receive signed approval from Harbormaster or appropriate Town Official.
c. Shall not include enclosures or impoundments.
d. Shall not be located in or within a distance of three times the authorized depth of a FNP.
e. Shall not be located in or impinge upon the value of National Lands and Federal Properties including but not limited to National Parks and National Wildlife Refuges.
f. Shall not impact special aquatic sites (SAS, incl. submerged aquatic vegetation, SAV), impacts to natural rocky habitats are ≤100 square feet, and impacts to intertidal and shellfish areas are ≤1,000 square feet.
g. No structures, cages, gear, or shell hash shall be located in/within 25 feet of SAV.
h. All gear, except for mooring tackle, when not in use on the site shall be stored in an upland location above the mean high water mark and not on wetland (incl. salt marsh).

33. Permit(s)/Authorization Letter On-Site. The permittee shall ensure that a copy of the terms and conditions of these GPs and any accompanying authorization letter with attached plans are at the site of the work authorized by these GPs whenever work is being performed and that all construction personnel performing work which may affect waters of the U.S. are fully aware of the accompanying terms and conditions. The entire permit authorization shall be made a part of any and all contracts and subcontracts for work that affects areas of Corps jurisdiction at the site of the work authorized by these GPs. This shall be achieved by including the entire permit authorization in the specifications for work. The term "entire permit authorization" means all terms and conditions of the GPs, the GPs, and the authorization letter (including its drawings, plans, appendices and other attachments) and subsequent permit modifications as applicable. If the authorization letter is issued after the construction specifications, but before receipt of bids or quotes, the entire permit authorization shall be included as an addendum to the specifications. If the authorization letter is issued after receipt of bids or quotes, the entire permit authorization shall be included in the contract or subcontract. Although the permittee may assign various aspects of the work to different contractors or subcontractors, all contractors and subcontractors shall be obligated by contract to comply with all environmental protection provisions contained within the entire GP authorization, and no contract or subcontract shall require or allow unauthorized work in areas of Corps jurisdiction.

34. Inspections. The permittee shall allow the Corps to make periodic inspections at any time deemed necessary in order to ensure that the work is eligible for authorization under these GPs, is being, or has been performed in accordance with the terms and conditions of these GPs. To facilitate these inspections, the permittee shall

complete and return to the Corps the Work-Start Notification Form and the Compliance Certification Form when either is provided with an authorization letter. The Corps may also require post-construction engineering drawings and/or photographs for completed work or post-dredging survey drawings for any dredging work to verify compliance.

35. Maintenance. The permittee shall maintain the activity authorized by these GPs in good condition and in conformance with the terms and condition of these permits. This does not include maintenance dredging, related disposal, or beach nourishment projects, which are subject to review thresholds for GP 5 on page 30, unless specified in written authorization from the Corps.

36. Federal Liability. In issuing these permits, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes;

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the U.S. in the public interest;

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit;

d. Design or construction deficiencies associated with the permitted work; or

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

37. Property Rights. Per 33 CFR 320.4(g)(6), these GPs do not convey any property rights, either in real estate or material, or any exclusive privileges, nor does it authorize any injury to property or invasion of rights or any infringement of federal, state, or local laws or regulations.

38. Previously Authorized Activities.

a. Projects that received prior authorization from the Corps (via Category 1 or 2) and that completed authorized work under the previous nationwide permits, programmatic permits, regional general permits or letters of permission, shall remain authorized in accordance with the original terms and conditions of those authorizations, including their terms, general conditions, expiration date, and any special conditions provided in a written verification.

b. Activities authorized pursuant to 33 CFR Part 330.3 ("Activities occurring before certain dates") are not affected by these GPs.

c. Any work not commenced, not under contract to commence, nor completed that was originally authorized by the Corps under the GP in effect between October 13, 2015 and October 13, 2020 remains authorized subject to the terms and general conditions of this GP along with any special conditions included in written authorizations. Exception: if previously authorized work has not commenced or not under contract to commence and a new federally-listed threatened or endangered species may be affected, the Corps shall consult with the U.S. Fish and Wildlife Service or NOAA Fisheries prior to re-authorizing the work under these GPs. Requests for re-authorization shall include an Official Species List per GC 16.

39. Transfer of GP Verifications. If the permittee sells the property associated with a GP verification, the permittee may transfer the GP verification to the new owner by submitting a letter to the Corps to validate the transfer. A copy of the GP verification shall be attached to the letter, the letter shall contain the name, address, phone number and email of the transferee (new owner), shall include the following statement and signature, and be mailed to: U.S. Army Corps of Engineers, Maine Project Office, 442 Civic Center Drive, Suite 350, Augusta, Maine 04330:

> "When the structures or work authorized by these GPs are still in existence at the time the property is transferred, the terms and conditions of these GPs, including any special conditions, will continue to be binding on the new owner(s) of the property."
>
> _____
> Transferee Printed Name
>
> _____
> Transferee Signature Date

40. Modification, Suspension, and Revocation. These GPs and any individual authorization issued thereof may be either modified, suspended, or revoked, in whole or in part, pursuant to the policies and procedures of 33 CFR 325.7, and any such action shall not be the basis for any claim for damages against the U.S.

41. Special Conditions. The Corps may independently or in coordination with federal resource agencies impose special conditions on a project authorized pursuant to these GPs that are determined necessary to minimize adverse navigational and/or environmental effects, or based on any other factor of the public interest. Failure to comply with all terms and conditions of the authorization, including special conditions, constitutes a permit violation and may subject the permittee to criminal, civil or administrative penalties and/or an ordered restoration.

42. False or Incomplete Information. If the Corps makes a determination regarding the eligibility of a project under these GPs and subsequently discovers that it has relied on false, incomplete or inaccurate information provided by the permittee, the Corps may determine that the GP authorization is not valid; modify, suspend or revoke the authorization; and the U.S. Government may institute legal proceedings.

43. Abandonment. If the permittee decides to abandon the activity authorized under these GPs, unless such abandonment is merely the transfer of property to a third party, he/she may be required to restore the area to the satisfaction of the Corps.

44. Enforcement cases. These GPs do not apply to any existing or proposed activity in Corps jurisdiction associated with an ongoing Corps or EPA enforcement action, until such time as the enforcement action is resolved or the Corps or EPA, as appropriate, determines that the activity may proceed independently without compromising the enforcement action.

45. Duration of Authorization.

a. These GPs expire on October 14, 2025 unless otherwise specifically indicated in an individual authorization letter. Activities authorized under these GPs that have either commenced or are under contract to commence in reliance upon this authorization will have an additional year from the expiration date to complete the work. The permittee must be able to document to the Corps' satisfaction that the activity commenced or was under contract to commence by the expiration date of these GPs. If work is not completed within the one year extended timeframe, the permittee must contact the Corps. The Corps may issue a new authorization, provided the activity meets the applicable terms and conditions of the Maine GPs that are in effect at the time.

b. Activities authorized under these GPs will remain authorized until these GPs expire, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 325.2(e)(2). Activities completed under the SV or PCN authorizations of these GPs will continue to be authorized after its expiration date.

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Tammy R. Turley
Chief, Regulatory Division

V. MAINE GENERAL PERMITS

An activity is authorized under General Permits 1 through 23 listed below only if that activity and the permittee satisfy all of the applicable GP terms and general conditions. Any activity not specifically listed may still be eligible for authorization under these GPs; prospective permittees are advised to contact the Corps for specific eligibility determination.

1. Repair, Replacement, and Maintenance of Authorized Structures and Fills;
Repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure, or fill and minor expansions thereof.

2. Moorings
New moorings and mooring fields, the relocation of previously authorized moorings, expansions, boundary reconfigurations or modifications of previously authorized mooring fields, conversion of mooring types (e.g. private to rental), and maintenance and replacement of moorings. Moored floats, lobster cars, rafts, and similar float structures are not included in this GP.

3. Structures, Floats and Lifts
New, expansions, reconfigurations or modifications of structures for navigational access in waters of the U.S. including but not limited to temporary/seasonal or permanent pile and crib-supported piers, floats, stairs, shore outhauls, and boat and float lifts/ways. Floats may include lobster cars, work floats, moored floats, swim floats, and shellfish upweller floats.

4. Aids to Navigation, and Temporary Recreational Structures
Aids to navigation and regulatory markers which are approved by and installed in accordance with the requirements of the U.S. Coast Guard (see 33 CFR, chapter I, subchapter C, part 66) and temporary buoys, markers, small floating docks, and similar structures placed for recreational use during specific events such as fireworks displays, water skiing competitions, and boat races or seasonal use.

5. Dredging, Disposal of Dredged Material, Beach Nourishment, and Rock Removal and Relocation
New, maintenance, and improvement dredging, including: a) Disposal of dredged material at a confinedaquatic disposal, beach nourishment, near shore, designated open water or ocean water disposal site(s), provided the Corps finds the dredged material to be suitable for such disposal; (b) Beach nourishment not associated with dredging; (c) Rock removal and relocation for navigation.

6. U.S. Coast Guard Approved Bridges and Causeways
Discharges of dredged or fill material incidental to the construction and modification of bridges across navigable waters of the U.S., including cofferdams abutments, foundation seals, piers, approach fills, and temporary construction and access fills provided that the USCG authorizes the construction of the bridge structure under Section 9 of the Rivers and Harbors Act of 1899 or other applicable laws.

7. Bank and Shoreline Stabilization Including Living Shorelines
Bank stabilization activities necessary for erosion protection along the banks of lakes, ponds, streams, and marine/tidal waters. Includes bulkheads, seawalls, riprap, revetments or slope protection & similar structures as well as vegetative planting, soil bioengineering or alternative techniques that are a combination of the two (i.e. living shorelines), specifically for the purpose of shoreline protection.

8. Residential, Commercial and Institutional Developments, and Recreational Facilities
Discharges of dredged or fill material into waters of the U.S for the construction or expansion of: residences and residential subdivisions; commercial and institutional buildings or subdivisions; and recreational facilities; and attendant features including but not limited to roads, parking lots, garages, stormwater management facilities, yards, and utilities.

9. Utility Line Activities

Activities required for (a) the construction, maintenance, relocation, repair, & removal of utility lines, including outfall and intake structures, and the associated excavation, backfill, or bedding for utility lines; (b) the construction, maintenance or expansion of utility line substation facilities associated with a power/utility line in non-tidal waters; and (c) the construction and maintenance of foundations for overhead utility line towers, poles, and anchors provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible. This GP authorizes the construction of access roads to facilitate construction of the above activities provided the activity, in combination with all other activities included in one single and complete project.

10. Linear Transportation Projects

Activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., driveways, roads, highways, railways, trails, airport runways, and taxiways) and attendant features.

11. Mining Activities

Temporary or permanent discharges of dredged or fill material into waters of the U.S. for mining activities.

12. Boat Ramps and Marine Railways

Temporary or permanent discharges of dredged or fill material, excavation and other work in waters of the U.S. required for the construction of temporary or permanent boat ramps and marine railways.

13. Land and Water-Based Renewable Energy Generation Facilities and Hydropower Projects

Structures and work and discharges of dredged or fill material into waters of the U.S. for the construction, expansion, modification or removal of: (a) land-based renewable energy production facilities (e.g. solar and wind) and their attendant features; (b) water-based wind or hydrokinetic renewable energy generation pilot projects and their attendant features; and (c) discharges of dredged or fill materialassociated with hydropower projects. Attendant features may include, but are not limited to, land-based collection and distribution facilities, control facilities, and parking lots.

14. Reshaping Existing Drainage Ditches and Mosquito Management

Discharges to modify the cross-sectional configuration of currently serviceable drainage ditches constructed in waters of the U.S., for the purpose of improving water quality by regrading the drainage ditch with gentler slopes, which can reduce erosion, increase growth of vegetation, and increase uptake of nutrients and other substances by vegetation. Also authorized are mosquito reduction activities.

15. Response Operations for Oil or Hazardous Substances

Activities conducted in response to a discharge or release of oil and hazardous substances that are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300) including containment, cleanup, and mitigation efforts, provided activities are done under either (i) The Spill Prevent, Control & Countermeasure Plan require by 40 CFR 112.3; (ii) The direction or oversight of the Federal on-site coordinator designated by 40 CFR 300; or (iii) Any approved existing State, regional or local contingency plan provided that the Regional Response Team (if one exists in the area) concurs with the proposed response efforts or does not object to the response effort. Activities required for the cleanup of oil releases in waters of the U.S. from electrical equipment that are governed by EPA's polychlorinated biphenyl (PCB) spill response regulations at 40 CFR 761. Booms placed in tidal waters. Use of temporary structures & fills for spill response training exercises.

16. Cleanup of Hazardous and Toxic Waste

Specific activities to effect the containment, stabilization or removal of hazardous or toxic waste materials, including court ordered remedial action plans or related settlements which are performed, ordered or sponsored by a government agency with established legal or regulatory authority.

17. Scientific Measurement Devices
Scientific devices for measuring and recording scientific data, such as staff gauges, tide and current gauges, meteorological stations, water recording and biological observation devices, water quality testing and improvement devices, and similar structures.

18. Survey Activities
Survey activities such as soil borings, core sampling, seismic exploratory operations, plugging of seismic shot holes and other exploratory-type bore holes, exploratory trenching and historic resources surveys (but not recovery).

19. Agricultural Activities
Regulated discharges of dredged or fill material in non-tidal waters of the U.S. for agricultural activities, including the construction of building pads for farm buildings. Authorized activities include: (a) installation, placement, or construction of drainage tiles, ditches, or levees; mechanized land clearing; land leveling; the relocation of existing serviceable drainage ditches; and similar activities; (b) construction of farm ponds, excluding perennial streams, provided the farm pond is used solely for agricultural purposes; and (c) discharges of dredged or fill material to relocate existing serviceable drainage ditches constructed in non-tidal streams.

20. Fish and Wildlife Harvesting, Enhancement, and Attraction Devices
Activities in waters of the U.S. associated with fish and wildlife harvesting devices including pound nets, crab and lobster traps, crab dredging, eel pots, duck blinds, and clam and oyster digging, fish aggregating devices, and small fish attraction devices such as open water fish concentrators (sea kites, etc.). This GP does not include aquaculture activities.

21. Habitat Restoration, Establishment and Enhancement Activities
Activities in waters of the U.S. associated with the restoration, enhancement and establishment of non-tidal and tidal wetlands and riparian areas, including invasive, non-native or nuisance species control; the restoration and enhancement of non-tidal streams and other non-tidal open waters; the relocation of non-tidal waters, including non-tidal streams & associated wetlands for reestablishment of a natural stream morphology and reconnection of the floodplain; the restoration and enhancement of shellfish, finfish and wildlife; and the rehabilitation or enhancement of tidal streams, tidal wetlands and tidal open waters; provided those activities result in net increases in aquatic resource functions and services. Also included are shellfish enhancement measures including but not limited to “brushing”, clam pots, boxes, and netting.

22. Stream and Wetland Work and Crossings
Activities required for the construction, expansion, modification, or improvement of linear transportation projects that cross waters of the U.S. (e.g., driveways, roads, highways, railways, trails, airport runways, and taxiways) and attendant features. Crossing structures include, but are not limited to temporary or permanent jurisdictional spans, bridges, culverts, and fords. Any stream channel modification is limited to the minimum necessary to construct or protect the project; such modifications must be in the immediate vicinity of the project.

23. Aquaculture
The installation of buoys, floats, racks, trays, nets, lines or other structures in waters of the U.S. for the containment and cultivation of fish, shellfish and seaweed/kelp. Also authorized are anchored upweller floats, small-scale shellfish hatchery seawater intake/discharge structures, and discharges of dredged or fill material associated with cultivation such as the placement of cultch or spatted-shell on bottom.

USER NOTE: All Self-Verification and Pre-Construction Notification activities shall comply with all applicable terms (pages 1 - 4), General Conditions (pages 5 - 19), and additional terms below.

GENERAL PERMITS FOR THE STATE OF MAINE		
A. INLAND WATERS AND WETLANDS	Inland Waters and Wetlands are defined as waters that are regulated under Section 404 of the Clean Water Act, including rivers, streams, lakes, ponds, and wetlands, and ***excludes Section 10 Navigable Waters of the U.S.*** The jurisdictional boundaries are the ordinary high water mark (OHWM) in the absence of adjacent wetlands; beyond the OHWM to the limit of adjacent wetlands when adjacent wetlands are present; and the wetland limit when only wetlands are present. For the purposes of these GPs and designated activities, fill placed in the area between the mean high water mark (MHWM) and the high tide line (HTL), and in the bordering and contiguous wetlands to tidal waters are reviewed in the Navigable Waters section below beginning on page 28.	
	Activities not meeting the Self-Verification terms below require Pre-Construction Notification and activities not meeting the Pre-Construction Notification terms below require an application for an Individual Permit (IP).	
GENERAL PERMIT #	**SELF-VERIFICATION (SV)**	**PRE-CONSTRUCTION NOTIFICATION (PCN)**
1. Repair, Replacement, and Maintenance of Authorized Structures and Fills *(for stream crossings see GP 22)*	Repair, replacement, and maintenance of existing, currently serviceable, authorized fills with no expansion or change in use, provided: • Conditions of the original authorization apply. • Minor deviations in fill design allowed. • The repair, rehabilitation, or replacement of those structures or fills destroyed or damaged by storms, floods, fire or other discrete events is authorized, provided the work is commenced, or is under contract to commence, within two years of the date of their destruction or damage. • Drawdown of impoundments for dam/levee repair does not exceed 18 months and one growing season (Apr-Sept).	Repair, replacement, and maintenance of existing authorized fills not eligible for SV, provided: • <3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.
2. Moorings	Not Applicable – these activities in non-navigable inland waters do not require Corps authorization.	Not Applicable – these activities in non-navigable inland waters do not require Corps authorization.
3. Structures, Floats, and Lifts	Pile-supported structures, floats and lifts located in non-navigable inland waters do not require Corps authorization. Solid fill or crib-supported structures with <15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.	Fill activities associated with structures, floats, and lifts not eligible for SV, provided: • <3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.
4. Aids to Navigation and Temporary Recreational Structures	Not Applicable – these activities in non-navigable inland waters do not require Corps authorization.	Not Applicable – these activities in non-navigable inland waters do not require Corps authorization.
5. Dredging, Disposal of Dredged Material, Beach Nourishment, and Rock Removal and Relocation	Those activities with <15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided: • No stream channelization, relocation, or loss of streambed including impoundments or discharges of tailings into streams.	Those activities not eligible for SV, provided: • <3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
6. U.S. Coast Guard Approved Bridges and Causeways	Not applicable in inland waters and wetlands; see B. Navigable Waters on page 31 below.	Not applicable in inland waters and wetlands; see B. Navigable Waters on page 31 below.
7. Bank and Shoreline Stabilization Including Living Shorelines (see also GC 28)	Bank and shoreline stabilization activities with <15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided: • Fill is ≤500 LF in total length as measured below the plane of the OHWM, includes total if more than one stream bank. • Fill placed below the plane of the OHWM is ≤1 CY per linear foot. • There is no discharge in special aquatic sites other than wetlands. • Revetment is comprised of angular material. • In-stream work is limited to Jul. 15th to Sep. 30th • No structures angled steeper than 1H:1V.	Bank and shoreline stabilization activities not eligible for SV, provided: • <3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.
8. Residential, Commercial and Institutional Developments, and Recreational Facilities	Those developments and facilities with <15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts. Fill area includes all temporary and permanent fill, and regulated discharges associated with excavation. Provided: • The historic fill and proposed fill area <15,000 SF specifically complies with GC 5 Single and Complete Projects. • No work in special aquatic sites other than wetlands.	Those developments and facilities not eligible for SV, provided: • <3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts. *Mechanical clearing of areas within Corps jurisdiction without grubbing or other soil disturbance >3 acres as a secondary impact may still be eligible for PCN at the discretion of the Corps.*
9. Utility Line Activities (see also GC 30)	Utility line activities with <15,000 SF of permanent and/or temporary inland waterway and/or wetland fill (excluding mats), and associated secondary impacts, provided: • There is no permanent change in pre-construction contours in waters in the U.S. • Material resulting from trench excavation is temporarily side cast into waters of the U.S. for <3 months and is placed in such a manner that is not dispersed by current or other forces. • The line does not run parallel to, or along a streambed. • No stream channelization, relocation, or loss of streambed including impoundments. • There is no discharge in special aquatic sites other than wetlands. • Construction mats of any area necessary to conduct activities provided mats are removed as soon as work is completed and shall be in place no longer than one single growing season. • In-stream work is limited to Jul. 15th to Sep. 30th • In-water work is conducted in-the-dry. • Intake structures that are dry hydrants used exclusively for firefighting activities with no stream impoundments. • Construction mats of any area necessary to conduct activities provided mats are removed as soon as work is completed and shall be in place no longer than one single growing season.	Utility line activities not eligible for SV, provided: • <3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts. *Mechanical clearing of areas within Corps jurisdiction without grubbing or other soil disturbance >3 acres as a secondary impact may still be eligible for PCN at the discretion of the Corps.*

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
10. Linear Transportation Projects *(for stream crossings refer to GP 22)*	Linear transportation activities with <15,000 SF of permanent and/or temporary inland waterway and/or wetland fill (excl. mats), and associated secondary impacts, provided: • The historic fill and proposed fill area <15,000 SF specifically complies with GC 5 Single and Complete Projects. • There is no discharge in special aquatic sites other than wetlands. • Construction mats of any area necessary to conduct activities provided mats are removed as soon as work is completed and shall be in place no longer than one single growing season.	Linear transportation activities not eligible for SV, provided: • <3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts. *Mechanical clearing of areas within Corps jurisdiction without grubbing or other soil disturbance >3 acres as a secondary impact may still be eligible for PCN at the discretion of the Corps.*
11. Mining Activities	Mining activities with <15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided: • No stream channelization, relocation, or loss of streambed including impoundments.	Mining activities not eligible for SV, provided: • <3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.
12. Boat Ramps	Boat ramps with <15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, and temporary fills.	Boat ramps not eligible for SV, provided: • <3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.
13. Land and Water-Based Renewable Energy Generation Facilities and Hydropower Projects	Those facilities and projects with <15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided: • No stream channelization, relocation, or loss of streambed including impoundments. • No new water-based facilities are eligible.	Those facilities and projects not eligible for SV, provided: • <3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts. *Mechanical clearing of areas within Corps jurisdiction without grubbing or other soil disturbance >3 acres as a secondary impact may still be eligible for PCN at the discretion of the Corps.*
14. Reshaping Existing Ditches and Mosquito Management	Not applicable in inland waters and wetlands; see B. Navigable Waters on page 33 below.	Not applicable in inland waters and wetlands; see B. Navigable Waters on page 33 below.
15. Response Operations for Oil or Hazardous Substances	The SVNF or a surrogate state reporting form may be submitted after-the-fact for response operations. This GP also authorizes the use of temporary structures and fills in waters of the U.S. for spill response training exercises with <15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts (*SVNF is required prior to the activity*).	Those response operations not eligible for SV, provided: • <3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
16. Cleanup of Hazardous and Toxic Waste	Those cleanup activities with <15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided: • No stream channelization, relocation, or loss of streambed including impoundments. • The activity does not involve establishing new disposal sites or expanding existing sites used for the disposal of hazardous or toxic waste.	Those cleanup activities not eligible for SV, provided: • <3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts. • The activity does not involve establishing new sites for the disposal of hazardous or toxic waste.
17. Scientific Measurements Devices	Those devices with <15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided: • No biological sampling devices. • Devices do not restrict or concentrate movement of aquatic organisms. • Upon completion of use, the devices and any associated fills shall be removed in their entirety.	Those devices not eligible for SV, provided: • <3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.
18. Survey Activities	Those survey activities with <15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided: • Exploratory trenches are restored in accordance with GC 21. • No discharge of excavated material from test wells for oil and gas exploration (the plugging of such wells is authorized).	Those survey activities not eligible for SV, provided: • <3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.
19. Agricultural Activities	Those agricultural activities subject to Corps jurisdiction with <15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided: • No stream channelization, relocation, or loss of streambed including impoundments.	Those agricultural activities subject to Corps jurisdiction not eligible for SV, provided: • <3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.
20. Fish and Wildlife Harvesting, Enhancement and Attraction Devices and Activities	Not applicable in inland waters and wetlands; see B. Navigable Waters on page 34 below.	Not applicable in inland waters and wetlands; see B. Navigable Waters on page 34 below.
21. Habitat Restoration, Establishment, and Enhancement	Those activities with <15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided: • No water impoundments allowed. • No conversion of a stream to wetland or vice versa, a wetland to a pond or uplands, or one wetland type to another. • No dam removal.	Those activities not eligible for SV, provided: • <3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
22. Stream and Wetland Work and Crossings (see also GC 29)	Stream work and crossings with <15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided: • No work in designated or proposed critical habitat for endangered species. • Crossings are designed and constructed using the techniques and principles outlined in Stream Simulation, Stream Smart, or Habitat Connectivity Design. • Crossings are designed to be 1.2 times bankfull width. • Crossings have a natural bottom substrate. • Crossings include a bank on both sides of the channel. • Closed bottom culverts are embedded at least 25% of the maximum width of the culvert. • In-stream work is limited to Jul. 15th to Sep. 30th • In-stream work is conducted "in-the-dry". • No slip lining. • No culvert extensions. • No stream channelization, relocation, or loss of streambed including impoundments. Wetland work and crossings, provided: • No flooding or impacts to wetland drainage from the upgradient side of the crossing.	Stream and Wetland Work and Crossings not eligible for SV, provided: • <3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.
23. Aquaculture (see also GC 32)	Aquaculture activities with <15,000 SF of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts, provided: • No water impoundments allowed. • No conversion of i) a stream to wetland or vice versa, a wetland to a pond or uplands, and ii) one wetland type to another.	Aquaculture activities not eligible for SV, provided: • <3 acres of permanent and/or temporary inland waterway and/or wetland fill, and associated secondary impacts.

USER NOTE: All Self-Verification and Pre-Construction Notification activities shall comply with all applicable terms (pages 1 - 4), General Conditions (pages 5 - 19), and additional terms below.

B. NAVIGABLE WATERS	**Navigable Waters of the U.S. are defined as** those waters that are subject to the ebb and flow of the tide in addition to the non-tidal portions of the following federally-designated waters in Maine (the Kennebec River to Moosehead Lake, the Penobscot River to the confluence of the East and West Branch at Medway and, Lake Umbagog within the State of Maine) (Section 10 Rivers and Harbors Act of 1899). The jurisdictional limits are the mean high water mark (MHWM) in tidal waters and the ordinary high water mark (OHWM) in non-tidal portions of the federally-designated navigable rivers. For the purposes of these GPs, fill placed in the area between the mean high water mark (MHWM) and the high tide line (HTL), and in the bordering and contiguous wetlands to tidal waters are also reviewed in this Navigable Waters section.	
	Activities not meeting the Self-Verification terms below require Pre-Construction Notification and activities not meeting the Pre-Construction Notification terms below require an application for an Individual Permit.	
GENERAL PERMIT #	**SELF-VERIFICATION**	**PRE-CONSTRUCTION NOTIFICATION**
1. Repair, Replacement, and Maintenance of Authorized Structures and Fills **See GC 25 for pile driving and removal conditions.*	Repair, replacement, or maintenance of previously authorized, currently serviceable structures or fills, provided: • Conditions of the original authorization apply. • No expansion or change in use. Shall be rebuilt in same footprint, however minor deviations in design allowed. • The repair, rehabilitation, or replacement of those structures or fills destroyed or damaged by storms, floods, fire or other discrete events is authorized, provided that work is commenced, or is under contract to commence, within two years of the date of their destruction or damage. • In-water work is conducted "in-the-dry" (see GC 24). • No impacts to special aquatic sites (SAS) (incl. submerged aquatic vegetation, SAV), impacts to natural rocky habitat ≤100 SF, and impacts to intertidal area ≤1,000 SF • Slope stabilization is ≤500 LF in total length as measured below the plane of the HTL and is ≤200 LF in total length as measured below the plane of the MHWM or OHWM. Vertical structures are ≤200 LF in total length as measured below the plane of the MHWM or OHWM and are ≤18 inches waterward of existing face. • Dam and flood control, or levee work does not alter water levels or flood elevations. • Discharge of accumulated bottom sediments from or through a dam is not more than *de minimus*. • Tide gate work has a Corps-approved operation and maintenance plan and no effect to hydraulic regime, or tide gates that solely convey stormwater and/or Maine National Pollutant Discharge Elimination System-permitted discharges.	Repair, replacement, or maintenance of previously authorized structures or fills not eligible for SV, provided: • ≤0.5 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts. • Temporary and/or permanent fill or excavation in SAV <1,000 SF • Permanent fill or excavation in other SAS <4,300 SF

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
2. Moorings	Private, non-commercial, non-rental, single-boat moorings, provided: • Authorized by the local harbormaster/town. • Not associated with any boating facility (e.g. marinas). • Not located within a Federal Navigational Project (other than in a Federal Anchorage) or within a distance of three times the authorized depth of a Federal Navigation Project. Moorings in a Federal Anchorage must not be associated with a boating facility and must not be for rent. • No interference with navigation. • Mooring is not located in SAS (incl. SAV) or intertidal areas. Minor relocation of previously authorized moorings, provided: • Authorized by the local harbormaster/town. • Relocation is not within a Federal Navigational Project (other than in a Federal Anchorage) or within a distance of three times the authorized depth of a Federal Navigation Project. • No interference with navigation. • Relocated mooring is not located in SAS (incl. SAV) or intertidal areas. **SV Moorings above do not require a SVNF.*	Moorings not eligible for SV and don't require an IP. This includes private moorings with no harbormaster or means of local approval or moorings associated with a boating facility (e.g. marina). *Locating new moorings in SAS (incl. SAV) shall be avoided to the maximum extent practicable. If SAS cannot be avoided, consideration shall be given to alternative mooring systems that prevents mooring chains from resting or dragging on the bottom substrate at all tides.* An IP is required for moorings located within the horizontal limits, or with moored vessels that extend into the horizontal limits of a Federal Navigation Project (other than in a Federal Anchorage).
3. Structures, Floats, and Lifts *Cont'd below on page 30*	Reconfiguration of such existing authorized structures with all intertidal work conducted "in-the-dry" (see GC 24). Minor relocation of previously authorized floats provided: • Relocation is not into a Federal Navigation Project or within a distance of three times the authorized depth of a Federal Navigation Project (other than a Federal Anchorage). • No interference with navigation. • Not relocated in or within 25 feet of SAV. • Seasonal floats are stored above the MHWM and not on wetland (incl. salt marsh). New private, non-commercial ramp and float structures attached to land (no piers) or new floats provided: • Not located in or within a distance of three times the authorized depth of a Federal Navigation Project. • No interference with navigation. • No structure extends across >25% of the waterway width at mean low water. • Not located in or within 25 feet of SAV. • Ramp is <150 LF over salt marsh waterward of the MHWM and is ≥1:1 height:width ratio over salt marsh.	New structures, floats, and/or lifts including floatways/skidways, built to access waterway (both seasonal and permanent). Includes pile-supported, solid fill-supported, and crib-supported structures. Also includes expansions to existing authorized boating facilities (e.g. marinas). Provided: • <1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts. • Temporary and/or permanent fill or excavation in SAV <1,000 SF • Permanent fill or excavation in other SAS <4,300 SF **See GC 25 for pile driving and pile removal conditions.* Compliance with the following is recommended: • *Lowermost part of floats are ≥18 inches above the substrate during all tides.* • *Structures are ≥1:1 height:width ratio over salt marsh.* • *Structures and floats are not located in or within 25 feet of SAV.* • *Moored vessels are not positioned over SAV.* • *Structures attached to land are located ≥ 25 feet from the property line (The Corps may require a letter of no objection from the abutter if located within 25 feet of the property line.)*

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
Cont'd from page 29	• Ramp and floats attached to land are located ≥25 feet from the property line. • Seasonal ramp and floats are stored above the HTL and not on wetland (incl. salt marsh). Compliance with the following is recommended: • *Lowermost part of floats is ≥18 inches above the substrate during all tides.*	• *No structure extends across >25% of the waterway width at mean low water.* • *Not located within a distance of three times the authorized depth of a Corps Federal Navigation Project.* An IP is required for structures, floats, and/or lifts including floatways/skidways, located in such that they and/or vessels docked or moored at them are within the horizontal limits of a Corps Federal Navigation Project. An IP is also required for structures and floats associated with a new or previously unauthorized boating facility (e.g. marinas).
4. Aids to Navigation and Temporary Recreational Structures	Aids to navigation and regulatory markers which are approved by and installed in accordance with the requirements of the U.S. Coast Guard. (See 33 CFR 66, Chapter I, subchapter C). **These SV Aids do not require a SVNF.* Temporary buoys, markers, floats, etc. for recreational use during specific events, provided: • They are removed within 30 days after the specific event has concluded. • No interference with navigation. • No impact to SAV.	Aids and temporary structures not eligible for SV.
5. Dredging, Disposal of Dredged Material, Beach Nourishment, and Rock Removal and Relocation	Maintenance dredging of <1,000 CY for navigational purposes with upland disposal including return water from upland contained disposal area, provided: • Proper siltation controls are used. • No expansion of footprint. • No dredging in or within a distance of three times the authorized depth of a Federal Navigation Project. • Dredging operation is limited to Nov. 8th to Apr. 9th (it is recommended that in areas populated by winter flounder, dredging should cease by March 15th). • No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, and impacts to intertidal area ≤1,000 SF • No dredging within 25 feet of SAV. • No dredging in or within 100 feet of shellfish areas. • No blasting. • No dredging in designated or proposed critical habitat for endangered species.	Maintenance dredging not eligible for SV and new dredging <25,000 CY Includes return water from upland contained disposal areas. Disposal includes: • Upland. • Beach nourishment (above MHW line) of any area provided the dredging's primary purpose is navigation or the sand is from an upland source. • Open water & confined aquatic disposal if Corps finds the material suitable. Beach nourishment associated with dredging when the primary purpose is not navigation requires at least a PCN. Temporary and/or permanent fill or excavation in SAV <1,000 SF and Permanent fill or excavation in other SAS <4,300 SF

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
6. U.S. Coast Guard Approved Bridges and Causeways	Discharges of dredged or fill material associated with U.S. Coast Guard Approved Bridges and Causeways, provided: • In-water work is conducted "in-the-dry" (see GC 24). • Discharge of dredged or fill material <15,000 SF • No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, and impacts to intertidal area ≤1,000 SF Compliance with the following is recommended: • *Discharge of dredged or fill material should not occur within 100 feet of SAV or within 25 feet of natural rocky habitat or other SAS.* *Note: new causeways and approach fills are not eligible for SV.*	Discharges of dredged or fill material associated with U.S. Coast Guard Approved Bridges and Causeways not eligible for SV, provided: • <1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts. • Temporary and/or permanent fill or excavation in SAV <1,000 SF • Permanent fill or excavation in other SAS <4,300 SF
7. Bank and Shoreline Stabilization Including Living Shorelines (see also GC 28)	Bank and shoreline stabilization activities, provided: • In-water work is conducted "in-the-dry" (see GC 24). • Fill is ≤500 LF in total length as measured below the plane of the HTL and is ≤200 LF in total length as measured below the plane of the MHWM or OHWM (includes total for more than one bank). Replacement vertical structures are ≤200 LF in total length as measured below the plane of the MHWM or OHWM and are ≤18 inches waterward of existing face. • Fill placed below HTL is ≤1 CY per linear foot. • Stone revetment is comprised of angular material. • No fills angled steeper than 1H:1V. • No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, and impacts to intertidal or shellfish areas ≤1,000 SF • No new groins, breakwaters, or jetties.	Bank and shoreline stabilization activities not eligible for SV, provided: • <1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts, provided: • Temporary and/or permanent fill or excavation in SAV <1,000 SF • Permanent fill or excavation in other SAS <4,300 SF
8. Residential, Commercial and Institutional Developments, and Recreational Facilities	Not Eligible	Residential, commercial and institutional developments and recreational facilities, provided: • <1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts, provided: • Temporary and/or permanent fill or excavation in SAV <1,000 SF • Permanent fill or excavation in other SAS <4,300 SF Conversions of previously authorized pile-supported buildings over navigable waters to residences, offices, or other non-water dependent uses require PCN. Floating house boats or businesses on floats require PCN.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
9. Utility Line Activities (see also GC 30)	Repair, replacement, or maintenance of previously authorized, currently serviceable utilities with no expansion or change in use, provided: • Conditions of the original authorization apply. • In-water work limited to Nov. 8th to Apr. 9th. • Trenching or filling confined to existing footprint and <100 LF; trenches shall be backfilled immediately. • Jet-plow, fluidization, or other direct burial methods confined to existing footprint and <200 LF • No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, and impacts to intertidal or shellfish areas ≤1,000 SF • No work in designated or proposed critical habitat for endangered species. New work in, over, or under navigable waters including new outfalls and any intake structure work requires PCN. Aerial utility lines over navigable waters requires PCN.	Those utility activities not eligible for SV, provided: • <1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts. • Temporary and/or permanent fill or excavation in SAV <1,000 SF • Permanent fill or excavation in other SAS <4,300 SF
10. Linear Transportation Projects *(for stream crossings refer to GPs 6 and 22)*	Not Eligible	Linear transportation projects, provided: • <1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts. • Temporary and/or permanent fill or excavation in SAV <1,000 SF • Permanent fill or excavation in other SAS <4,300 SF
11. Mining Activities	Not Eligible	Not Eligible
12. Boat Ramps and Marine Railways	No new boat ramps or marine railways. In-water work is conducted "in-the-dry" (see GC 24). No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, and impacts to intertidal or shellfish areas ≤1,000 SF Boat ramp and marine railway work not eligible for maintenance (i.e. not currently serviceable) may be replaced "in-kind" with minor deviations provided: • Work is confined to the intertidal zone. • No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, and impacts to intertidal or shellfish areas ≤1,000 SF	Those ramps and railways not eligible for SV, provided: • <1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts, provided: • Temporary and/or permanent fill or excavation in SAV <1,000 SF • Permanent fill or excavation in other SAS <4,300 SF

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
13. Land and Water-Based Renewable Energy Generation Facilities and Hydropower Projects	Not Eligible	Work associated with those facilities and projects, provided: • <1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts. • Temporary and/or permanent fill or excavation in SAV <1,000 SF • Permanent fill or excavation in other SAS <4,300 SF For each single and complete project, no more than 10 generation units (e.g., wind turbines or hydrokinetic devices) may be authorized. No new impoundments.
14. Reshaping Existing Ditches and Mosquito Management	≤500 LF of drainage ditch will be modified. The reshaping of the ditch cannot increase drainage capacity beyond the original as-built capacity nor can it expand the area drained by the ditch as originally constructed (i.e., the capacity of the ditch shall be the same as originally constructed and it cannot drain additional wetlands or other waters of the U.S.). No new ditches or relocation of drainage ditches constructed in waters of the U.S.; the location of the centerline of the reshaped drainage ditch shall be approximately the same as the location of the centerline of the original drainage ditch. No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, and impacts to intertidal or shellfish areas ≤1,000 SF	Those activities not eligible for SV, provided: • <1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts. • Temporary and/or permanent fill or excavation in SAV <1,000 SF • Permanent fill or excavation in other SAS <4,300 SF
15. Response Operations for Oil or Hazardous Substances	The SVNF or a surrogate state reporting form may be submitted after-the-fact for spill response activities. This GP also authorizes the use of temporary structures and fills in waters of the U.S. for spill response training exercises (*SVNF is required prior to the activity*), provided: • No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, impacts to intertidal or shellfish areas ≤1,000 SF, and impacts to tidal resources <0.5 acre	Those response operations not eligible for SV, provided: • <1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts. • Temporary and/or permanent fill or excavation in SAV <1,000 SF • Permanent fill or excavation in other SAS <4,300 SF
16. Cleanup of Hazardous and Toxic Waste	Only booms placed for hazardous and toxic waste containment and absorption and prevention are eligible for SV. *A SVNF is not required for these eligible containment booms.*	Cleanup activities not eligible for SV, provided: • <1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts. • Temporary and/or permanent fill or excavation in SAV <1,000 SF • Permanent fill or excavation in other SAS <4,300 SF An IP is require for the establishment of new disposal sites or expanding existing sites used for the disposal of hazardous or toxic waste.

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
17. Scientific Measurements Devices	Those scientific measurements devices, provided: • Devices do not restrict or concentrate movement of aquatic organisms. • No interference with navigation. • No blasting. • No biological sampling devices. • No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, impacts to intertidal areas ≤1,000 SF, and impacts to tidal resources ≤0.5 acre • Upon completion of use, the devices and any associated structures or fills are removed in their entirety.	Those scientific measurements devices not eligible for SV, provided: • <1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts. • Temporary and/or permanent fill or excavation in SAV <1,000 SF • Permanent fill or excavation in other SAS <4,300 SF
18. Survey Activities	Those survey activities, provided: • No blasting. • No interference with navigation. • No seismic exploratory operations. • No oil and gas exploration. • No trenching or other silt-producing activities. • No fill for roads or construction pads. • No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, impacts to intertidal areas ≤1,000 SF, and impacts to tidal resources <0.5 acre • No blasting. • No biological sampling devices. *A SVNF is not required for required sediment sampling for Corps-regulated dredge proposals.*	Those survey activities not eligible for SV, provided: • <1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts. • Temporary and/or permanent fill or excavation in SAV <1,000 SF • Permanent fill or excavation in other SAS <4,300 SF
19. Agricultural Activities	Not Eligible	Not Eligible
20. Fish and Wildlife Harvesting, Enhancement and Attraction Devices and Activities *(for aquaculture refer to GP 23)*	Those devices and activities, provided: • No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, impacts to intertidal areas ≤1,000 SF, and impacts to tidal resources ≤0.5 acre • No interference with navigation. • No artificial reefs or enclosures • No impoundments or semi-impoundments for the culture or holding of motile species such as lobster, or the use of covered oyster trays or clam racks. • Structures and shell hash should not be located within 25 feet of SAV. • All gear, except for mooring tackle, when not in use on the site is stored in an upland location above the MHWM and not on wetland (incl. salt marsh). *A SVNF is not required for these eligible devices and activities.*	Those devices and activities not eligible for SV, provided: • <1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts. • Temporary and/or permanent fill or excavation in SAV <1,000 SF • Permanent fill or excavation in other SAS <4,300 SF Impoundments or semi-impoundments of waters of the U.S. for the culture or holding of motile species such as lobster and new fish weirs with an impounded area <0.5 acre

	SELF-VERIFICATION (SV)	PRE-CONSTRUCTION NOTIFICATION (PCN)
21. Habitat Restoration, Establishment, and Enhancement	Those activities, provided: • No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, impacts to intertidal areas ≤1,000 SF, and impacts to tidal resources <0.5 acre • No thin layer deposition for salt marsh restoration. • SAS planting and transplanting is <100 SF • No artificial or living reefs. • The activity is authorized in writing by a local, state, or non-Corps federal environmental agency. Water impoundments require PCN. • No conversion of i) a stream to wetland or vice versa, wetland to a pond or uplands, and ii) one wetland type to another. • No dam removal.	Those activities not eligible for SV provided those activities are proactive and result in net increases in aquatic resource functions and services.
22. Stream and Wetland Work and Crossings (see also GC 29) (*see GP 6 for bridges & causeways*)	Not Eligible	Those crossings of tidal navigable water not including bridges and causeways, provided: • <1 acre temporary or permanent impacts, fill, excavation, and/or secondary impacts. • Temporary and/or permanent fill or excavation in SAV <1,000 SF • Permanent fill or excavation in other SAS <4,300 SF
23. Aquaculture* (see also GC 32)	Shellfish and marine algae installations that do not exceed 400 SF in area, provided: • Signed approval from Harbormaster or appropriate Town Official. • No enclosures or impoundments. • Not located in or within a distance of three times the authorized depth of a Federal Navigation Project. • Not located in or impinge upon the value of any National Lands or Federal Properties. • No impacts to SAS (incl. SAV), impacts to natural rocky habitat ≤100 SF, and impacts to intertidal and shellfish areas ≤1,000 SF • No structures, cages, gear, or shell hash located in/within 25 feet of SAV. • All gear, except for mooring tackle, when not in use on the site is stored in an upland location above the MHWM and not on wetland (incl. salt marsh).	Shellfish, finfish, and marine algae aquaculture (with the exception of Atlantic salmon and any other salmonid, or other federally-listed endangered or threatened species), or other aquaculture facilities with no more than minimal individual and cumulative impacts to environmental resources or navigation. This is inclusive but not limited to cages, nets, bags, racks, long lines, fences, posts, poles, predator screening, etc. ***State of Maine Aquaculture guidelines are provided at: *www.maine.gov/dmr/aquaculture/index.html***

US Army Corps of Engineers®
New England District

Section VI: Self-Verification Notification Form

(for all tidal and non-tidal projects in Maine subject to Corps jurisdiction)

At least two weeks before work commences, complete all fields (write "none" if applicable) below or use the fillable form found at www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/Maine-General-Permit/ The two-week lead time is not required for emergency situations. **Send this form, an Official Species List, and project plans to the following email address: cenae-r-me@usace.army.mil**

Maine Project Office
U.S. Army Corps of Engineers
442 Civic Center Drive, Suite 350
Augusta, Maine 04330

State Permit #: _____
Date of State Permit: _____
State Project Manager: _____

Permittee: _____

Address, City, State, Zip: _____

Email, Phone: _____

Agent: _____

Address, City, State, Zip: _____

Email, Phone: _____

Contractor: _____

Address, City, State, Zip: _____

Email, Phone: _____

Project Name: _____

Address, City, State, Zip: _____

Lat °N, Long °W: _____ Tax Map/Lot: _____

Waterway Name: _____

Description of Work: _____

Proposed Starting Date: _____ Proposed Finish Date: _____

Area of wetland impact (SF): Permanent: _____ Temporary: _____
Area of waterway impact (SF): Permanent: _____ Temporary: _____

Work will be done under the following Section V General Permits (circle all that apply):

I. Inland Waters and wetlands: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
II. Navigable Waters: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

Have MHPC and all five federally-recognized tribes in Maine been notified of the proposed work? _____Yes _____No

Your signature below, as permittee, indicates that you accept and agree to comply with the terms, eligibility criteria, and general conditions for Self-Verification under the Maine General Permit.

Permittee Signature: _____ Date: _____

US Army Corps
of Engineers ®
New England District

Section VII: Content of a Pre-Construction Notification

In addition to the following required information, the applicant must provide additional information as the Corps deems essential to make a public interest determination including, where applicable, a determination of compliance with the Section 404(b)(1) guidelines or ocean dumping criteria. Such additional information may include environmental data and information on alternate methods and sites as may be necessary for the preparation of the required environmental documentation. For a more comprehensive checklist, go to *www.nae.usace.army.mil/missions/regulatory* >> Forms >> Application and Plan Guideline Checklist. Please check with the Corps for project-specific requirements.

Information required for all projects:

- □ DIGITAL SUBMISSIONS ARE ENCOURAGED (email PCN to **cenae-r-me@usace.army.mil**)
- □ Completed Corps application form (ENG Form 4345 attached below or found electronically at *www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Obtain-a-Permit*) or appropriate state application form. Forms may need to be supplemented to include the information noted below.
- □ Proof of notification to MHPC and all five federally-recognized tribes (see Section VIII for contact info).
- □ Official Species List for any federally-listed endangered or threatened species and email address of the person who generated the list.
- □ Drawings, sketches, or plans (detailed engineering plans and specifications are not required) that are legible, reproducible (color is encouraged, but features must be distinguishable in black and white), no larger than 8.5”x11”, with bar scale (plans overlaid on aerial photos are discouraged). Wetland area impact sheets shall have the highest resolution possible to show work within Corps jurisdiction (do not just reduce project overview or cut large-scale plan into quadrant sheets). Provide locus map and a plan overview of the entire property with a key index to the individual impact sheets. A locus map be on a section of color USGS topographic map.
- □ Include:
  - □ All direct, secondary, permanent and temporary effects the project would cause, including the anticipated amount of impacts to waters of the U.S. expected to result from the activity, in acres, linear feet, or other appropriate unit of measure.
  - □ Any historic permanent fill associated with each single and complete project.
  - □ Cross-section views of all wetland and waterway fill areas and wetland replication areas.
  - □ Document on project plans wetlands, other special aquatic sites (SAS) including vegetated shallows (or submerged aquatic vegetation, SAV) and mudflats, natural rocky habitat, shellfish areas, vernal pools, and other waters, such as lakes and ponds, and perennial, and intermittent streams on the project site (GC1).
  - □ MLW line, MHW mark, and HTL elevations in tidal waters. Show OHWM elevation in lakes and non-tidal streams.
  - □ **Existing and proposed conditions.**
- □ Volume, type, and source of fill material to be discharged into waters and wetlands, including the area(s) (in square feet or acres) of fill in wetlands, below OHWM in inland waters and below the HTL in coastal waters.
- □ If applicable, a restoration plan showing how all temporary fills and structures will be removed and the area restored to pre-project conditions (see GC 21).

Information that may be required:

- □ Photographs of wetland/waterway to be impacted. Photos at low tide are preferred for work in tidal waters.
- □ For drawings, sketches, or plans:
  - □ The vertical datum for all coastal projects and projects in towns bordering coastal waters shall be in U.S. survey feet and referenced to MLLW and include current tidal epoch, with a reference chart showing conversion factor to the North American Vertical Datum of 1988. Do not use local datum. See *www.nae.usace.army.mil/missions/regulatory* >> Forms and Publications >>Vertical Datum - FEMA (Jul 2007);
  - □ The horizontal state plane coordinates shall be shown on plan and elevation views and shall be in the North American Datum of 1983 (NAD83) State Plane Coordinate System in U.S. survey feet.
- □ For the construction of a filled area or pile or float-supported platform, the use of, and specific structures to be erected on, the fill or platform.
- □ For the discharge of dredged or fill material into waters of the U.S. or the transportation of dredged material for the purpose of disposing of it in ocean waters, the source of the material; the purpose of the discharge, a description of the type, composition and quantity of the material; the method of transportation and disposal of the material; and the location of the disposal site.
- □ For the discharge of dredged or fill material into waters of the U.S., include a statement describing how impacts to waters of the U.S. are to be avoided and minimized. Include either a statement describing how impacts to waters of the U.S. are to be compensated for or a statement explaining why compensatory mitigation should not be required for the proposed impacts.
- □ Purpose and need for the proposed activity;
- □ Limits and coordinates of any Federal Navigation Project in the vicinity of the project area.
- □ Limits and coordinates of any proposed mooring field, reconfiguration zone or aquaculture activity. Provide coordinates for all corners;
- □ Schedule of construction/activity;
- □ Names and addresses of adjoining property owners;
- □ Location and dimensions of adjacent structures;
- □ Alternatives analysis;
- □ Wetland delineation data sheets;
- □ List of authorizations required by other federal, interstate, state, or local agencies for the work, including all approvals received or denials already made.
- □ Identification and description of potential impacts to Essential Fish Habitat (see GC 17).
- □ Identification of potential discharges of pollutants to waters, including potential impacts to impaired waters, in the project area.
- □ Invasive Species Control Plan (see GC 22). For sample control plans, see *www.nae.usace.army.mil/Missions/Regulatory/Invasive-Species*
- □ Wildlife Action Plan (WAP) maps. Contact the Maine Department of Inland Fisheries & Wildlife (Section VIII) or online at *www.maine.gov/ifw/wildlife/conservation/action_plan.html*

Information for dredging projects that may be required:

- □ Sediment testing, including physical (e.g., grain-size analysis), chemical and biological testing. For projects proposing open water disposal, applicants must contact the Corps as early as possible regarding sampling and testing protocols. Sampling and testing of sediments without such contact should not occur and if done, would be at the applicant's risk.
- □ The area in square feet and volume of material to be dredged below mean high water.
- □ Existing and proposed water depths.
- □ Type of dredging equipment to be used.
- □ Nature of material (e.g., silty sand).
- □ Any existing sediment grain size and bulk sediment chemistry data for the proposed or any nearby projects.
- □ Information on the location and nature of municipal or industrial discharges and occurrence of any contaminant spills in or near the project area.
- □ Shellfish survey.
- □ Location of the disposal site (include locus sheet).
- □ Identification and description of any potential impacts to Essential Fish Habitat.
- □ Delineation of submerged aquatic vegetation (e.g., eelgrass beds).

Information for tidal crossing projects that may be required:

- □ A graphic longitudinal elevation profile plot of the tidal stream channel thalweg, both up and downstream of the proposed project site. Thalweg elevations shall extend from the crossing to beyond the zone of scour, channel widening, or other channel alteration resulting from the present or pre-existing crossings. The profile plot should include labeled elevations for the:
  - □ crossing invert and top of the inlet and outlet
  - □ roadbed crown
  - □ lowest and highest recorded tides at the site
  - □ reference datums, such as MLLW, MHHW, and astronomical high tide
  - □ hydraulic controls and nearest crossings that could influence or be influenced by the proposed crossing
- □ A graphic plot of continuous tidal water levels recorded up and downstream, simultaneously, of the proposed crossing for an entire lunar cycle. The water level plot should include labeled elevations for the:
  - □ crossing invert and crossing top at the inlet and outlet
  - □ roadbed crown
  - □ reference datums, such as MLLW, MHHW, and astronomical high tide
- □ A map showing projected extents of maximum flooding within the area influenced by the crossing under current conditions and as a result of sea level rise. The present minimum sea level rise scenario suggested for planning purposes by the Maine Climate Council Scientific and Technical Subcommittee is the Intermediate Scenario, which projects an increase of 3.0-4.6 feet by 2100.

Information for aquaculture projects that may be required:

- □ Maine Aquaculture guidelines and joint Corps/Maine DMR applications may be found at: *www.maine.gov/dmr/aquaculture/index.htm*
- □ In addition to the information required above, applications should also include:
  - □ Results of coordination with Harbor Master and U.S. Coast Guard
  - □ Whether canopy predator nets are being used.

U.S. Army Corps of Engineers (USACE)

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT

33 CFR 325. The proponent agency is CECW-CO-R.

Form Approved - OMB No. 0710-0003 Expires: 02-28-2022

The public reporting burden for this collection of information, OMB Control Number 0710-0003, is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR APPLICATION TO THE ABOVE EMAIL.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME	8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required)
First - Middle - Last -	First - Middle - Last -
Company -	Company -
E-mail Address -	E-mail Address -
6. APPLICANT'S ADDRESS:	9. AGENT'S ADDRESS:
Address-	Address-
City - State - Zip - Country -	City - State - Zip - Country -
7. APPLICANT'S PHONE NOs. w/AREA CODE	10. AGENTS PHONE NOs. w/AREA CODE
a. Residence b. Business c. Fax	a. Residence b. Business c. Fax

STATEMENT OF AUTHORIZATION

11. I hereby authorize,_____to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

_____ _____

SIGNATURE OF APPLICANT DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)

13. NAME OF WATERBODY, IF KNOWN (if applicable)	14. PROJECT STREET ADDRESS (if applicable)
	Address
15. LOCATION OF PROJECT	City - State- Zip-
Latitude: °N Longitude: °W	

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

State Tax Parcel ID Municipality

Section - Township - Range -

17. DIRECTIONS TO THE SITE

18. Nature of Activity (Description of project, include all features)

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres

or

Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

24. Is Any Portion of the Work Already Complete? ☐ Yes ☐ No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address-

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT DATE SIGNATURE OF AGENT DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

Section VIII: Agency Contacts

1. Federal

U.S. Army Corps of Engineers
Maine Project Office
442 Civic Center Drive, Suite 350
Augusta, Maine 04330
(207) 623-8367; (207) 623-8206 (fax)
Email: cenae-r-me@usace.army.mil

U.S. Environmental Protection Agency
5 Post Office Square
Suite 100 (OEP05–2)
Boston, Massachusetts 02109-3912
(617) 918-1589

U.S. Fish and Wildlife Service
Maine Field Office
P.O. Box A
East Orland, Maine 04431
(207) 469-7300; (207) 902-1588 (fax)
(Federal endangered species)

National Marine Fisheries Service
Maine Field Office
17 Godfrey Drive, Suite 1
Orono, Maine 04473
(207) 866-7379; (207) 866-7342 (fax)
(Federal endangered species)

FEMA Region 1
Federal Insurance and Mitigation Division
99 High Street 6th Floor
Boston, Massachusetts 02110
(floodplains)

Federal Emergency Management Agency
99 High Street
Boston, Massachusetts 02110
(877) 336-2734
(Floodplain Management)

National Marine Fisheries Service
55 Great Republic Drive
Gloucester, Massachusetts 01930
(978) 281-9102; (978) 281-9301 (fax)
(Federal endangered species & EFH)

National Park Service
North Atlantic Region
15 State Street
Boston, Massachusetts 02109
(617) 223-5203
(Wild and Scenic Rivers)

Commander (dpb)
First Coast Guard District
One South Street - Battery Building
New York, New York 10004-1466
(212) 668-7021; (212) 668-7967 (fax)
(bridge permits)

2. State of Maine

a. Department of Environmental Protection (*State permits & Water Quality Certifications*)

Augusta Regional Office
17 State House Station
Augusta, Maine 04333
(207) 287-7688

Southern Maine Regional Office
312 Canco Road
Portland, Maine 04103
(201) 822-6300

Eastern Maine Regional Office
106 Hogan Road
Bangor, Maine 04401
(207) 941-4570

Northern Maine Regional Office
1235 Central Drive
Presque Isle, Maine 04769
(207) 764-0477

b. Department of Agriculture, Conservation and Forestry

i. Maine Land Use Planning Commission (LUPC) (*State permits & Water Quality Certifications for the unorganized areas of the State*)

Augusta Office
22 State House Station
Augusta, Maine 04333-0022
(207) 287-2631; (207) 287-7439 (fax)

Greenville Regional Office
43 Lakeview Drive
P.O. Box 1107
Greenville, Maine 04441
(207) 695-2466; (207) 695-2380 (fax)

Western Region Office
932 U.S. Route 2
East Wilton, Maine 04992
(207) 670-7492; (207) 287-7439 (fax)

Downeast Regional Office
106 Hogan Road, Suite 8
Bangor, Maine 04401
(207) 215-4685; (207) 941-4222 (fax)

Ashland Regional Office
45 Radar Road
Ashland, Maine 04732-3600
(207) 435-7963; (207) 435-7184 (fax)

Eastern Region Office
191 Main Street
East Millinocket, Maine 04430
(207) 399-2176; (207) 746-2243 (fax)

ii. Maine Coastal Program

21 State House Station
Augusta, Maine 04333
(207) 707-2324; (207) 624-6024 (fax)
(CZM consistency determinations)

iii. Division of Parks and Public Lands

22 State House Station
Augusta, Maine 04333
(207) 287-3061; (207) 287-6170 (fax)
(submerged lands leases)

iv. Maine Floodplain Management Program

17 Elkins Lane
Augusta, Maine 04333
(207) 287-8063
(floodplains)

c. Department of Marine Resources

21 State House Station
Augusta, Maine 04333
(207) 633-9500; (207) 624-6024 (fax)
(aquaculture leases/licenses)

3. Historic Properties

a. State Historic Preservation Officer (SHPO)

Kirk F. Mohney, Director
Maine Historic Preservation Commission
65 State House Station
Augusta, Maine 04333-0065
(207) 287-2132; (207) 287-2335 (fax)

b. Tribal Historic Preservation Officers (THPOs)

Houlton Band of Maliseet Indians
88 Bell Road
Littleton, Maine 04730
(207) 532-4273, x215; (207) 532-6883 (fax)
istjohn@maliseets.com

Aroostook Band of Micmacs
7 Northern Road
Presque Isle, Maine 04769
(207) 764-1972; (207) 764-7667 (fax)
jdennis@micmac-nsn.gov

Passamaquoddy Tribe of Indians
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Section IX: Definitions

Action Area: The "Endangered Species Consultation Handbook – Procedures for Conducting Consultation and Conference Activities Under Section 7 of the ESA," defines action area as "all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action. [50 CFR 402.02]."

Agricultural Activities: The Clean Water Act exempts certain discharges associated with normal farming, ranching, and forestry activities such as plowing, cultivating, minor drainage, and harvesting for the production of food, fiber, and forest products, or upland soil and water conservation practices (Section 404(f)(1)(A)). Prospective permittees are strongly advised to contact the Corps for a determination of whether their activity is exempt or requires a permit.

Attendant Features: Occurring with or as a result of; accompanying.

Aquatic Habitat Restoration, Establishment and Enhancement: The Corps will decide if a project qualifies and must determine in consultation with federal and state agencies that the net effects are beneficial. The Corps may refer to Nationwide Permit 27 published in the January 6, 2017 Federal Register. Activities authorized here may include, but are not limited to: the removal of accumulated sediments; the installation, removal, and maintenance of small water control structures, dikes, and berms; the installation of current deflectors; the enhancement, restoration, or establishment of riffle and pool stream structure; the placement of in-stream habitat structures; modifications of the stream bed and/or banks to restore or establish stream meanders; the backfilling of artificial channels and drainage ditches; the removal of existing drainage structures; the construction of small nesting islands in inland waters**;** the construction of open water areas; the construction of native shellfish species habitat over unvegetated bottom for the purpose of habitat protection or restoration in tidal waters; shellfish seeding; activities needed to reestablish vegetation, including plowing or discing for seed bed preparation and the planting of appropriate wetland species; mechanized land clearing to remove non-native invasive, exotic, or nuisance vegetation; and other related activities. Only native plant species shall be planted at the site.

Biodegradable: A material that decomposes into elements found in nature within a reasonably short period of time and will not leave a residue of plastic or a petroleum derivative in the environment after degradation. Examples of biodegradable materials include jute, sisal, cotton, straw, burlap, coconut husk fiber (coir) or excelsior. In contrast, degradable plastics break down into plastic fragments that remain in the environment after degradation.

Boating facilities: These provide, rent or sell mooring space, such as marinas, yacht clubs, boat yards, dockominiums, town facilities, land/home owners, etc. Not classified as boating facilities are piers shared between two abutting properties or town mooring fields that charge an equitable user fee based on the actual costs incurred.

Bordering and Contiguous Wetlands: A bordering wetland is immediately next to its adjacent waterbody and may lie at, or below, the ordinary high water mark (mean high water mark in navigable waters) of that waterbody and is directly influenced by its hydrologic regime. Contiguous wetlands extend landward from their adjacent waterbody to a point where a natural or manmade discontinuity exists. Contiguous wetlands include bordering wetlands as well as wetlands that are situated immediately above the ordinary high water mark and above the normal hydrologic influence of their adjacent waterbody.

Brushing: The placement of tree boughs, wooden lath structure, or small-mesh fencing on mudflats, or any bottom disturbance (e.g., discing, plowing, raking, etc.), to enhance recruitment of shellfish.

Buffer Zone: The buffer zone of an FNP is equal to three times the authorized depth of the FNP.

Construction mats: Constructions, swamp and timber mats (herein referred to as "construction mats") are generic terms used to describe structures that distribute equipment weight to prevent wetland damage while facilitating passage and providing work platforms for workers and equipment. They are comprised of sheets or mats made from a variety of materials in various sizes. A timber mat consists of large timbers bolted or cabled together. Corduroy roads, which are not considered to be construction mats, are cut trees and/or saplings with the

crowns and branches removed, and the trunks lined up next to one another. Corduroy roads are typically installed as permanent structures. Like construction mats, they are considered as fill whether they are installed temporarily or permanently.

Cumulative effects: See "Direct, secondary, and cumulative effects."

Currently Serviceable: Useable as-is or with some maintenance, but not so degraded as to essential require reconstruction.

Direct, secondary, and cumulative effects:
Direct Effects: The loss of aquatic ecosystem within the footprint of the discharge of dredged or fill material. Direct effects are caused by the action and occur at the same time and place.
Secondary Effects: These are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material. Information about secondary effects on aquatic ecosystems shall be considered prior to the time final Section 404 action is taken by permitting authorities. Some examples of secondary effects on an aquatic ecosystem are a) aquatic areas drained, flooded, fragmented, or mechanically cleared, b) fluctuating water levels in all impoundment and downstream associated with the operation of a dam, c) septic tank leaching and surface runoff from residential or commercial developments on fill, and d) leachate and runoff from a sanitary landfill located in waters of the U.S. See 40 CFR 230.11(h).
Cumulative Effects: The changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual 1) discharges of dredged or fill material, or 2) structures. Although the impact of a particular discharge may constitute a minor change in itself, the cumulative effect of numerous such piecemeal changes can result in a major impairment of the water resources and interfere with the productivity and water quality of existing aquatic ecosystems. See 40 CFR 230(g).

Dredging:
Maintenance Dredging: Includes areas and depths previously authorized by the Corps and dredged.
The Corps may require proof of authorization. Maintenance dredging typically refers to the routine removal of accumulated sediment from channel beds to maintain the design depths of navigation channels, harbors, marinas, boat launches and port facilities. Routine maintenance dredging is conducted regularly for navigational purposes (typically at least once every ten years) and does not include any expansion of the previously dredged area or depth. The Corps may review a maintenance dredging activity as new dredging if sufficient time has elapsed to allow for the colonization of SAS, shellfish, etc. The main characteristics of maintenance dredging projects are variable quantities of material; soft, uncompacted soil; contaminant content possible; thin layers of material; occurring in navigation channels and harbors; repetitive activity
New Dredging: Dredging of an area or to a depth that has never been authorized by the Corps or dredged.

Dredged material & discharge of dredged material: These are defined at 323.2(c) and (d). The term dredged material means material that is excavated or dredged from waters of the U.S.

Essential Fish Habitat (EFH): This is broadly defined to include those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.

Fill material & discharge of fill material: These are defined at 323.2(e) and (f). The term fill material is defined as material placed in waters of the U.S. where the material has the effect of either replacing any portion of a water of the U.S. with dry land or changing the bottom elevation of any portion of a water of the U.S.

Fill area: Fill area includes all temporary and permanent fill (including mats), and regulated discharges associated with excavation.

Federal navigation projects (FNPs): These areas are maintained by the Corps; authorized, constructed and maintained on the premise that they will be accessible and available to all on equal terms; and are comprised of Federal Anchorages, Federal Channels and Federal Turning Basins. The buffer zone is equal to three times the authorized depth of a FNP. More information on the following FNPs is provided at *www.nae.usace.army.mil/missions/navigation.aspx* >> Navigation Projects.

Flume: An open artificial water channel, in the form of a gravity chute that leads water from a diversion dam or weir completely aside a natural flow. A flume can be used to measure the rate of flow.

Frac out: During normal drilling operations, drilling fluid travels up the borehole into a pit. When the borehole becomes obstructed or the pressure becomes too great inside the borehole, the ground fractures and fluid escapes to the surface.

Habitat Connectivity Design: projects designed and constructed for consistency with natural stream dimensions, profiles, and dynamics, in accordance with the following technical references: U.S. Forest Service guide (Forest Service Stream-Simulation Working Group 2008), augmented by documents published by the states of Washington (Barnard et al. 2013), Vermont (Bates and Kirn 2009) and California (Love and Bates 2009).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Individual Permit: A Department of the Army authorization that is issued following a case-by-case evaluation of a specific structure or work in accordance with the procedures of 33 CFR 322, or a specific project involving the proposed discharge(s) in accordance with the procedures of 33 CFR 323, and in accordance with the procedures of 33 CFR 325 and a determination that the proposed discharge is in the public interest pursuant to 33 CFR 320.

Living Shoreline: Living shorelines stabilize banks and shores in coastal waters along shores with small fetch and gentle slopes that are subject to low-to mid-energy waves. A living shoreline has a footprint that is made up mostly of native material. It incorporates vegetation or other living, natural "soft" elements alone or in combination with some type of harder shoreline structure (e.g., oyster or mussel reefs or rock sills) for added protection and stability. Living shorelines shall maintain the natural continuity of the land-water interface, and retain or enhance shoreline ecological processes. Living shorelines must have a substantial biological component, either tidal or lacustrine fringe wetlands or oyster or mussel reef structures.

Maintenance:

a. The repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3 – "Activities occurring before certain dates," provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification.

- Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, or current construction codes or safety standards that are necessary to make repair, rehabilitation, or replacement are authorized.
- Currently serviceable means useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.
- No seaward expansion for bulkheads or any other fill activity is considered SV maintenance.
- Only structures or fills that were previously authorized and are in compliance with the terms and condition of the original authorization can be maintained as a non-regulated activity under 33 CFR 323.4(a)(2), or in accordance with the SV or PCN thresholds in Section V.

b. The state's maintenance provisions may differ from the Corps and may require reporting and written authorization from the state.

c. Contact the Corps to determine whether stream crossing replacements require a PCN.

d. Exempted Maintenance. In accordance with 33 CFR 323.4(a)(2), any discharge of dredged or fill material that may result from any of the following activities is not prohibited by or otherwise subject to regulation under Section 404 of the CWA: "Maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, bridge abutments or approaches, and transportation structures. Maintenance does not include any modification that changes the character, scope, or size of the original fill design."

The following definition is also applicable:

Minor deviations: Deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, or current construction codes or safety standards, which are necessary to make repair, rehabilitation, or replacement are permitted, provided the adverse environ-mental effects resulting from such repair, rehabilitation, or replacement are minimal.

Marina reconfiguration zone: A Corps-authorized area in which permittees may rearrange pile-supported structures and floats without additional authorizations. A reconfiguration zone does not grant exclusive privileges to an area or an increase in structure or float area.

Natural Rocky Habitats: Natural rocky habitats are intertidal and subtidal substrates composed of pebble-gravel, cobble, boulder, or rock ledge and outcrops. Manufactured stone (e.g. cut or engineered rip-rap) is not considered a natural rocky habitat. Natural rocky habitats are either found as pavement (consolidated pebble-gravel, cobble, or boulder areas) or as a mixture with fines (i.e. clay and sand) and other substrates.

Navigable waters of the U.S.: See Waters of the U.S. below.

Overall project: See "single and complete linear project" below.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Permanent impacts: Permanent impacts means waters of the U.S. that are permanently affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent impacts include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody.

Pre-construction notification (PCN): A request submitted by a prospective permittee to the Corps for confirmation that a particular activity is authorized by this GP. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of these GPs. A PCN may be voluntarily submitted in cases where PCN is not required and the project proponent wants confirmation that the activity is authorized under this GP.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/ historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in again in aquatic resource area and functions.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area. Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riffle and pool complexes: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a course substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Secondary effects: See "Direct, secondary, and cumulative effects."

Shellfish Areas: Areas that currently support molluscan shellfish. Information regarding these locations can be obtained from the State of Maine GeoLibrary Data Catalog at: *www.maine.gov/geolib/catalog.html*

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term "single and complete project" is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the U.S. (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for the purposes of this GP. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.
The overall project, for purposes of this GP, includes all regulated activities that are reasonably related and necessary to accomplish the project purpose.

Single and complete non-linear project: For non-linear projects, the term "single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. For non-linear projects, the single and complete project shall have independent utility (see definition).

Special aquatic sites (SAS): These are defined at 40 CFR 230 Subpart E. They include sanctuaries and refuges, wetlands, mud flats, vegetated shallows (submerged aquatic vegetation, SAV), coral reefs, and riffle and pool complexes.

Stream: The term "stream" in the document means rivers, streams, brooks, etc.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States.

Stream Simulation: A method for designing and building road-stream crossings intended to permit free and unrestricted movements of any aquatic species. Reference:
https://www.nae.usace.army.mil/Missions/Regulatory/Stream-and-River-Continuity/

Stream Smart Design: projects designed to allow the stream to act like a stream by passing fish and wildlife as well as the higher flows that come with large infrequent storms while protecting the stability of the road and public safety. Stream Smart Design follows the "Four S's": The culvert must SPAN the stream, allowing for passage of aquatic and terrestrial wildlife. The culvert has to be SET at the right elevation. The SLOPE of the culvert must match the stream. There must be SUBSTRATE (natural sediment) in the crossing. Reference:
www1.maine.gov/mdot/publications/docs/brochures/pocket_guide_stream_smart_web.pdf

Temporary impacts: Temporary impacts include waters of the U.S. that are temporarily filled, flooded, excavated, drained or mechanically cleared because of the regulated activity.

Temporal loss: The time lag between the loss of aquatic resource functions caused by the permitted impacts and the replacement of aquatic resource functions at the compensatory mitigation site(s) (33 CFR 332.2).

Utility line: Any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and radio and television communication. The term 'utility line' does not include activities that drain a water of the U.S., such as drainage tile or French drains, but it does apply to pipes conveying drainage from another area.

Vegetated shallows/Submerged Aquatic Vegetation (SAV): Permanently inundated areas that under normal circumstances support communities of rooted aquatic vegetation, such as eelgrass in marine systems as well as a number of freshwater species in rivers and lakes. Note: Eelgrass surveys should be conducted be conducted between May and October unless otherwise directed.

Vernal pools (VPs): The State of Maine, Department of Environmental Protection has specific protections for VPs. For the purposes of these GPs, VPs are depressional wetland basins that typically go dry in most years and may contain inlets or outlets, typically of intermittent flow. Vernal pools range in both size and depth depending upon landscape position and parent material(s). In most years, VPs support one or more of the following obligate indicator species: wood frogs (*Rana sylvatica*), spotted salamanders (*Ambystoma maculatum*), blue-spotted salamanders (*Ambystoma laterale*), and fairy shrimp (*Eubranchipus* sp.). However, they should preclude sustainable populations of predatory fish.

Water dependency: activity requiring access or proximity to or siting within a special aquatic site (SAS) to fulfill its basic project purpose.

Water diversions: Water diversions are activities such as bypass pumping (e.g., "dam and pump") or water withdrawals. Temporary flume pipes, culverts or cofferdams where normal flows are maintained within the stream boundary's confines aren't water diversions. "Normal flows" are defined as no change in flow from pre-project conditions.

Weir: A barrier across a river designed to alter the flow characteristics. In most cases, weirs take the form of a barrier, smaller than most conventional dams, across a river that causes water to pool behind the structure (not unlike a dam) and allows water to flow over the top. Weirs are commonly used to alter the flow regime of the river, prevent flooding, measure discharge and help render a river navigable.

Waters of the United States (U.S.)

Waters of the U.S.: The term waters of the U.S. and all other terms relating to the geographic scope of jurisdiction are defined at 33 CFR 328. Also see Section 502(7) of the Federal CWA [33 USC 1352(7)]. Waters of the U.S. include jurisdictional wetlands. Not all waters and wetlands are jurisdictional. Contact the Corps with any questions regarding jurisdiction.

Navigable waters: Refer to 33 CFR 329. These waters include the following federally-designated navigable waters in New England. This list represents only those waterbodies for which affirmative determinations have been made; absence from this list shall not be taken as an indication that the waterbody is not navigable: In Maine, navigable waters are those waters that are subject to the ebb and flow of the tide in addition to the non-tidal portions of the following federally-designated waters in Maine (the Kennebec River to Moosehead Lake, the Penobscot River to the confluence of the East and West Branch at Medway and, Lake Umbagog within the State of Maine).

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Tidal wetland: A tidal wetland is a jurisdictional wetland that is inundated by tidal waters. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tideline.

ATTACHMENT C
TRAFFIC SUPPLEMENTAL PACKAGE

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Trip Generation and Parking Demand Summary
Thompson's Point
September 2024 – (Revised 12-10-24)

Date: September 4, 2024 (Revised 12-10-24)
Subject: Updated Trip Generation and Parking Demand
Thompson's Point
To: Bo Kennedy, Placemaker Partners, LLC
From: Randy Dunton / Kyle Brennan, Gorrill Palmer (JN 4346)

Gorrill Palmer (GP) has prepared this updated trip generation and parking demand summary for the Thompson's Point development in Portland, Maine. The full build out of the project received a MaineDOT Traffic Movement Permit (TMP) in 2012 (Reg. 01-00155-A-N) for 734 trip ends during the AM peak hour and 1,091 trip ends during the PM peak hour. The Traffic Movement Permit received an extension in 2024 out to March 1, 2027. The documentation for the extension is attached. The project is being constructed in phases and each phase must be evaluated to ensure that the total site trip generation does not exceed the permitted trip generation. The following is a summary of the forecast trip generation and parking demand for the existing and previously approved uses, and the proposed residential development on site. A site plan is attached showing the location of each building.

Existing and Previously Evaluated Trip Generation Summary

The trip generation for the existing Thompson's Point site is based on discussions with Bo Kennedy, project manager/engineer for the site. The trip generation was calculated using the same methodology as that used in previous trip generation evaluations for the site, including using the Institute of Transportation Engineers' publication, *Trip Generation*, 7th Edition, except where otherwise noted, and applying a 10% reduction to the total site trip generation to account for other modes of transportation and shared uses on the site. The following table summarizes the trip generation for the existing site:

Existing and Approved Site Trip Generation

Building	Description	Size	AM Peak Hour	PM Peak Hour
Building A Brick North				
	Halo (Event Space) – Previously approved	400 attendees	16	31
	Office Space – 7 Emp.	7 Employees	7	7
	Brewery & Sit-Down Restaurant – LUC 932 + 7 Emp.	14,644 sf (4,624 sf Rest. & 10,020 sf Brewery)	7	49 (42+7)
	Brewery Tap Room – LUC 932 + 5 Emp.	5,284 sf	16 (11+5)	16 (11+5)
	Color Me Mine – Previously Approved	2,136 sf	2	6
	International Cryptozoology Museum – Previously approved (doubled in size)	1919 sf	2	2
	Leisure Time Cocktails – LUC 975	1725 sf	N/A	20

	Coffee Roasting – Assumed (Employee only)	675 sf	1	1
	Brick North Total		**51**	**132**
Building C Brick South				
	Event/Assembly Space – Previously approved	2,500 Seats	100	195
	Annex	7,384 sf	--*	--*
	Brick South Total		**100**	**195**
Building F1				
	Warehouse – Previously approved	14,200 sf	11	9
	Building F1 Total		**11**	**9**
Building F2				
	Artist Studio Space – Previously approved	1,940 sf	3	4
	Building F2 Total		**3**	**4**
Building L				
	Office Space – Previously forecasted potential future development	4,000 sf	7	9
	Event Space – Previously forecasted potential future development	100 Attendees	4	8
	Existing Storage – Previously forecasted potential future development	1,760 sf	0**	0**
	Existing Office Space (Credit)	4,000 sf	(-7)	(-9)
	Building L Total		**4**	**8**
Building B2				
	Concession Building – Previously approved	960 sf	4	4
	Building B2		**4**	**4**
Building D				
	Proposed Hotel (2024 Construction Start) – Previously proposed development	148 Rooms	68	87
	Hotel Total		**68**	**87**
Building I Children's Museum and Theatre of Maine (CMTM)				
	CMTM– Previously approved	29,096 sf	33	33
	Children's Museum Total		**33**	**33**
Existing Subtotal			**274**	**472**

*Maximum of 2,500 people in the building for events. Highest trip generation would be an event in the Event space, not the Annex.
**Trip generation assumed to be negligible.

Since initially approved, there have been some minor changes to the uses. The "Rosemont Market" (2,724 sf) and Brewery & Sit-Down Restaurant (11,920 sf) have been combined and identified as "Brewery & Sit-Down Restaurant" (14,644 sf). For the purposes of this evaluation, the previously individual square footages have been combined. Trip generation for the "Brewery & Sit-Down Restaurant" was based on previously accepted "Bissell Brewery & Restaurant" methodology, where the restaurant trip generation is based on LUC 932 – High Turnover (Sit Down) Restaurant (4,624 SF) and trip generation for the brewery portion

(10,020 SF) is based on the 7 employees.

The previously approved coffee shop "Rwanda Bean" (2,400 sf) has been split with "Leisure Time Cocktails". "Rwanda Bean" (675 sf) is still occupying part of the space for coffee roasting, but the remaining space is now occupied by "Leisure Time Cocktails" (1725 sf).

The previously approved "Big Room Studios" (3,461 sf) has been replaced with an "Office Space". The square footage of the area is the same, but because the office space only has 7 employees, trip generation was based on employee trips.

The previously approved "Distillery" (5,284 sf) has been replaced with a "Brewery Tap Room" (5,284 sf). For the purposes of this evaluation due to similar use the previously approved individual square footage and trip generation will be used for the "Brewery Tap Room". Trip generation for the "Brewery Tap Room" is based on 1,200 SF of restaurant space (LUC 932) and 4,084 SF of brewery space (5 employees).

The previously approved "International Cryptozoology Museum" (993 sf) has doubled in size. Due to the "International Cryptozoology Museum" (1919 sf) doubling in size the trip generation will double from the previous report.

The site has moved onto its next phase of development, which includes Building's L, B2, and D. Building's L and B2 were identified as proposed development in the previous report. Building D was identified as potential future development in the previous report. Building's L, B2, and D will contribute 76 & 99 trip ends in the AM & PM peak hours respectively.

As shown in the table, the existing site is forecast to generate 274 trip ends during the AM peak hour and 472 trip ends during the PM peak hour.

Proposed Site Trip Generation

Our understanding is that the site is now moving into its next phase of development, which will include a 255-unit six story apartment building (identified as Building G on the enclosed site plan).

Trip generation for the proposed use has been based on the following:

- 255 Units of Residential Development – New Construction

The trip generation for the proposed use was calculated using the updated Institute of Transportation Engineers' publication, *Trip Generation*, 11th Edition (LUC 221 – Mid-Rise Apartment). It should be noted that LUC 221 provides two different trip generations, "not close to rail transit" and "close to rail transit". It is our understanding that ITE refers "close to rail transit" as more local transit, such as subways. The Amtrak located near Thompson's point, in our opinion, does not meet the intent for "close to rail transit". The following table summarizes the trip generation for the proposed uses:

Forecast Trip Generation

Building	Description	Size	AM Peak Hour	PM Peak Hour
Building G Residential				
	Apartments – LUC 221	255 Units	101	100
Forecast Trip Generation			**101**	**100**

As shown in the table, the proposed residential use is forecast to generate an additional 101 trip ends and 100 trip ends during the AM and PM peak hours of the adjacent street, respectively.

Site Trip Generation

The trip generation for the existing site has been combined with the trip generation for the proposed new and remodeled buildings to yield the total site trip generation.

Total Site Trip Generation Summary

Site	Building	AM Peak Hour	PM Peak Hour
Existing			
	Building A – Mixed Used (Brick North)	51	137
	Building C – Events (Brick South)	100	195
	Building F1 – Warehouse	11	9
	Building F2 – Artist Studio	3	4
	Building L – Office	4	8
	Building B2 – Concessions	4	4
	Building D – Hotel	68	87
	Building I – Children's Museum and Theatre of Maine	33	33
	Existing Total	**274**	**472**
Proposed			
	Market Rate Apartments	101	100
	Forecast Total	**101**	**100**
Site Subtotal		**375**	**572**
Reduction (10%) for Bus / Train / Shared Use		(-37)	(-57)
Proposed Site Trip Generation		**338**	**515**
Permitted Trip Ends		734	1091
Difference Between Permitted and Proposed Site		**396**	**576**

As shown in the table, the site inclusive of the proposed residential development is forecast to generate 338 trip ends during the AM peak hour and 515 trip ends during the PM peak hour. This yields an overall trip generation that is 396 trip ends **less** than the permitted trip generation during the AM peak hour and 576 trip ends **less** than the permitted trip generation during the PM peak hour.

Parking Demand

Proposed Apartments: Parking for the new apartments is based on the ITE Parking Generation Manual, 5th Edition. The parking demand rate (1.31 spaces/unit) is based on Land Use Code (LUC) 221 – Multifamily

Housing (Mid-Rise). Because of the nature of the housing use, the peak parking demand (334 spaces) occurs overnight with the lowest parking demand (164 spaces) occurring during the day (1:00 – 2:00 PM). This complements the other uses on site well, since they will have the highest demand around noon time, with little to no demand (approximately 26-70 spaces) overnight.

Overall Site: The overall site parking demand is based on a combination of shared and designated parking methodologies. The shared methodology (majority of the site) assumes there are parking spaces not designated for specific uses and can be shared between the uses. There are some spaces on site such as the panhandle/residential garage that are proposed to use designated parking and be specifically residential or non-public Thompson's Point managed supply spaces. The attached parking demand calculations show the detailed time of day distribution for each use and the forecast demand. Based on the calculations the peak parking demand is between 6:00 PM and 10:00 PM for the overall site. The peak parking demand (without an event in Brick South or Halo) is 475 spaces and is anticipated to occur at 10:00 PM, of which 405 is the parking demand for the hotel and apartments which have designated spaces. Excluding the hotel and apartments, the peak parking demand is 165 spaces and occurs around noon. As identified in the approval for the master development plan, when special events of a certain attendance threshold occur, additional parking measures will be implemented on an as needed basis.

Conclusions

The following is a summary of the conclusions:

1. The site (including existing and proposed uses) is forecast to generate a total of 338 trip ends during the AM peak hour and 515 trip ends. This trip generation is 396 trip ends less than the permitted trip generation during the AM peak hour and 576 trip ends less than the permitted trip generation during the PM peak hour.

2. The peak parking demand for the proposed apartments (334 spaces) occurs overnight after 10:00 PM, when there is little to no demand from the other on-site uses, with the exception of the hotel demand (110 spaces). Excluding the hotel and apartments, the overall site parking demand peaks around noon, when the hotel and apartments are near their lowest parking demand.

u:\cathartes\4346_thompsons point_residential\n traffic\revised trip gen 12-10-2024.docx



GORRILL PALMER
An LJB Engineering Company

300 Southborough Drive, Suite 200, South Portland, ME 04106
(207) 772-2515|GorrillPalmer.com

Supplemental Package
12-10-2024

The following attachments are provided as previous information that has been submitted to the City in support of the Thompson's Point development.

A. TMP Extension – Dated 3/1/24 & 3/12/24
B. Trip Generation Evaluation & Summary – June 2022
C. Trip Generation and Parking Demand Summary – April 2020
D. MaineDOT Traffic Movement Permit - Thompson's Point Development Company Inc. – Signed 6/13/12

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Attachment A

TMP Extension – Dated 3/1/24 & 3/12/24

Planning and Urban Development
Christine Grimando, AICP
Director

City of portland

Applicant:	Chris Thompson Forefront Partners I, LP 501 Danforth Street Portland, Maine 04102
Project Location:	1 Thompson's Point Rd. Portland, Maine 04102
Parcel #	201 A005001
Project:	Thompson's Point/Mixed-use Development
Identification #:	Reg. 01-00155-A-N
Permit Category:	200 Plus PCE
Traffic Engineer:	Thomas Gorrill/Randy Dunton Gorrill-Palmer Consulting Engineers 300 Southborough Dr., #200 South Portland, ME 04106

Pursuant to the provision of 23 M.R.S.A. § 704-A and Chapter 305 of the Maine Department of Transportation's (MaineDOT) Regulations, the City of Portland and MaineDOT have determined that a one-time extension of the Traffic Movement Permit issued for Thompson's Point is warranted. The permit will be considered expired if construction of the project has not been completed by March 1, 2027, unless a modification is approved prior to this date.

In the event the permit expires prior to construction being completed by the end of the one-time extension date, the Applicant shall submit a new permit, with information pertaining to Sections 1 thru 6 of the General Submission Requirements and a Notice of Intent to File, as outlined in Chapter 305, and address any changes in facts since the initial analysis and approval. Consistent with Section 8 of Chapter 305, in the event the Applicant completes all mitigation required for the Development, but cannot complete the Project within the one-time extension date, the Developer will be required to submit a TMP Modification that includes any programmatic changes to the Development for review and approval. An applicant may be required to provide additional mitigation of permitted trips as a result of changes to the Development program increase beyond the initial approval. Additionally, the Developer may be required to attend a Scoping Meeting, unless the Maine Department of Transportation waives this requirement.

All required terms and mitigation of the original TMP approval remain in effect.

Christine Grimando, AICP
Director, Department of Planning & Urban Development
City of Portland

Date: March 1, 2024

Stephen Landry, P.E.
State Traffic Engineer
Maine Department of Transportation

Date: 3/12/24

GORRILL PALMER
An LJB Engineering Company

Attachment B

Trip Generation Evaluation & Summary – June 2022

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

Trip Generation Evaluation & Summary
Thompson's Point
June 13, 2022

Date: June 13, 2022
Subject: Updated Trip Generation
Thompson's Point
To: Bo Kennedy, P.E. - Placemaker Partners, LLC
From: Randy Dunton, P.E., PTOE

Gorrill Palmer (GP) has prepared this updated trip generation summary for the Thompson's Point development in Portland, Maine. The full build out of the project received a MaineDOT Traffic Movement Permit (TMP) in 2012 (Reg. 01-00155-A-N) for 734 trip ends during the AM peak hour and 1,091 trip ends during the PM peak hour. The project is being constructed in phases and each phase must be evaluated to ensure that the total site trip generation does not exceed the permitted trip generation. The following is a summary of the forecast trip generation for the existing and previously approved uses, currently proposed and potential future development and the total site trip generation. A Thompsons Point Campus Directory is attached showing the location of each building for the existing conditions. Exact location of proposed and potential future buildings is still being refined.

Existing Trip Generation Summary

The trip generation for the existing Thompson's Point site has been based on discussions with your office and previously approved uses. Where relevant, trip generation that was previously approved was maintained in this evaluation. Trip generation for change in tenants permitted under current approvals is based on ITE Trip Generation, 11th Edition or through observations at the site. As previously approved for this site, a 10% reduction has been applied to the total site trip generation to account for other modes of transportation and shared uses on the site. The following tables summarize the trip generation for the existing site:

Table 1 – Existing Site – Trip Generation

Building	Description	Size	AM Peak Hour	PM Peak Hour
Brick North				
	Rosemont Market – Based on observations	2,724 sf	0	29
	Rwanda Bean – Based on observations	2,400 sf	18	21
	Halo (Event Space) – 3.5 people / car – Night Event	400 attendees	16	31
	Big Room Studios – LUC 712	3,461 sf	6	7
	Bissell Brewery & Restaurant – LUC 932 + 7 Emp.	11,920 sf	25 (18+7)	24 (17+7)
	Distillery – LUC 932 + 5 Emp.	5,284 sf	16 (11+5)	16 (11+5)
	Color Me Mine – previously approved	2,136 sf	2	6
	International Cryptozoology Museum - assumed	993 sf	1	1
	Brick North Total		**84**	**135**

Brick South				
	Event/Assembly Space – 3.5 people / car – Night Event	2,500 Seats	100	195
	Annex	7,384 sf	--*	--*
	Brick South Total		**100**	**195**
Building F1				
	Warehouse – LUC 110	14,200 sf	11	9
	Building F1 Total		**11**	**9**
Building F2				
	Proposed Artist Studio – LUC 712	1,940 sf	3	4
	Building F2 Total		**3**	**4**
Satellite Building				
	Children's Museum – provided by Museum – previously approved	29,096 sf	33	33
	Satellite Building Total		**33**	**33**
	Existing Site Subtotal		**228**	**376**
	Reduction for Existing Site Shared Trips		**(-23)**	**(-38)**
Total			**205**	**338**

*Maximum of 2,500 people in the building for events. Highest trip generation would be an event in the Event space, not the Annex.

Since initially approved, there has been some minor changes to the uses. The "Locally Sauced (formerly Big J's Chicken) and the Bissell "Brewery" have been combined and identified above as "Bissell Brewery & Restaurant". For the purposes of this evaluation, the previously approved individual square footages and trip generations have been combined.

The previously approved Cellardoor "Winery" (5,890 sf) has been replaced with a Rosemont Market with wine bar (2,724 SF) and a Rwanda Bean (2,400 SF). The difference between the square footages is a bathroom area that is shared between the two uses. The Rosemont Market and Rwanda Bean are described in more detail as follows:

Rosemont Market – this is a boutique type store with approximately 12 seats in the café area and 15 seats at the wine bar. The store hours during a weekday are 10AM – 8PM for the store & café area and 2PM-8PM for the wine bar. Since the use is unique, it does not fit into a typical ITE category for the purpose of determining trip generation. Since the use is not open during the AM peak hour of adjacent street traffic, the trip generation for the AM peak hour was assumed to be none. To estimate the PM peak hour of adjacent street traffic, the use was counted on Thursday, April 21, 2022 from 4PM – 6PM. Both of the accesses to the facility were observed, and it was estimated who may have arrived in their own car. Based on our observations, the peak hour occurred from 4PM – 5PM with an estimated total of 11 vehicles entering and 18 vehicles exiting, for a total of 29 vehicles.

Rwanda Bean – similar to the market, this is a boutique type store with approximately 25 seats, with areas for both cooking goods and a relatively large area for the roasting and packaging of the coffee. The store hours during a weekday are 8AM – 4PM. Since the use is unique, it does not fit into a typical ITE category. The use was counted on Thursday, April 21, 2022 from 7AM – 9AM and again from 3:30PM – 4:30 PM. Similar to the market, all of the accesses to the facility were observed, and it was estimated who may have arrived in their own car. Based on our observations, the AM peak hour occurred from 8AM – 9AM. There was only one hour counted for the PM since they close at 4PM. Based on our observations, the AM experienced a total of 18 vehicles (11 entering and 7 exiting) and the PM experienced a total of 21 vehicles (11 entering and 10 exiting). Even though the PM adjacent street peak hour typically occurs between 4PM – 6PM, to be conservative we used the 3:30PM – 4;30PM counts.

As shown in the table, the existing site subtotal is forecast to generate 228 trip ends during the AM peak hour and 376 trip ends during the PM peak hour. Based on observations at the site, there are significant shared trips between the activities on site (such as Children's Museum) and the food establishments such as Rwanda Bean & Rosemont Market. Additional significant shared trips would also be expected between activities on site and Bissell Brewery & Restaurant and potentially the Distillery. Although a 10% reduction is applied to the site as a whole, that 10% also includes those taking other modes of transportation, so only a portion of that reduction is shared trips. Given the significant shared use that has been observed on site, an additional 10% was subtracted from the existing site traffic to reflect the existing shared use. Therefore, the resulting trip generation for the existing site is forecast to be 205 trip ends during the AM peak hour and 338 trips ends during the PM peak hour.

Proposed Site Trip Generation

Our understanding is that the site is now moving into its next phase of development, which will include an approximately 148 room hotel and a concession building (Building B2). A smaller Hotel (125 room) was included in the original TMP with a trip generation of 70 and 74 trips ends during the AM & PM peak hours of adjacent street traffic respectively. We understand that the final number of rooms is still being refined and may be something less than the 148.

The currently proposed concession building is intended to supplement existing uses on site and not generate significant trips from off-site. For the purposes of this evaluation, we have considered trip generation to be 4 employees during both the AM and PM peak hours.

The following Table 2 summarizes the forecast trip generation for the hotel and concession building.

Table 2 - Currently Proposed Development - Trip Generation

Building	Description	Size	AM Peak Hour	PM Peak Hour
Hotel				
	Hotel – LUC 310	148 Rooms	68	87
	Hotel Total		**68**	**87**
Building B2				
	Concession Building	960 sf	4	4
	Building B2 Total		**4**	**4**
Currently Proposed Development Trip Generation			**72**	**91**

As shown in the Table 2, the proposed uses are forecast to generate an additional 72 trip ends and 91 trip ends during the AM and PM peak hours of the adjacent street, respectively.

Potential Future Development Trip Generation

In addition to the existing and currently proposed development, there is potential future development that could occur on-site and bring the site to its full potential as envisioned in the Master Development Plan. Those potential future uses were also described in the previous May 14, 2020 evaluation and are repeated here:

"Building K – New Construction
- *Proposed Inn: 61 rooms + potential 22 room expansion*
- *The Inn is proposed to include a bar that is intended to serve primarily hotel guests and potentially guests of other Thompson's Point uses. However, it is not anticipated to draw significant outside traffic, so the trip generation for the bar is forecast to be negligible."*

"Building L – Renovation
- *Existing Office: 4,000 sf*
- *Existing Storage: 1,760 sf*
- *Proposed Office: 5,760 sf"*

The 344 apartments that are currently identified as potential future development were originally approved in the "Revised Master Plan" as J1-(160 units), J2-(160 units) and 24 units on the top of the hotel. The trip generation for the apartments is based on the ITE Trip Generation 11th Edition for Land Use Code 221 – Multifamily Housing (Mid-Rise) – between 4 & 10 stories.

The following table summarizes the trip generation for the potential future development uses:

Table 3 - Potential Future Development - Trip Generation

Building	Description	Size	AM Peak Hour	PM Peak Hour
Building K				
	Inn – LUC 310	61 Rooms	28	36
	Inn Expansion – LUC 310	22 Rooms	10	13
	Building K Total		**38**	**49**
Building L				
	Proposed Office – LUC 712	4,000 sf	7	9
	Proposed Event Space	100 attendees	4	8
	Existing Office (Credit)	4,000 sf	(-7)	(-9)
	Existing Storage	1,760 sf	0*	0*
	Building L Total		**4**	**8**
Apartments				
	Market Rate Apartments – LUC 221	344 Units	127	134
	Apartments		**127**	**134**
Potential Future Development Trip Generation			**169**	**191**

*Trip generation assumed to be negligible.

Site Trip Generation

The trip generation for the existing site has been combined with the trip generation for the currently proposed development and the potential future development to yield the site trip generation upon full development of the uses identified herein. The total site trip generation has been compared to the permitted trip generation to identify remaining available permitted trips for other approved uses within the master plan.

Table 4 - Total Site Trip Generation Summary

Condition	AM Peak Hour	PM Peak Hour
Existing Site	205	338
Currently Proposed Development	72	91
Potential Future Development	169	191
Site Subtotal	446	620
Reduction (10%) for Bus / Train / Shared Use	(-45)	(-62)
Revised Site Trip Generation	**401**	**558**
Permitted Trip Ends (2012 TMP – Reg. 01-00155-A-N)	734	1091
Difference Between Permitted and Proposed Site	**333**	**533**

As shown in Table 4, the total site uses after consideration of other modes of transportation are forecast to generate 401 trip ends during the AM peak hour and 558 trip ends during the PM peak hour. This yields an overall site trip generation that is 333 trip ends less than the permitted trip generation during the AM peak hour and 533 trip ends less than the permitted trip generation during the PM peak hour.

Attachments:
- Campus Directory
- Trip Generation

u:\3948_thompson's point_portland\n traffic\final trip gen evaluation-06-13-22.docx

LEGEND

1. PORTLAND TRANSPORTION CENTER
2. PORTLAND TRAILS - Multi-Use
   Connection to Fore River Parkway and Sewall Street
3. PORTLAND TRAILS - Fore River Trailhead
4. BRICK NORTH - Mixed Use
   - 4A. Halo At The Point - Event Space
   - 4B. Big Room Studios
   - 4C. Color Me Mine
   - 4D. Stroudwater Distillery
   - 4E. International Cryptozoology Museum
   - 4F. Bissell Brothers Kitchen
   - 4G. Bissell Brothers Brewing
   - 4H. Rosemont Market & Wine Bar
   - 4I. Rwanda Bean Coffee
5. THE GROVE
   Featuring "Tree Of 40 Fruit"
6. CHILDREN'S MUSEUM & THEATRE OF MAINE
7. BRICK SOUTH - Event Venue
   - 7A. Brick South Beer Garden
8. DEPOT PAVILION & CONCESSIONS
   - 8A. Seasonal Warming Hut & Bar
   - 8B. Portland Trails Parklet
   - 8C. Outdoor Event Lawn
9. METRO BUS STOP
   - 9A. SHELTER



PAY & DISPLAY KIOSK
Enforcement Rules In Effect 24/7

PASSPORT PARKING ZONE # 1213
Enforcement Rules In Effect 24/7

THOMPSON'S POINT

THOMPSON'S POINT CAMPUS DIRECTORY

PORTLAND, ME

Page 2308

Big Room Studios

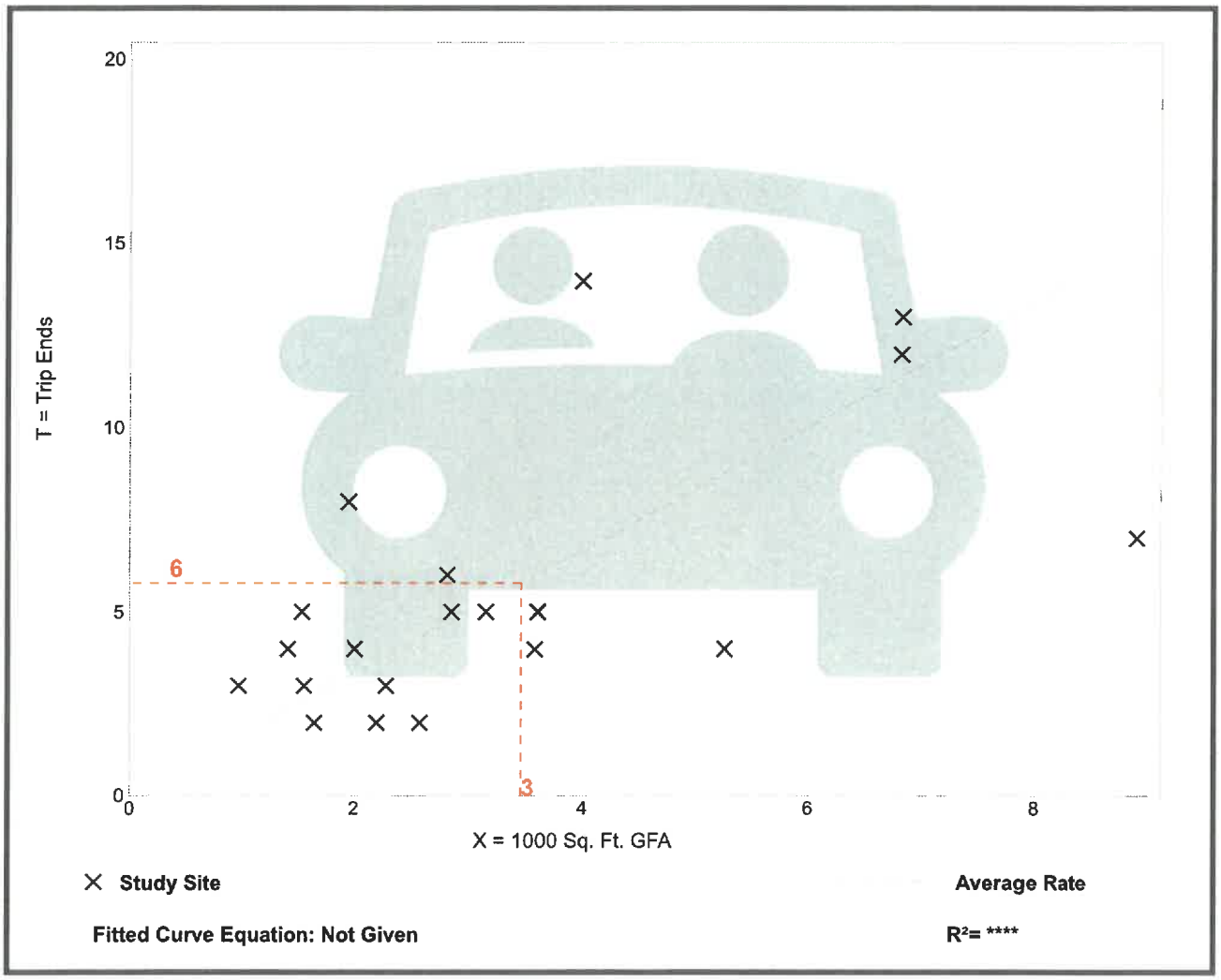
Small Office Building
(712)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 21
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 82% entering, 18% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.67	0.76 - 4.12	0.88

Data Plot and Equation



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Big Room Studios

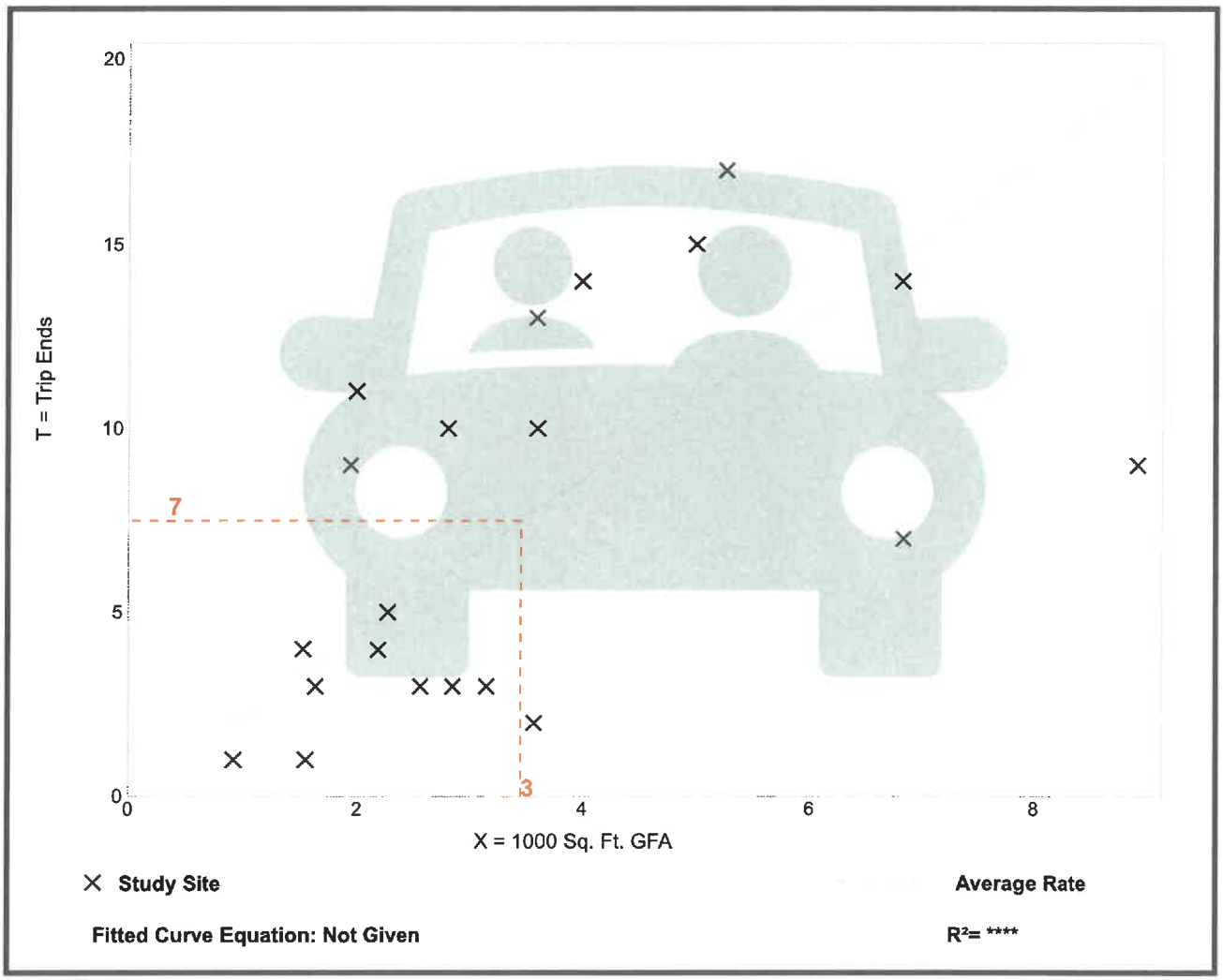
Small Office Building
(712)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 21
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 34% entering, 66% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.16	0.56 - 5.50	1.26

Data Plot and Equation



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Bissell
(1900# + 7 Emp)

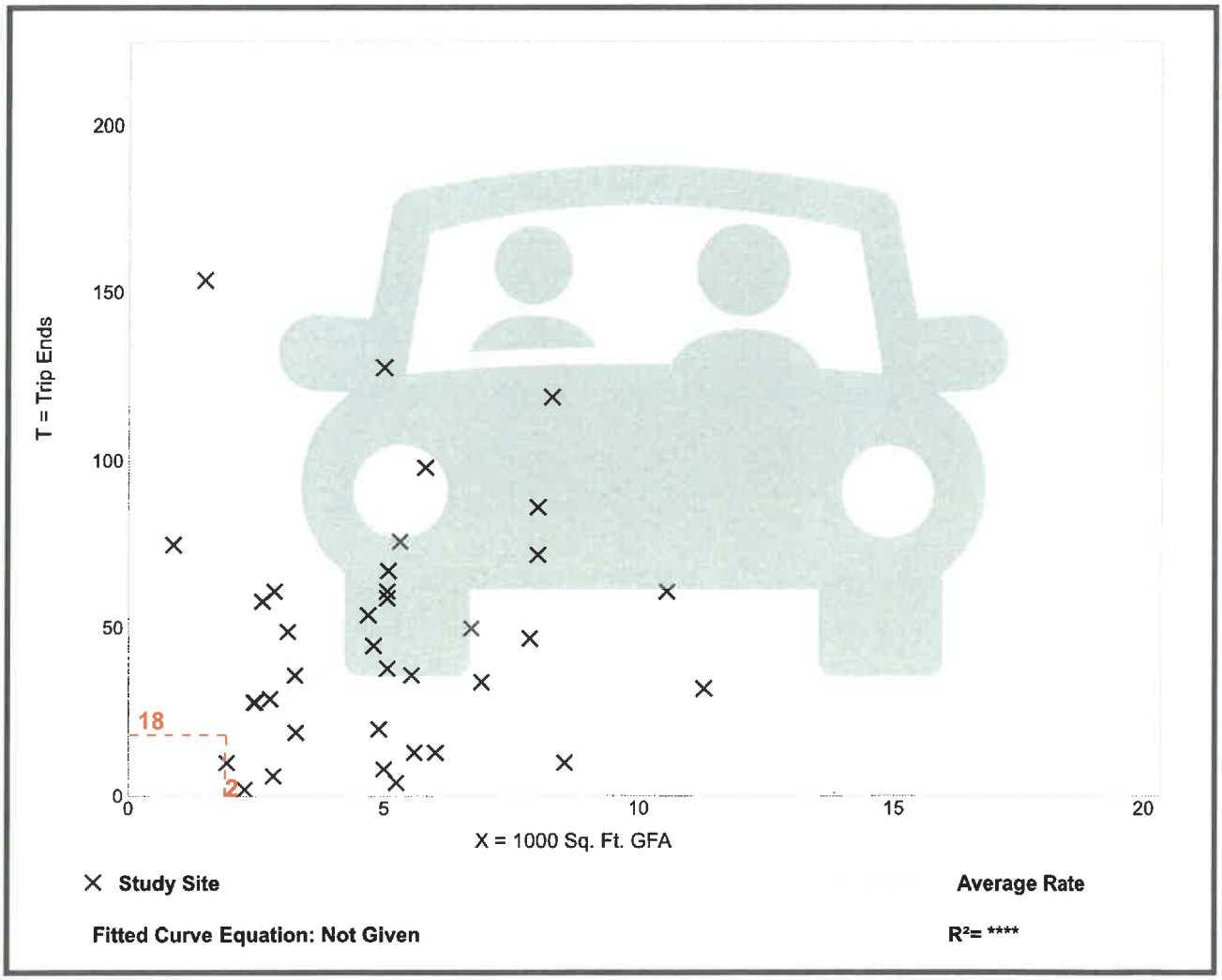
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	37
Avg. 1000 Sq. Ft. GFA:	5
Directional Distribution:	55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.57	0.76 - 102.39	11.61

Data Plot and Equation



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Bissell
(1900# + 7 Emp)

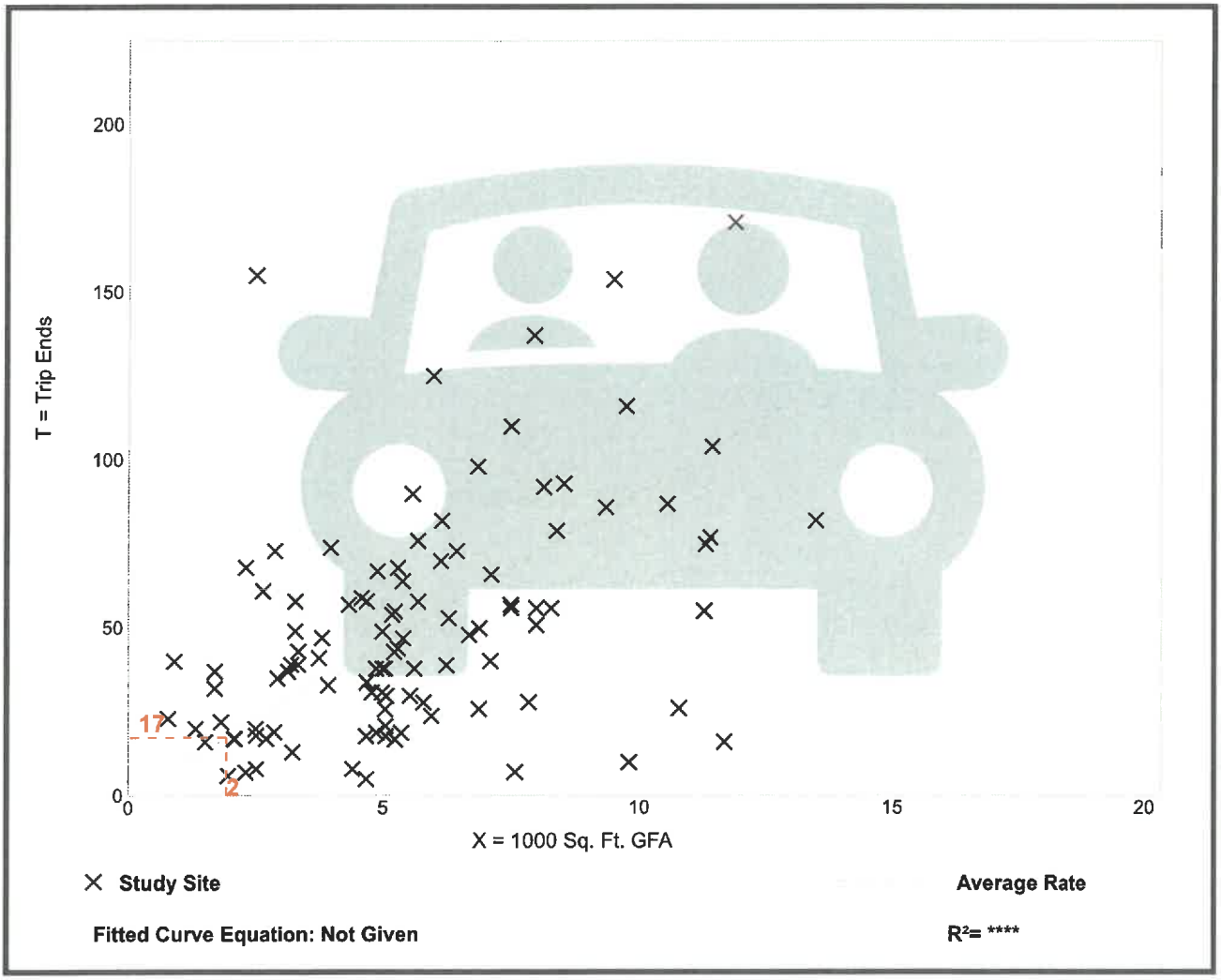
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	104
Avg. 1000 Sq. Ft. GFA:	6
Directional Distribution:	61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18

Data Plot and Equation



Distillery
(1200# +5)

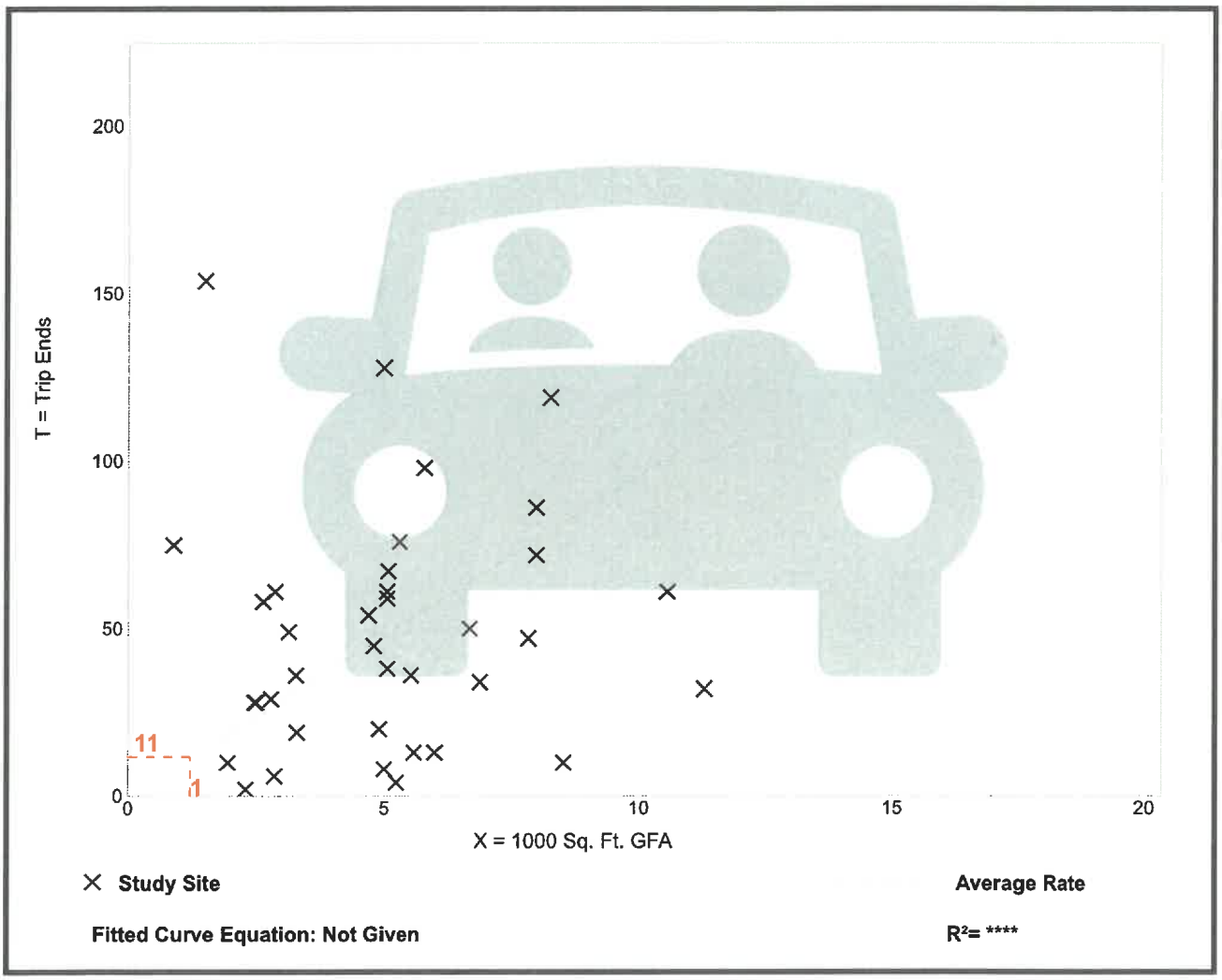
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	37
Avg. 1000 Sq. Ft. GFA:	5
Directional Distribution:	55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.57	0.76 - 102.39	11.61

Data Plot and Equation



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Distillery
(1200# +5)

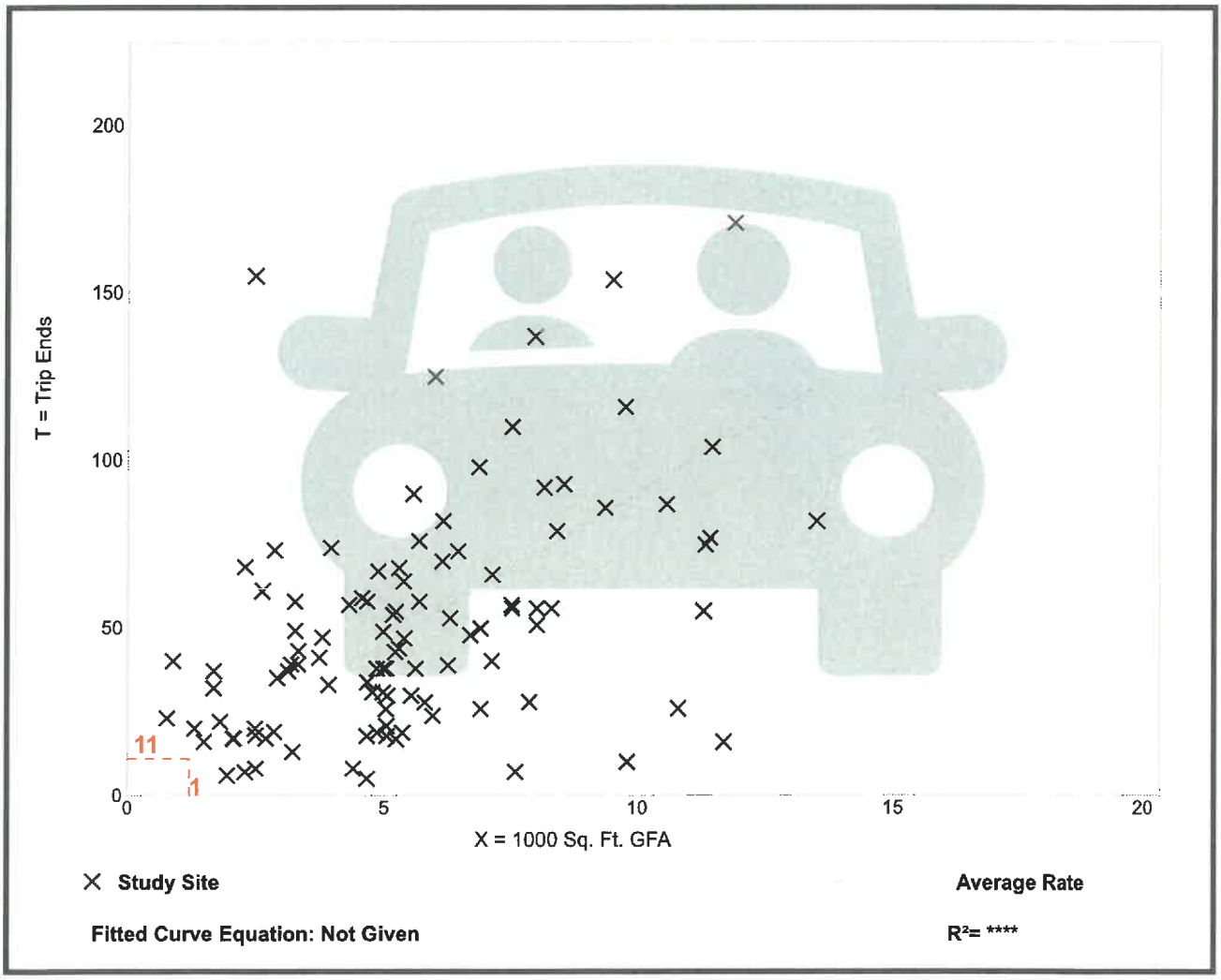
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 104
Avg. 1000 Sq. Ft. GFA: 6
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18

Data Plot and Equation



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Building F1

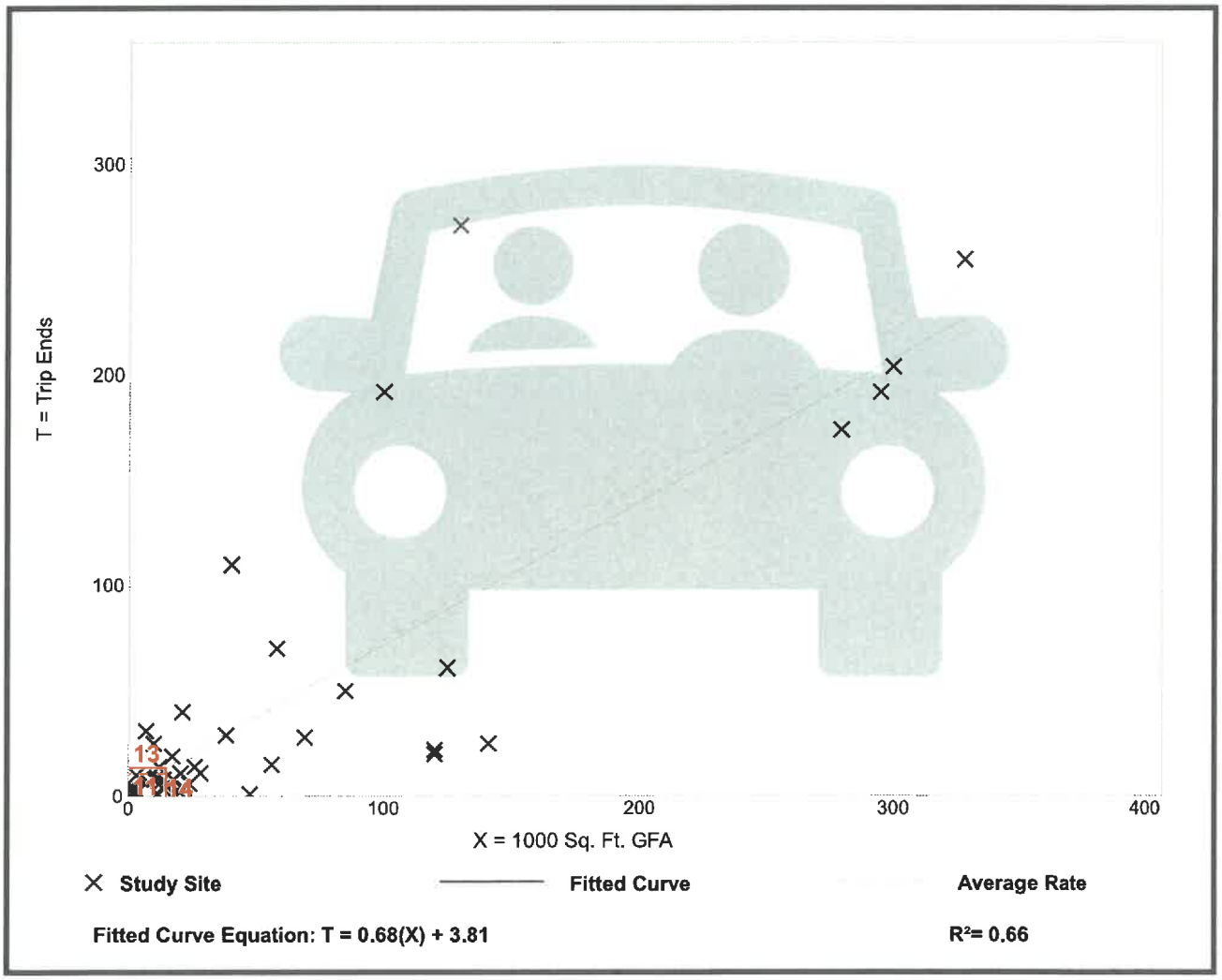
General Light Industrial
(110)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 41
Avg. 1000 Sq. Ft. GFA: 65
Directional Distribution: 88% entering, 12% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.74	0.02 - 4.46	0.61

Data Plot and Equation



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Building F1

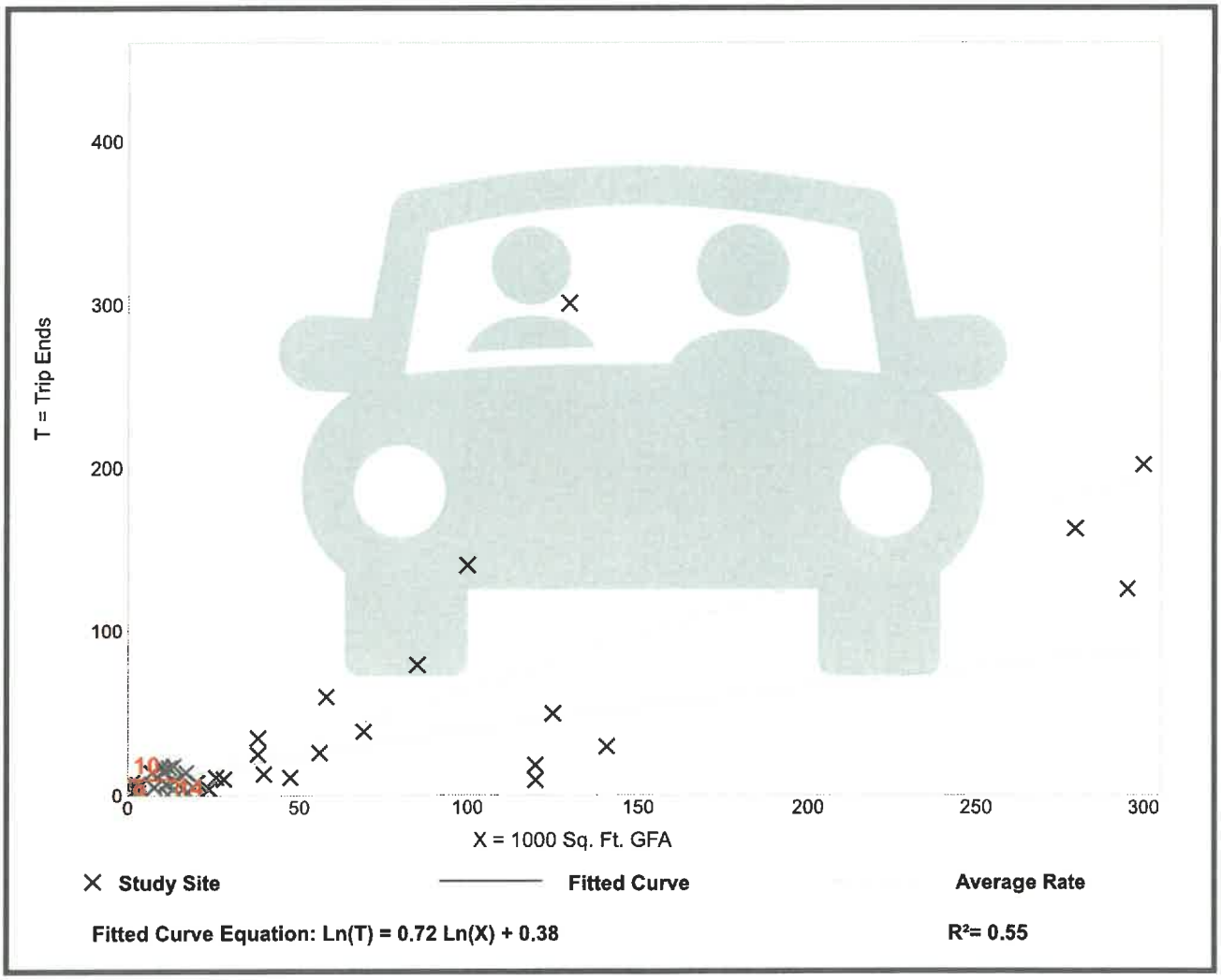
General Light Industrial
(110)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 40
Avg. 1000 Sq. Ft. GFA: 58
Directional Distribution: 14% entering, 86% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.65	0.07 - 7.02	0.56

Data Plot and Equation



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Building F2

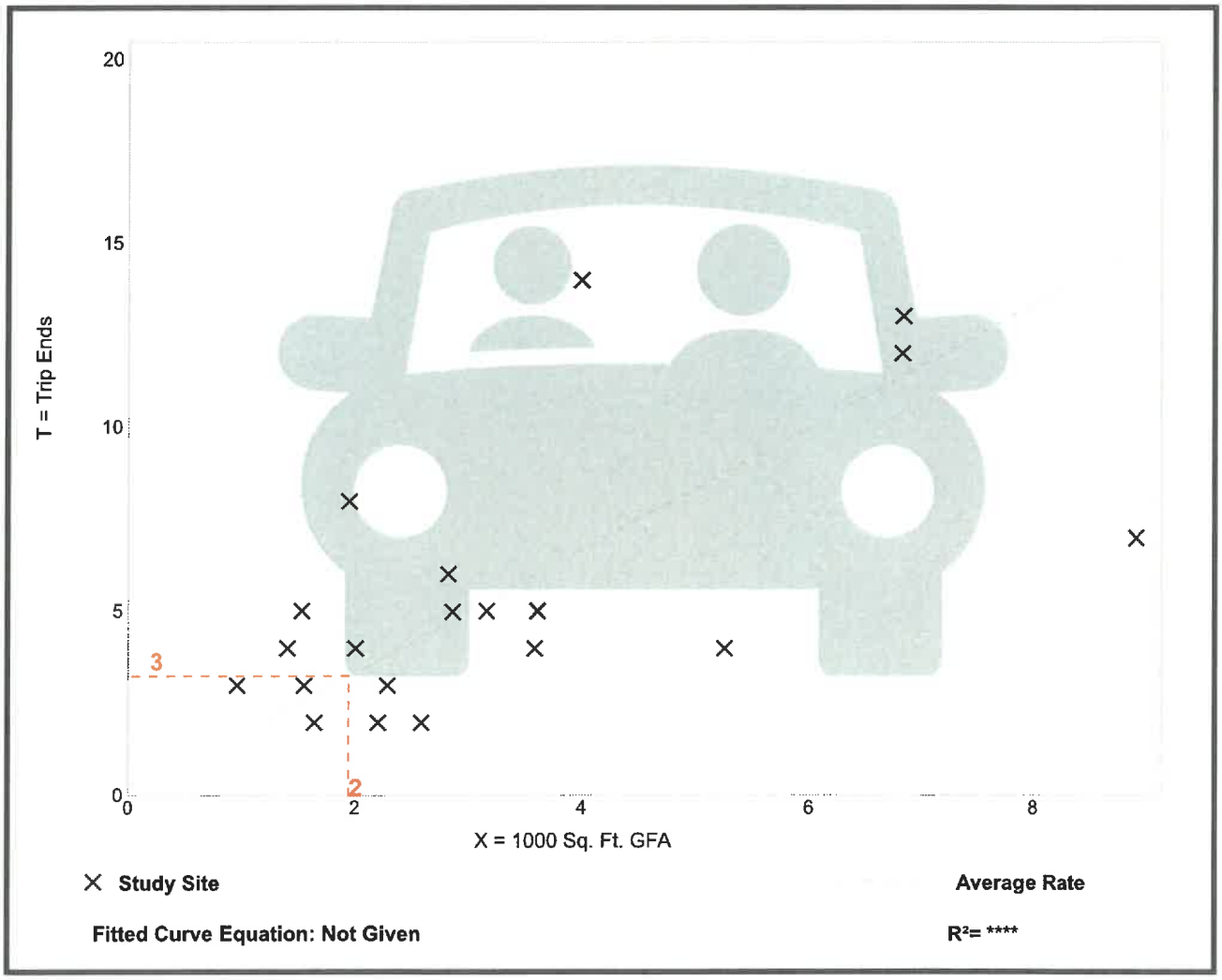
Small Office Building
(712)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 21
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 82% entering, 18% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.67	0.76 - 4.12	0.88

Data Plot and Equation



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Building F2

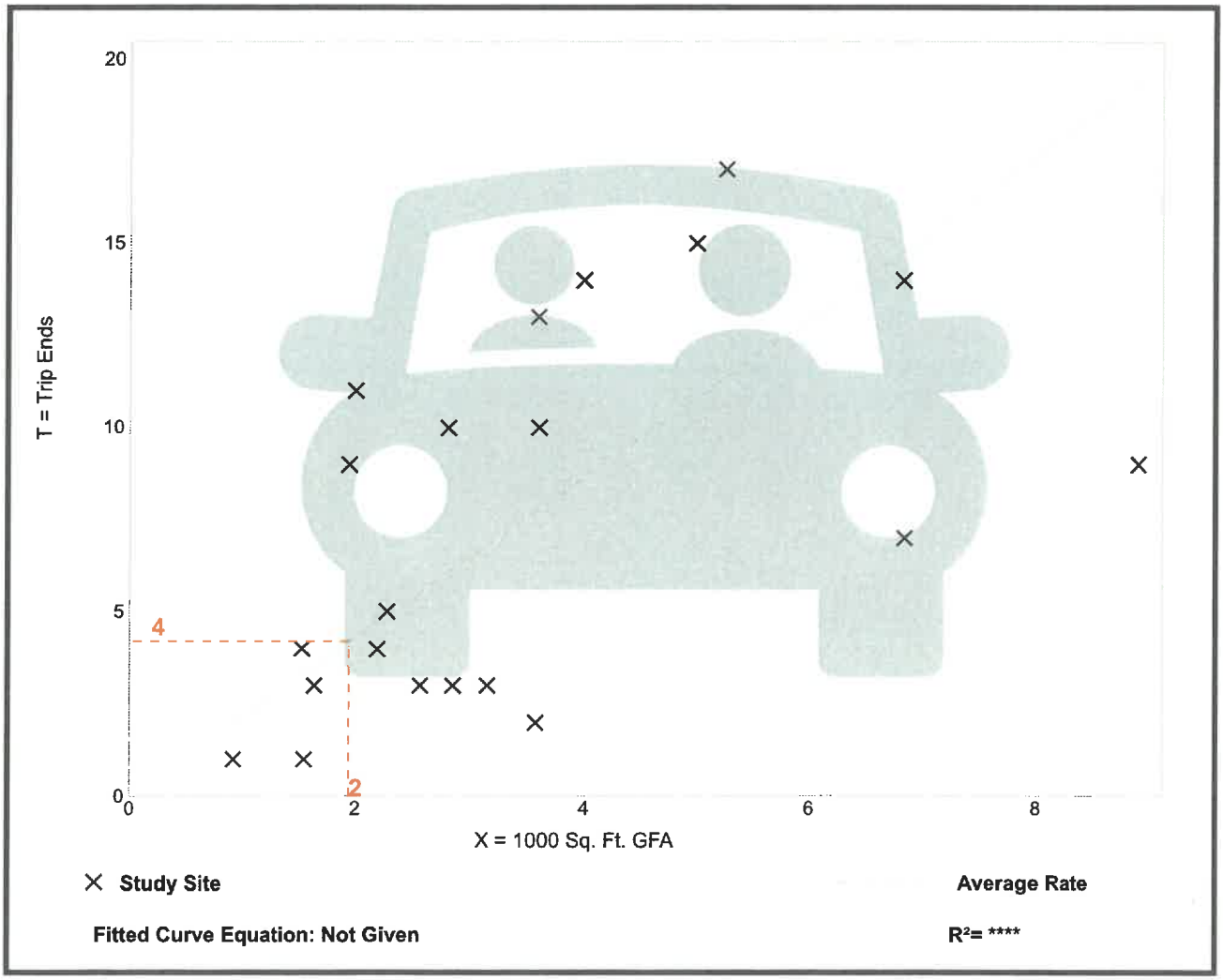
Small Office Building
(712)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 21
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 34% entering, 66% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.16	0.56 - 5.50	1.26

Data Plot and Equation



Trip Gen Manual, 11th Edition • Institute of Transportation Engineers

Building D & K

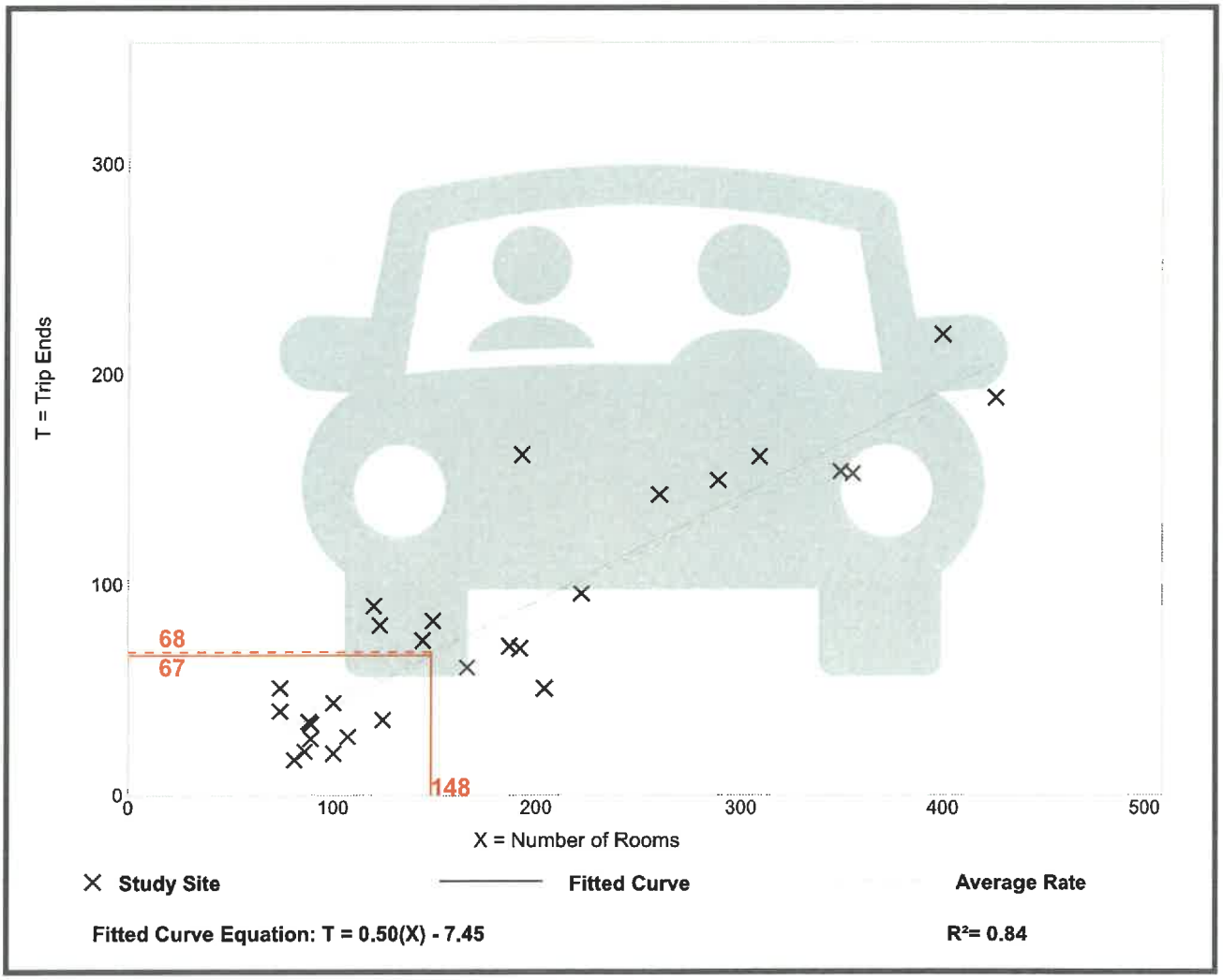
Hotel
(310)

Vehicle Trip Ends vs:	**Rooms**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	28
Avg. Num. of Rooms:	182
Directional Distribution:	56% entering, 44% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
0.46	0.20 - 0.84	0.14

Data Plot and Equation



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Building D & K

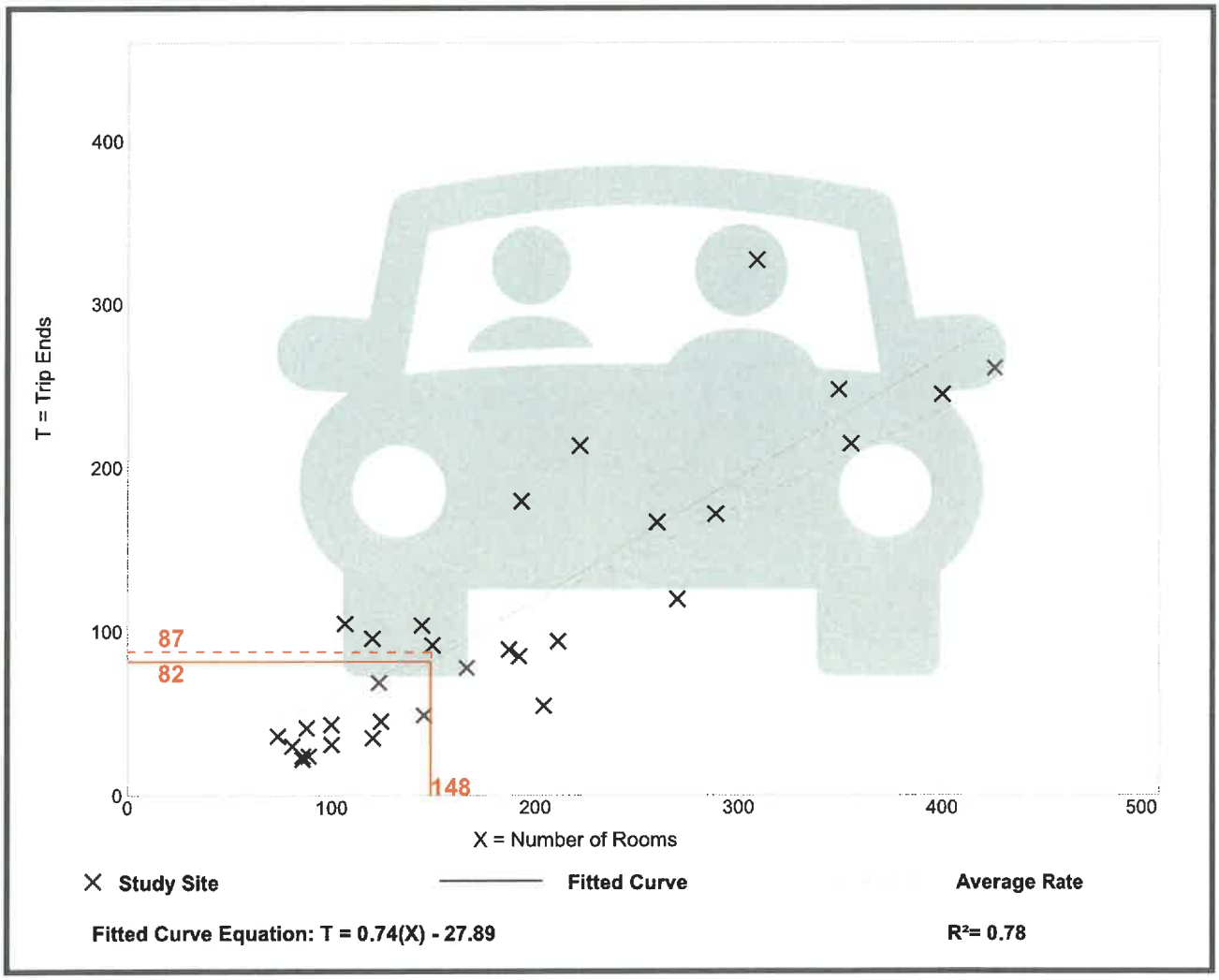
Hotel
(310)

Vehicle Trip Ends vs:	**Rooms**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	31
Avg. Num. of Rooms:	186
Directional Distribution:	51% entering, 49% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
0.59	0.26 - 1.06	0.22

Data Plot and Equation



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Apartments

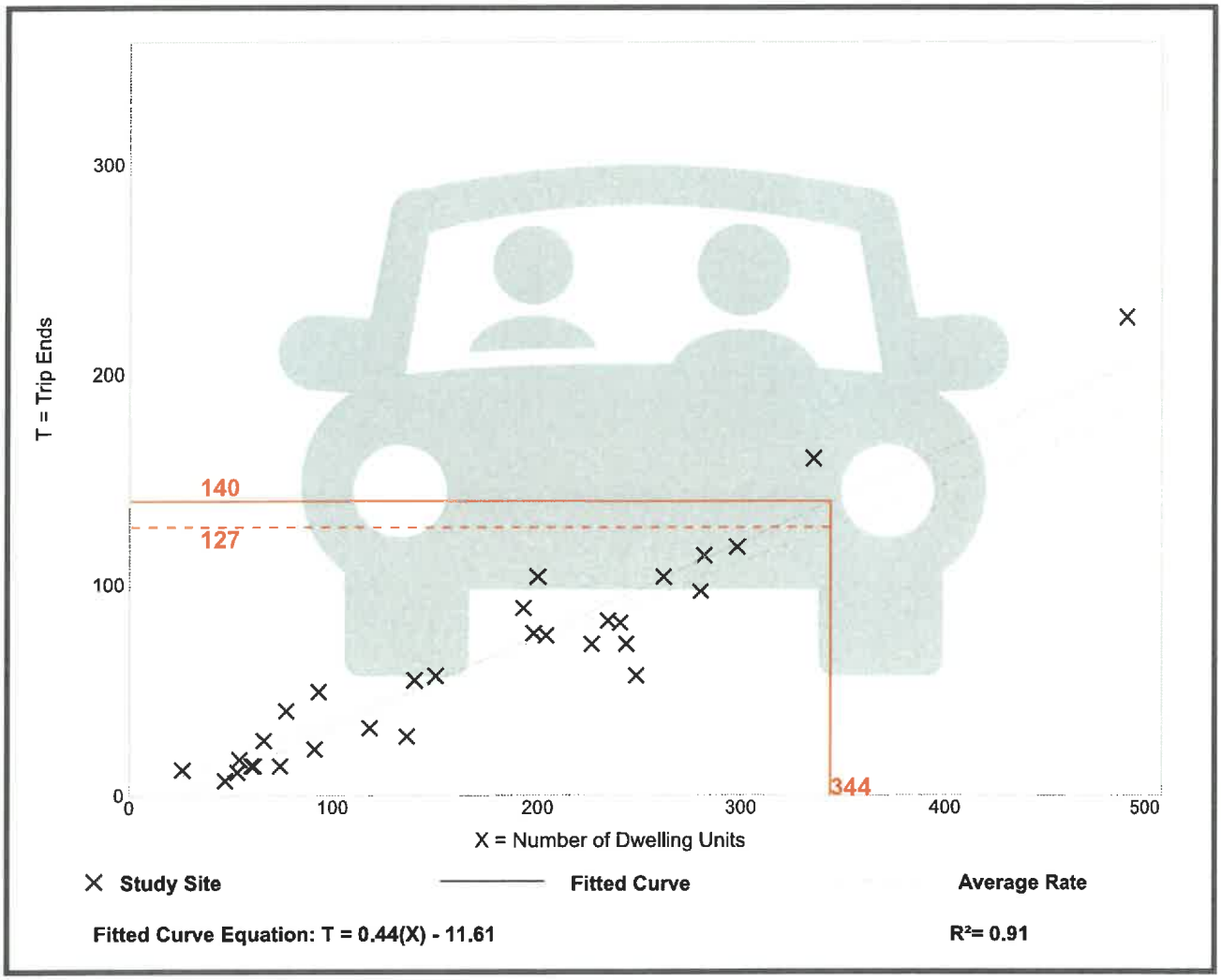
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	30
Avg. Num. of Dwelling Units:	173
Directional Distribution:	23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.37	0.15 - 0.53	0.09

Data Plot and Equation



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Apartments

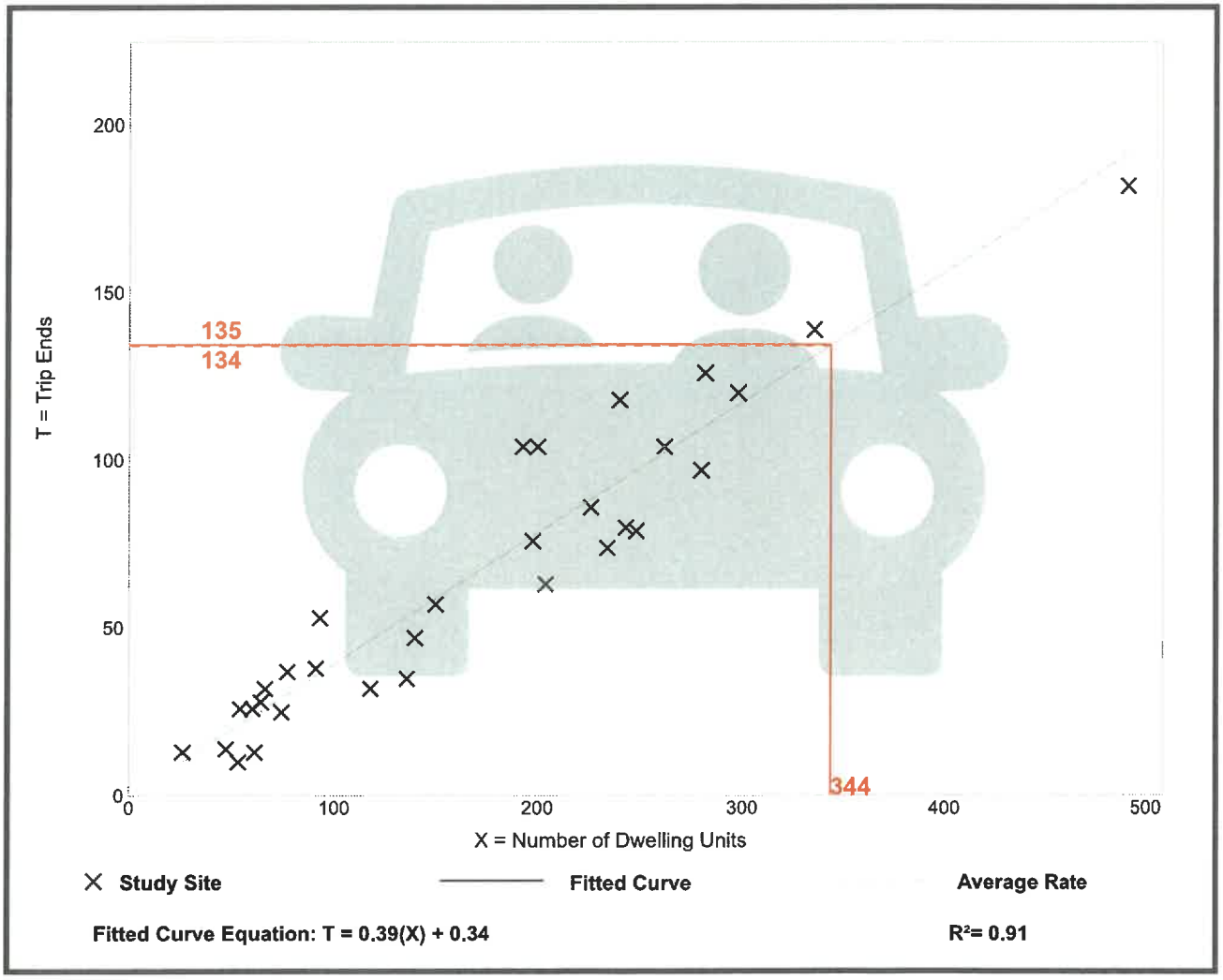
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 31
Avg. Num. of Dwelling Units: 169
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.19 - 0.57	0.08

Data Plot and Equation



Trip Gen Manual, 11th Edition • Institute of Transportation Engineers

GORRILL PALMER
An LJB Engineering Company

Attachment C

Trip Generation and Parking Demand Summary – April 2020

GORRILL PALMER

707 Sable Oaks Drive, Suite 30
South Portland, Maine 04106
207.772.2515

Trip Generation and Parking Demand Summary
Thompson's Point
April 2020

Date: May 14, 2020
Subject: Updated Trip Generation and Parking Demand
Thompson's Point
To: Bo Kennedy, Placemaker Partners, LLC
From: Randy Dunton / Emily Leighton, Gorrill Palmer (JN 3646)

Gorrill Palmer (GP) has prepared this updated trip generation and parking demand summary for the Thompson's Point development in Portland, Maine. The full build out of the project received a MaineDOT Traffic Movement Permit (TMP) in 2012 (Reg. 01-00155-A-N) for 734 trip ends during the AM peak hour and 1,091 trip ends during the PM peak hour. The project is being constructed in phases and each phase must be evaluated to ensure that the total site trip generation does not exceed the permitted trip generation. The following is a summary of the forecast trip generation and parking demand for the existing and previously approved uses, the proposed Buildings K and F1, the renovation of Buildings L and F2, and the proposed Building B2 that replaces existing mobile stations. A site plan is attached showing the location of each building. Additionally, the following includes a comparison of the total trip generation to the permitted trip generation.

Existing and Previously Evaluated Trip Generation Summary

The trip generation for the existing Thompson's Point site has been based on information provided by Bo Kennedy in an email dated August 22, 2017. The trip generation was calculated using the same methodology as that used in previous trip generation evaluations for the site, including using the Institute of Transportation Engineers' publication, *Trip Generation*, 7th Edition and applying a 10% reduction to the total site trip generation to account for other modes of transportation and shared uses on the site. The following table summarizes the trip generation for the existing site:

Existing Site Trip Generation

Building	Description	Size	AM Peak Hour	PM Peak Hour
Brick North				
	Winery	5,890 sf	4	16
	Halo (Event Space)	400 attendees	16	31
	Big Room Studios	3,461 sf	13	20
	Locally Sauced (formerly Big J's Chicken)	1,852 sf	21	20
	Brewery	10,068 sf	7	7
	Distillery	5,284 sf	4	4
	Color Me Mine	2,136 sf	2	6
	International Cryptozoology Museum	993 sf	1	1
	Brick North Total		**68**	**105**

Brick South				
	Event/Assembly Space	2,500 Seats	100	195
	Annex	7,384 sf	--*	--*
	Brick South Total		**100**	**195**
Hotel				
	Hotel	148 Rooms	83	87
	Proposed Total		**83**	**87**
Under Construction				
	Children's Museum	29,096 sf	33	33
	Under Construction Total		**33**	**33**
Approved Subtotal			**284**	**420**

*Maximum of 2,500 people in the building for events. Highest trip generation would be an event in the Event space, not the Annex.

As shown in the table, the existing site is forecast to generate 284 trip ends during the AM peak hour and 420 trip ends during the PM peak hour.

Proposed Site Trip Generation

The trip generation for the proposed uses has been based on the following:

- Building K – New Construction
  - Proposed Inn: 61 rooms + potential 22 room expansion
- Building F1 – New Construction
  - Proposed Warehouse: 14,200 sf
- Building L – Renovation
  - Existing Office: 4,000 sf
  - Existing Storage: 1,760 sf
  - Proposed Office: 4,000 sf
  - Proposed Event Space: 1,760 sf / 100 attendees maximum
- Building F2 – Renovation
  - Existing Garage Workspace: 1,940 sf
  - Proposed Artist Studio Space: 1,940 sf
- Building B2 – Replacement of Temporary Structures
  - Existing: Seasonal concession stands
  - Proposed Concession Building: 2,800 sf

The trip generation has also been based on the following assumptions:

- Building K:
  - The Inn is proposed to include a bar that is intended to serve primarily guests of the inn and potentially guests of other Thompson's Point uses. However, it is not anticipated to draw significant outside traffic, so the trip generation for the bar is forecast to be negligible.
- Building F2:
  - The proposed artist studio space in Building F2 is anticipated to operate most similarly to a shared office space, although this is likely a conservative assumption, since all users are not expected to enter and exit the site during the AM and PM peak hours and are more likely to be distributed throughout the day. It may be used as meeting or assembly space for less than 100 people, however the trip generation as an event space would be less than the trip generation forecast as an office.

- Building B2:
    - This building replaces existing temporary facilities and is intended to supplement existing uses on site. The proposed building will be open daily independently of the licensed seasonal uses. The building as proposed is consistent, albeit slightly smaller, than the building included in the approved Master Development Plan. For the purposes of trip generation and parking demand, it has been assumed that this use will often serve as a supplemental use to the existing activity on site, that will generate its own site traffic and parking demand.

The trip generation for the proposed uses was calculated using the same methodology as that used to calculate the trip generation in the original master plan. It should be noted that MaineDOT allows trip generation credit to be taken for existing uses on the site that have been operational within the last 10 years, so the trip generation for the existing building uses has been subtracted from the trip generation for the proposed building uses. The following table summarizes the trip generation for the proposed uses:

Proposed Site Addition Trip Generation

Building	Description	Size	AM Peak Hour	PM Peak Hour
Building K				
	Inn	61 Rooms	34	36
	Inn Expansion	22 Rooms	12	13
	Building K Total		**46**	**49**
Building F1				
	Warehouse	14,200 sf	6	7
	Building F1 Total		**6**	**7**
Building F2				
	Proposed Artist Studio	1,940 sf	8	8
	Existing Garage Space (Credit)	1,940 sf	(-6)	(-7)
	Building F2 Total		**2**	**1**
Building L				
	Proposed Office	4,000 sf	14	13
	Proposed Event Space	100 attendees	4	8
	Existing Office (Credit)	4,000 sf	(-14)	(-13)
	Existing Storage	1,760 sf	0*	0*
	Building L Total		**0**	**0**
Building B2				
	Concession Building	2,800 sf	32	31
	Building B2 Total		**32**	**31**
Proposed Addition Trip Generation			**90**	**96**

*Trip generation assumed to be negligible.

As shown in the table, the proposed uses are forecast to generate an additional 90 trip ends and 96 trip ends during the AM and PM peak hours of the adjacent street, respectively.

Site Trip Generation

The trip generation for the existing site has been combined with the trip generation for the proposed new and remodeled buildings to yield the site trip generation. The total site trip generation after the construction of the Inn has been compared to the permitted trip generation to identify the remaining available permitted trips.

Site Trip Generation Summary

Site	Building	AM Peak Hour	PM Peak Hour
Existing			
	Brick North	68	105
	Brick South	100	195
	Hotel	83	87
	Children's Museum	33	33
	Existing Total	**284**	**420**
Proposed			
	Building K (Including Future Expansion)	46	49
	Building F1	6	7
	Building F2	2	1
	Building L	4	8
	Building B2	32	31
	Proposed Total	**90**	**96**
Proposed Site Subtotal		**374**	**516**
Reduction (10%) for Bus / Train / Shared Use		(-37)	(-52)
Proposed Site Trip Generation		**337**	**464**
Permitted Trip Ends		734	1091
Difference Between Permitted and Proposed Site		**397**	**627**

As shown in the table the proposed site uses are forecast to generate 337 trip ends during the AM peak hour and 464 trip ends during the PM peak hour. This yields an overall trip generation that is 397 trip ends less than the permitted trip generation during the AM peak hour and 627 trip ends less than the permitted trip generation during the PM peak hour.

Parking Demand

The parking demand for the site with the proposed additions added has been calculated using the same methodology as that used in the Master Development Plan. The parking demand is based on shared parking methodology, which assumes that parking spaces are not designated for specific uses or businesses, and can be used by any vehicles visiting the site. This methodology is very beneficial for mixed use developments with complementary uses such as office, whose parking demand is higher during the day, and hotel, whose parking demand is higher overnight. The attached parking demand calculations show the detailed time of day distribution for each use and the forecast shared demand. Based on the calculations the peak parking demand for the site (without an event in Brick South or Halo) is 193 spaces and is anticipated to occur at 5:00 PM. As identified in the approval for the master development plan, when special events of a certain attendance threshold occur, additional parking measures will be implemented on an as needed basis.

Conclusions

The following is a summary of the conclusions:

1. The site (including existing and proposed uses) is forecast to generate a total of 337 trip ends during the AM peak hour and 464 trip ends. This trip generation is 397 trip ends less than the permitted trip generation during the AM peak hour and 627 trip ends less than the permitted trip generation during the PM peak hour.

2. The peak parking demand for the site after the additional development is forecast to be 193 parking spaces and is forecast to occur at 5:00 PM.

NORTH

SELECT CLEARING RESTRICTIONS APPLY WITHIN THE SHORELAND ZONING

FORE RIVER TRAIL

REALIGN TRAIL

TIDAL AREA

RETAINING WALL

25 FT SHORELAND ZONE SETBACK

100 YR FLOOD STAGE - A2 ZONE ELEV 10.0

WETLAND BOUNDARY

BRIDGE OVER WETLANDS

PROTECT EXISTING OAK TREES (TYP. OF 3)

25 FT SHORELAND SETBACK FROM HIGHEST ANNUAL TIDE

HIGHEST ANNUAL TIDE ELEV 7.4
(MEAN HIGH WATER ELEV 4.95
MEAN LOW WATER ELEV -4.15)

EVENT PARKING EXIT LANE

PORTLAND WATER DISTRICT PUMP STATION (TO REMAIN)

BUILDING H MULTI-LEVEL PARKING GARAGE

PROJECT BOUNDARY

CITY OF PORTLAND TURN AROUND

TIDAL AREA

END OF PUBLIC RIGHT-OF-WAY

6 SHORT TERM PARKING SPACES

50 PARKING SPACES
(INCLUDING 6 SHORT TERM SPACES AND 2 ACCESSIBLE SPACES)

16 PARKING SPACES
(INCLUDING 2 ACCESSIBLE SPACES)

TREE OF FORTY FRUIT GROVE

BUILDINGS C & D DUMPSTER AREA

4 LOADING SPACES

FUTURE EXPANSION AREA

4 PARKING SPACES

14 PARKING SPACES
(INCLUDING 0 COMPACT SPACES AND 4 ACCESSIBLE SPACES)

25 FT SETBACK FROM HAT

UTILITIES PAD

EMERGENCY VEHICLE ACCESS

WATERFRONT ACCESS AND SEASONAL DOCK SYSTEM

APPROXIMATE EDGE OF CHANNEL SEE SHEET C-2.3

OPEN SPACE / OUTDOOR EVENT AREA

OUTDOOR DINING AREA

PICNIC LAWN

TIDAL AREA

34 SEASONAL PARKING SPACES AND EVENT PRODUCTION AREA

22 PARKING SPACES
(INCLUDING 2 ACCESSIBLE SPACES)

4 BUS/RV PARKING SPACES (NO OVERNIGHT)

7 PARKING SPACES

27 PARKING SPACES
(INCLUDING 2 ACCESSIBLE SPACES)

PERIMETER ACCESS ROAD

BUILDINGS I DUMPSTER AREA

TIDAL AREA

17 PARKING SPACES
(INCLUDING 17 COMPACT SPACES)

52 PARKING SPACES
(INCLUDING 4 ACCESSIBLE SPACES)

BUILDING C AND D LOADING/ DELIVERIES

18 PARKING SPACES
(INCLUDING 2 ACCESSIBLE SPACES)

3 PARKING SPACES AND 4 MOPED/ MOTORCYCLE PARKING SPACES

BUILDING A DUMPSTER AREA

POTENTIAL FUTURE SKYWALK TO TRAIN PLATFORM FROM FUTURE PARKING DECK

BUILDING K EXPANSION AREA

20 PARKING SPACES
(INCLUDING 2 ACCESSIBLE SPACES)

BUILDING F2
EXISTING BLOCK BUILDING TO REMAIN

7 PARKING SPACES
(INCLUDING 1 ACCESSIBLE SPACE AND 2 TRACTOR TRAILER SPACES)

EXISTING BUILDING TO REMAIN

PAN AM RAILWAY AKA PORTLAND TERMINAL COMPANY

FORE RIVER PARKWAY MULTI-USE TRAIL

233 PARKING SPACES
(INCLUDING 7 COMPACT SPACES AND 2 ACCESSIBLE SPACES)

16 PARKING SPACES
(INCLUDING 4 ACCESSIBLE SPACES)

37 PARKING SPACES
(INCLUDING 2 ACCESSIBLE SPACES)

EVENT SLIP LANE

POTENTIAL METRO BUS STIP AND IN-LINE CHARGING STATION, FINAL LOCATION TBD

CONVEYANCE TO THE CITY OF PORTLAND AS ADDITIONAL LAND FOR SEWALL STREET

AT GRADE PUBLIC RAILROAD CROSSING

PORTLAND TRANSPORTATION CENTER

9 SHORT TERM PARKING SPACES

TAXI/ RIDE SHARE PICK-UP/ DROP OFF AREA AND BUS TURNAROUND

57 PARKING SPACES
(INCLUDING 4 ACCESSIBLE SPACES AND 2 COMPACT SPACES)

BUILDINGS L, K AND M LOADING AREA

OFFSITE IMPROVEMENTS IN SEWALL STREET INCLUDED SIDEWALK EXTENSIONS (BOTH SIDES OF STREET) AND PEDESTRIAN CROSSING ADA RAMPS AT CONGRESS STREET

POTENTIAL DESIGNATED RIDE SHARE PICK-UP LOCATION

EMERGENCY ACCESS ROUTE WITH 'CLICK TO ENTER' GATE SYSTEM

8' WIDE SHARED USE PATH

TAXI CAB QUEUE PARKING

THOMPSON'S POINT CONNECTOR ROAD WAS IMPROVED TO PROVIDE THREE LANE CONFIGURATION AND 8 FT (MIN) SHARED USE PEDESTRIAN PATH IN 2015

NEW SIDEWALK SYSTEM TIES INTO CITY SPONSORED SIDEWALK TO CONGRESS STREET

COMBINATION PROJECT / PTC SIGN

BUILDING J2
19,650 S.F.

LOT 19

BUILDING J1
30,000 S.F.

LOT 17

BUILDING G
22,350 S.F.

LOT 18

LOT 5

BLDG H
22,422 SF
GARAGE
(MULTI-LEVEL)

BUILDING E
7,200 S.F.
LOT 4

BUILDING M
13,500 S.F.

LOT 16

LOT 15

LOT 12

BUILDING L
3,575 S.F.

LOT 14

LOT 9

BLDG B2
3,600 SF

PATIO

BLDG B3
3,600 SF

"THE DEPOT"
BUILDING B1
14,000 S.F.

LOT 10

LOT 8

EVENT VENUE MAIN ENTRANCE

LOT 6

BRICK SOUTH BUILDING C
34,600 S.F.

LOT 3

HOTEL PORTLAND BUILDING D
90,000 S.F.

LOT 2

COMMONS

BUILDING K
32,800 S.F.

LOT 13

BRICK NORTH BUILDING A
34,000 S.F.

BUILDING A & F LOADING/ SERVICE

BUILDING F1
10,880 S.F.

LOT 11

CO2 & GRAIN SILO PAD

LOT 7

CHILDREN'S MUSEUM & THEATRE OF MAINE
BUILDING I
29,046 S.F.

LOT 1

PEDESTRIAN CONNECTION

FORE RIVER

INTERSTATE 295

N/F CENTRAL MAINE POWER CO.

N/F NORTHERN NEW ENGLAND PASSENGER RAIL AUTHORITY

N/F PORTLAND WATER DISTRICT

N/F LANGDON STREET REAL ESTATE, INC.

SEWALL STREET

N/F STATE OF MAINE

N/F LANGDON STREET REAL ESTATE, INC.

FORE RIVER PARKWAY

PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
1	10/09/2019	UPDATES TO BUILDINGS F, K AND B

REVISIONS

XX.XX.XX
P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MASTER PLAN

SHEET TITLE
OVERALL MASTER PLAN

CLIENT
FOREFRONT PARTNERS I, LP

PLACEMAKER PARTNERS, LLC
501 DANFORTH STREET
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN: DB | DATE: MARCH 2018
DESIGNED: BEK | SCALE: 1" = 80'
FILE NAME: MASTER_SITE LAYOUT.dwg
SHEET C-3.0

JN: 3646
Project Description: Thompson's Point Update
Project Location: Portland, Maine
Date: 3/17/2020
Calculated By: EAL
Checked By:

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Hotel - Inn Building K
Land Use Code (LUC) 310

Rooms: 61

Average Rate

Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split*		Directional Distribution		R^2
				IN	OUT	IN	OUT	
Weekday	T = 8.17 (X)	10	498	50%	50%	249	249	-
AM Peak Adjacent Street	T = 0.56 (X)	20	34	60%	40%	20	14	-
PM Peak Adjacent Street	T = 0.59 (X)	25	36	55%	45%	20	16	-
AM Peak Hour of Generator	T = 0.52 (X)	32	32	55%	45%	17	15	-
PM Peak Hour of Generator	T = 0.61 (X)	35	37	60%	40%	22	15	-
Saturday	T = 8.19 (X)	8	500	50%	50%	250	250	-
Saturday Peak Hour of Gen.	T = 0.72 (X)	9	44	55%	45%	24	20	-

* Percentages rounded to nearest 5%

Fitted Curve Equation

Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split*		Directional Distribution		R^2
				IN	OUT	IN	OUT	
Weekday	T = 8.95 (X) - 373.16	10	173	50%	50%	87	86	0.98
AM Peak Hour of Adjacent Street Traffic	Ln(T) = 1.24 Ln(X) - 2.00	20	22	60%	40%	13	9	0.75
PM Peak Hour of Adjacent Street Traffic	--	25	--	55%	45%	--	--	--
AM Peak Hour of Generator	Ln(T) = 0.87 Ln(X) + 0.02	32	36	55%	45%	20	16	0.54
PM Peak Hour of Generator	Ln(T) = 1.00 Ln(X) - 0.58	35	34	60%	40%	20	14	0.64
Saturday	T = 9.62 (X) - 294.56	8	292	50%	50%	146	146	0.93
Saturday Peak Hour of Gen.	T = 0.69 (X) + 4.32	9	46	55%	45%	25	21	0.80

* Percentages rounded to nearest 5%

JN: 3646
Project Description: Thompson's Point Update
Project Location: Portland, Maine
Date: 3/17/2020
Calculated By: EAL
Checked By:

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Hotel - Inn Building K Expansion
Land Use Code (LUC) 310

Rooms: 22

Average Rate

Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split*		Directional Distribution		R^2
				IN	OUT	IN	OUT	
Weekday	T = 8.17 (X)	10	180	50%	50%	90	90	-
AM Peak Adjacent Street	T = 0.56 (X)	20	12	60%	40%	7	5	-
PM Peak Adjacent Street	T = 0.59 (X)	25	13	55%	45%	7	6	-
AM Peak Hour of Generator	T = 0.52 (X)	32	11	55%	45%	6	5	-
PM Peak Hour of Generator	T = 0.61 (X)	35	13	60%	40%	8	5	-
Saturday	T = 8.19 (X)	8	180	50%	50%	90	90	-
Saturday Peak Hour of Gen.	T = 0.72 (X)	9	16	55%	45%	9	7	-

* Percentages rounded to nearest 5%

Fitted Curve Equation

Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split*		Directional Distribution		R^2
				IN	OUT	IN	OUT	
Weekday	T = 8.95 (X) - 373.16	10	-176	50%	50%	-88	-88	0.98
AM Peak Hour of Adjacent Street Traffic	Ln(T) = 1.24 Ln(X) - 2.00	20	6	60%	40%	4	2	0.75
PM Peak Hour of Adjacent Street Traffic	--	25	--	55%	45%	--	--	--
AM Peak Hour of Generator	Ln(T) = 0.87 Ln(X) + 0.02	32	15	55%	45%	8	7	0.54
PM Peak Hour of Generator	Ln(T) = 1.00 Ln(X) - 0.58	35	12	60%	40%	7	5	0.64
Saturday	T = 9.62 (X) - 294.56	8	-83	50%	50%	-42	-41	0.93
Saturday Peak Hour of Gen.	T = 0.69 (X) + 4.32	9	20	55%	45%	11	9	0.80

* Percentages rounded to nearest 5%

JN: 3646
Project Description: Thompson's Point Update
Project Location: Portland, Maine
Date: 3/17/2020

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Warehousing - Building F1
Land Use Code (LUC) 150

Gross Floor Area (ft^2): 14,200

Fitted Curve

Time Period	ITE Trip Rate	Trip Ends	Sample Size	Directional Split* IN	Directional Split* OUT	Directional Distribution IN	Directional Distribution OUT	R^2
Weekday	T = 3.68 (X) + 350.27	403	16	50%	50%	202	201	0.82
AM Peak Adjacent Street	Ln(T) = 0.71 Ln(X) + 1.15	21	19	80%	20%	17	4	0.79
PM Peak Adjacent Street	Ln(T) = 0.79 Ln(X) + 0.54	14	26	25%	75%	4	10	0.75
AM Peak of Generator	T = 0.39(X) + 63.12	69	19	60%	40%	41	28	0.86
PM Peak of Generator	T = 0.46(X) + 53.12	60	18	10%	90%	6	54	0.88
Saturday	---	---	2	50%	50%	---	---	---
Saturday Peak Hour of Gen.	---	---	2	65%	35%	---	---	---

*Percentages rounded to nearest 5%

Average Rate

Time Period	ITE Trip Rate	Trip Ends	Sample Size	Directional Split* IN	Directional Split* OUT	Directional Distribution IN	Directional Distribution OUT	R^2
Weekday	T = 4.96 (X)	70	16	50%	50%	35	35	---
AM Peak Adjacent Street	T = 0.45 (X)	6	19	80%	20%	5	1	---
PM Peak Adjacent Street	T = 0.47 (X)	7	26	25%	75%	2	5	---
AM Peak of Generator	**T = 0.57 (X)**	**8**	**19**	**60%**	**40%**	**5**	**3**	**---**
PM Peak of Generator	**T = 0.61 (X)**	**9**	**18**	**10%**	**90%**	**1**	**8**	**---**
Saturday	**T = 1.22 (X)**	**17**	**2**	**50%**	**50%**	**9**	**8**	**---**
Saturday Peak Hour of Gen.	**T = 0.12 (X)**	**2**	**2**	**65%**	**35%**	**1**	**1**	**---**

*Percentages rounded to nearest 5%

JN: 3646
Project Description: Thompson's Point Update
Project Location: Portland, Maine
Date: 3/17/2020

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

General Office Building - Building L
Land Use Code (LUC) 710

Square Feet 4,000

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R^2
				IN	OUT	IN	OUT	
Weekday	Ln (T) = 0.77 Ln (X) + 3.65	112	78	50%	50%	56	56	0.80
AM Peak Hour	**Ln (T) = 0.80 Ln (X) + 1.55**	**14**	**217**	**90%**	**10%**	**13**	**1**	**0.83**
PM Peak Hour	**T = 1.12 (X) + 78.81**	**83**	**235**	**15%**	**85%**	**12**	**71**	**0.82**
Saturday	T = 2.14 (X) + 18.47	27	17	50%	50%	14	13	0.66
Peak Hour of Generator	Ln (T) = 0.81 Ln (X) - 0.12	3	10	55%	45%	2	1	0.59

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R^2
				IN	OUT	IN	OUT	
Weekday	T = 11.01 (X)	44	78	50%	50%	22	22	---
AM Peak Hour	T = 1.55 (X)	6	217	90%	10%	5	1	---
PM Peak Hour	T = 1.49 (X)	6	235	15%	85%	1	5	---
Saturday	T = 2.37 (X)	9	17	50%	50%	5	4	---
Saturday Peak Hour of Gen.	**T = 0.41 (X)**	**2**	**10**	**50%**	**50%**	**1**	**1**	**---**

* Percentages rounded to nearest 5%

PM Peak Hour:	T = 1.49/1.55 (AM Peak)	13		15%	85%	2	11	0.82

JN: 3646
Project Description: Thompson's Point Update
Project Location: Portland, Maine
Date: 3/17/2020

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

General Office Building - Building F2
Land Use Code (LUC) 710

Square Feet 1,940

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split * IN	Directional Split * OUT	Directional Distribution IN	Directional Distribution OUT	R^2
Weekday	Ln (T) = 0.77 Ln (X) + 3.65	64	78	50%	50%	32	32	0.80
AM Peak Hour	**Ln (T) = 0.80 Ln (X) + 1.55**	**8**	**217**	**90%**	**10%**	**7**	**1**	**0.83**
PM Peak Hour	**T = 1.12 (X) + 78.81**	**81**	**235**	**15%**	**85%**	**12**	**69**	**0.82**
Saturday	T = 2.14 (X) + 18.47	23	17	50%	50%	12	11	0.66
Peak Hour of Generator	Ln (T) = 0.81 Ln (X) - 0.12	2	10	55%	45%	1	1	0.59

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split * IN	Directional Split * OUT	Directional Distribution IN	Directional Distribution OUT	R^2
Weekday	T = 11.01 (X)	21	78	50%	50%	11	10	---
AM Peak Hour	T = 1.55 (X)	3	217	90%	10%	3	0	---
PM Peak Hour	T = 1.49 (X)	3	235	15%	85%	0	3	---
Saturday	T = 2.37 (X)	5	17	50%	50%	3	2	---
Saturday Peak Hour of Gen.	**T = 0.41 (X)**	**1**	**10**	**50%**	**50%**	**1**	**0**	**---**

* Percentages rounded to nearest 5%

PM Peak Hour:	T = 1.49/1.55 (AM Peak)	8		15%	85%	1	7	0.82

JN:	3646	Gorrill Palmer
Project Description:	Thompson's Point Update	707 Sable Oaks Drive
Project Location:	Portland, Maine	Suite 30
Date:	3/17/2020	South Portland, Maine 04106

Auto Service - Existing Garage F2
Land Use Code (LUC) 942

: Gross Leasable Floor Area (ft^2): 1,940

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Directional Split *		Directional Distribution	
			IN	OUT	IN	OUT
PM Peak Adjacent Street	Ln(T) = 0.94 Ln(X) + 1.33	7	50%	50%	4	3

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Directional Split *		Directional Distribution	
			IN	OUT	IN	OUT
AM Peak Adjacent Street	T = 2.94 (X)	6	65%	35%	4	2
PM Peak Adjacent Street	T = 3.38 (X)	7	50%	50%	3	4
AM Peak of Generator	T = 3.22 (X)	6	60%	40%	4	0
PM Peak of Generator	T = 4.01 (X)	8	50%	50%	4	0

* Percentages rounded to nearest 5%

JN: 3646
Project Description: TP
Project Location: Portland, Maine
Date: May 5, 2020

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

High Turnover (Sit Down) Restaurant
Land Use Code (LUC) 932

Gross Floor Area (ft^2): 2,800

Time Period	ITE Trip Rate (Average Rate)	# of Sources	Trip Ends	Directional Split IN	Directional Split OUT	Directional Distribution IN	Directional Distribution OUT	R^2
Weekday	T = 127.15 (X)	14	356	50%	50%	178	178	N/A
AM Peak Adjacent Street	T = 11.52 (X)	18	**32**	50%	50%	16	16	N/A
PM Peak Adjacent Street	T = 10.92 (X)	38	**31**	60%	40%	19	12	N/A
AM Peak of Generator	**T = 13.53 (X)**	**21**	**38**	**50%**	**50%**	**19**	**19**	**N/A**
PM Peak of Generator	**T = 18.80 (X)**	**27**	**53**	**55%**	**45%**	**29**	**24**	**N/A**
Saturday	T = 158.37 (X)	2	443	50%	50%	222	221	N/A
Saturday Peak Hour of Gen.	T = 20.00 (X)	3	**56**	65%	35%	36	20	N/A

	Previously Approved																		Currently Proposed																					
Building Letter	Brick North																Total for Brick North	Brick South		Building D				Building K		Building F1		Building F2		Building L						Building B2		Total	Total without Brick South Event	Total without Brick South Event or Halo Event
	Winery (Specialty Retail (5))		Halo (Event Space)		Big Room Studios (Office)		Locally Sauced (Restaurant (3))		Manufacturing (4)		Manufacturing (4)		Specialty Retail (1)		Cultural Center			Event Space (2)		Hotel		Childrens Museum		Inn		Light Industrial / Warehouse (4)		Office		Office		Event Space		Concession Building (Restaurant)				
Rate	200	1 / 200 sf	3.5	3.5 persons per vehicle		1/400 sf	13.56	13.56/1000	1.020	1.02 / 1000 sf	1.020	1.02 / 1000 sf	200	1 / 200 sf	1.34	Based on Client Info		3.5	3.5 persons per vehicle	1	1 per 4 guests	1.34	Based on Client Info	1	1 per 4 guests	1.19	1.19/1000 sf	400	1/400 sf	400	1/400 sf	3.5	3.5 persons per vehicle	6.5	6.5 / 10			
Monthly Adjustment				1										1		1			1		1		1		1						1		1.000				
SQF or Unit	5890	5,890 sf	400	400 people	3461	3,461 sf	1852	1,852 sf	10068	10,068 sf	5890	5,890 sf	2136	2,136 sf	0.993	993 sf		2500	2500 person	148	148 Rooms	40.00	40,000 sf	83	83 Rooms	14200	14,200 sf	1.94	1,940 sf	4.00	4,000 sf	100	100 person	2.80	2800 sf			
6:00AM	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0	0.00	0	1.00	37	0.00	0	1.00	21	1.00	17	0.00	0	0.00	0	0.00	0	0.00	0	75	75	75
7:00AM	0.00	0	0.01	1	0.20	2	0.10	3	0.55	6	0.55	3	0.20	2	0.48	1	17	0.01	4	1.00	37	0.48	26	1.00	21	1.00	17	0.20	1	0.20	2	0.01	0	0.10	2	125	122	121
8:00AM	0.00	0	0.01	1	0.64	6	0.10	3	0.69	7	0.69	4	0.64	7	0.50	1	27	0.01	4	1.00	37	0.50	27	1.00	21	1.00	17	0.64	3	0.64	6	0.01	0	0.10	2	144	140	140
9:00AM	0.00	0	0.01	1	0.93	8	0.20	5	0.74	8	0.74	4	0.93	10	0.44	1	36	0.01	4	0.75	28	0.44	24	0.75	16	1.00	17	0.93	5	0.93	9	0.01	0	0.20	4	141	138	137
10:00AM	0.20	6	0.01	1	1.00	9	0.30	8	0.75	8	0.75	5	1.00	11	0.50	1	46	0.01	4	0.50	19	0.50	27	0.50	10	1.00	17	1.00	5	1.00	10	0.01	0	0.30	5	143	139	139
11:00AM	0.64	19	0.01	1	1.00	9	0.90	23	0.75	8	0.75	5	1.00	11	0.52	1	75	0.01	7	0.40	15	0.52	28	0.40	8	1.00	17	1.00	5	1.00	10	0.01	0	0.90	16	181	174	173
12:00PM	0.90	27	0.01	1	0.90	8	1.00	25	0.73	7	0.73	4	0.90	10	0.55	1	83	0.01	7	0.35	13	0.55	29	0.35	7	1.00	17	0.90	4	0.90	9	0.01	0	1.00	18	188	181	180
1:00PM	0.93	27	0.01	1	0.90	8	0.90	23	0.97	10	0.97	6	0.90	10	0.63	1	85	0.01	7	0.35	13	0.63	34	0.35	7	1.00	17	0.90	4	0.90	9	0.01	0	0.90	16	193	186	185
2:00PM	1.00	29	0.02	2	1.00	9	0.65	16	1.00	10	1.00	6	1.00	11	0.77	1	84	0.02	11	0.35	13	0.77	41	0.35	7	1.00	17	1.00	5	1.00	10	0.02	0	0.65	12	200	190	188
3:00PM	1.00	29	0.03	3	1.00	9	0.35	9	0.95	10	0.95	6	1.00	11	0.96	1	78	0.03	21	0.40	15	0.96	51	0.40	8	1.00	17	1.00	5	1.00	10	0.03	1	0.35	6	213	191	188
4:00PM	0.93	27	0.10	11	0.93	8	0.35	9	0.77	8	0.77	5	0.93	10	1.00	1	79	0.10	71	0.50	19	1.00	54	0.50	10	1.00	17	0.93	5	0.93	9	0.10	3	0.35	6	273	202	190
5:00PM	0.64	19	0.55	63	0.64	6	0.60	15	0.62	6	0.62	4	0.64	7	0.89	1	120	0.55	393	0.60	22	0.89	48	0.60	12	1.00	17	0.64	3	0.64	6	0.55	16	0.60	11	649	256	193
6:00PM	0.20	6	0.85	97	0.20	2	0.90	23	0.00	0	0.00	0	0.20	2	0.69	1	130	0.85	607	0.70	26	0.69	37	0.70	15	1.00	17	0.20	1	0.20	2	0.85	24	0.90	16	876	268	171
7:00PM	0.00	0	1.00	114	0.10	1	1.00	25	0.00	0	0.00	0	0.00	0	0.43	1	141	1.00	714	0.80	30	0.43	23	0.80	17	1.00	17	0.10	0	0.10	1	1.00	29	1.00	18	990	275	161
8:00PM	0.00	0	1.00	114	0.10	1	1.00	25	0.00	0	0.00	0	0.00	0	0.00	0	140	1.00	714	0.90	33	0.00	0	0.90	19	1.00	17	0.10	0	0.10	1	1.00	29	1.00	18	972	257	143
9:00PM	0.00	0	1.00	114	0.10	1	1.00	25	0.00	0	0.00	0	0.00	0	0.00	0	140	1.00	714	0.95	35	0.00	0	0.95	20	1.00	17	0.10	0	0.10	1	1.00	29	1.00	18	975	260	146
10:00PM	0.00	0	1.00	114	0.10	1	0.75	19	0.00	0	0.00	0	0.00	0	0.00	0	134	1.00	714	1.00	37	0.00	0	1.00	21	1.00	17	0.10	0	0.10	1	1.00	29	0.75	14	967	252	138

1. Specialty Retail = Color Me Mine
2. Assumes Evening Event
3. Restaurant changes from 6.5/1,000 SF to 10/1,000SF at 4:00 PM
4. Factors based on previously approved parking demand rates for Industrial Uses
5. Factors adjusted to reflect a 11:00AM opening time

Attachment D

MaineDOT Traffic Movement Permit - Thompson's Point Development Company Inc. – Signed 6/13/12

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Paul R. LePage
GOVERNOR

David Bernhardt
COMMISSIONER

Applicant:	Thompson's Point Development Company Inc.
Project Location:	Thompson's Point Rd, Portland, ME Portland Tax Map 201Lot(s) 8, 9 and 10 and Map 202 Lots 2, 4 and 5
Project:	Mixed use Development
Identification #:	Reg. 01-00155-A-N
Permit Category:	200 Plus PCE
Traffic Engineer:	Thomas Gorrill Gorrill-Palmer Consulting Engineers PO Box 1237 15 Shaker Rd. Gray, ME 04039

Pursuant to the provision of 23 M.R.S.A. § 704-A and Chapter 305 of the Department's Regulations, the Maine Department of Transportation (MaineDOT) has considered the application of Thompson's Point Development Company Inc with supportive data, agency review and other related materials on file.

PROJECT DESCRIPTION

The applicant proposes to construct a 97,697 sf event center/convention hall/exhibit hall; 32,000 sf concert hall plus outdoor venue for up to 4,800 attendees; 378,000 sf of office space; 4,000 sf of medical office space; 20,000 sf gym and rehabilitation center; 125 room hotel; 6,000 sf of restaurant space (high-turnover sit down). The site is forecast to generate 734 AM and 1,091 PM weekday peak hour trip ends.

Findings

Based on a review of the files and related information, MaineDOT approves the Traffic Movement Permit Application of Thompson's Point Development Company Inc. subject to the following conditions:

MITIGATION

On-Site Mitigation

All Site Entrances

All entrances shall have overhead illumination provided, if not existing, to illuminate the intersections per MaineDOT standards at a minimum. Overhead lighting shall have an average of

0.6 to 1.0 foot candles, with the maximum to minimum lighting ratio of not more than 10:1 and an average to minimum light level of not more than 4:1.

Thompson's Point Road

Thompson's Point Road shall be widened to accommodate an 8 foot shared bike/pedestrian path, a 3 foot wide grass esplanade, a 3 foot shoulder with granite curb, an 11 foot wide outbound lane, and 11 foot wide flush concrete median, an 11 foot wide inbound lane and a 3 foot shoulder with granite curb. This section will be constructed from the site driveway to the Fore River Parkway. The 250 feet of flush median closest to Fore River Parkway shall be designated as an exclusive left turn lane outbound. The shared bike/pedestrian path shall have a crossing built at the Sewall Street cul de sac and the path extended to the existing sidewalk on Sewall Street. Another pedestrian crossing shall be installed where the current pedestrian crossing is at the bus/train station. Both crossings shall have solar powered/radio interconnected pedestrian activated rectangular rapid flashing beacon lights installed.

Thompson's Point Development

No sporting events or concerts shall begin between 4 pm and 7pm Monday through Friday.

During large sporting and concert events, the applicant shall ensure that there are flaggers and uniformed police officers present to ensure that there will be two inbound lanes prior to the event and two exit lanes after the event. Flaggers/uniformed police officers shall be stationed to ensure that pedestrians are able to cross at either of the two crosswalks, at the Transportation Center Entrance to let busses in or out and also at the transportation center parking lot entrances to ensure that transportation center patrons leaving the parking lots are merged into the out-bound flow. Uniformed police officers shall be present after an event to direct traffic at the Thompson's Point Road/Fore River Parkway intersection. Retro-reflective traffic cones shall be used by the development to create the reversible lane. Flaggers will direct vehicles into the proper lanes.

Off-Site Mitigation

Fore River Parkway/Thompson's Point Road/I-295 Exit 5A off-ramp

The Southbound off ramp at Exit 5 A shall be reconstructed to have a separate 13 foot wide left turn lane and 13 foot wide through lane. The widths include the

required curb offset. The left lane shall extend back 200 feet. Install Queue detector at the ramp gore area to act as pre-emption for the signal should the queue spill back that far.

Modify traffic signal timing and phasing accordingly.

Fore River Parkway/Congress St/I-295 Exit 5 B off-ramp

Widen the southbound off-ramp to accommodate a 5 foot wide right shoulder, two 12 foot wide right turn lanes and a 2 foot curb offset for a distance of 125 feet with an appropriate taper. Install Queue detector at the ramp gore area to act as pre-emption for the signal should the queue spill back that far.

Re-stripe Congress Street Westbound to accommodate a longer westbound left turn lane, extend back to the end of the island (to the slip lane from Park Ave to Congress St).

Modify traffic signal timing and phasing accordingly.

Congress St/Stevens Ave

Restripe Steven's Avenue to an exclusive left and a shared left/thru/right and modify traffic signal timing and phasing accordingly.

The developer shall pay an impact fee in the amount of $15,000 for inlaid thermoplastic paint skips, retro-reflective back plates and overhead lane usage signage. This money will be put towards improvements funded by PIN 19078.00.

Congress St/Westbrook St

The developer shall pay an impact fee in the amount of $15,000 for inlaid thermoplastic paint skips, retro-reflective back plates and overhead lane usage signage. This money will be put towards improvements funded by PIN 19078.00.

Congress/Frost St

The developer shall pay an impact fee in the amount of $15,000 for inlaid thermoplastic paint skips, retro-reflective back plates and overhead lane usage signage. This money will be put towards improvements funded by PIN 19078.00.

Transportation Demand Management

In lieu of additional mitigation, Transportation Demand Management shall be used to offset the traffic impacts on the roadway network. The City has implemented a Transportation Oriented Development Tax Increment Financing District for the Thompson's Point Development. This development would benefit from some increased transit connections to the airport and Old Port, funding for handicap accessible taxis or for increase in parking at the Transportation Center.

Overall

A. Provide all necessary auxiliary signs, striping and pavement markings to implement the improvements described herein according to State of Maine and/or National standards.

B. All plantings and signs (existing and/or proposed; permanent and/or temporary) shall be placed and maintained such that they do not block available sight distances and do not violate the State's "Installations and Obstructions" law. No signage or plantings shall be allowed within the "clear zone" if they constitute a deadly fixed object as determined by MaineDOT. All signs shall meet MRSA Title 23, Chapter 21, Section 1914: "On-Premise Signs".

C. If any of the supporting data or representations for which this permit is based changes in any way or is found to be incorrect / inaccurate, the applicant shall request in writing from MaineDOT a decision of what impacts those changes will have on the permit. The applicant will then be required to submit those changes for review and approval and additional mitigation as a result of those changes may be required at the expense of the applicant.

D. Because the proposed project affects the state highway and drainage systems and requires improvement to that system, the applicant must obtain approval of the design plans and coordinate work through MaineDOT's State Traffic Engineer, who can be reached at (207)-624-3620 in Augusta.

By:

Stephen Landry, P.E.
Assistant State Traffic Engineer

Date: 6/13/12

ATTACHMENT D
TDM Update Letter

December 13, 2024

From: Bo Kennedy, PE
PlaceMaker Partners, LLC

To: Natasha Kypfer
Senior Planner
City of Portland

CC: Rob Simmons
Cathartes

RE: PL – 003090-2024
Thompson's Point Transportation Demand Management update

Dear Natasha,

Pursuant to the City's Project Review Letter (11/06/2024), please find below our response to the portions of the letter concerning Thompson's Point's Transportation Demand Management Plan.

Comment #1 (pp. 2-3):

> *A TDM Plan is required for this project, as it exceeds the thresholds detailed in LUC Section 14.6.1.E.1. The project has an approved Thompson's Point campus-wide Transportation Demand Management Plan (TMD) for managing and reducing traffic trips and parking demand in place as part of the Master Development Plan (MDP). The provided Attachment P summarizes TMD initiatives and references previously prepared TDM strategy reports which was approved in 2011, and subsequently updated in 2015 and 2018.*
>
> *[…]*
>
> *In satisfying this standard, the applicant shall update their Transportation Demand Management Plan and incorporate data, as well as updated data, on concerts and other significant events that occur on the Thompson's Point campus, so that the City can better understand current parking demand and assess whether mitigation strategies in place are sufficient.*

Response:

In addition to the updates to the 2011 plan noted above (2015 and 2018 respectively), Thompson's Point provided data reports to the City regularly until the reporting requirement

was suspended during COVID. In the absence of these regular reports, although it was not requested by the City, Thompson's Point took the proactive step of submitting a TDM update narrative report in July 2021 summarizing the previous two years of activity on campus.

That 2021 update included mention of Thompson's Point having received a "Best Workplaces for Commuters" designation from the National Center for Transit Research and the US Environmental Protection Agency in 2019 – one of only two sites in the state at the time to have received this designation.

Subsequently, in May 2022, the City launched their streamlined formal online reporting system.

We provided regular and consistent reports and updates using that system since that time. This data captures all Thompson's Point activities, from regular tenant visitors to events and concerts.

We also maintain a TDM survey on our website. In addition to being available to the public at any time, we also send this link out to various event clients where applicable.

https://www.thompsonspoint.com/tdm

Following the 2024 summer concert season, our concert partners at the State Theatre circulated this survey link to their ticketholders.

We have included the data and results as Exhibit A.

In our previous submittal (Attachment P to same), we provided TDM details for the proposed residential project. One of the factors that led Cathartes to select Thompson's Point as a partner for their project is Thompson's Point's history of commitment to smart urban growth and neighborhood building and transit planning; as a Transit Oriented Development which has been awarded Best Workplaces for Commuters status, the opportunities for use of METRO, Portland Trails for walking and biking, Amtrak, Concord Coach, and various carpool/rideshare mobilizations has been a compelling feature for them and their future residents and guests. Cathartes also intends to participate individually as well as at the broader site-wide level in any efforts to encourage their staff to carpool, bike, walk, and ride METRO to work.

To further elaborate on the plans outlined in Attachment P, Cathartes plans to follow the proposed timeline in terms of its TDM measures:

<u>Convene kickoff meeting with TDM coordinator to review strategies:</u>

- 6 months after groundbreaking

<u>Team meeting with CMTM staff and TDM coordinator:</u>

- 1 month before opening

Provide tenant and staff surveys:

- 12 months after opening

Establish Initial Residential "Micro TDM":

- 18 months after opening

Evaluate Initial Micro TDM and report to City:

- 36 months after opening

We hope that this update meets your needs, and we thank you again for your detailed review and thorough comments.

If you have any questions or would like more information, please do not hesitate to contact me.

Sincerely,

Bo Kennedy

Bo Kennedy, P.E.
Placemaker Partners, LLC

Exhibit A: Thompson's Point TDM Survey (concert patrons – 2024 season)

Summary of Thompson's Point Voluntary TDM Survey Results

When I travel to Thompson's Point, I typically do so by way of...1ST OPTION	AMTRAK	BICYCLE	CARPOOL	RIDESHARE	SOV	WALKING			TOTAL RESPONSES
RESPONSES	2	11	8	1	19	7			48
PERCENTAGE	4.17%	22.92%	16.67%	2.08%	39.58%	14.58%			
Which of the following alternatives to single occupancy vehicle(SOV) use are you most likely to take advantage of? 1ST CHOICE	AMTRAK	BICYCLE	CARPOOL	RIDESHARE	BIKE RENTAL	WALKING	METRO	MOTORCYCLE	TOTAL RESPONSES
RESPONSES	4	7	14	7	1	11	2	1	47
PERCENTAGE	8.51%	14.89%	29.79%	14.89%	2.13%	23.40%	4.26%	2.13%	
Which of the following initiatives would best assist in encouraging your use of alternative forms of transportation to and from Thompson's Point? 1ST CHOICE	ADDITIONAL ADA PARKING	ADDITIONAL BIKE LOCK LOCATIONS	ADDITIONAL BIKE RENTAL LOCATIONS	ADDITIONAL MOTO/SCOOTER SPACES	EXTENDED AMTRAK HOURS/TRAINS	EXTENDED METRO HOURS/BUSSES	INDOOR BIKE LOCK LOCATIONS		TOTAL RESPONSES
RESPONSES	2	10	4	1	10	7	1		35
PERCENTAGE	5.71%	28.57%	11.43%	2.86%	28.57%	20.00%	2.86%		

ATTACHMENT E
Tree Survey Figure

TREE SURVEY KEY

- ESTABLISHED SHORELAND ZONE (25' SETBACK FROM H.A.T.)
- ORIGINAL SHORELAND ZONE (REVISED BY PERMIT) (250' SETBACK)
- TREE: 10" DIA. AT 54" ABOVE GRADE TO BE PROTECTED
- TREE: 10" DIA. AT 54" ABOVE GRADE TO BE REMOVED

NORTH

28" OAK
13" OAK
16" OAK
12" OAK
15" OAK
31" OAK
14" OAK
11" OAK
30" OAK
36" OAK
14" OAK
22" WILLOW
10" OAK
12" OAK
6' POPLAR
6' POPLAR
4" DECD
6" DECD

ELEV. 10.0'
100-YEAR FLOOD
ELEVATION

HAT=7.2'
SEE NOTE 11 ON SEBAGO
TECHNICS TOPOGRAPHIC
SURVEY PLAN DATED 8/4/2022

1,429'± (DEED: MEAN HIGH WATER)

H.A.T.=7.2'

WETLAND
BOUNDARY (TYP.)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN:	DB	DATE:	11.14.2024
DESIGNED:	BEK	SCALE:	1" = 40'
CHECKED:	BEK		

MULTI-FAMILY RESIDENTIAL BUILDING (G)
THE FOREFRONT AT THOMPSON'S POINT

TREE SURVEY

EXHIBIT NO.:
A

ATT. Y

PLACEMAKER PARTNERS, LLC
18 Van Aken Way
Portland, ME 04102

February 14, 2025

Ms. Natasha Kypfer, Senior Planner
Planning and Development Department
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509

Subject: **The Forefront at Thompson's Point – 125 Thompson's Point Rd** (PL-003090-2024)
Major Site Plan Application – Review Comment Letter of Response # 2

Dear Natasha:

We have received and reviewed staff and peer review comments submitted to date and offer our responses to these comments. For ease of reference, we have repeated each comment in *italics* with our response following.

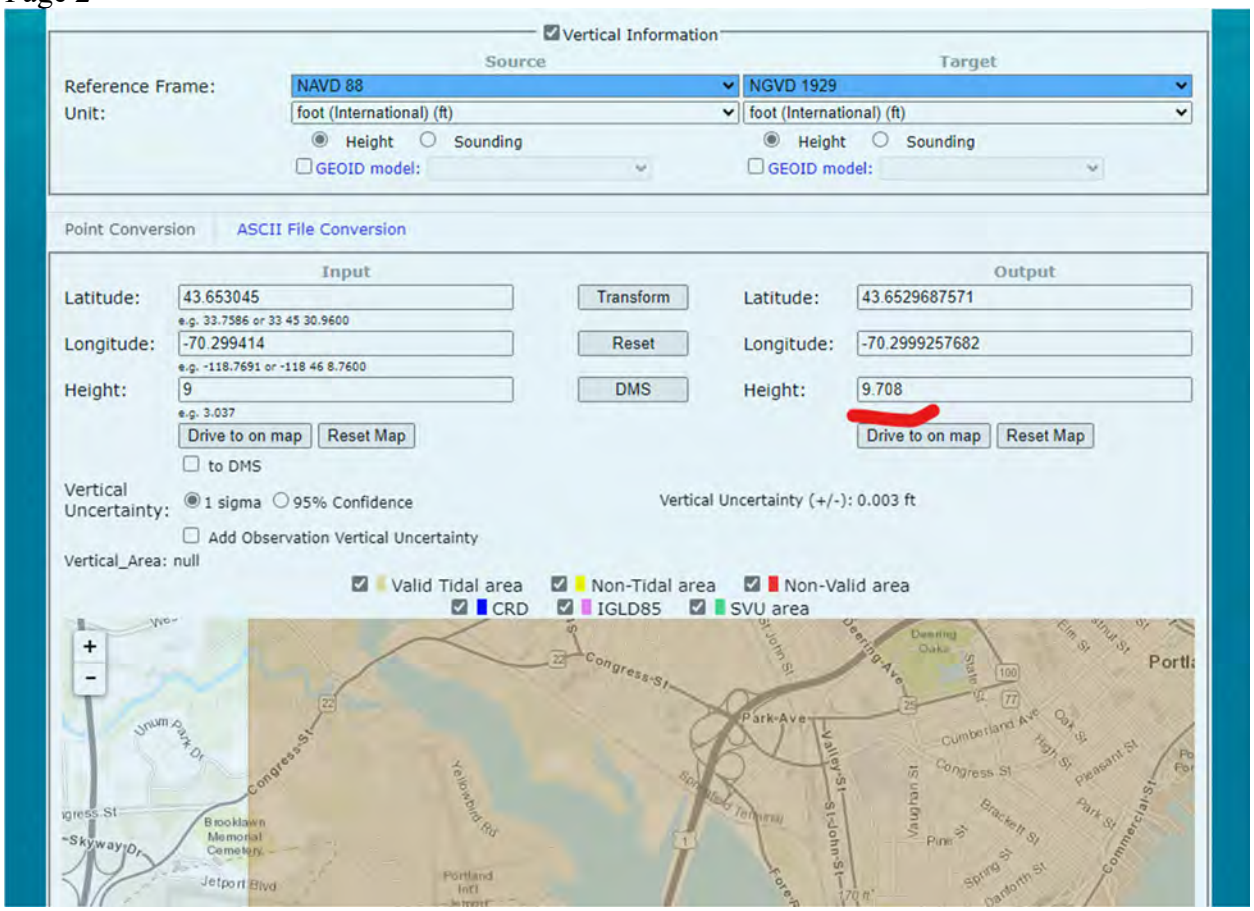
GENERAL COMMENTS FROM PLANNING STAFF

Comment 1:
Regarding the AE Flood Zone, while the Firmette map for the Flood zone was provided in the resubmission, we are requesting these be added as an overlay to the Site Plan, which will then show exactly where the Flood Zone is located on the property. Further, Staff requests not rounding up to Elevation 10.0', NGVD1929.

Response:
The AE Flood Zone has been overlaid with the current site plan as shown on the attached Exhibit A. The Flood Zone elevation 9.71 has been updated on the site plan set and shown in red for ease of visibility.

Comment 2:
The Floodplain Administrator requests to see how the conversion from NAVD88 to NGVD29 was calculated.

Response:
The project surveyor used an online conversion tool on the NOAA Website. (https://www.ngs.noaa.gov/NCAT/). The screen shot of the input/output is shown here:



Comment 3:
On the Existing Conditions Plan (Sheet C-2.0) and the Site Layout Plan without Easements (Sheet C-3.1A), the Flood Zone line is not clear. Staff requests it be shown in a different color than black, for ease of visibility.

Response:
This comment has been addressed; refer to comment 1 response.

REVIEW COMMENTS – TRANSPORTATION (SECTION 14.6.1) STANDARDS:

Comment 1:
Staff would like to review the trip generation calculations for all of the uses, regardless if previously approved from a documentation perspective. However, one initial comment on the trip generation estimate is as follows:

- *The Brewery & Sit-Down Restaurant (14,644 SF) noted in the table should match the area used in the trip generation calculation (4,624 SF).*

- *Relative to current uses at the Thompson Point campus, the applicant shall provide backup information for the trip generation estimate for:*
- *Halo Event Space*
- *the Office Space with 7 employees; the trip estimate does not match prior trip generation estimates for potential uses*
- *the 4,624 SF or restaurant space associated with Bissell Brewery*
- *Color Me Mine*
- *Cryptozoology Museum*
- *Leisure Time Cocktails*
- *the Brick South Event Space (2,500 Seats)*

- *Building L; data is provided for the office space but it does not match what is noted in the table*

Response:
Gorrill Palmer has revised the traffic study to include all currently proposed and/or existing with more clear labels. The report is enclosed with this letter in Attachment B.

Comment 2 – Access and Circulation :

- *General note: Some of the proposed site work that is proposed falls outside of the development tract, please include the abutting site as part of the larger project boundary on the applicable plan sheets.*
- *Proposed improvements and existing conditions in the City ROW shall be identified and dimensioned on the plan view sheets. For example, ROW, street, lanes sidewalk, esplanade driveways (and other improvements) widths as well as when a width changes.*
- *Provide detailed grading plan for the drive entrance onto Thompson's Point Road. The applicant shall update the plans to label and or provide spot grades and slopes for the proposed sidewalk improvements at grade breaks.*
- *Reconstruct the Drive Apron and restripe the crossing.*
- *Realign the ADA ramp and landing area to be within the public ROW. Adjust the development onsite sidewalk to tie into the public sidewalk.*

Response:
- The project work limit line has been expanded to include the new fire lane driveway on the adjacent lot. A new plan sheet C-3.1A Site Layout Plan with this limit line has been uploaded to the eplan website.
- Dimensions have been added to the site plan view C-3.1A Site Layout Plan Without Easements
- The grading of ADA ramps and driveway aprons are dictated by the existing roadway match line (top of existing curb, gutter line, etc). The contractor will be required to grade this area in strict accordance with the city's details for sidewalk cross slopes and ramp details found in the Technical Manual. The grading plan has been labeled with maximum slopes to be followed based on existing grades as a match line. It is in my professional opinion that the addition of proposed spot grades in this area would be speculative and inaccurate.
- Plan Sheet C-3.1A Site Layout Plan Without Easements has been updated to indicate the contractor shall sawcut the existing pavement at the gutter line and reconstruct and restripe the driveway apron.
- The Plan views have been updated to show the entire ramp inside the ROW.

Comment 3 -Parking :

- *Please provide a parking management plan, as the proposed parking spaces are to be shared with other uses on Thompson's Point.*
- *The remaining parking spaces (86 spaces on the first floor of the garage and 24 surface parking spaces) are indicated to be used for overall Thompson's Point campus parking needs. These spaces will be managed by Forefront Partners, like all other parking spaces on the campus. The applicant should provide details on how these spaces will be regulated. Will they function like existing spaces and be "Pay to Park"? Will signage, etc. be installed? How will the garage gate system be managed (based on the plans it appears two gate systems are proposed – staff is looking for clarification on how they will operate).*

- *The overall campus parking analysis should be updated to reflect the land use information used in the updated trip generation estimate. The parking generation estimate should be based on the most recent edition of the ITE Parking Generation Manual.*
- *The applicant should document the number of existing and proposed parking spaces on campus and note what spaces are allocated to specific businesses/uses.*
- *Staff has reviewed the revised plan, and the exterior parking layout is acceptable. Parking aisle widths shall be provided for the interior garage.*

Response:

- The plan Sheet C-3.0 Overall Campus Plans has a campus parking supply table outlining all the available parking and maximum parking demand as calculated by Gorrill Palmer, project traffic engineer and stated in their parking study matrix. Campus wide parking is actively managed by Forefront Parking, LLC or its assigned and will manage the new shared spaces on the residential property.

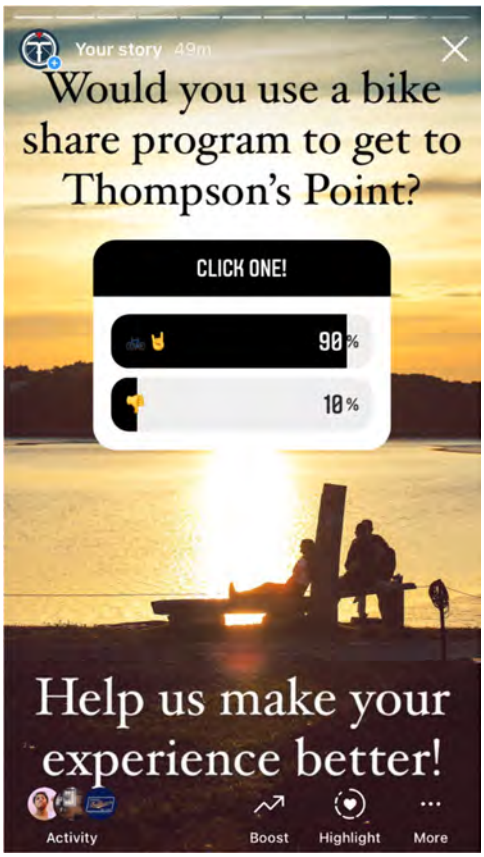
  Most of the proposed designated-managed parking stalls are located inside the proposed gated garage and will require a key card to pass the gate. The remaining surface spaces along the access road will be signed accordingly and enforced using the same or equivalent parking management systems used currently (i.e. Passport software via license plate registration). The proposed parking for this project will not be open to the public but rather used for contracted uses such as but not limited to Thompson's Point employees and valet parking. Existing parking spaces used for these purposes will be signed and open to the public for "Pay and Display" parking supply.
- The parking analysis matrix has been updated to reflect the current land uses and is included in the full traffic memorandum included with this submission. The parking analysis uses a combination of custom parking demand based on the approved methodology at the time of site plan approval and the most current ITE Parking Generation Manual for this project.
- The applicant has documented the number of existing and proposed parking spaces on campus as indicated above. Except for the proposed designated residential parking spaces, the campus parking supply is actively managed and shared amongst all businesses on campus.
- The Floor plans have been updated to show the garage aisle widths and uploaded to the eplan portal.

Comment 4 - TDM:

- *The 2011 MaineDOT Traffic Movement Permit notes that "No sporting events or concerts shall begin between 4pm and 7pm Monday through Friday". The project does not appear to comply with this requirement. The assumption for trip generation associated with concert events was that if the start time is at 7pm or later, there would be minimal impact to the commuter PM peak hour. If concerts begin at 6pm, impacts to the peak hour may occur.*
- *City staff has concerns about parking in the Libbytown neighborhood during events. The applicant should address this concern through possible actions/strategies in the TDM Plan.*
- *City staff has observed traffic congestion on Fore River Parkway extending into Congress Street. The applicant should address this concern through their site monitoring efforts and identify possible mitigation strategies to address this issue.*

Response:

- The applicant acknowledges this requirement of the MDOT TMP and intends to strictly comply.
- The applicant has, and will continue, to work directly with the Libbytown Association and the City of Portland to implement measures acceptable to all parties to mitigate the impact of parking from large events at Thompson's Point. All parties acknowledge there are other large events in the neighborhood that are out of the applicant's control. Thompson's Point is committed to implementing thoughtful measures such as deploying "No Event Parking" signage throughout the neighborhood before each event as well as promoting the substantial TDM strategies at the applicant's disposal such as walking and biking travel through the improved and robust Portland Trails network, local and regional bus routes, train, and ride share trips. Prior to every large-scale show, Thompson's Point promotes the ease and convenience of strategies through our multiple social media pages (see examples below). Thompson's Point works with their concert partner (State Theatre) to encourage carpooling and alternate modes of transportation at the time of ticket purchase, giving the attendee lots of time to plan their preferred mode of transportation in advance.





- The parking management staff acknowledges the city's observation and always takes these reports into consideration for future events. Large scale events at Thompson's Point require active traffic management with traffic control personnel spanning from the campus through Thompson's Point Road up to Fore River Parkway to ensure entering offsite traffic congestion is minimized to the extent practicable. They respond quickly and in real time to address varying traffic conditions to minimize the duration of short periods of traffic congestion to the extent possible. There are occasions when outside influences, such as but

not limited to construction, traffic accidents, emergency vehicle interruption, and multiple simultaneous large events around the neighborhood that create congestion outside of Thompson's Point control. Whenever applicable, traffic issues within their control are documented by staff and addressed with a change of strategies for future events.

REVIEW COMMENTS - ENVIRONMENTAL QUALITY STANDARDS (SECTION 14.6.2) :

Comment 1 – Landscape Preservation:

- *General note: Update the Landscape Plan to use the most current version of the Site Plan.*
- *Please include on the landscape plan the species/size/location of the existing large trees to be preserved near the stormwater installation in the SW corner of the project; as while trees are present on Existing Conditions and Demolition plans but were left off landscape plan.*
- *Regarding Landscape Details, Sheet L-200:*
    - *#1, Tree Protection detail: If any of the existing trees to be preserved grow with a pronounced lean such that fencing in the dripline would place the stem of the tree near the edge or outside of the tree protection zone (TPZ):*
    - *An alternative TPZ based on the critical root zone spread should be implemented with a target radius of 12" per 1" of stem diameter at DBH*
    - *If space constraints prohibit the target of 12" per 1" DBH, reductions down to 9" per 1" DBH are acceptable*
    - *If more than 30% of the CRZ is impacted by trenching and/or grade changes of more than 4" then post construction remediation (decompaction, organic matter amendments) is warranted for preserved trees*
- *#3, Deciduous Tree in Lawn or Esplanade*
    - *If fertilizer packets are to be included when planting landscape trees, please refer to City Code, Chapter 34: Landcare in order to ensure a compliant application*

Response:

- The Landscape Plan has been updated to reflect the current Site Plan.
- Labels regarding existing tree species and size to remain have been added to the Landscape Plan.
- Notes regarding tree protection have been coordinated with the City Arborist and have been added to the Landscape Plans.
- See above response
- See above response.
- See above response.
- The note has been revised to specify that an organic starter fertilizer is required and incorporated into the top 2-3" of the planting zone as coordinated with City Arborist and the City Code.

Comment 2 – WQ, SWM and Erosion Control:

- *The applicant is depicting a drainage easement within the City's right of way in the Thompson's Point connector road (Sheet C3.1b) to account for a short storm drain extension and connection from the private onsite drainage system. The drainage easement is unnecessary in this situation. The storm drain extension section in the right of way shall be constructed to City standards and will be turned over to the City at the conclusion of the project. The City does not grant easements for private storm drain or sewer lateral connections into the City's infrastructure located in public right of ways. Accordingly, please remove the proposed easement from the plans.*

- *Please add a backflow preventer to sanitary sewer profile 'A' line downstream of SMH-1 as discussed via email on 1/17/2025.*
- *Add a note to the plans stating that EX. SMH -1 shall be jointly inspected by the applicant's engineer, contractor, and the City to confirm a final plan to modify the structure to the rim elevation indicated on the plans.*
- *Notes should be added to the utility and grading plans indicating that several City and PWD sewer manholes will need to be adjusted to grade in the southerly access road area demarcated as Access Road profile 'C' on the plan set. It appears that a few of these structure adjustments may exceed the maximum adjustment height of 8 brick courses. The applicant should look into this and provide further information.*
- *The applicant should relocate the proposed light pole/base located near Access road 'A' station 20+40 to provide more horizontal clearance with the 30" CSO line.*

Response:

- All proposed easements inside the City's ROW have been eliminated. New versions of the applicable Site Plans have been uploaded to the city's eplan portal.
- A backflow prevention device is called out on the profile 'A' and the utility plan.
- This note has been added to the Utility Plan and uploaded to the city's eplan portal.
- The contractor will be required to adjust all existing manhole covers to proposed finished grade in accordance with the City's Technical Manual. The applicant proposes the contractor and the city review all the manholes in the field at the pre-construction meeting.
- The light pole has been relocated closer to the driveway opening to provide greater separation from the CSO line. The updated Site Plans have been uploaded to the city's eplan portal.

REVIEW COMMENTS - INFRASTRUCTURE AND COMMUNITY SAFETY STANDARDS (SECTION 14.6.3) :

Comment 1 -Public Safety and Fire Prevention:
While City staff continues to have concerns regarding emergency access to the site, we also acknowledge that prior discussions during the MDP approval process allowed for the single roadway access site-wide. We will look forward to having a more robust discussion on this item at our meeting scheduled for February 5, 2025, wherein representatives from the applicant team and the City will be present.

Response:
The applicant met with city and peer review staff on February 5, 2025, to discuss the issues outlined in this review letter. During this meeting the applicant further explained that alternate routes onto Thompson's Point were found to be infeasible due to significant natural resource, land acquisition, major existing utility infrastructure, and financial constraints. Furthermore, it was determined during the Master Development Plan (MDP), Overall Subdivision Plan, and multiple Site Plan Application reviews that the, now constructed, gated access from Sewall Street onto a widened Thompson's Point road with third lane for emergency vehicles and public rail crossing is sufficient to satisfy regulatory access requirements to the fully constructed MDP.

Comment 2- Public Utilities:

- *Please forward on the Ability to Serve letter from PWD, once received.*

Response:
The applicant has forwarded the PWD ability to serve letter to the city planning office via email to Natasha Kypfer.

REVIEW COMMENTS - SITE DESIGN STANDARDS (SECTION 14.6.4) :

Comment 1 – Design Standards :

- *Staff requests that the applicant prepare additional renderings to illustrate the parking garage as viewed from Thompson Point roadway and adjacent properties, particularly from the north side of existing railway tracks. Staff is concerned that the sloped parking decks at the structured garage are not properly screened as visible from the street and from adjacent properties. As outlined in the design review memo, dated October 18, 2024, Staff recommends additional architectural and/or landscape screening elements, such as perforated facade screening to reinforce a horizontal datum, vertical landscaping with vine-trellis systems or other appropriate vegetation.*
- *Staff suggest greater ground-floor activation along building facades oriented towards the Thompson Point roadway. Staff recommends incorporating a pedestrian scaled entry for residents (potentially at the termination of the Level 1 corridor) to allow direct access from the sidewalk and more connectivity to the street. Alternatively, Staff suggests additional architectural articulation that orient the building towards the street with the incorporation of facade materials and organization of materials at a pedestrian scale found throughout the Thompson's Point development.*

Response:

- The applicant has prepared the views requested by planning staff and presented them at our February 5, 2025 meeting. The staff indicated that they were happy with the renderings and should be submitted for inclusion in the Planning Department's presentation to the Planning Board. The additional renderings are included in Attachment C of this letter and uploaded to the City's eplan Portal.

- The applicant has revised the ground level façade to a brick material in response to city's comments noted above. The change of material brings a welcoming and more appropriate pedestrian scale to the street side of the proposed residential building. During our February 5, 2025 meeting with City Staff the applicant explained why the amenities have been centralized to the building such as accessibility and security for the residence being a high priority. Further, the applicant explained the engineering solutions required to overcome significant site grading and parcel shape challenges. Site grading combined with large publicly owned utilities along the frontage of the property prohibit pedestrian access to the street end of the building. The additional renderings showing the new façade are included in Attachment C of this letter and uploaded to the City's eplan Portal.

End of Comments.

If you have any questions regarding these materials, please contact this office.

Sincerely,

PLACEMAKER PARTNERS, LLC

Bo Kennedy, P.E.
Project Manager/Engineer

Attachments

c: Rob Simmons, Cathartes
Matt Grooms, City of Portland Planning
Chris Thompson, Forefront Partners I, LP
Jed Troubh, Forefront Partners, I, LP

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ATTACHMENT A
FIRMETTE -FEMA FLOOD MAP

NOTES:

1. BASE IMAGE AND ZONE AE LIMIT ARE FROM FEMA 2023 PUBLICATION PANEL 23005C0693. GIS DATA IS PROJECTED INTO PROJECT FILE COORDINATE SYSTEM.

2. FEMA 100 YEAR FLOOD ELEVATION AE AS PUBLISHED IN 2023 IS NOTED TO BE ELEVATION 9 FEET, NAVD 1988 VERTICAL DATUM. THESE PLANS ARE BASED ON VERTICAL DATUM NGVD 1929. ELEVATION 9 FEET CONVERTS TO 9.71 FEET. THIS LINE HAS BEEN PROJECTED FROM THE EXISTING TOPOGRAPHIC INFORMATION PREPARED BY SEBAGO TECHNICS SURVEY AS NOTED IN NOTE 1.

NORTH

RAILROAD

PROPOSED PROJECT BOUNDARY

PROPOSED PARKING GARAGE
25,943 S.F. FLOOR AREA
(6 FLOORS)
(463 PARKING SPACES)

PROPOSED RESIDENTIAL BUILDING G
50,208 S.F. FLOOR AREA
6 FLOORS/ 255 UNITS

FLOOD ZONE AE
(EL. 9.71 - NGVD 29)
(SEE NOTE 2)

ZONE AE
(EL 9)

THOMPS
POINT F

100 0 50 100 200
1 inch = 100' ft.

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN:	DB	DATE:	2.04.2025
DESIGNED:	BEK	SCALE:	1" = 100'
CHECKED:	BEK		

THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

FEMA FLOOD PLAN MAP

EXHIBIT NO.:
A

ATTACHMENT B
FULL TRAFFIC STUDY

GORRILL PALMER
An LJB Engineering Company

300 Southborough Drive, Suite 200, South Portland, ME 04106
(207) 772-2515|GorrillPalmer.com

Trip Generation and Parking Demand Summary
Thompson's Point
September 2024 – (Revised 12-10-24)

Date: September 4, 2024 (Revised 12-10-24)
Subject: Updated Trip Generation and Parking Demand
Thompson's Point
To: Bo Kennedy, Placemaker Partners, LLC
From: Randy Dunton / Kyle Brennan, Gorrill Palmer (JN 4346)

Gorrill Palmer (GP) has prepared this updated trip generation and parking demand summary for the Thompson's Point development in Portland, Maine. The full build out of the project received a MaineDOT Traffic Movement Permit (TMP) in 2012 (Reg. 01-00155-A-N) for 734 trip ends during the AM peak hour and 1,091 trip ends during the PM peak hour. The Traffic Movement Permit received an extension in 2024 out to March 1, 2027. The documentation for the extension is attached. The project is being constructed in phases and each phase must be evaluated to ensure that the total site trip generation does not exceed the permitted trip generation. The following is a summary of the forecast trip generation and parking demand for the existing and previously approved uses, and the proposed residential development on site. A site plan is attached showing the location of each building.

Existing and Previously Evaluated Trip Generation Summary

The trip generation for the existing Thompson's Point site is based on discussions with Bo Kennedy, project manager/engineer for the site. The trip generation was calculated using the same methodology as that used in previous trip generation evaluations for the site, including using the Institute of Transportation Engineers' publication, *Trip Generation*, 7th Edition, except where otherwise noted, and applying a 10% reduction to the total site trip generation to account for other modes of transportation and shared uses on the site. The following table summarizes the trip generation for the existing site:

Existing and Approved Site Trip Generation

Building	Description	Size	AM Peak Hour	PM Peak Hour
Building A Brick North				
	Halo (Event Space) – Previously approved	400 attendees	16	31
	Office Space – 7 Emp.	7 Employees	7	7
	Brewery & Sit-Down Restaurant – LUC 932 + 7 Emp.	14,644 sf (4,624 sf Rest. & 10,020 sf Brewery)	7	49 (42+7)
	Brewery Tap Room – LUC 932 + 5 Emp.	5,284 sf	16 (11+5)	16 (11+5)
	Color Me Mine – Previously Approved	2,136 sf	2	6
	International Cryptozoology Museum – Previously approved (doubled in size)	1919 sf	2	2
	Leisure Time Cocktails – LUC 975	1725 sf	N/A	20

	Coffee Roasting – Assumed (Employee only)	675 sf	1	1
	Brick North Total		**51**	**132**
Building C Brick South				
	Event/Assembly Space – Previously approved	2,500 Seats	100	195
	Annex	7,384 sf	--*	--*
	Brick South Total		**100**	**195**
Building F1				
	Warehouse – Previously approved	14,200 sf	11	9
	Building F1 Total		**11**	**9**
Building F2				
	Artist Studio Space – Previously approved	1,940 sf	3	4
	Building F2 Total		**3**	**4**
Building L				
	Office Space – Previously forecasted potential future development	4,000 sf	7	9
	Event Space – Previously forecasted potential future development	100 Attendees	4	8
	Existing Storage – Previously forecasted potential future development	1,760 sf	0**	0**
	Existing Office Space (Credit)	4,000 sf	(-7)	(-9)
	Building L Total		**4**	**8**
Building B2				
	Concession Building – Previously approved	960 sf	4	4
	Building B2		**4**	**4**
Building D				
	Proposed Hotel (2024 Construction Start) – Previously proposed development	148 Rooms	68	87
	Hotel Total		**68**	**87**
Building I Children's Museum and Theatre of Maine (CMTM)				
	CMTM– Previously approved	29,096 sf	33	33
	Children's Museum Total		**33**	**33**
Existing Subtotal			**274**	**472**

*Maximum of 2,500 people in the building for events. Highest trip generation would be an event in the Event space, not the Annex.
**Trip generation assumed to be negligible.

Since initially approved, there have been some minor changes to the uses. The "Rosemont Market" (2,724 sf) and Brewery & Sit-Down Restaurant (11,920 sf) have been combined and identified as "Brewery & Sit-Down Restaurant" (14,644 sf). For the purposes of this evaluation, the previously individual square footages have been combined. Trip generation for the "Brewery & Sit-Down Restaurant" was based on previously accepted "Brissell Brewery & Restaurant" methodology, where the restaurant trip generation is based on LUC 932 – High Turnover (Sit Down) Restaurant (4,624 SF) and trip generation for the brewery portion

(10,020 SF) is based on the 7 employees.

The previously approved coffee shop "Rwanda Bean" (2,400 sf) has been split with "Leisure Time Cocktails". "Rwanda Bean" (675 sf) is still occupying part of the space for coffee roasting, but the remaining space is now occupied by "Leisure Time Cocktails" (1725 sf).

The previously approved "Big Room Studios" (3,461 sf) has been replaced with an "Office Space". The square footage of the area is the same, but because the office space only has 7 employees, trip generation was based on employee trips.

The previously approved "Distillery" (5,284 sf) has been replaced with a "Brewery Tap Room" (5,284 sf). For the purposes of this evaluation due to similar use the previously approved individual square footage and trip generation will be used for the "Brewery Tap Room". Trip generation for the "Brewery Tap Room" is based on 1,200 SF of restaurant space (LUC 932) and 4,084 SF of brewery space (5 employees).

The previously approved "International Cryptozoology Museum" (993 sf) has doubled in size. Due to the "International Cryptozoology Museum" (1919 sf) doubling in size the trip generation will double from the previous report.

The site has moved onto its next phase of development, which includes Building's L, B2, and D. Building's L and B2 were identified as proposed development in the previous report. Building D was identified as potential future development in the previous report. Building's L, B2, and D will contribute 76 & 99 trip ends in the AM & PM peak hours respectively.

As shown in the table, the existing site is forecast to generate 274 trip ends during the AM peak hour and 472 trip ends during the PM peak hour.

Proposed Site Trip Generation

Our understanding is that the site is now moving into its next phase of development, which will include a 255-unit six story apartment building (identified as Building G on the enclosed site plan).

Trip generation for the proposed use has been based on the following:

- 255 Units of Residential Development – New Construction

The trip generation for the proposed use was calculated using the updated Institute of Transportation Engineers' publication, *Trip Generation*, 11th Edition (LUC 221 – Mid-Rise Apartment). It should be noted that LUC 221 provides two different trip generations, "not close to rail transit" and "close to rail transit". It is our understanding that ITE refers "close to rail transit" as more local transit, such as subways. The Amtrak located near Thompson's point, in our opinion, does not meet the intent for "close to rail transit". The following table summarizes the trip generation for the proposed uses:

Forecast Trip Generation

Building	Description	Size	AM Peak Hour	PM Peak Hour
Building G Residential				
	Apartments – LUC 221	255 Units	101	100
Forecast Trip Generation			**101**	**100**

As shown in the table, the proposed residential use is forecast to generate an additional 101 trip ends and 100 trip ends during the AM and PM peak hours of the adjacent street, respectively.

Site Trip Generation

The trip generation for the existing site has been combined with the trip generation for the proposed new and remodeled buildings to yield the total site trip generation.

Total Site Trip Generation Summary

Site	Building	AM Peak Hour	PM Peak Hour
Existing			
	Building A – Mixed Used (Brick North)	51	137
	Building C – Events (Brick South)	100	195
	Building F1 – Warehouse	11	9
	Building F2 – Artist Studio	3	4
	Building L – Office	4	8
	Building B2 – Concessions	4	4
	Building D – Hotel	68	87
	Building I – Children's Museum and Theatre of Maine	33	33
	Existing Total	**274**	**472**
Proposed			
	Market Rate Apartments	101	100
	Forecast Total	**101**	**100**
Site Subtotal		**375**	**572**
Reduction (10%) for Bus / Train / Shared Use		(-37)	(-57)
Proposed Site Trip Generation		**338**	**515**
Permitted Trip Ends		734	1091
Difference Between Permitted and Proposed Site		**396**	**576**

As shown in the table, the site inclusive of the proposed residential development is forecast to generate 338 trip ends during the AM peak hour and 515 trip ends during the PM peak hour. This yields an overall trip generation that is 396 trip ends **less** than the permitted trip generation during the AM peak hour and 576 trip ends **less** than the permitted trip generation during the PM peak hour.

Parking Demand

Proposed Apartments: Parking for the new apartments is based on the ITE Parking Generation Manual, 5th Edition. The parking demand rate (1.31 spaces/unit) is based on Land Use Code (LUC) 221 – Multifamily

Housing (Mid-Rise). Because of the nature of the housing use, the peak parking demand (334 spaces) occurs overnight with the lowest parking demand (164 spaces) occurring during the day (1:00 – 2:00 PM). This complements the other uses on site well, since they will have the highest demand around noon time, with little to no demand (approximately 26-70 spaces) overnight.

Overall Site: The overall site parking demand is based on a combination of shared and designated parking methodologies. The shared methodology (majority of the site) assumes there are parking spaces not designated for specific uses and can be shared between the uses. There are some spaces on site such as the panhandle/residential garage that are proposed to use designated parking and be specifically residential or non-public Thompson's Point managed supply spaces. The attached parking demand calculations show the detailed time of day distribution for each use and the forecast demand. Based on the calculations the peak parking demand is between 6:00 PM and 10:00 PM for the overall site. The peak parking demand (without an event in Brick South or Halo) is 475 spaces and is anticipated to occur at 10:00 PM, of which 405 is the parking demand for the hotel and apartments which have designated spaces. Excluding the hotel and apartments, the peak parking demand is 165 spaces and occurs around noon. As identified in the approval for the master development plan, when special events of a certain attendance threshold occur, additional parking measures will be implemented on an as needed basis.

Conclusions

The following is a summary of the conclusions:

1. The site (including existing and proposed uses) is forecast to generate a total of 338 trip ends during the AM peak hour and 515 trip ends. This trip generation is 396 trip ends less than the permitted trip generation during the AM peak hour and 576 trip ends less than the permitted trip generation during the PM peak hour.

2. The peak parking demand for the proposed apartments (334 spaces) occurs overnight after 10:00 PM, when there is little to no demand from the other on-site uses, with the exception of the hotel demand (110 spaces). Excluding the hotel and apartments, the overall site parking demand peaks around noon, when the hotel and apartments are near their lowest parking demand.

u:\cathartes\4346_thompsons point_residential\n traffic\revised trip gen 12-10-2024.docx



Planning and Urban Development
Christine Grimando, AICP
Director

City of portland

Applicant:	Chris Thompson Forefront Partners I, LP 501 Danforth Street Portland, Maine 04102
Project Location:	1 Thompson's Point Rd. Portland, Maine 04102
Parcel #	201 A005001
Project:	Thompson's Point/Mixed-use Development
Identification #:	Reg. 01-00155-A-N
Permit Category:	200 Plus PCE
Traffic Engineer:	Thomas Gorrill/Randy Dunton Gorrill-Palmer Consulting Engineers 300 Southborough Dr., #200 South Portland, ME 04106

Pursuant to the provision of 23 M.R.S.A. § 704-A and Chapter 305 of the Maine Department of Transportation's (MaineDOT) Regulations, the City of Portland and MaineDOT have determined that a one-time extension of the Traffic Movement Permit issued for Thompson's Point is warranted. The permit will be considered expired if construction of the project has not been completed by March 1, 2027, unless a modification is approved prior to this date.

In the event the permit expires prior to construction being completed by the end of the one-time extension date, the Applicant shall submit a new permit, with information pertaining to Sections 1 thru 6 of the General Submission Requirements and a Notice of Intent to File, as outlined in Chapter 305, and address any changes in facts since the initial analysis and approval. Consistent with Section 8 of Chapter 305, in the event the Applicant completes all mitigation required for the Development, but cannot complete the Project within the one-time extension date, the Developer will be required to submit a TMP Modification that includes any programmatic changes to the Development for review and approval. An applicant may be required to provide additional mitigation of permitted trips as a result of changes to the Development program increase beyond the initial approval. Additionally, the Developer may be required to attend a Scoping Meeting, unless the Maine Department of Transportation waives this requirement.

389 Congress Street, Portland, Maine 04101 | ph: 207.874.8608 | cdg@portlandmaine.gov

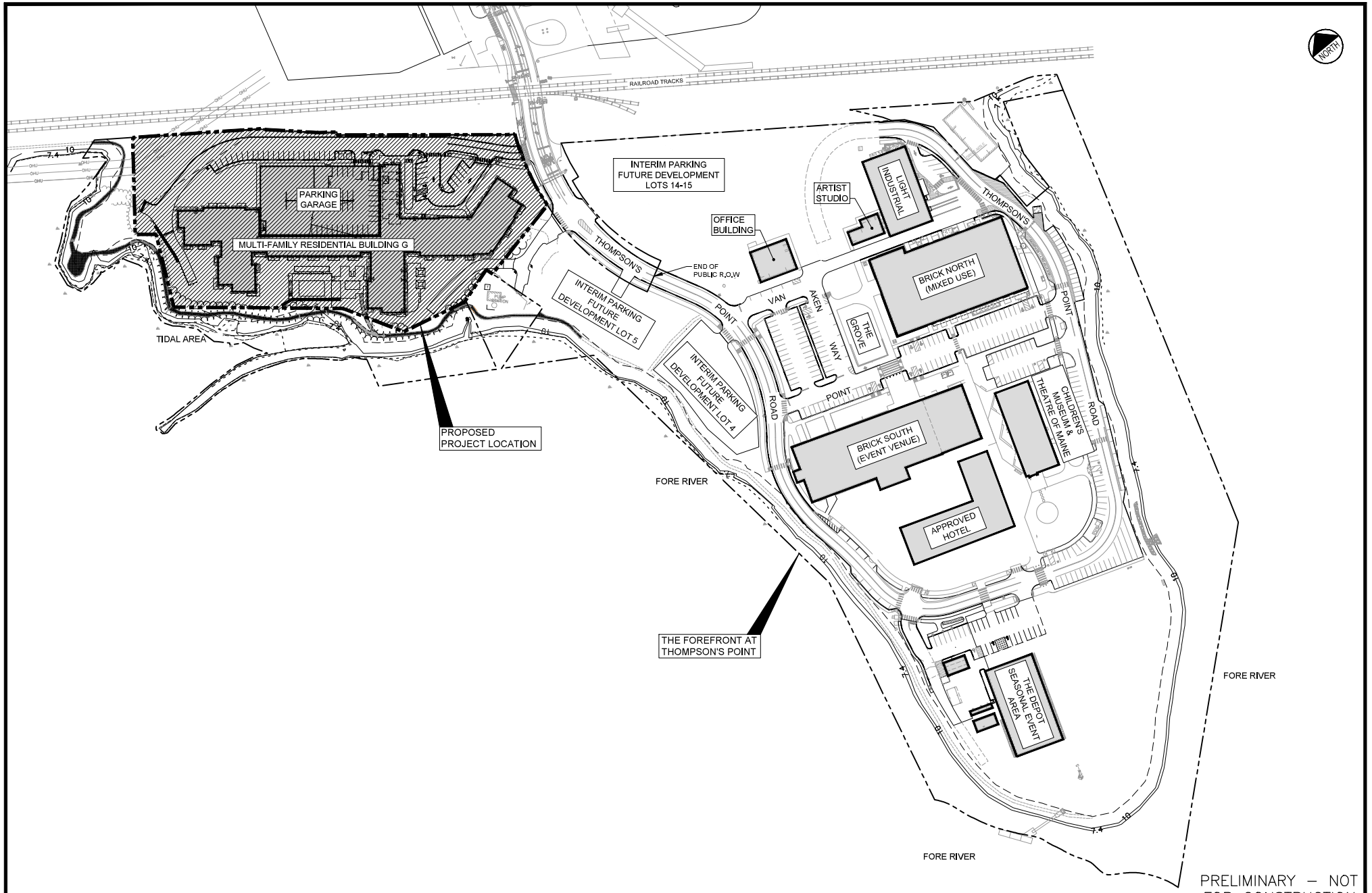
All required terms and mitigation of the original TMP approval remain in effect.

Christine Grimando, AICP
Director, Department of Planning & Urban Development
City of Portland

Date: March 1, 2024

Stephen Landry, P.E.
State Traffic Engineer
Maine Department of Transportation

Date: 3/12/24



PRELIMINARY – NOT FOR CONSTRUCTION

GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1 inch = 60 ft.

REV	DATE	DESCRIPTION
1	8/9/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

SHEET TITLE
OVERALL CAMPUS PLAN

CLIENT
CPI MANAGEMENT, LLC
(CATHARTES)

PLACEMAKER PARTNERS, LLC
16 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN:	DB
DESIGNED:	BEK
DATE:	AUGUST 2024
SCALE:	1" = 60'
FILE NAME:	PARKHANDLE-OVERALL SP.dwg
SHEET	C-3.0

Building A

Brick North

GORRILL PALMER
An LJB Engineering Company

Building A (Brick North)
Halo (Event Space) – 400 Attendees

Originally Approved: 5-14-2020 Final Memo with Attachments

Source: Based on approved calculation method of Brick South Event/Assembly Space. (TripGen Summary Memo 3-3-14)

2500 Occupants = 100 AM Trips
195 PM Trips

Based on City and MaineDOT reviewed and approved rates used in the original approved study. They originate from a study from the Bayside Expo and Executive Conference Center in Boston, MA.

Halo Event Space (400 Attendees) Calculations:

400 Occupants / 2500 Occupants = 0.16

AM = 0.16 X 100 AM Trips = **16 AM Trips**
PM = 0.16 X 195 PM Trips = **31 PM Trips**

GORRILL PALMER
An LJB Engineering Company

Building A (Brick North)
Office Space – 7 Employees

Previously: Big Room Studios (Final Trip Gen Evaluation-06-13-22)

Previously Accepted Trip Gen: Based on ITE *Trip Generation Manual,* 11th Edition

Small Office Building LUC – 712

AM: 6 Trips
PM: 7 Trips

Office Space Trip Generation: Client informed us that there is a Maximum of 7 employees in this office. To be conservative it was assumed that every employee would arrive during the AM Peak Hour and depart during the PM Peak Hour.

AM: 7 Trips
PM: 7 Trips

GORRILL PALMER
An LJB Engineering Company

Building A (Brick North)

Brewery & Sit-Down Restaurant – 10,020 SF Brewery & 4,624 SF Restaurant

Source: Methodology used from Bissell Brewery & Restaurant (Final Trip Gen Evaluation-06-13-22).

Note: The Sit-Down Restaurant trip generation is separate from the Brewery trip generation. The Brewery space will only be available to employees. The Sit-Down Restaurant will be available to all the public.

Brewery Calculations: Client informed us that there is approximately 7 employees that work in the brewery. To be conservative it was assumed that every employee would arrive during the AM Peak Hour and depart during the PM Peak Hour.

AM: 7 Trips
PM: 7 Trips

Sit-Down Restaurant Calculations: Based on ITE *Trip Generation Manual,* 11th Edition

High-Turnover (Sit-Down) Restaurant LUC – 932

AM: N/A does not open till after AM Peak Hours
PM: 42 Trips (Shown on attached ITE document)

Total for Brewery & Sit-Down Restaurant:

AM: 7 Trips
PM: 49 Trips

Brewery and Sit-Down Restaurant
(4624 SF + 7 EMP)

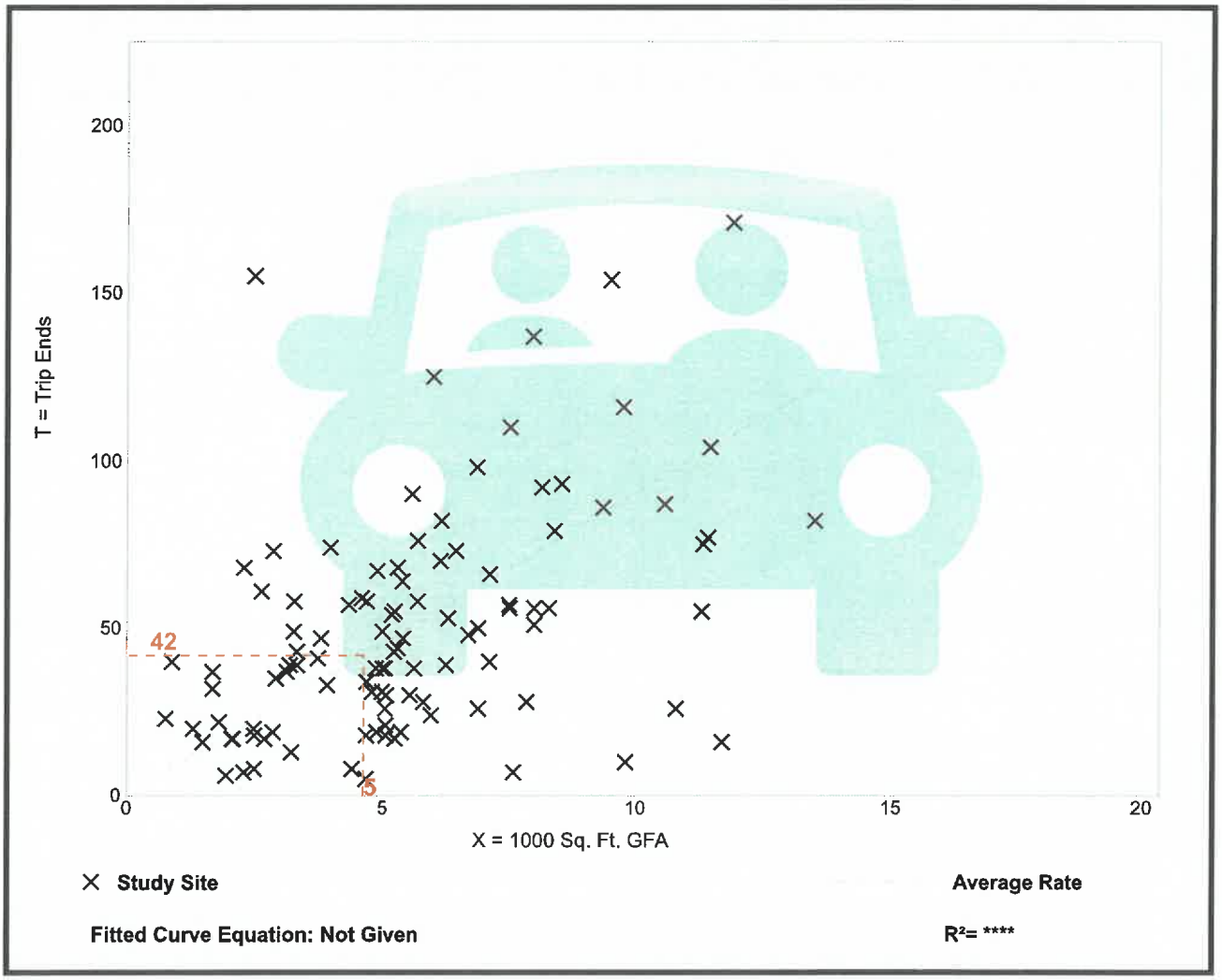
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	104
Avg. 1000 Sq. Ft. GFA:	6
Directional Distribution:	61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18

Data Plot and Equation



Trip Gen Manual, 11th Edition • Institute of Transportation Engineers

Building A (Brick North)

Brewery Tap Room – 4,084 SF Brewery & 1,200 SF Restaurant

Source: Methodology used from Distillery (Final Trip Gen Evaluation-06-13-22).

Note: The Sit-Down Restaurant trip generation is separate from the Brewery trip generation. The Brewery space will only be available to employees. The Sit-Down Restaurant will be available to all the public.

Brewery Calculations: Client informed us that there is approximately 5 employees that work in the brewery. To be conservative it was assumed that every employee would arrive during the AM Peak Hour and depart during the PM Peak Hour.

AM: 5 Trips
PM: 5 Trips

Sit-Down Restaurant Calculations: Based on ITE *Trip Generation Manual,* 11th Edition

High-Turnover (Sit-Down) Restaurant LUC – 932

AM: 11 Trips (Shown on attached ITE document)
PM: 11 Trips (Shown on attached ITE document)

Total for Brewery & Sit-Down Restaurant:

AM: 16 Trips
PM: 16 Trips

Brewery Tap Room
(1200 SF + 5 EMP)

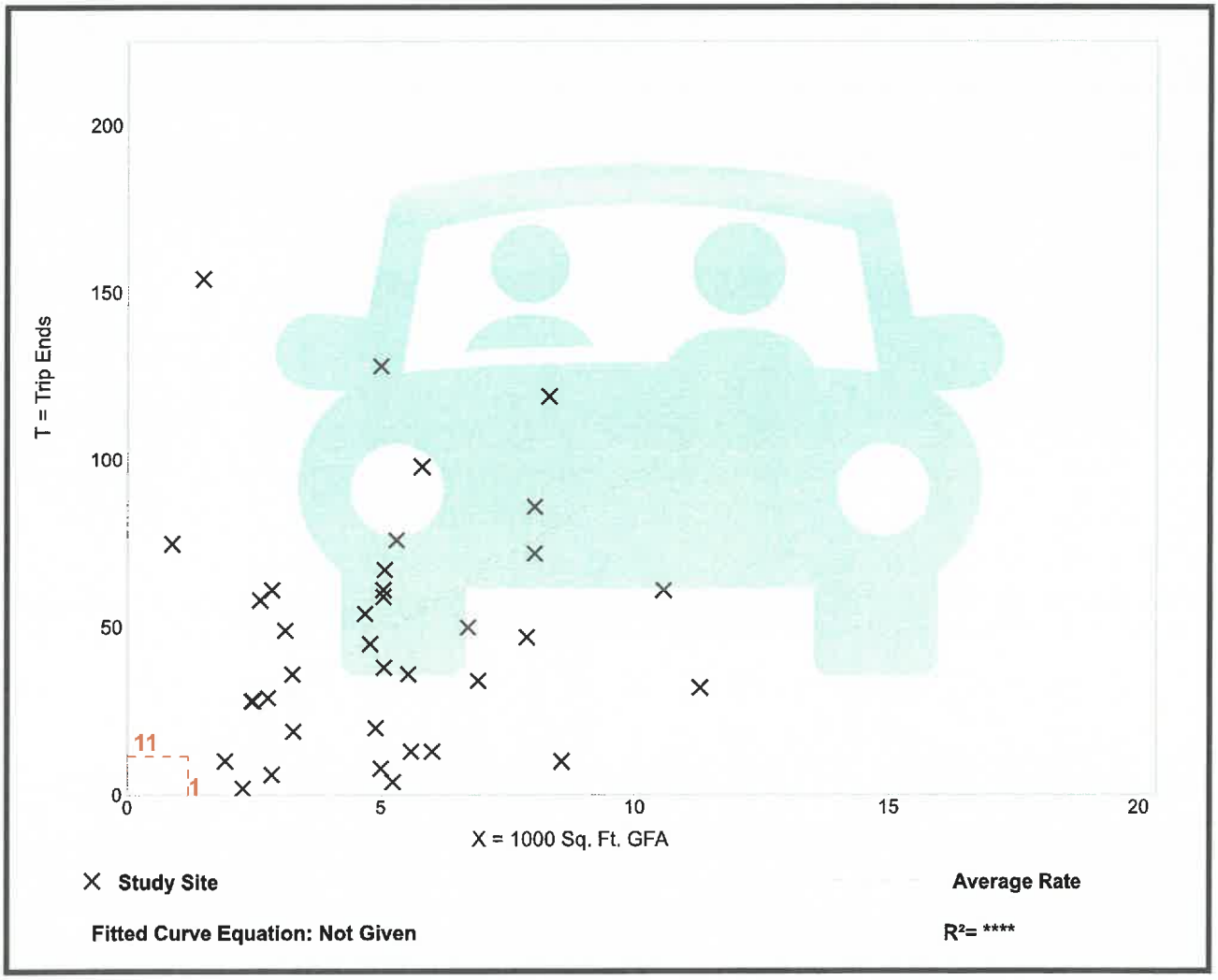
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	37
Avg. 1000 Sq. Ft. GFA:	5
Directional Distribution:	55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.57	0.76 - 102.39	11.61

Data Plot and Equation



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Brewery Tap Room (1200 SF + 5 EMP)

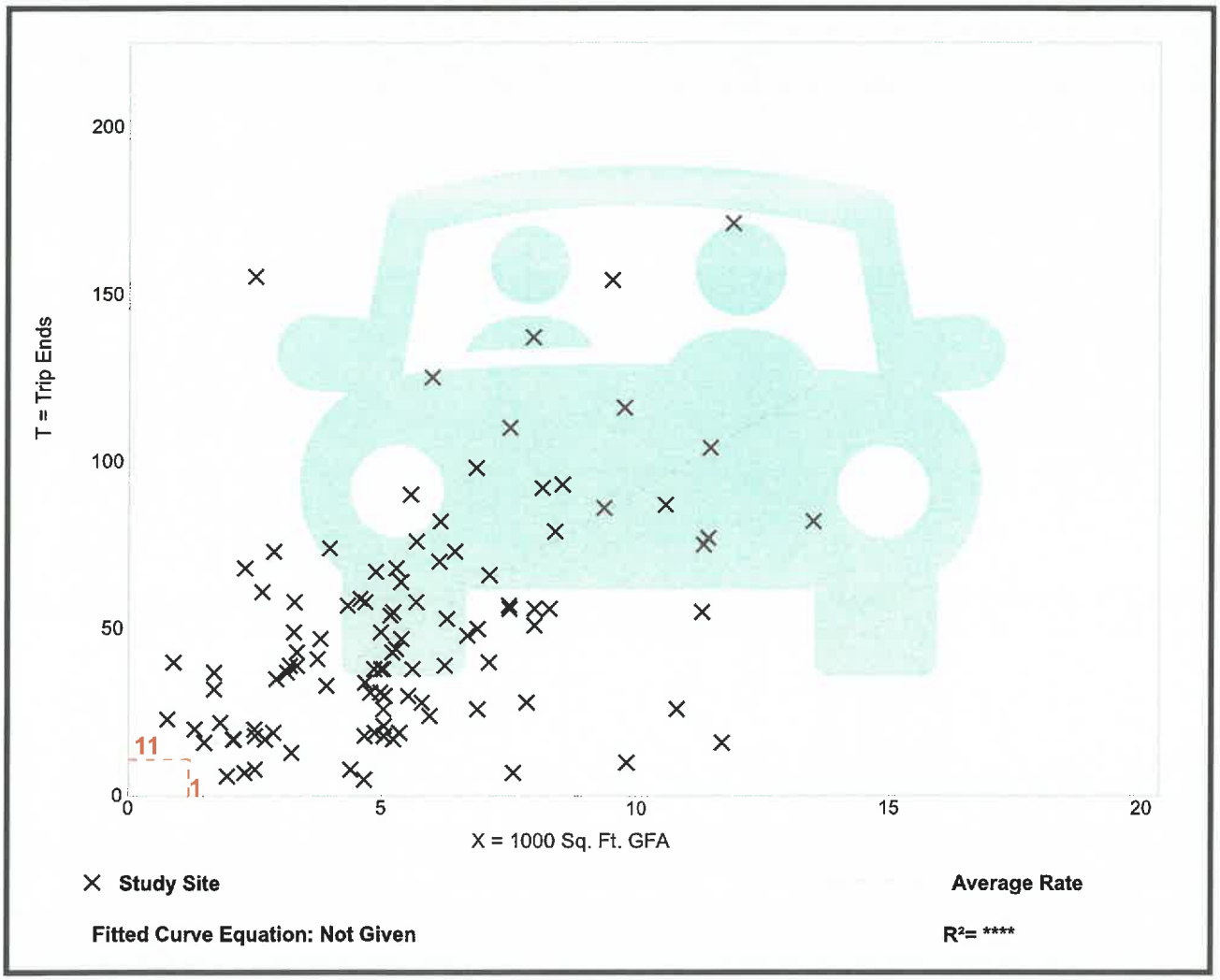
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	104
Avg. 1000 Sq. Ft. GFA:	6
Directional Distribution:	61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18

Data Plot and Equation



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JN: 2419
Project Description: Thompsons Point
Project Location: Portland, Maine
Date: 8/14/2015

Gorrill-Palmer Consulting Engineers, Inc.
P.O. Box 1237
15 Shaker Road
Gray, Maine 04039

Specialty Retail Center
Land Use Code (LUC) 814

Gross Floor Area (ft^2): 2,136

Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split * IN	Directional Split * OUT	Directional Distribution IN	Directional Distribution OUT	R^2
Weekday	T = 44.32 (X)	95	4	50%	50%	48	47	---
Peak Hour of Adjacent Street Traffic 7-9 AM**	T = 0.74 (X)	2	N/A	60%	40%	1	1	
Peak Hour of Adjacent Street Traffic 4-6 PM	T = 2.71 (X)	6	5	45%	55%	3	3	---
AM Peak Hour of Generator	T = 6.84 (X)	15	4	50%	50%	8	7	---
PM Peak Hour of Generator	T = 5.02 (X)	11	3	55%	45%	6	5	---
Saturday	T = 42.04 (X)	90	3	50%	50%	45	45	---
Saturday Peak Hour of Gen.***	T = 6.63 (X)	14	3	50%	50%	7	7	---

**Based on ratio of AM/PM traffic for LUC 820, Shopping Center and applied to 814 PM rate.
***Saturday Peak Hour comes from a ratio of PM to Saturday trip rates from LUC 820 - Shopping Center
* Percentages rounded to nearest 5%

Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split * IN	Directional Split * OUT	Directional Distribution IN	Directional Distribution OUT	R^2
Weekday	T = 42.78 (X) + 37.66	129	4	50%	50%	65	64	0.69
Peak Hour of Adjacent Street Traffic 7-9 AM	---	---	---	---	---	---	---	---
Peak Hour of Adjacent Street Traffic 4-6 PM	T = 2.40 (X) + 21.48	27	5	45%	55%	12	15	0.98
AM Peak Hour of Generator	T = 4.91 (X) + 115.59	126	4	50%	50%	63	63	0.90
PM Peak Hour of Generator	---	---	---	---	---	---	---	---
Saturday	---	---	---	---	---	---	---	---
Saturday Peak Hour of Gen.	---	---	---	---	---	---	---	---

* Percentages rounded to nearest 5%
(---) Not Given

AM Peak of Adjacent Street 7-9 AM***	T = 0.275 (PM Peak Hour)	3	60%	40%	2	1
Saturday Peak Hour**	T = 1.325 (PM Peak Hour)	15	50%	50%	8	7

**Saturday Peak Hour comes from a ratio of PM to Saturday trip rates from LUC 820 - Shopping Center
***AM Peak Hour of Adjacent Street comes from a ration of PM to AM trip rates from LUC 820 - Shopping Center

Source: Section 8-traffic & Parking
October 6, 2017

JN: 3353
Project Description: Thompson's Point
Project Location: Portland, Maine
Date: September 7, 2017

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Cultural Center
Based on Los Angeles Entertainment District Museum

Gross Floor Area 993

Time Period	Trip Rate per 1000 GFA	Trip Ends	Number of Studies	Directional Split IN	Directional Split OUT	Directional Distribution IN	Directional Distribution OUT	R^2
PM Peak Hour	T = 1.14(X)	1	1	50%	50%	1	0	--

Source: Section 8-traffic & parking
October 6, 2017

AM & PM Peak Hours assumed to be same.

Building has doubled in size, trip generation will be doubled.

993 sf Museum

ITE Publication 'Trip Generation' 7th Edition

Leisure Time Cocktails

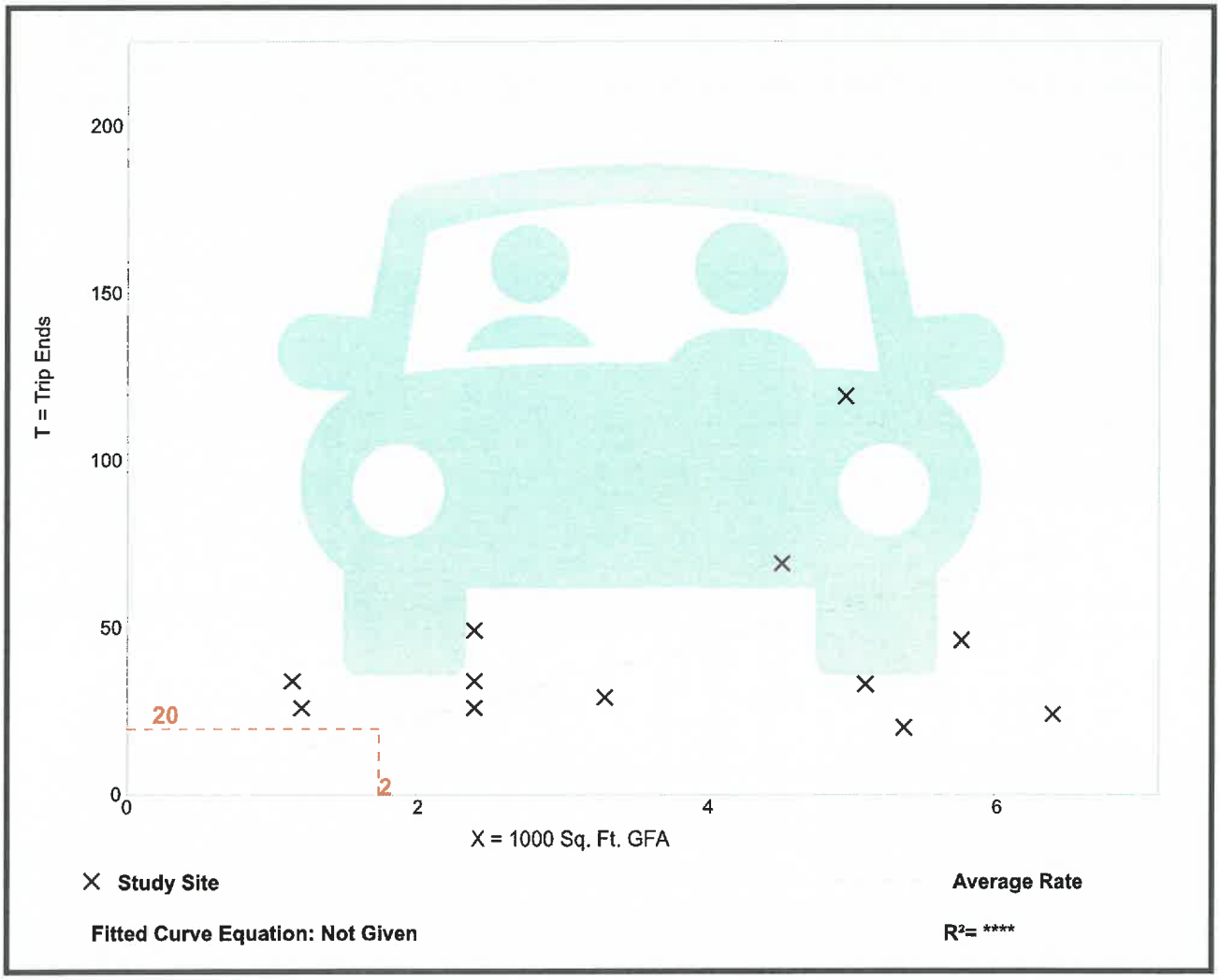
Drinking Place
(975)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	12
Avg. 1000 Sq. Ft. GFA:	4
Directional Distribution:	66% entering, 34% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
11.36	3.74 - 30.09	7.81

Data Plot and Equation



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Building C

Brick South

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com

JOB 2419 - Thompsons Point
SHEET NO. _____ OF _____
CALCULATED BY ET DATE 8/14/15
CHECKED BY _____ DATE _____
SCALE _____

Trip Generation - Event / Assembly Space / Event Center

Source: Original approved study (Trip Gen Summary Memo 3-3-14)

2500 occupants = 100 AM trips
195 PM trips

Based on City and MaineDOT reviewed and approved rates used in the original approved study. They originate from a study from the Bayside Expo and Executive Conference Center in Boston, Massachusetts

Building F1

Building F1

Warehouse

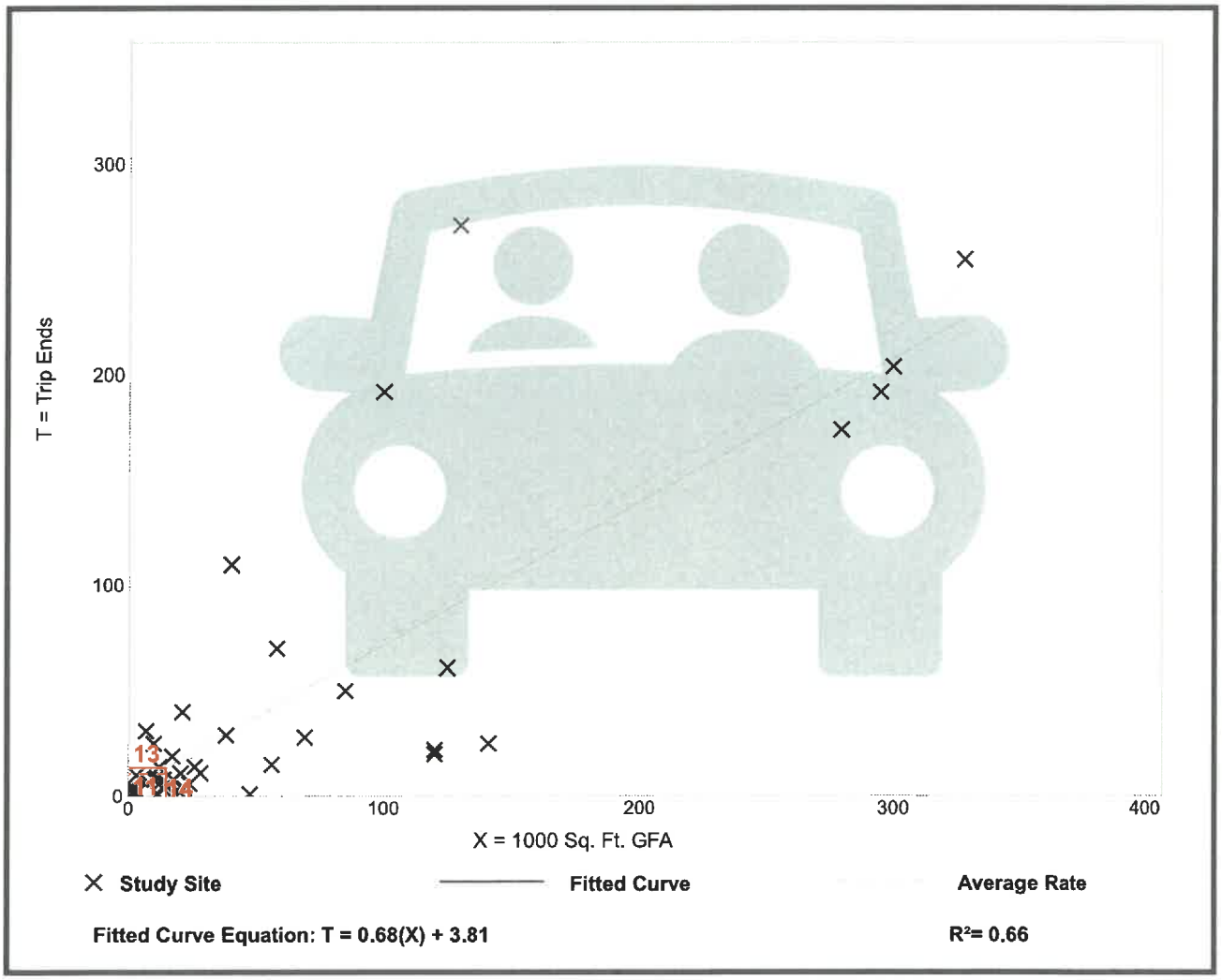
General Light Industrial
(110)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 41
Avg. 1000 Sq. Ft. GFA: 65
Directional Distribution: 88% entering, 12% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.74	0.02 - 4.46	0.61

Data Plot and Equation



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Building F1

Warehouse

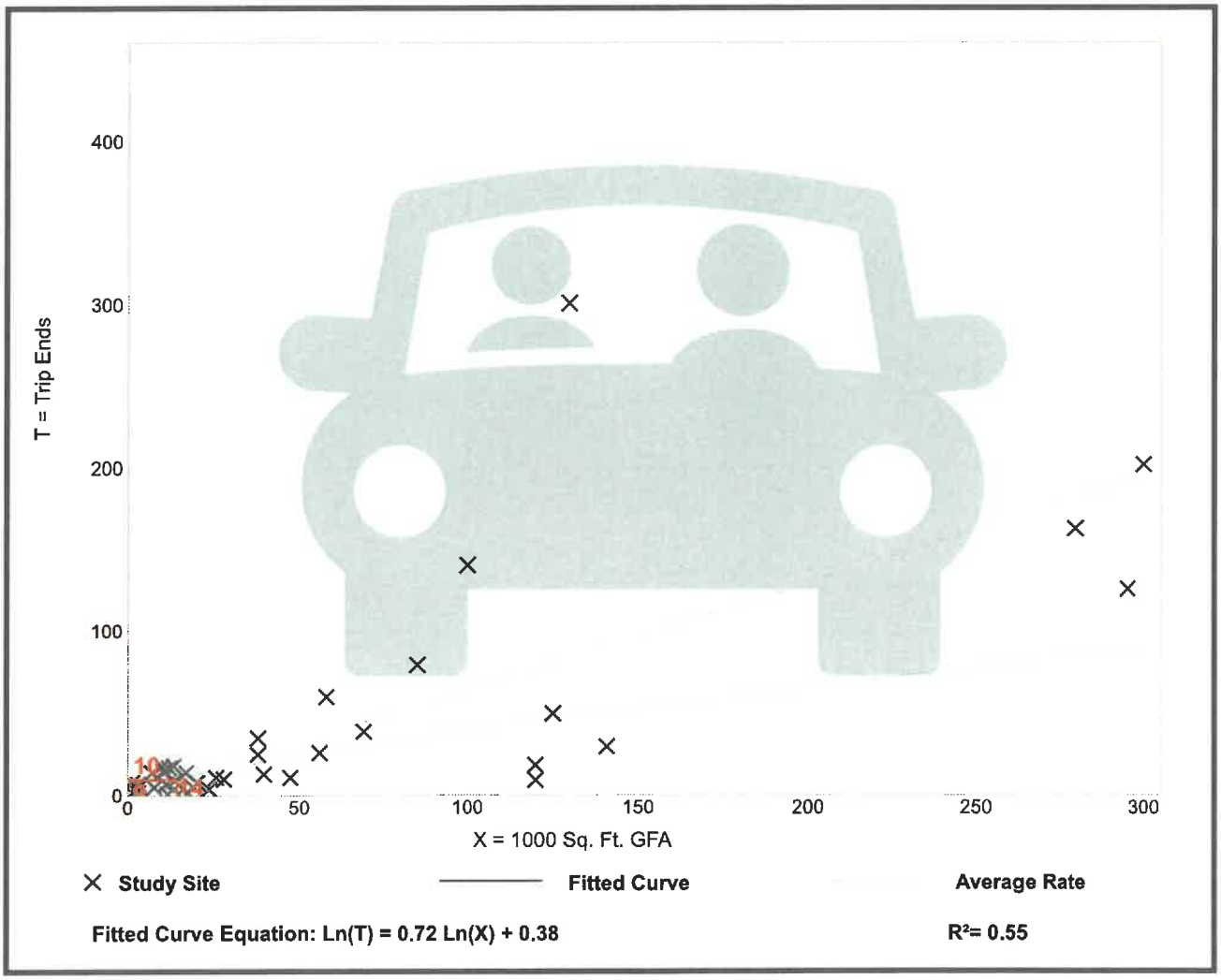
General Light Industrial
(110)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 40
Avg. 1000 Sq. Ft. GFA: 58
Directional Distribution: 14% entering, 86% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.65	0.07 - 7.02	0.56

Data Plot and Equation



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Building F2

Building F2

Artist Studio

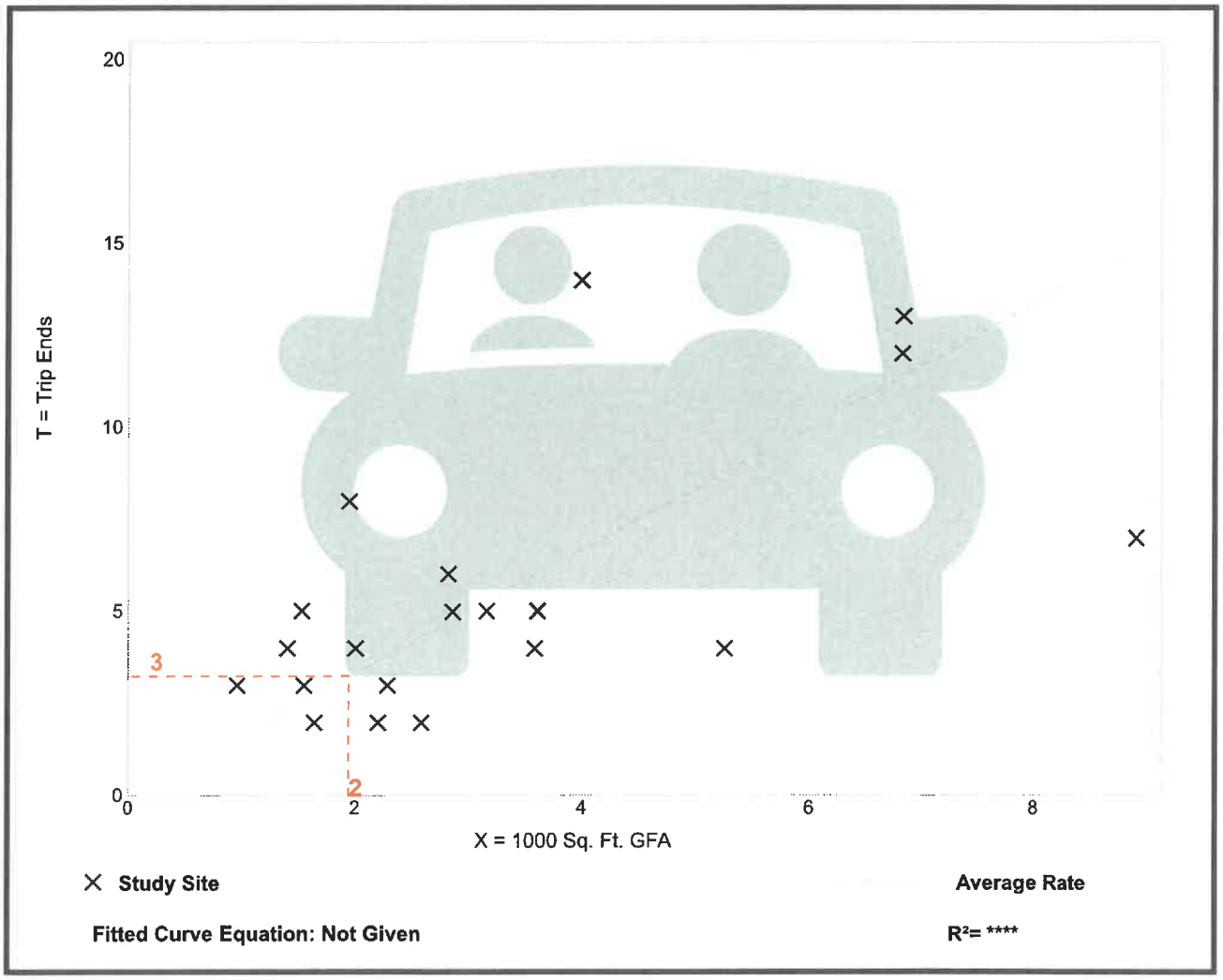
Small Office Building
(712)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	21
Avg. 1000 Sq. Ft. GFA:	3
Directional Distribution:	82% entering, 18% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.67	0.76 - 4.12	0.88

Data Plot and Equation



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Building F2

Artist Studio

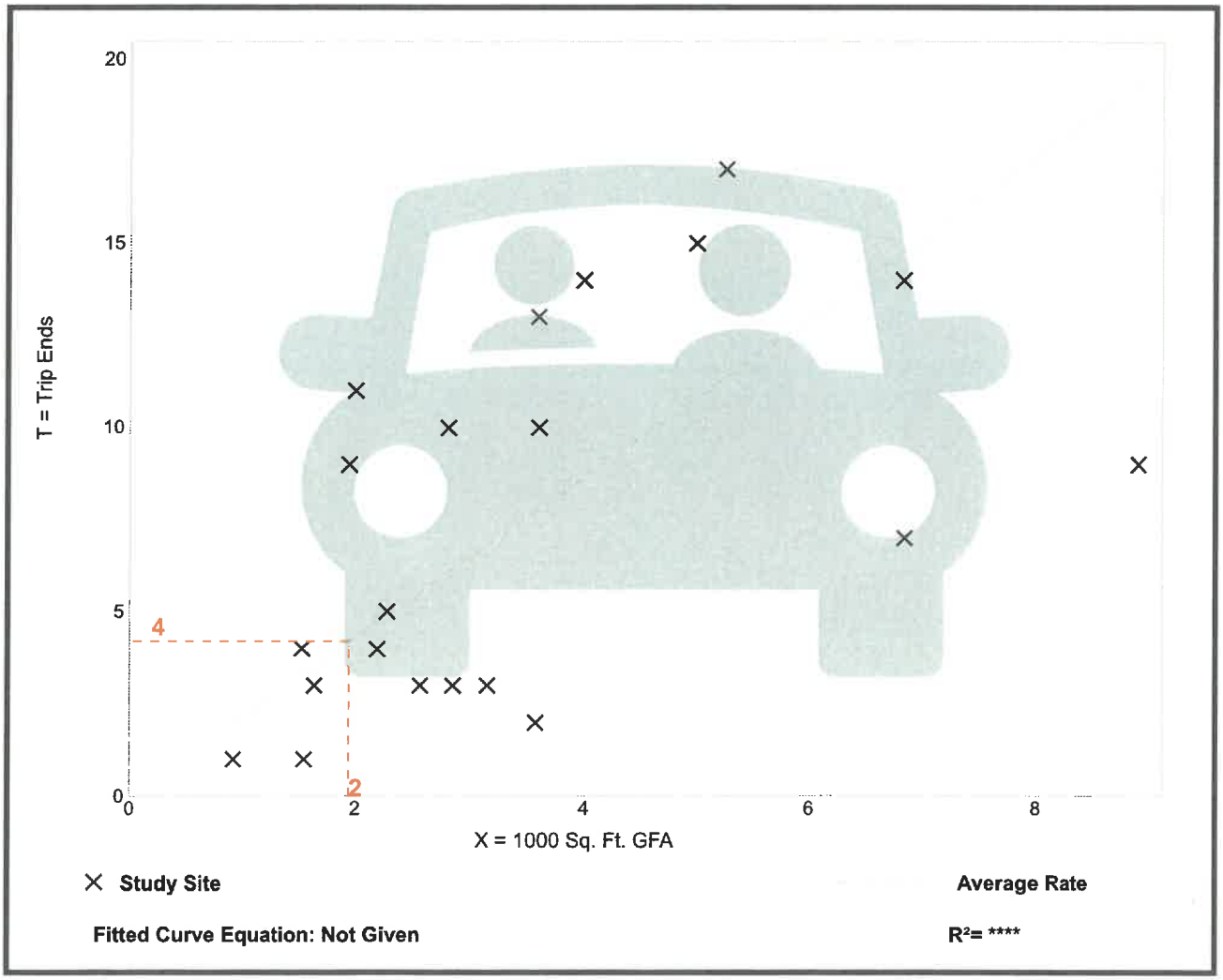
Small Office Building
(712)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	21
Avg. 1000 Sq. Ft. GFA:	3
Directional Distribution:	34% entering, 66% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.16	0.56 - 5.50	1.26

Data Plot and Equation



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Building L

Building L (4,000 SF)

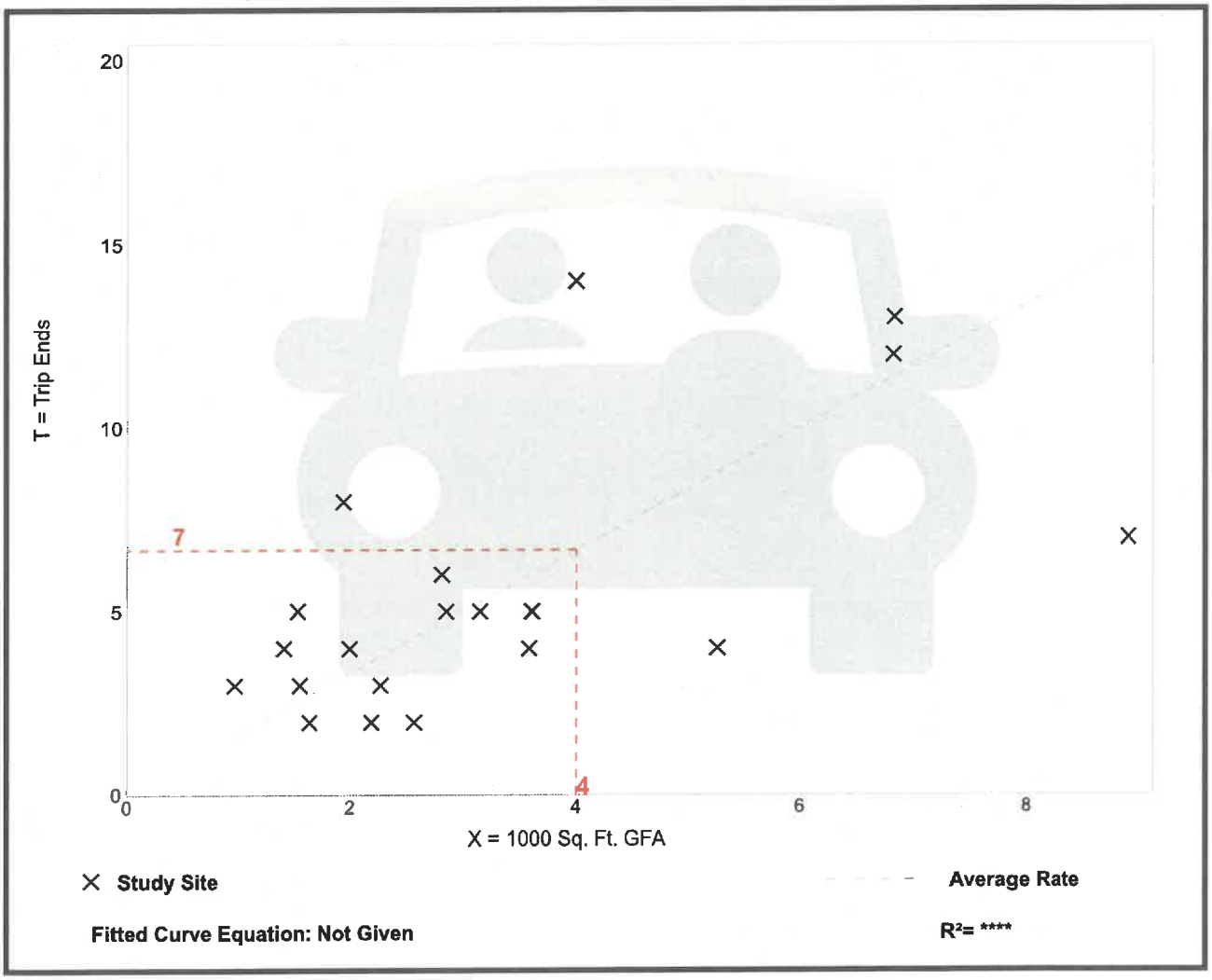
Small Office Building
(712)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 21
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 82% entering, 18% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.67	0.76 - 4.12	0.88

Data Plot and Equation



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Building L (4,000 SF)

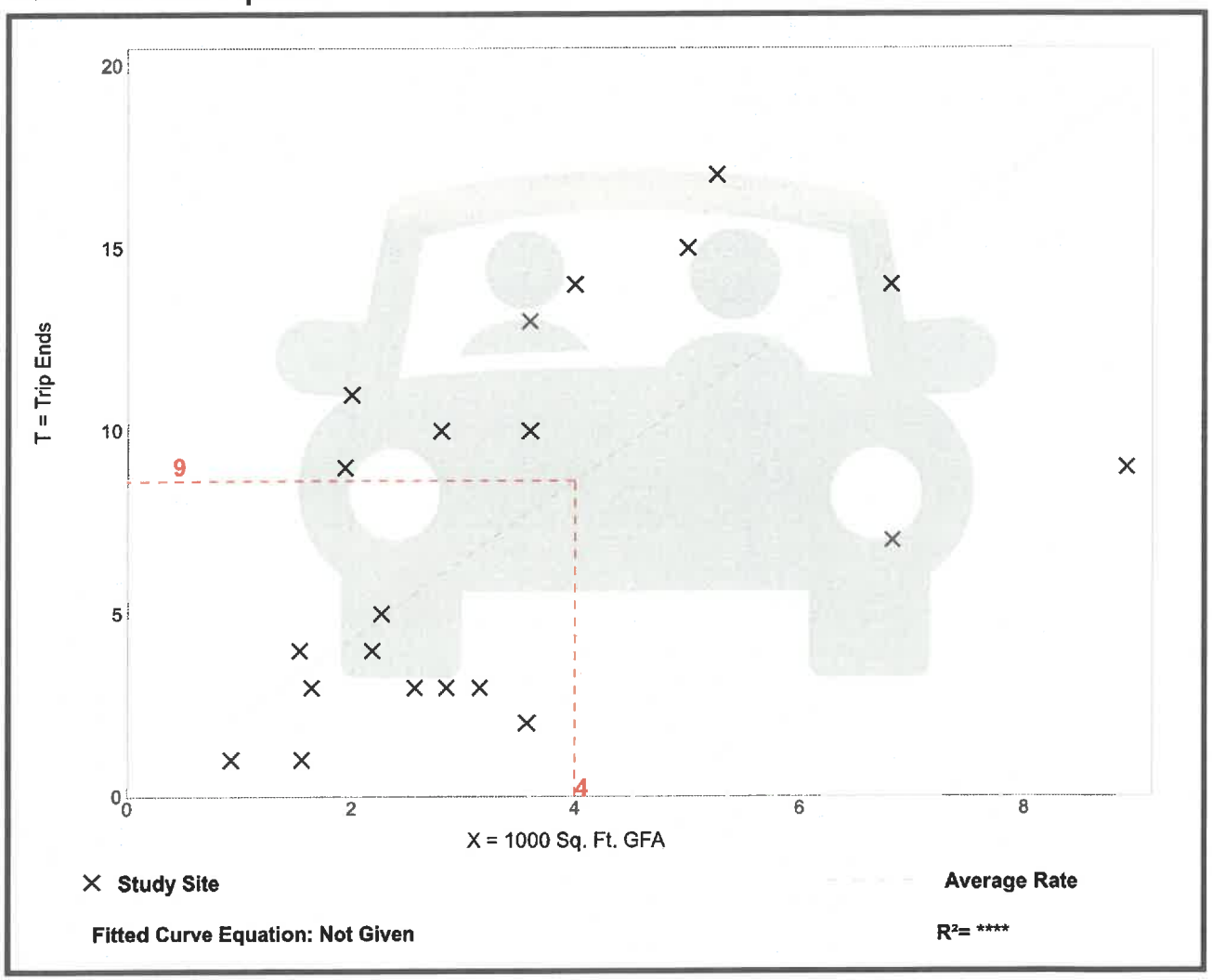
Small Office Building
(712)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 21
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 34% entering, 66% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.16	0.56 - 5.50	1.26

Data Plot and Equation



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GORRILL PALMER
An LJB Engineering Company

Building L

Event Space – 100 Attendees

Originally Approved: 5-14-2020 Final Memo with Attachments

Source: Based on approved calculation method of Brick South Event/Assembly Space. (TripGen Summary Memo 3-3-14)

2500 Occupants = 100 AM Trips
195 PM Trips

Based on City and MaineDOT reviewed and approved rates used in the original approved study. They originate from a study from the Bayside Expo and Executive Conference Center in Boston, MA.

Event Space (100 Attendees) Calculations:

100 Occupants / 2500 Occupants = 0.04

AM = 0.04 X 100 AM Trips = **4 AM Trips**
PM = 0.04 X 195 PM Trips = **8 PM Trips**

Building B2

GORRILL PALMER
An LJB Engineering Company

Building B2

Concession Building – 960 SF

Originally Approved: Final Trip Gen Evaluation-06-13-22

Source: As stated in the previous report "For the purposes of this evaluation, we have considered trip generation to be 4 employees during both the AM and PM Peak Hours."

AM: 4 Trips
PM: 4 Trips

Building D

Building D

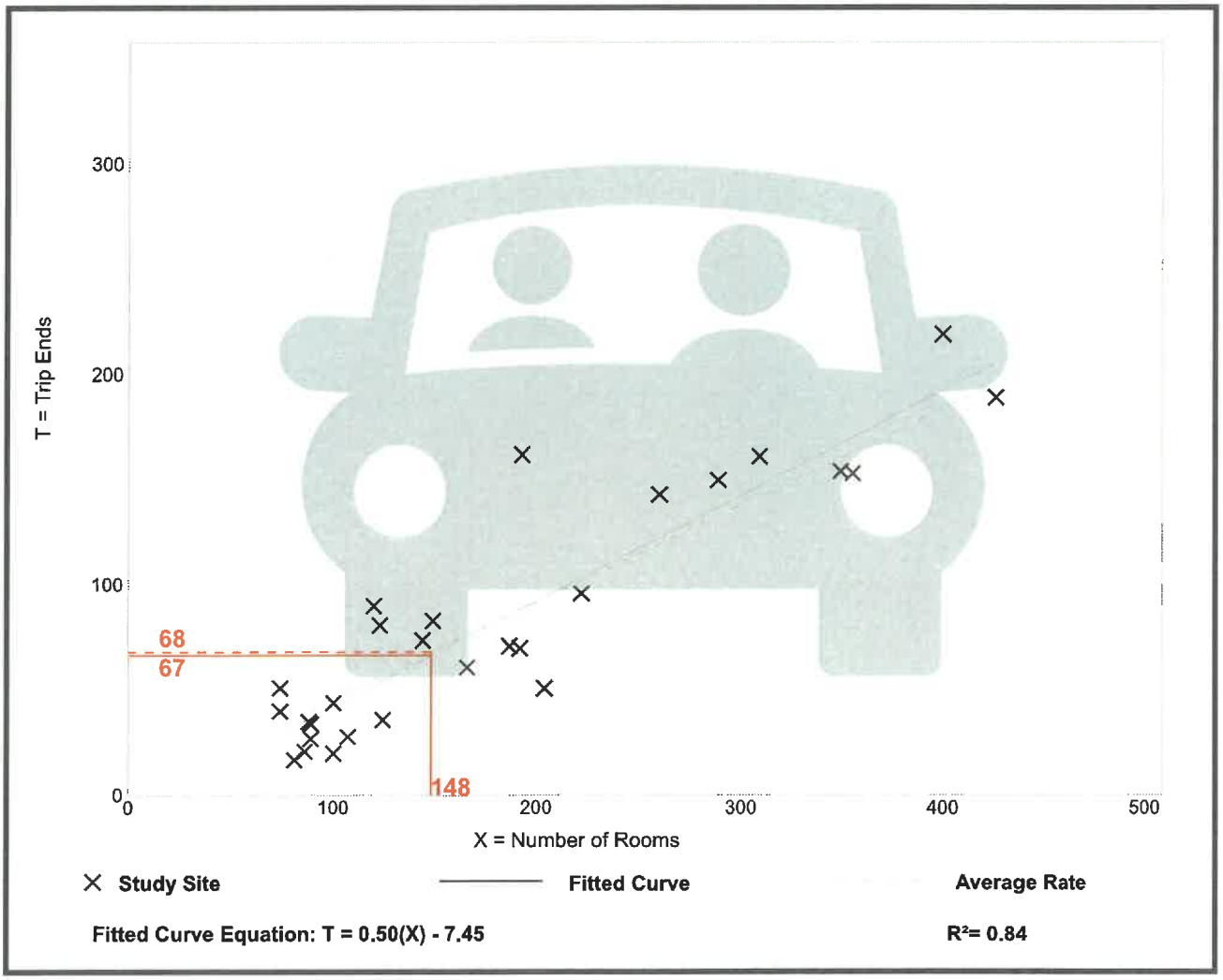
Hotel
(310)

Vehicle Trip Ends vs:	**Rooms**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	28
Avg. Num. of Rooms:	182
Directional Distribution:	56% entering, 44% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
0.46	0.20 - 0.84	0.14

Data Plot and Equation



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Building D

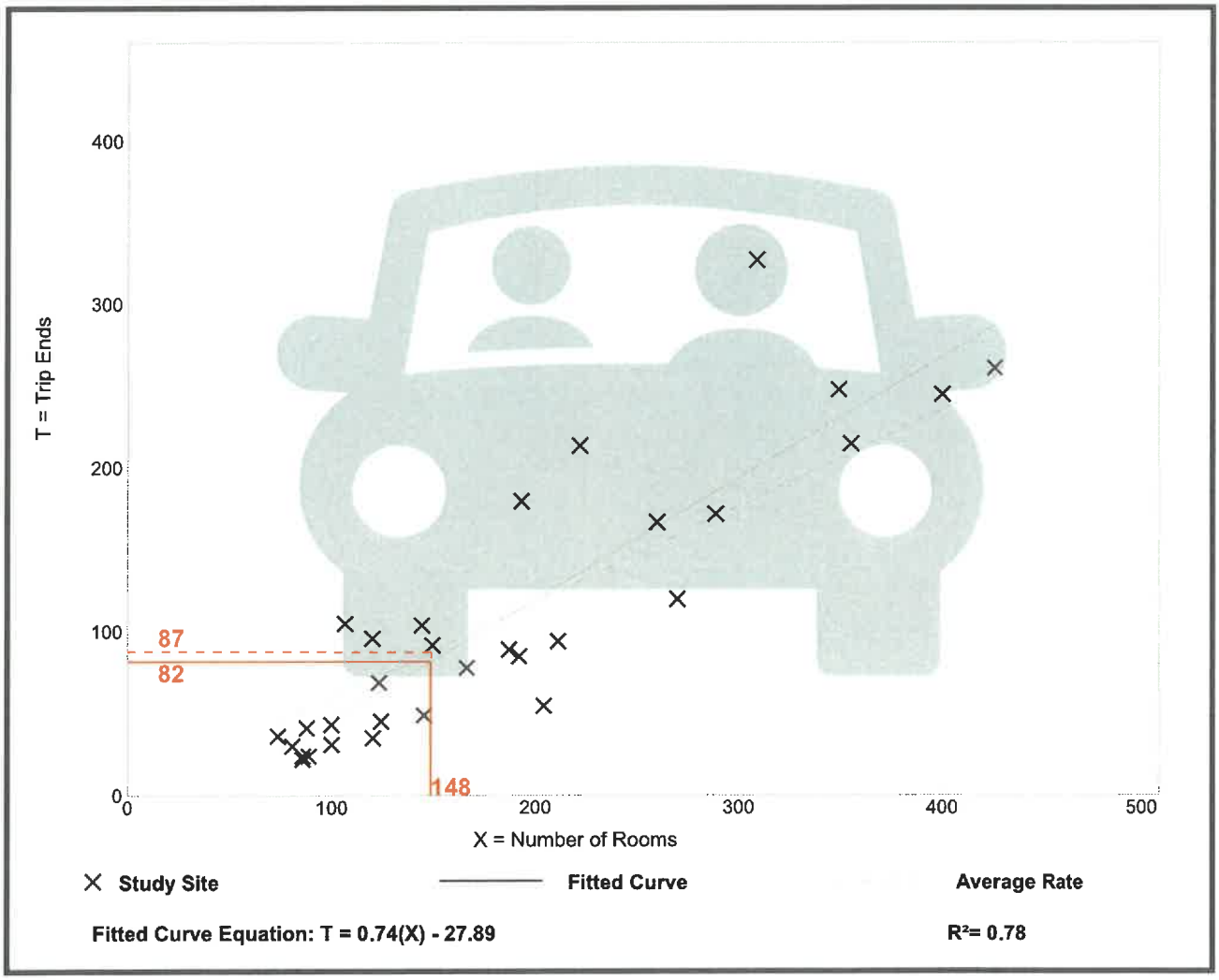
Hotel
(310)

Vehicle Trip Ends vs:	**Rooms**
On a:	**Weekday,** **Peak Hour of Adjacent Street Traffic,** **One Hour Between 4 and 6 p.m.**
Setting/Location:	**General Urban/Suburban**
Number of Studies:	31
Avg. Num. of Rooms:	186
Directional Distribution:	51% entering, 49% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
0.59	0.26 - 1.06	0.22

Data Plot and Equation



Trip Gen Manual, 11th Edition • Institute of Transportation Engineers

Building I

Children's Museum and Theatre of Maine (CMTM)

JN: 3369
Project Description: ı's Museum Thompson's Point
Project Location: Portland, Maine
Date: October 4, 2017

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Cultural Center
Based on Los Angeles Entertainment District Museum

Gross Floor Area 29,096

Time Period	Trip Rate per 1000 GFA	Trip Ends	Number of Studies	Directional Split IN	Directional Split OUT	Directional Distribution IN	Directional Distribution OUT	R^2
PM Peak Hour	T = 1.14(X)	33	1	50%	50%	17	16	---

Source: Section 8-traffic & parking
October 6, 2017

AM & PM Peak Hours assumed to be same.

Building G

Apartments

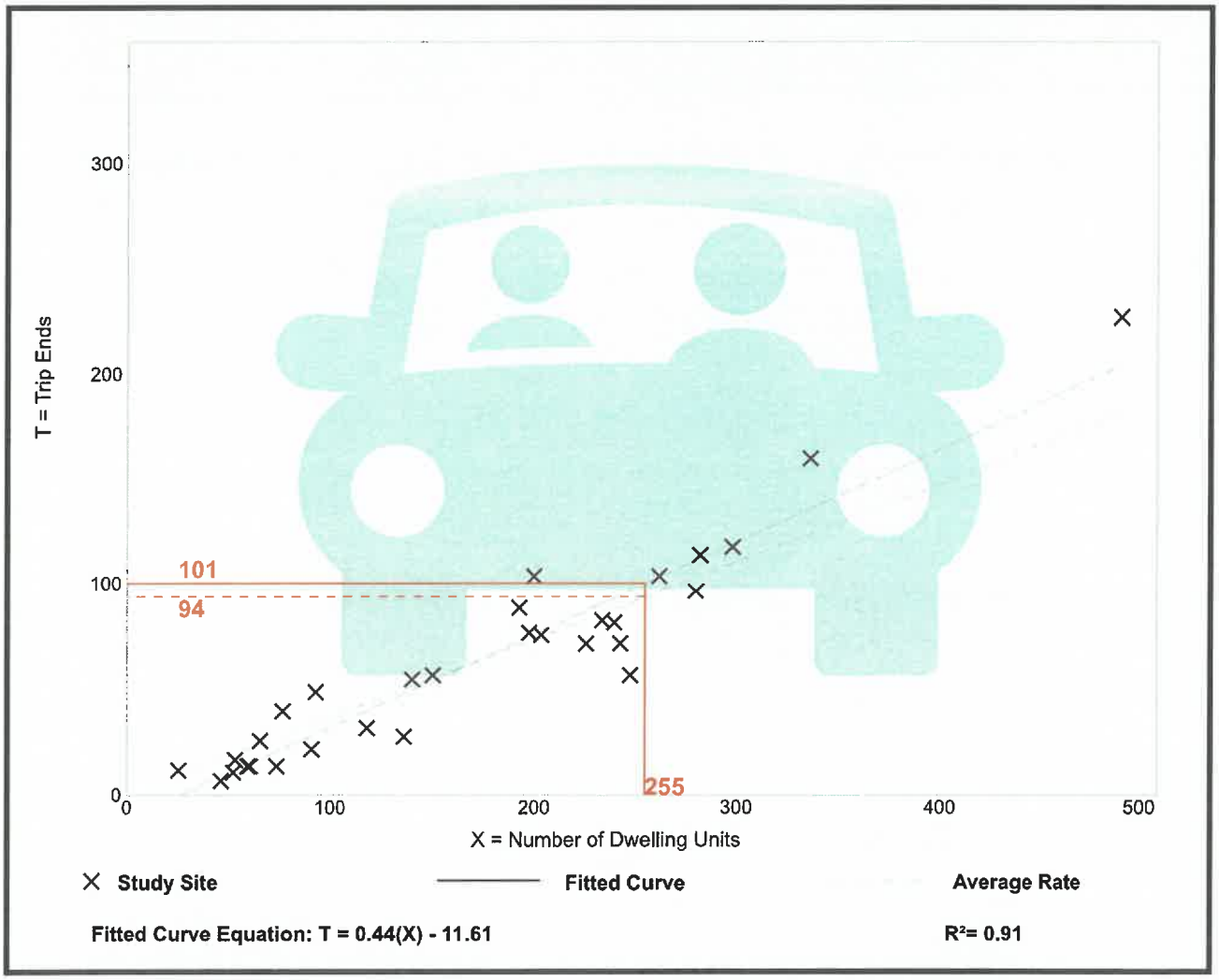
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 30
Avg. Num. of Dwelling Units: 173
Directional Distribution: 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.37	0.15 - 0.53	0.09

Data Plot and Equation



Trip Gen Manual, 11th Edition • Institute of Transportation Engineers

Apartments

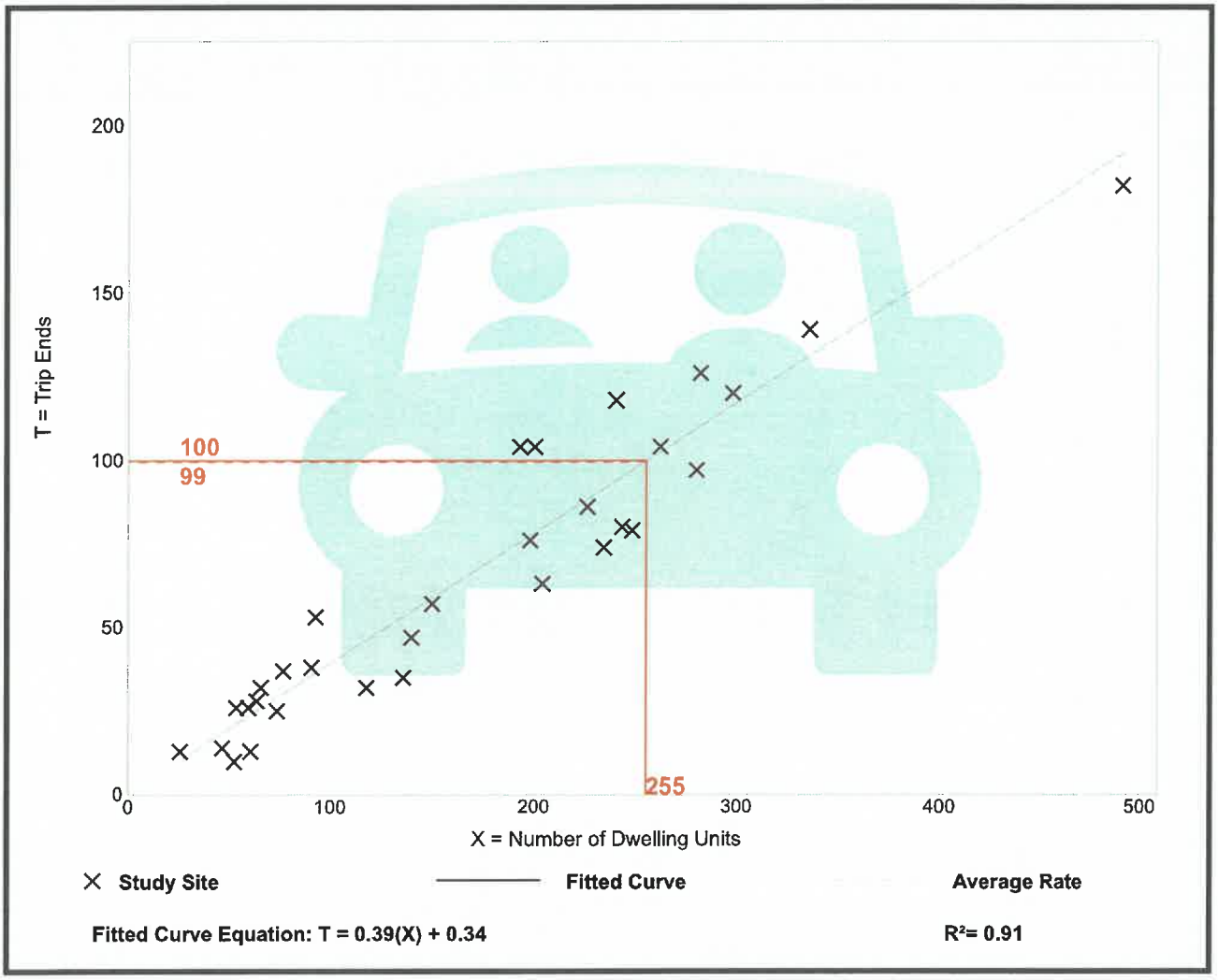
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 31
Avg. Num. of Dwelling Units: 169
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.19 - 0.57	0.08

Data Plot and Equation



Trip Gen Manual, 11th Edition • Institute of Transportation Engineers

Parking Evaluation

Parking Evaluation - Thompson's Point - Portland, Maine (08/22/24)

| | Existing | | |

ATTACHMENT C
ARCHITECTUAL RENDERINGS


RAIL
ROAD
CROSSING
2
TRACKS
DO NOT
STOP
ON
TRACKS


CONCORD
COACH LINES



GORRILL PALMER
An LJB Engineering Company

300 Southborough Drive, Suite 200, South Portland, ME 04106
(207) 772-2515|GorrillPalmer.com

Trip Generation and Parking Demand Summary
Thompson's Point
September 2024 – (Revised 12-10-24)

Date: September 4, 2024 (Revised 12-10-24)
Subject: Updated Trip Generation and Parking Demand
Thompson's Point
To: Bo Kennedy, Placemaker Partners, LLC
From: Randy Dunton / Kyle Brennan, Gorrill Palmer (JN 4346)

Gorrill Palmer (GP) has prepared this updated trip generation and parking demand summary for the Thompson's Point development in Portland, Maine. The full build out of the project received a MaineDOT Traffic Movement Permit (TMP) in 2012 (Reg. 01-00155-A-N) for 734 trip ends during the AM peak hour and 1,091 trip ends during the PM peak hour. The Traffic Movement Permit received an extension in 2024 out to March 1, 2027. The documentation for the extension is attached. The project is being constructed in phases and each phase must be evaluated to ensure that the total site trip generation does not exceed the permitted trip generation. The following is a summary of the forecast trip generation and parking demand for the existing and previously approved uses, and the proposed residential development on site. A site plan is attached showing the location of each building.

Existing and Previously Evaluated Trip Generation Summary

The trip generation for the existing Thompson's Point site is based on discussions with Bo Kennedy, project manager/engineer for the site. The trip generation was calculated using the same methodology as that used in previous trip generation evaluations for the site, including using the Institute of Transportation Engineers' publication, *Trip Generation*, 7th Edition, except where otherwise noted, and applying a 10% reduction to the total site trip generation to account for other modes of transportation and shared uses on the site. The following table summarizes the trip generation for the existing site:

Existing and Approved Site Trip Generation

Building	Description	Size	AM Peak Hour	PM Peak Hour
Building A Brick North				
	Halo (Event Space) – Previously approved	400 attendees	16	31
	Office Space – 7 Emp.	7 Employees	7	7
	Brewery & Sit-Down Restaurant – LUC 932 + 7 Emp.	14,644 sf (4,624 sf Rest. & 10,020 sf Brewery)	7	49 (42+7)
	Brewery Tap Room – LUC 932 + 5 Emp.	5,284 sf	16 (11+5)	16 (11+5)
	Color Me Mine – Previously Approved	2,136 sf	2	6
	International Cryptozoology Museum – Previously approved (doubled in size)	1919 sf	2	2
	Leisure Time Cocktails – LUC 975	1725 sf	N/A	20

	Coffee Roasting – Assumed (Employee only)	675 sf	1	1
	Brick North Total		**51**	**132**
Building C Brick South				
	Event/Assembly Space – Previously approved	2,500 Seats	100	195
	Annex	7,384 sf	--*	--*
	Brick South Total		**100**	**195**
Building F1				
	Warehouse – Previously approved	14,200 sf	11	9
	Building F1 Total		**11**	**9**
Building F2				
	Artist Studio Space – Previously approved	1,940 sf	3	4
	Building F2 Total		**3**	**4**
Building L				
	Office Space – Previously forecasted potential future development	4,000 sf	7	9
	Event Space – Previously forecasted potential future development	100 Attendees	4	8
	Existing Storage – Previously forecasted potential future development	1,760 sf	0**	0**
	Existing Office Space (Credit)	4,000 sf	(-7)	(-9)
	Building L Total		**4**	**8**
Building B2				
	Concession Building – Previously approved	960 sf	4	4
	Building B2		**4**	**4**
Building D				
	Proposed Hotel (2024 Construction Start) – Previously proposed development	148 Rooms	68	87
	Hotel Total		**68**	**87**
Building I Children's Museum and Theatre of Maine (CMTM)				
	CMTM– Previously approved	29,096 sf	33	33
	Children's Museum Total		**33**	**33**
Existing Subtotal			**274**	**472**

*Maximum of 2,500 people in the building for events. Highest trip generation would be an event in the Event space, not the Annex.
**Trip generation assumed to be negligible.

Since initially approved, there have been some minor changes to the uses. The "Rosemont Market" (2,724 sf) and Brewery & Sit-Down Restaurant (11,920 sf) have been combined and identified as "Brewery & Sit-Down Restaurant" (14,644 sf). For the purposes of this evaluation, the previously individual square footages have been combined. Trip generation for the "Brewery & Sit-Down Restaurant" was based on previously accepted "Brissell Brewery & Restaurant" methodology, where the restaurant trip generation is based on LUC 932 – High Turnover (Sit Down) Restaurant (4,624 SF) and trip generation for the brewery portion

(10,020 SF) is based on the 7 employees.

The previously approved coffee shop "Rwanda Bean" (2,400 sf) has been split with "Leisure Time Cocktails". "Rwanda Bean" (675 sf) is still occupying part of the space for coffee roasting, but the remaining space is now occupied by "Leisure Time Cocktails" (1725 sf).

The previously approved "Big Room Studios" (3,461 sf) has been replaced with an "Office Space". The square footage of the area is the same, but because the office space only has 7 employees, trip generation was based on employee trips.

The previously approved "Distillery" (5,284 sf) has been replaced with a "Brewery Tap Room" (5,284 sf). For the purposes of this evaluation due to similar use the previously approved individual square footage and trip generation will be used for the "Brewery Tap Room". Trip generation for the "Brewery Tap Room" is based on 1,200 SF of restaurant space (LUC 932) and 4,084 SF of brewery space (5 employees).

The previously approved "International Cryptozoology Museum" (993 sf) has doubled in size. Due to the "International Cryptozoology Museum" (1919 sf) doubling in size the trip generation will double from the previous report.

The site has moved onto its next phase of development, which includes Building's L, B2, and D. Building's L and B2 were identified as proposed development in the previous report. Building D was identified as potential future development in the previous report. Building's L, B2, and D will contribute 76 & 99 trip ends in the AM & PM peak hours respectively.

As shown in the table, the existing site is forecast to generate 274 trip ends during the AM peak hour and 472 trip ends during the PM peak hour.

Proposed Site Trip Generation

Our understanding is that the site is now moving into its next phase of development, which will include a 255-unit six story apartment building (identified as Building G on the enclosed site plan).

Trip generation for the proposed use has been based on the following:

- 255 Units of Residential Development – New Construction

The trip generation for the proposed use was calculated using the updated Institute of Transportation Engineers' publication, *Trip Generation*, 11th Edition (LUC 221 – Mid-Rise Apartment). It should be noted that LUC 221 provides two different trip generations, "not close to rail transit" and "close to rail transit". It is our understanding that ITE refers "close to rail transit" as more local transit, such as subways. The Amtrak located near Thompson's point, in our opinion, does not meet the intent for "close to rail transit". The following table summarizes the trip generation for the proposed uses:

Forecast Trip Generation

Building	Description	Size	AM Peak Hour	PM Peak Hour
Building G Residential				
	Apartments – LUC 221	255 Units	101	100
Forecast Trip Generation			**101**	**100**

As shown in the table, the proposed residential use is forecast to generate an additional 101 trip ends and 100 trip ends during the AM and PM peak hours of the adjacent street, respectively.

Site Trip Generation

The trip generation for the existing site has been combined with the trip generation for the proposed new and remodeled buildings to yield the total site trip generation.

Total Site Trip Generation Summary

Site	Building	AM Peak Hour	PM Peak Hour
Existing			
	Building A – Mixed Used (Brick North)	51	137
	Building C – Events (Brick South)	100	195
	Building F1 – Warehouse	11	9
	Building F2 – Artist Studio	3	4
	Building L – Office	4	8
	Building B2 – Concessions	4	4
	Building D – Hotel	68	87
	Building I – Children's Museum and Theatre of Maine	33	33
	Existing Total	**274**	**472**
Proposed			
	Market Rate Apartments	101	100
	Forecast Total	**101**	**100**
Site Subtotal		**375**	**572**
Reduction (10%) for Bus / Train / Shared Use		(-37)	(-57)
Proposed Site Trip Generation		**338**	**515**
Permitted Trip Ends		734	1091
Difference Between Permitted and Proposed Site		**396**	**576**

As shown in the table, the site inclusive of the proposed residential development is forecast to generate 338 trip ends during the AM peak hour and 515 trip ends during the PM peak hour. This yields an overall trip generation that is 396 trip ends **less** than the permitted trip generation during the AM peak hour and 576 trip ends **less** than the permitted trip generation during the PM peak hour.

Parking Demand

Proposed Apartments: Parking for the new apartments is based on the ITE Parking Generation Manual, 5th Edition. The parking demand rate (1.31 spaces/unit) is based on Land Use Code (LUC) 221 – Multifamily

Housing (Mid-Rise). Because of the nature of the housing use, the peak parking demand (334 spaces) occurs overnight with the lowest parking demand (164 spaces) occurring during the day (1:00 – 2:00 PM). This complements the other uses on site well, since they will have the highest demand around noon time, with little to no demand (approximately 26-70 spaces) overnight.

Overall Site: The overall site parking demand is based on a combination of shared and designated parking methodologies. The shared methodology (majority of the site) assumes there are parking spaces not designated for specific uses and can be shared between the uses. There are some spaces on site such as the panhandle/residential garage that are proposed to use designated parking and be specifically residential or non-public Thompson's Point managed supply spaces. The attached parking demand calculations show the detailed time of day distribution for each use and the forecast demand. Based on the calculations the peak parking demand is between 6:00 PM and 10:00 PM for the overall site. The peak parking demand (without an event in Brick South or Halo) is 475 spaces and is anticipated to occur at 10:00 PM, of which 405 is the parking demand for the hotel and apartments which have designated spaces. Excluding the hotel and apartments, the peak parking demand is 165 spaces and occurs around noon. As identified in the approval for the master development plan, when special events of a certain attendance threshold occur, additional parking measures will be implemented on an as needed basis.

Conclusions

The following is a summary of the conclusions:

1. The site (including existing and proposed uses) is forecast to generate a total of 338 trip ends during the AM peak hour and 515 trip ends. This trip generation is 396 trip ends less than the permitted trip generation during the AM peak hour and 576 trip ends less than the permitted trip generation during the PM peak hour.

2. The peak parking demand for the proposed apartments (334 spaces) occurs overnight after 10:00 PM, when there is little to no demand from the other on-site uses, with the exception of the hotel demand (110 spaces). Excluding the hotel and apartments, the overall site parking demand peaks around noon, when the hotel and apartments are near their lowest parking demand.

u:\cathartes\4346_thompsons point_residential\n traffic\revised trip gen 12-10-2024.docx



Planning and Urban Development
Christine Grimando, AICP
Director

City of portland

Applicant:	Chris Thompson Forefront Partners I, LP 501 Danforth Street Portland, Maine 04102
Project Location:	1 Thompson's Point Rd. Portland, Maine 04102
Parcel #	201 A005001
Project:	Thompson's Point/Mixed-use Development
Identification #:	Reg. 01-00155-A-N
Permit Category:	200 Plus PCE
Traffic Engineer:	Thomas Gorrill/Randy Dunton Gorrill-Palmer Consulting Engineers 300 Southborough Dr., #200 South Portland, ME 04106

Pursuant to the provision of 23 M.R.S.A. § 704-A and Chapter 305 of the Maine Department of Transportation's (MaineDOT) Regulations, the City of Portland and MaineDOT have determined that a one-time extension of the Traffic Movement Permit issued for Thompson's Point is warranted. The permit will be considered expired if construction of the project has not been completed by March 1, 2027, unless a modification is approved prior to this date.

In the event the permit expires prior to construction being completed by the end of the one-time extension date, the Applicant shall submit a new permit, with information pertaining to Sections 1 thru 6 of the General Submission Requirements and a Notice of Intent to File, as outlined in Chapter 305, and address any changes in facts since the initial analysis and approval. Consistent with Section 8 of Chapter 305, in the event the Applicant completes all mitigation required for the Development, but cannot complete the Project within the one-time extension date, the Developer will be required to submit a TMP Modification that includes any programmatic changes to the Development for review and approval. An applicant may be required to provide additional mitigation of permitted trips as a result of changes to the Development program increase beyond the initial approval. Additionally, the Developer may be required to attend a Scoping Meeting, unless the Maine Department of Transportation waives this requirement.

389 Congress Street, Portland, Maine 04101 | ph: 207.874.8608 | cdg@portlandmaine.gov

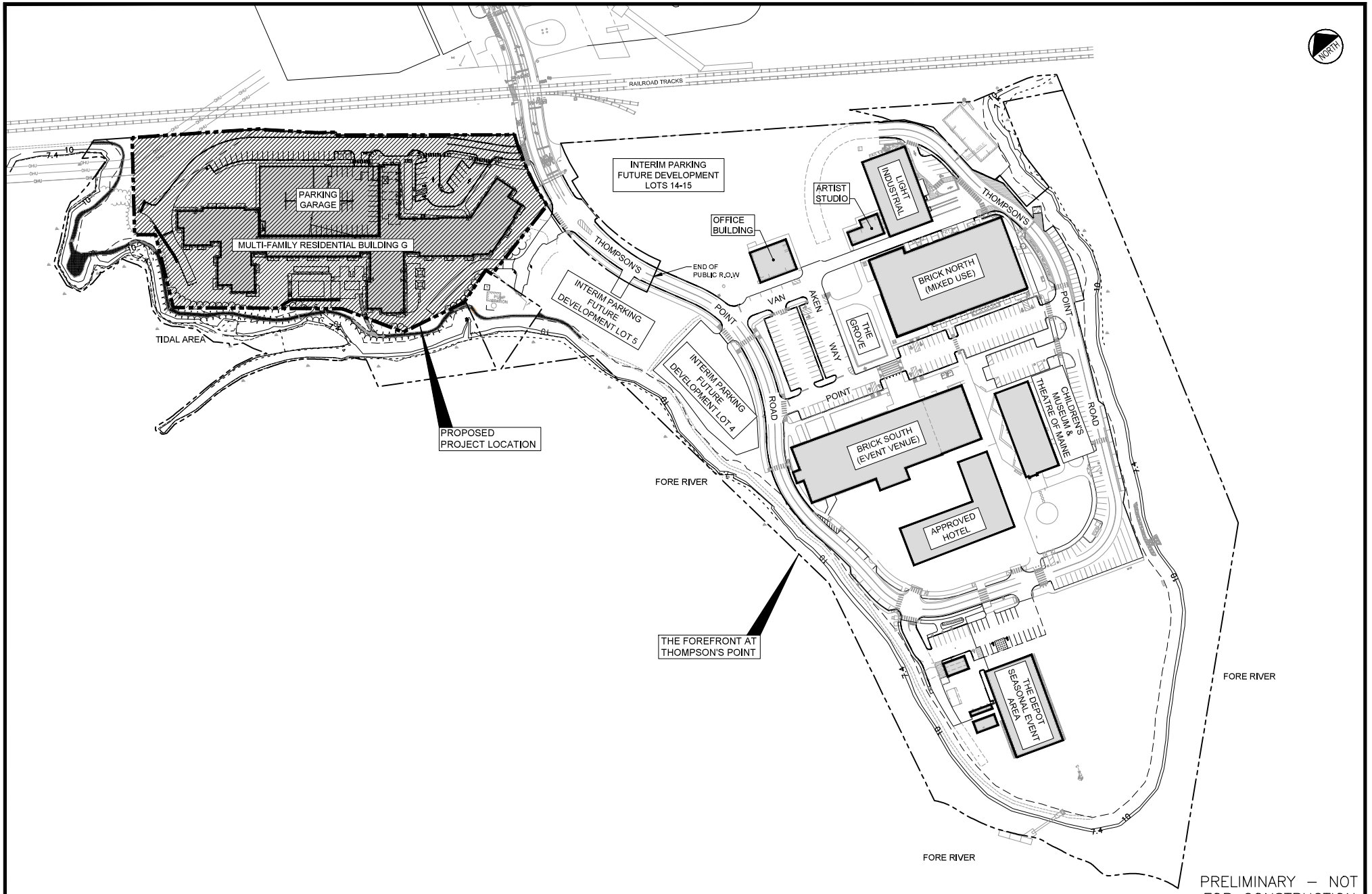
All required terms and mitigation of the original TMP approval remain in effect.

Christine Grimando, AICP
Director, Department of Planning & Urban Development
City of Portland

Date: March 1, 2024

Stephen Landry, P.E.
State Traffic Engineer
Maine Department of Transportation

Date: 3/12/24



PRELIMINARY – NOT FOR CONSTRUCTION

GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1 inch = 60 ft.

REV	DATE	DESCRIPTION
1	8/9/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

P.E. BO KENNEDY
LIC. #11994

PROJECT: THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

SHEET TITLE: OVERALL CAMPUS PLAN

CLIENT: CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
16 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN: DB	DATE: AUGUST 2024
DESIGNED: BEK	SCALE: 1" = 60'
FILE NAME: PARKHANDLE-OVERALL SP.dwg	
SHEET: C-3.0	

Building A

Brick North

GORRILL PALMER
An LJB Engineering Company

Building A (Brick North)

Halo (Event Space) – 400 Attendees

Originally Approved: 5-14-2020 Final Memo with Attachments

Source: Based on approved calculation method of Brick South Event/Assembly Space. (TripGen Summary Memo 3-3-14)

2500 Occupants = 100 AM Trips
195 PM Trips

Based on City and MaineDOT reviewed and approved rates used in the original approved study. They originate from a study from the Bayside Expo and Executive Conference Center in Boston, MA.

Halo Event Space (400 Attendees) Calculations:

400 Occupants / 2500 Occupants = 0.16

AM = 0.16 X 100 AM Trips = **16 AM Trips**
PM = 0.16 X 195 PM Trips = **31 PM Trips**

GORRILL PALMER
An LJB Engineering Company

Building A (Brick North)
Office Space – 7 Employees

Previously: Big Room Studios (Final Trip Gen Evaluation-06-13-22)

Previously Accepted Trip Gen: Based on ITE *Trip Generation Manual,* 11th Edition

Small Office Building LUC – 712

AM: 6 Trips
PM: 7 Trips

Office Space Trip Generation: Client informed us that there is a Maximum of 7 employees in this office. To be conservative it was assumed that every employee would arrive during the AM Peak Hour and depart during the PM Peak Hour.

AM: 7 Trips
PM: 7 Trips

GORRILL PALMER
An LJB Engineering Company

Building A (Brick North)

Brewery & Sit-Down Restaurant – 10,020 SF Brewery & 4,624 SF Restaurant

Source: Methodology used from Bissell Brewery & Restaurant (Final Trip Gen Evaluation-06-13-22).

Note: The Sit-Down Restaurant trip generation is separate from the Brewery trip generation. The Brewery space will only be available to employees. The Sit-Down Restaurant will be available to all the public.

Brewery Calculations: Client informed us that there is approximately 7 employees that work in the brewery. To be conservative it was assumed that every employee would arrive during the AM Peak Hour and depart during the PM Peak Hour.

AM: 7 Trips
PM: 7 Trips

Sit-Down Restaurant Calculations: Based on ITE *Trip Generation Manual,* 11th Edition

High-Turnover (Sit-Down) Restaurant LUC – 932

AM: N/A does not open till after AM Peak Hours
PM: 42 Trips (Shown on attached ITE document)

Total for Brewery & Sit-Down Restaurant:

AM: 7 Trips
PM: 49 Trips

Brewery and Sit-Down Restaurant
(4624 SF + 7 EMP)

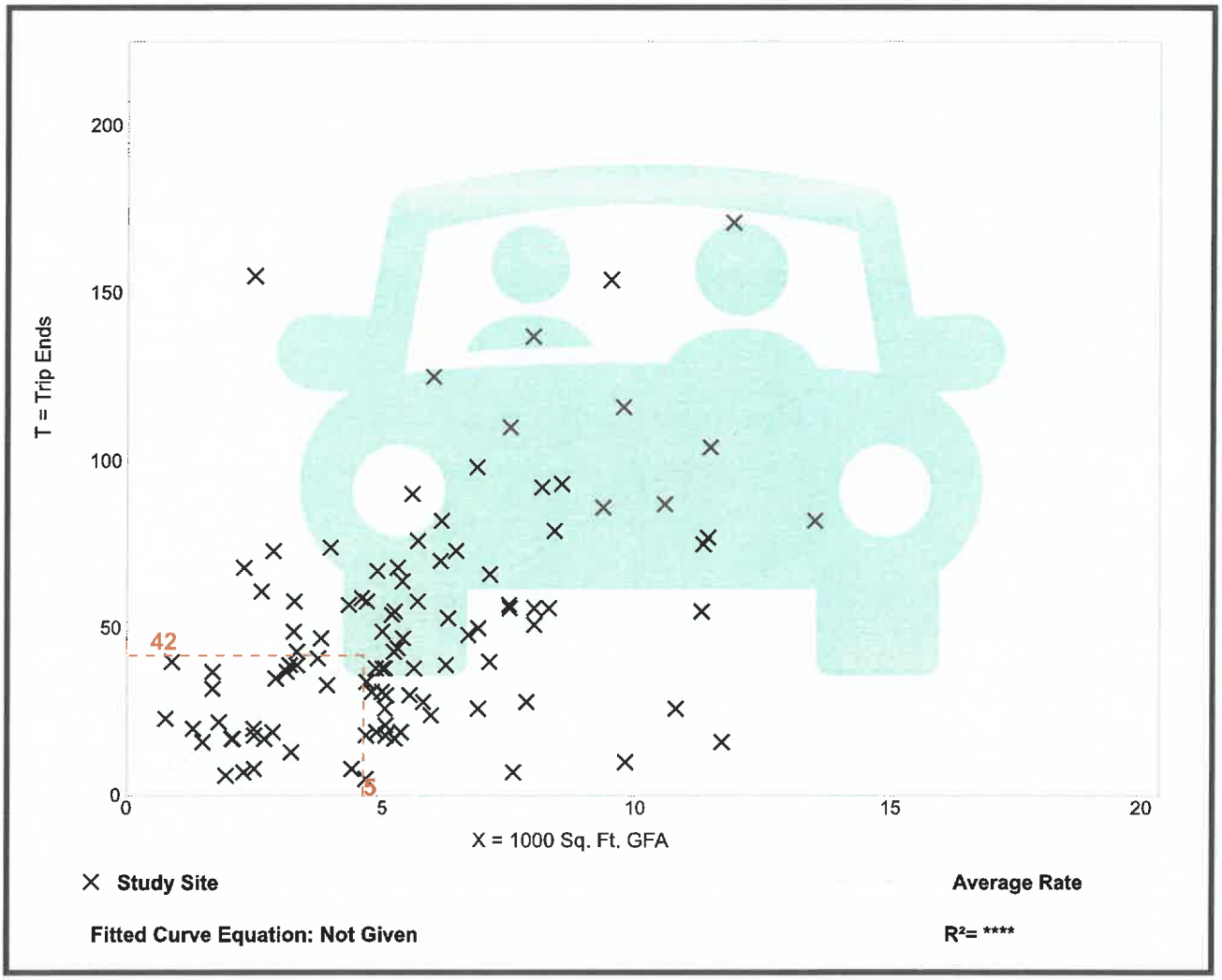
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	104
Avg. 1000 Sq. Ft. GFA:	6
Directional Distribution:	61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18

Data Plot and Equation



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GORRILL PALMER
An LJB Engineering Company

Building A (Brick North)

Brewery Tap Room – 4,084 SF Brewery & 1,200 SF Restaurant

Source: Methodology used from Distillery (Final Trip Gen Evaluation-06-13-22).

Note: The Sit-Down Restaurant trip generation is separate from the Brewery trip generation. The Brewery space will only be available to employees. The Sit-Down Restaurant will be available to all the public.

Brewery Calculations: Client informed us that there is approximately 5 employees that work in the brewery. To be conservative it was assumed that every employee would arrive during the AM Peak Hour and depart during the PM Peak Hour.

AM: 5 Trips
PM: 5 Trips

Sit-Down Restaurant Calculations: Based on ITE *Trip Generation Manual,* 11th Edition

High-Turnover (Sit-Down) Restaurant LUC – 932

AM: 11 Trips (Shown on attached ITE document)
PM: 11 Trips (Shown on attached ITE document)

Total for Brewery & Sit-Down Restaurant:

AM: 16 Trips
PM: 16 Trips

Brewery Tap Room
(1200 SF + 5 EMP)

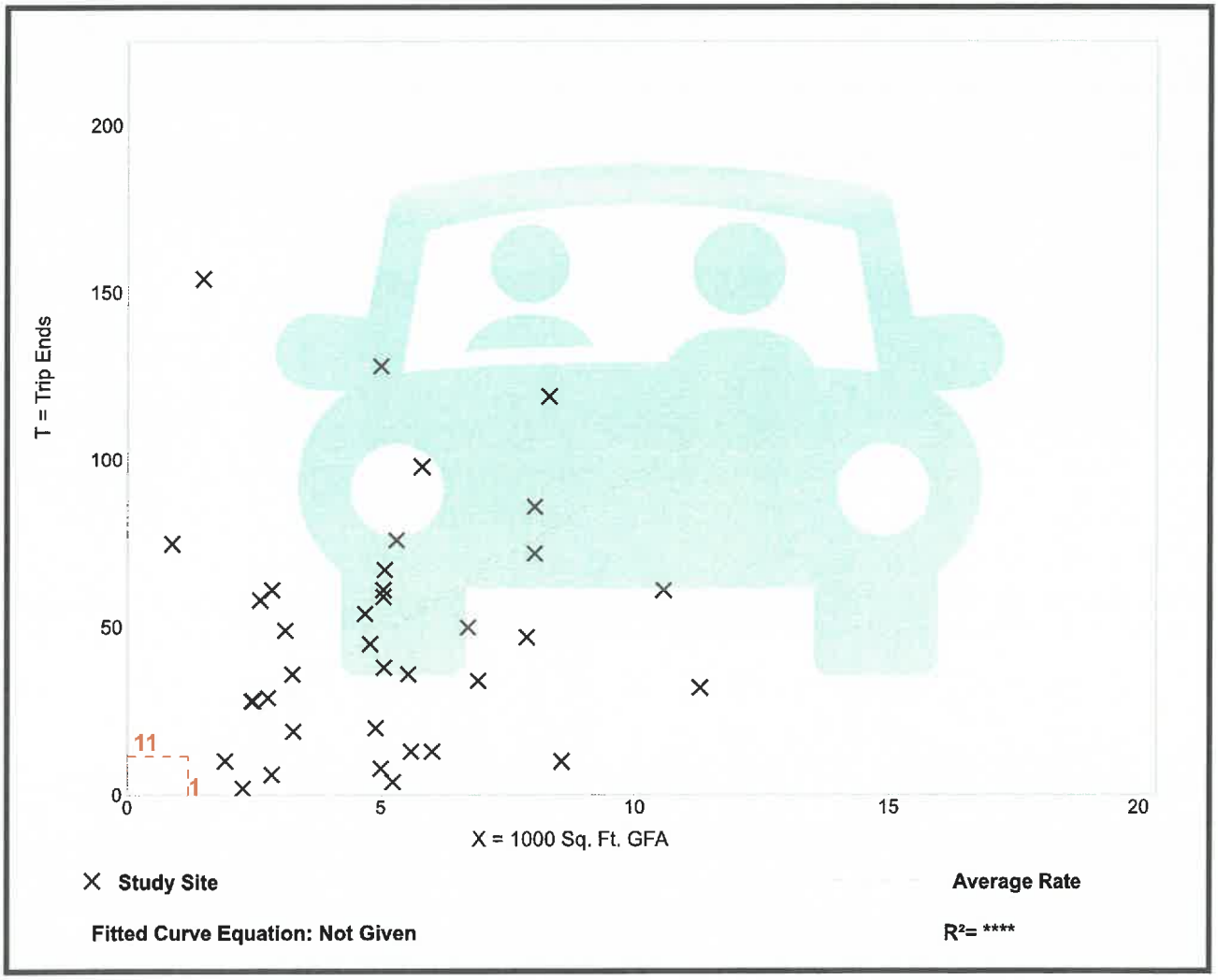
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 37
Avg. 1000 Sq. Ft. GFA: 5
Directional Distribution: 55% entering, 45% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.57	0.76 - 102.39	11.61

Data Plot and Equation



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Brewery Tap Room (1200 SF + 5 EMP)

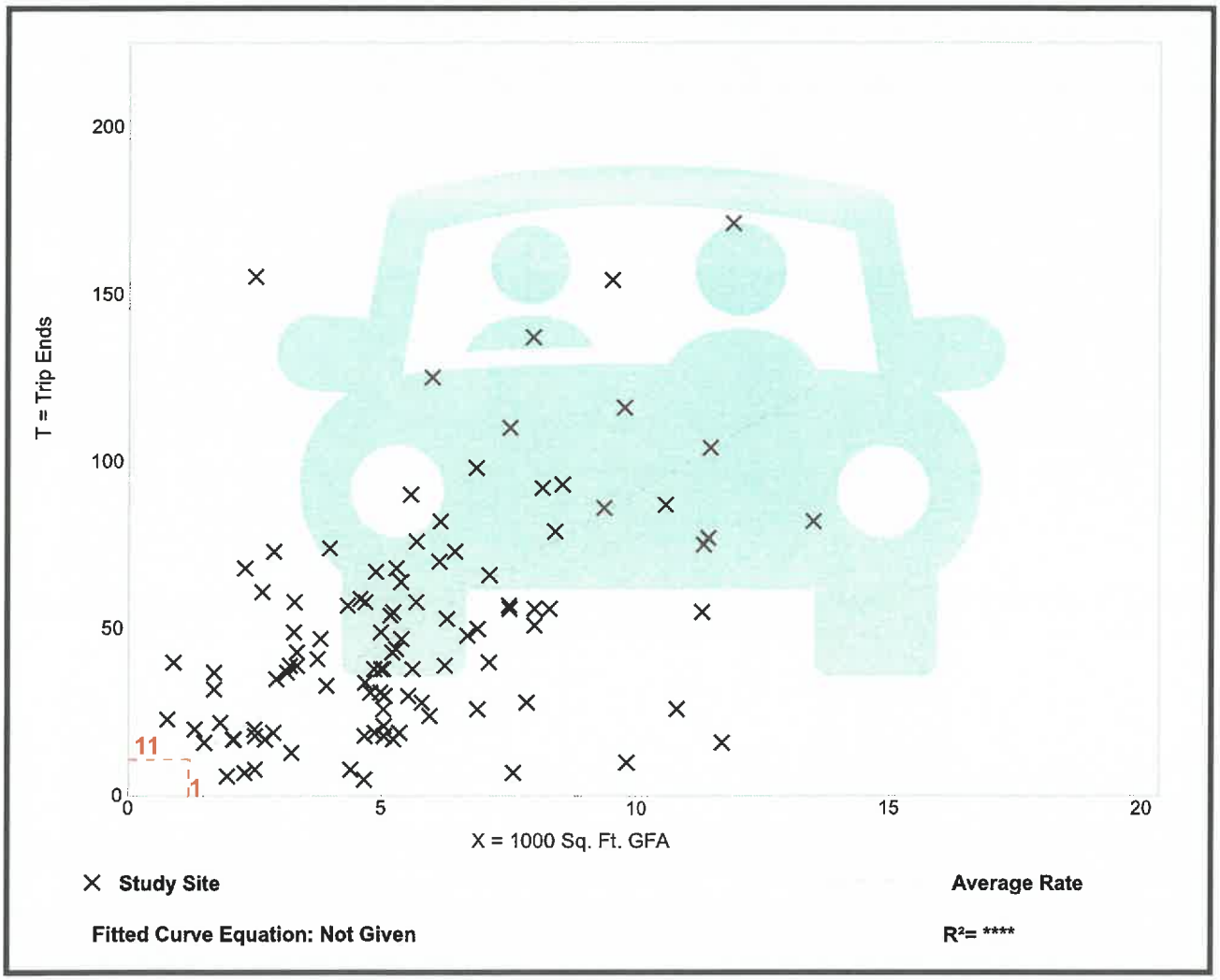
High-Turnover (Sit-Down) Restaurant
(932)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	104
Avg. 1000 Sq. Ft. GFA:	6
Directional Distribution:	61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.05	0.92 - 62.00	6.18

Data Plot and Equation



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JN: 2419
Project Description: Thompsons Point
Project Location: Portland, Maine
Date: 8/14/2015

Gorrill-Palmer Consulting Engineers, Inc.
P.O. Box 1237
15 Shaker Road
Gray, Maine 04039

Specialty Retail Center
Land Use Code (LUC) 814

Gross Floor Area (ft^2): 2,136

Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split * IN	Directional Split * OUT	Directional Distribution IN	Directional Distribution OUT	R^2
Weekday	T = 44.32 (X)	95	4	50%	50%	48	47	---
Peak Hour of Adjacent Street Traffic 7-9 AM**	T = 0.74 (X)	2	N/A	60%	40%	1	1	
Peak Hour of Adjacent Street Traffic 4-6 PM	T = 2.71 (X)	6	5	45%	55%	3	3	---
AM Peak Hour of Generator	T = 6.84 (X)	15	4	50%	50%	8	7	---
PM Peak Hour of Generator	T = 5.02 (X)	11	3	55%	45%	6	5	---
Saturday	T = 42.04 (X)	90	3	50%	50%	45	45	---
Saturday Peak Hour of Gen.***	T = 6.63 (X)	14	3	50%	50%	7	7	---

**Based on ratio of AM/PM traffic for LUC 820, Shopping Center and applied to 814 PM rate.
***Saturday Peak Hour comes from a ratio of PM to Saturday trip rates from LUC 820 - Shopping Center
* Percentages rounded to nearest 5%

Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split * IN	Directional Split * OUT	Directional Distribution IN	Directional Distribution OUT	R^2
Weekday	T = 42.78 (X) + 37.66	129	4	50%	50%	65	64	0.69
Peak Hour of Adjacent Street Traffic 7-9 AM	---	---	---	---	---	---	---	---
Peak Hour of Adjacent Street Traffic 4-6 PM	T = 2.40 (X) + 21.48	27	5	45%	55%	12	15	0.98
AM Peak Hour of Generator	T = 4.91 (X) + 115.59	126	4	50%	50%	63	63	0.90
PM Peak Hour of Generator	---	---	---	---	---	---	---	---
Saturday	---	---	---	---	---	---	---	---
Saturday Peak Hour of Gen.	---	---	---	---	---	---	---	---

* Percentages rounded to nearest 5%
(---) Not Given

AM Peak of Adjacent Street 7-9 AM***	T = 0.275 (PM Peak Hour)	3	60%	40%	2	1
Saturday Peak Hour**	T = 1.325 (PM Peak Hour)	15	50%	50%	8	7

**Saturday Peak Hour comes from a ratio of PM to Saturday trip rates from LUC 820 - Shopping Center
***AM Peak Hour of Adjacent Street comes from a ration of PM to AM trip rates from LUC 820 - Shopping Center

Source: Section 8-traffic & Parking
October 6, 2017

JN: 3353
Project Description: Thompson's Point
Project Location: Portland, Maine
Date: September 7, 2017

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Cultural Center
Based on Los Angeles Entertainment District Museum

Gross Floor Area 993

Time Period	Trip Rate per 1000 GFA	Trip Ends	Number of Studies	Directional Split IN	Directional Split OUT	Directional Distribution IN	Directional Distribution OUT	R^2
PM Peak Hour	T = 1.14(X)	1	1	50%	50%	1	0	—

Source: Section 8-traffic & parking
October 6, 2017

AM & PM Peak Hours assumed to be same.

Building has doubled in size, trip generation will be doubled.

993 sf Museum

ITE Publication 'Trip Generation' 7th Edition

Leisure Time Cocktails

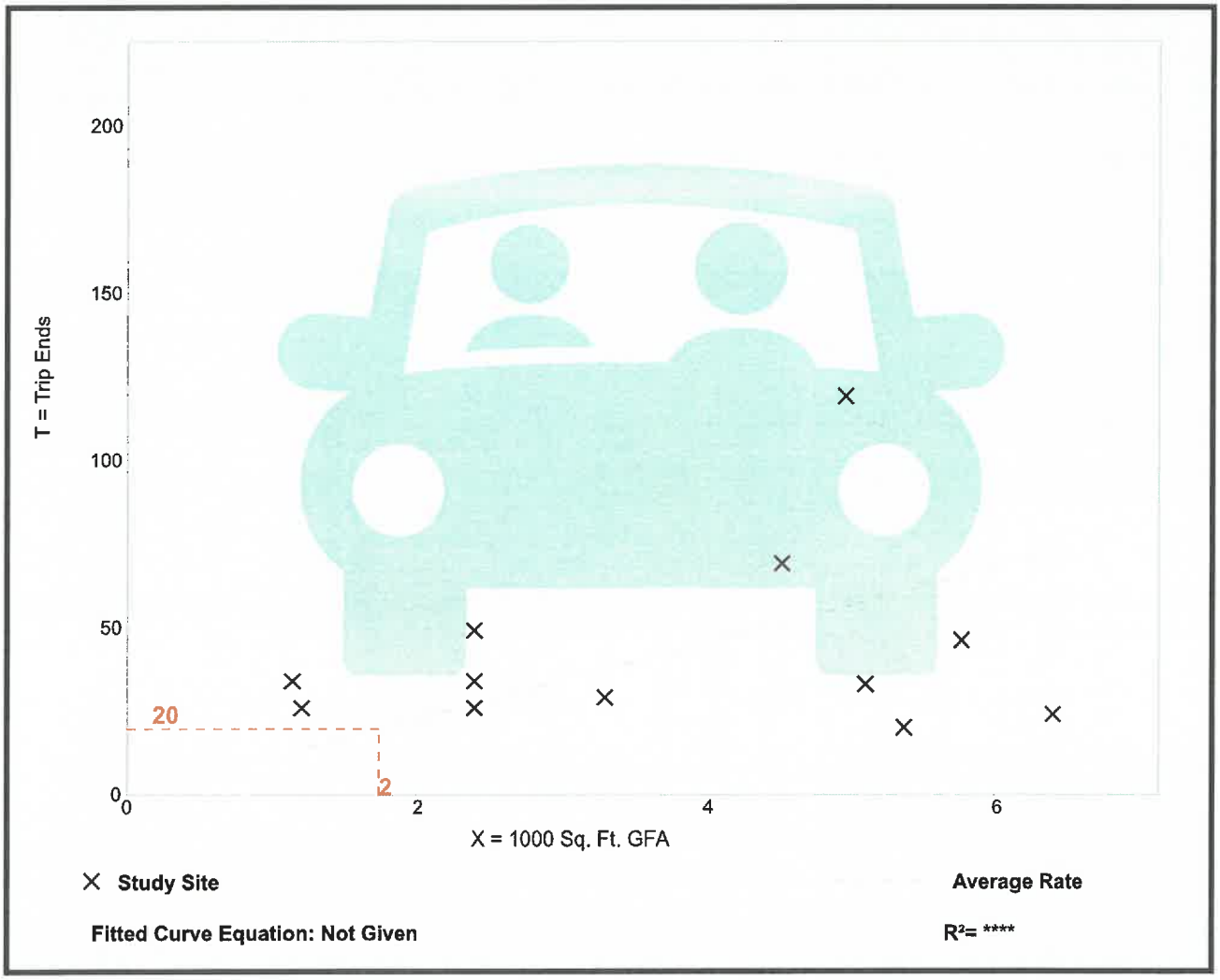
Drinking Place
(975)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	12
Avg. 1000 Sq. Ft. GFA:	4
Directional Distribution:	66% entering, 34% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
11.36	3.74 - 30.09	7.81

Data Plot and Equation



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Building C

Brick South

GORRILL PALMER
Relationships. Responsiveness. Results.
www.gorrillpalmer.com

JOB 2419 - Thompsons Point
SHEET NO. _____ OF _____
CALCULATED BY ET DATE 8/14/15
CHECKED BY _____ DATE _____
SCALE _____

Trip Generation - Event / Assembly Space / Event Center

Source: Original approved study (Trip Gen Summary Memo 3-3-14)

2500 occupants = 100 AM trips
195 PM trips

Based on City and MaineDOT reviewed and approved rates used in the original approved study. They originate from a study from the Bayside Expo and Executive Conference Center in Boston, Massachusetts

Building F1

Building F1

Warehouse

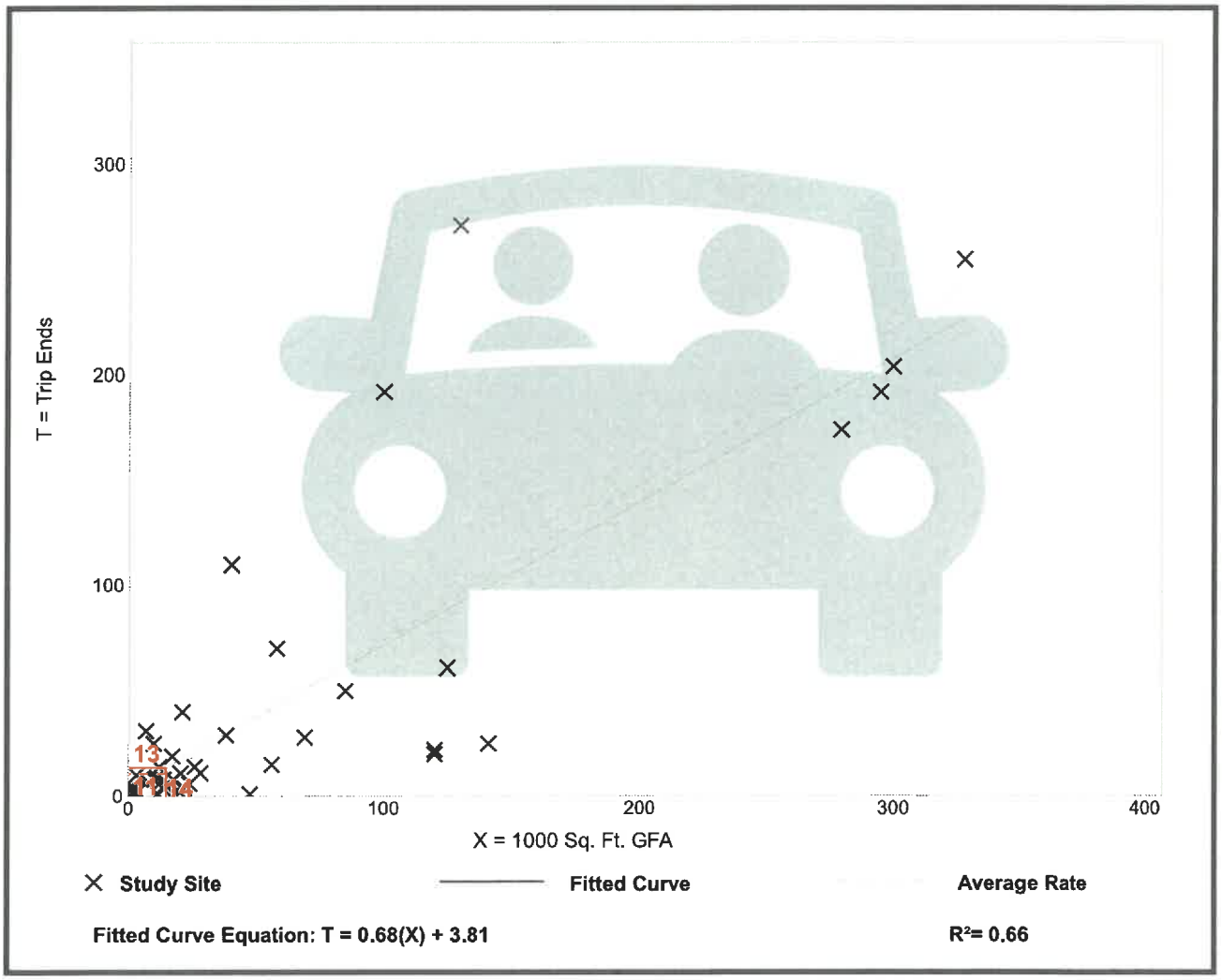
General Light Industrial
(110)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 41
Avg. 1000 Sq. Ft. GFA: 65
Directional Distribution: 88% entering, 12% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.74	0.02 - 4.46	0.61

Data Plot and Equation



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Building F1

Warehouse

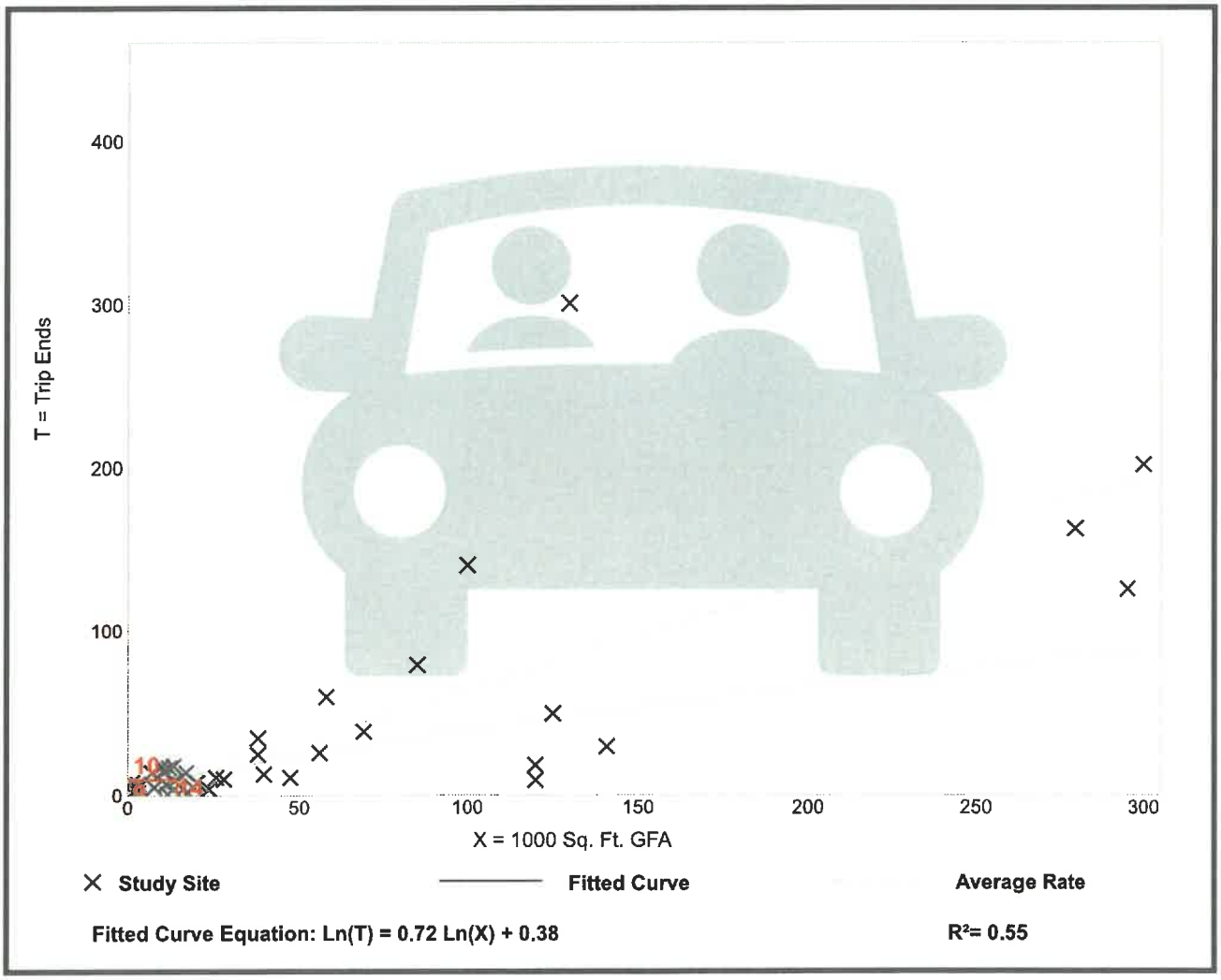
General Light Industrial
(110)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 40
Avg. 1000 Sq. Ft. GFA: 58
Directional Distribution: 14% entering, 86% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.65	0.07 - 7.02	0.56

Data Plot and Equation



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Building F2

Building F2

Artist Studio

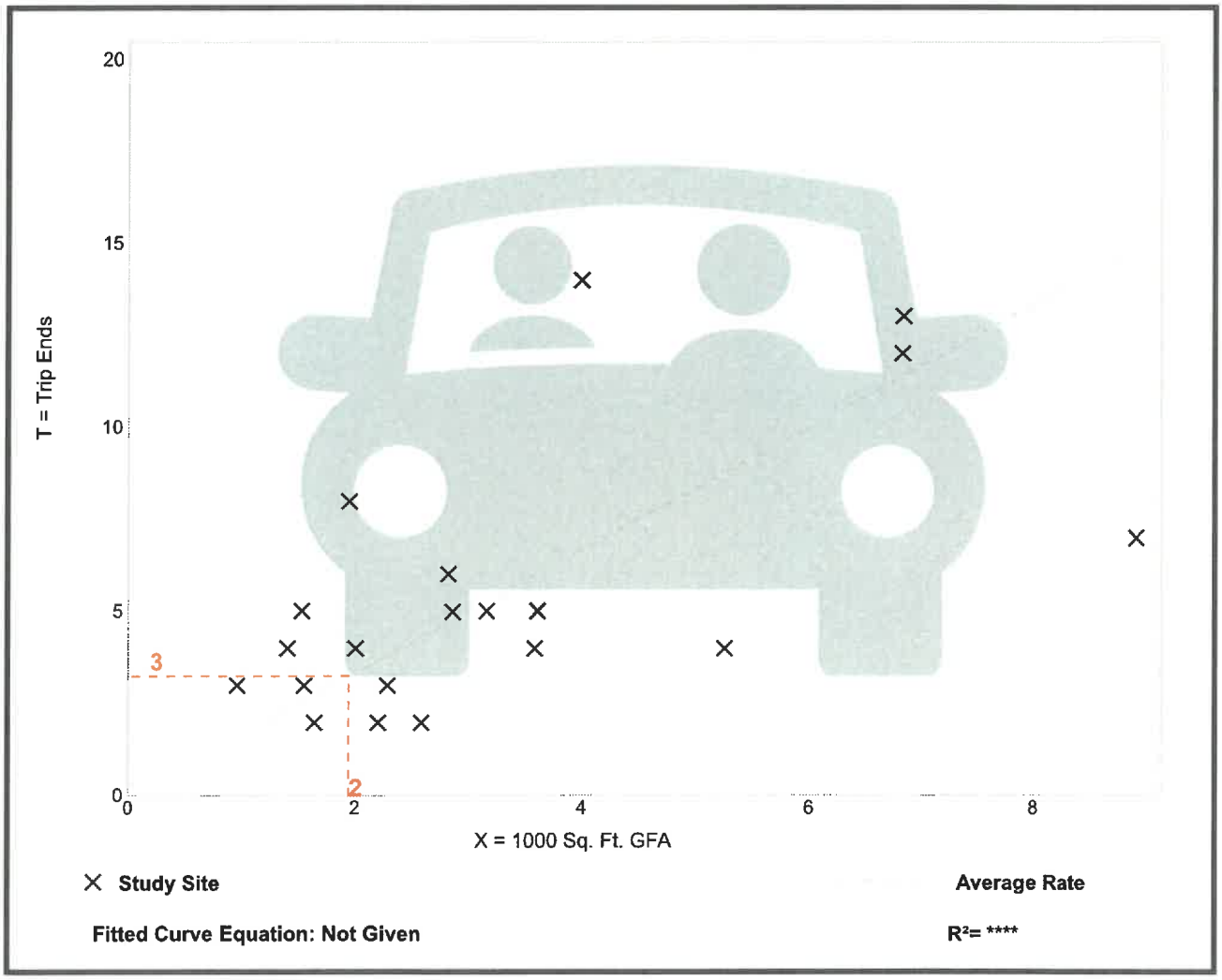
Small Office Building
(712)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 21
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 82% entering, 18% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.67	0.76 - 4.12	0.88

Data Plot and Equation



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Building F2

Artist Studio

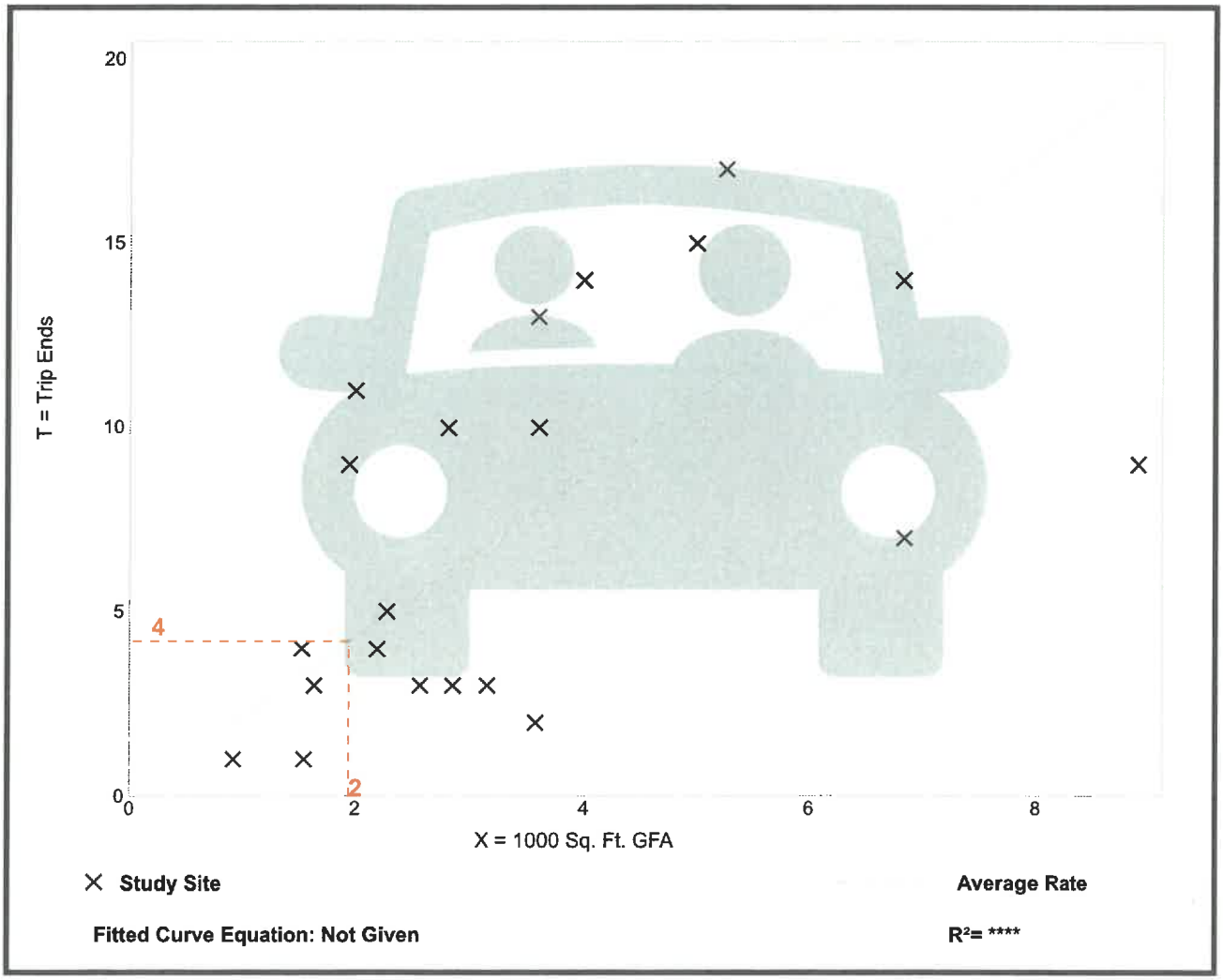
Small Office Building
(712)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 21
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 34% entering, 66% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.16	0.56 - 5.50	1.26

Data Plot and Equation



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Building L

Building L (4,000 SF)

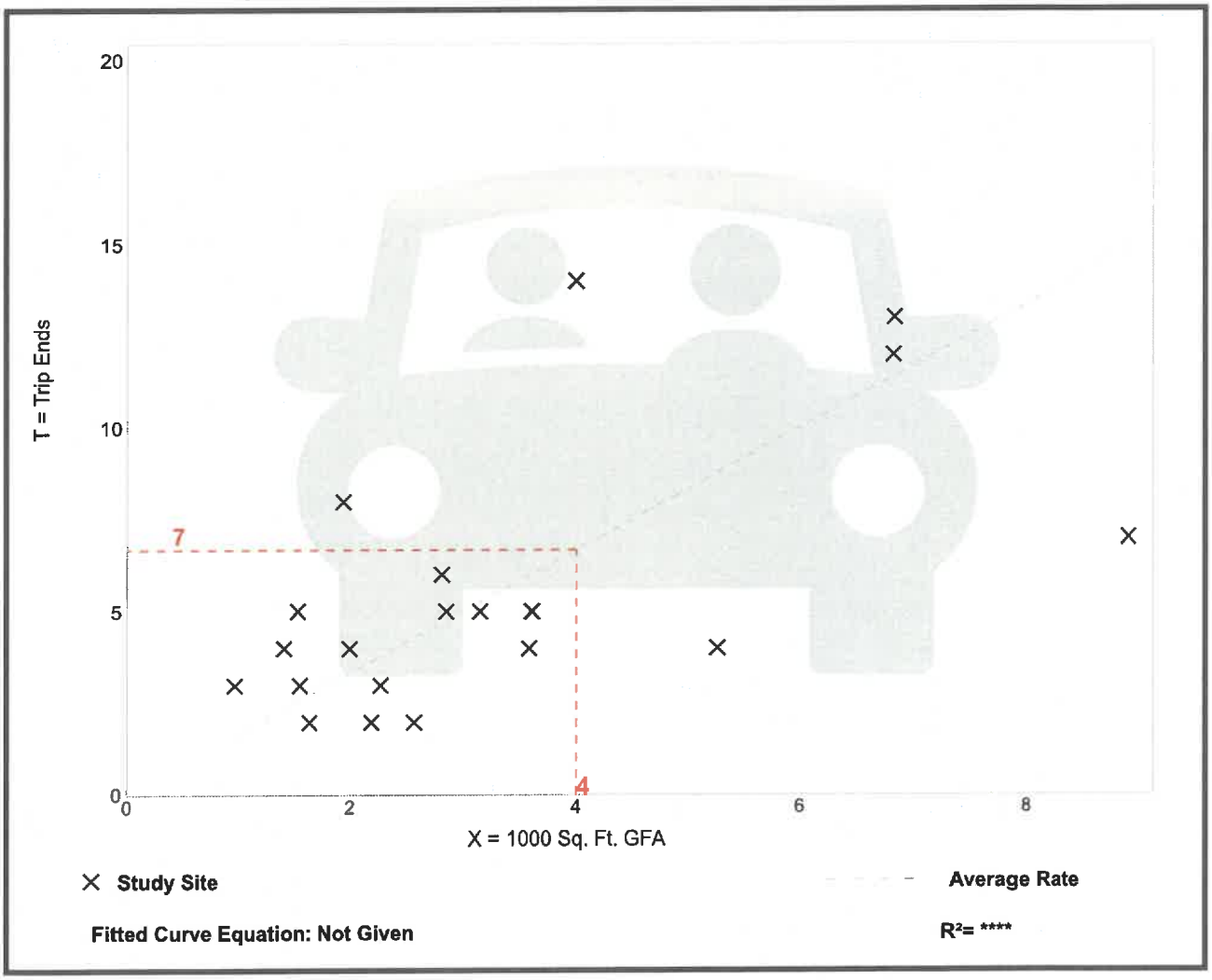
Small Office Building
(712)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 21
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 82% entering, 18% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.67	0.76 - 4.12	0.88

Data Plot and Equation



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Building L (4,000 SF)

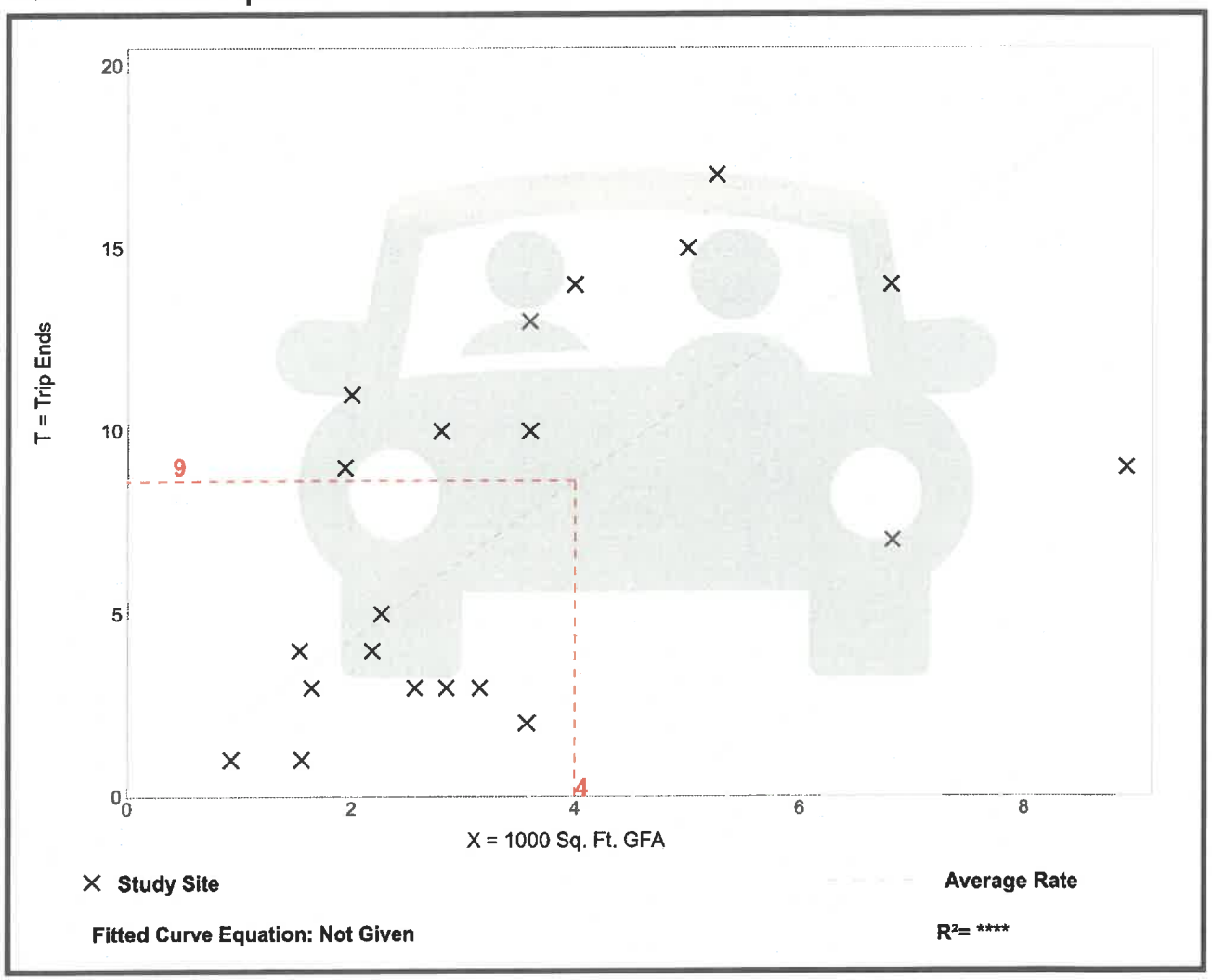
Small Office Building
(712)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 21
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 34% entering, 66% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.16	0.56 - 5.50	1.26

Data Plot and Equation



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GORRILL PALMER
An LJB Engineering Company

Building L

Event Space – 100 Attendees

Originally Approved: 5-14-2020 Final Memo with Attachments

Source: Based on approved calculation method of Brick South Event/Assembly Space. (TripGen Summary Memo 3-3-14)

2500 Occupants = 100 AM Trips
195 PM Trips

Based on City and MaineDOT reviewed and approved rates used in the original approved study. They originate from a study from the Bayside Expo and Executive Conference Center in Boston, MA.

Event Space (100 Attendees) Calculations:

100 Occupants / 2500 Occupants = 0.04

AM = 0.04 X 100 AM Trips = **4 AM Trips**
PM = 0.04 X 195 PM Trips = **8 PM Trips**

Building B2

GORRILL PALMER
An LJB Engineering Company

Building B2

Concession Building – 960 SF

Originally Approved: Final Trip Gen Evaluation-06-13-22

Source: As stated in the previous report "For the purposes of this evaluation, we have considered trip generation to be 4 employees during both the AM and PM Peak Hours."

AM: 4 Trips
PM: 4 Trips

Building D

Building D

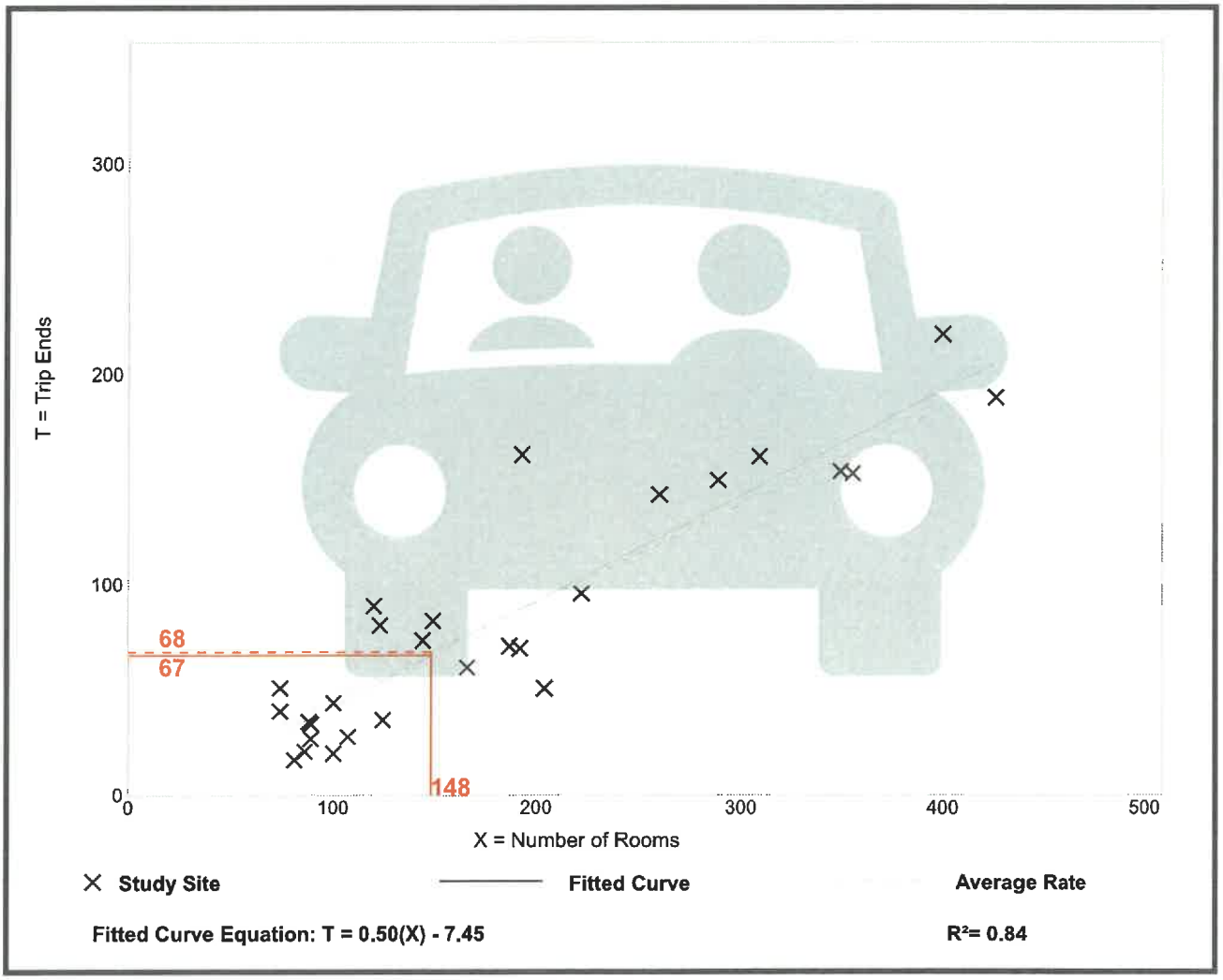
Hotel
(310)

Vehicle Trip Ends vs:	**Rooms**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	28
Avg. Num. of Rooms:	182
Directional Distribution:	56% entering, 44% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
0.46	0.20 - 0.84	0.14

Data Plot and Equation



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Building D

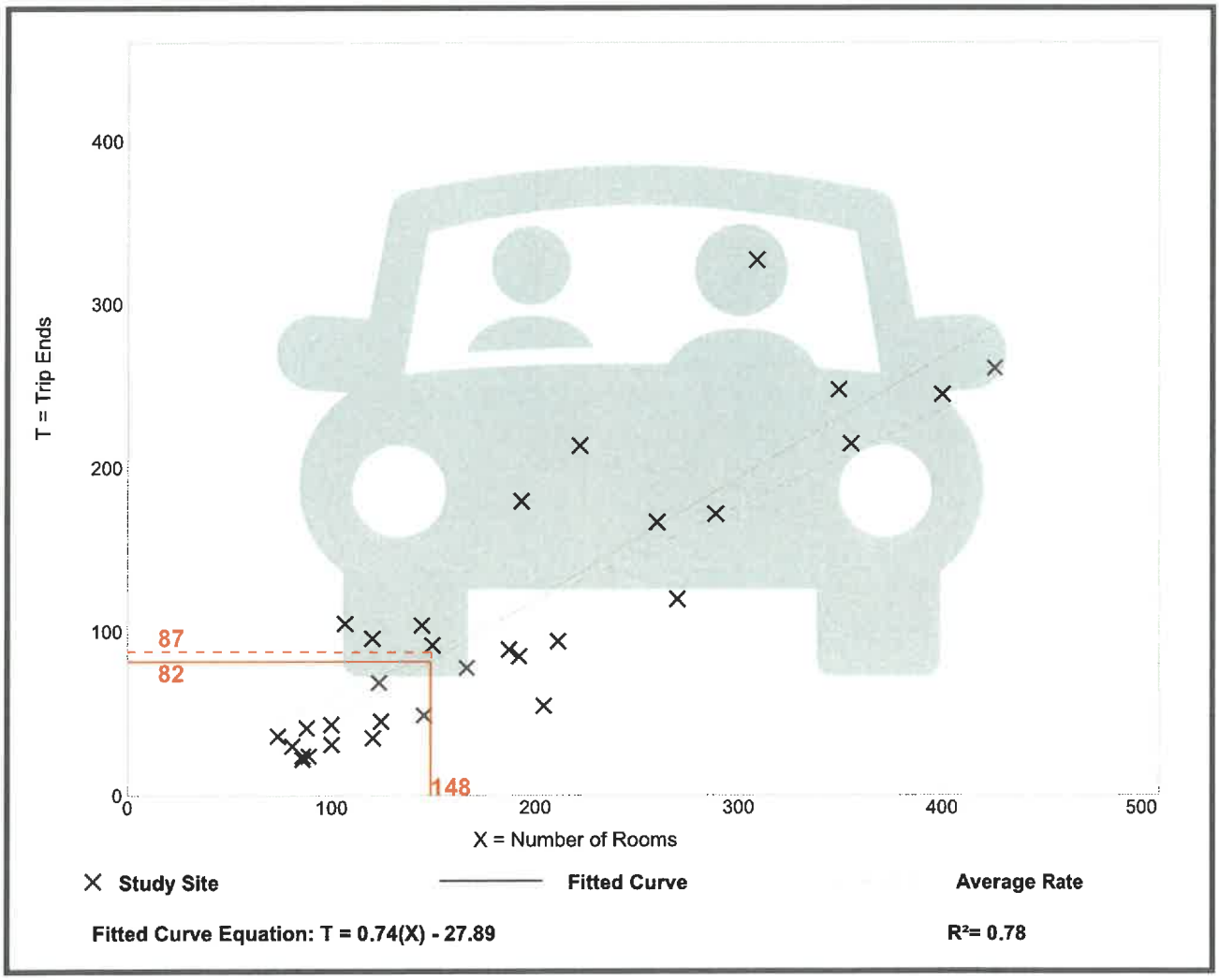
Hotel
(310)

Vehicle Trip Ends vs:	**Rooms**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	31
Avg. Num. of Rooms:	186
Directional Distribution:	51% entering, 49% exiting

Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
0.59	0.26 - 1.06	0.22

Data Plot and Equation



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Building I

Children's Museum and Theatre of Maine (CMTM)

JN: 3369
Project Description: ı's Museum Thompson's Point
Project Location: Portland, Maine
Date: October 4, 2017

Gorrill Palmer
707 Sable Oaks Drive
Suite 30
South Portland, Maine 04106

Cultural Center
Based on Los Angeles Entertainment District Museum

Gross Floor Area 29,096

Time Period	Trip Rate per 1000 GFA	Trip Ends	Number of Studies	Directional Split IN	Directional Split OUT	Directional Distribution IN	Directional Distribution OUT	R^2
PM Peak Hour	T = 1.14(X)	33	1	50%	50%	17	16	---

Source: Section 8-traffic & parking
October 6, 2017

AM & PM Peak Hours assumed to be same.

Building G

Apartments

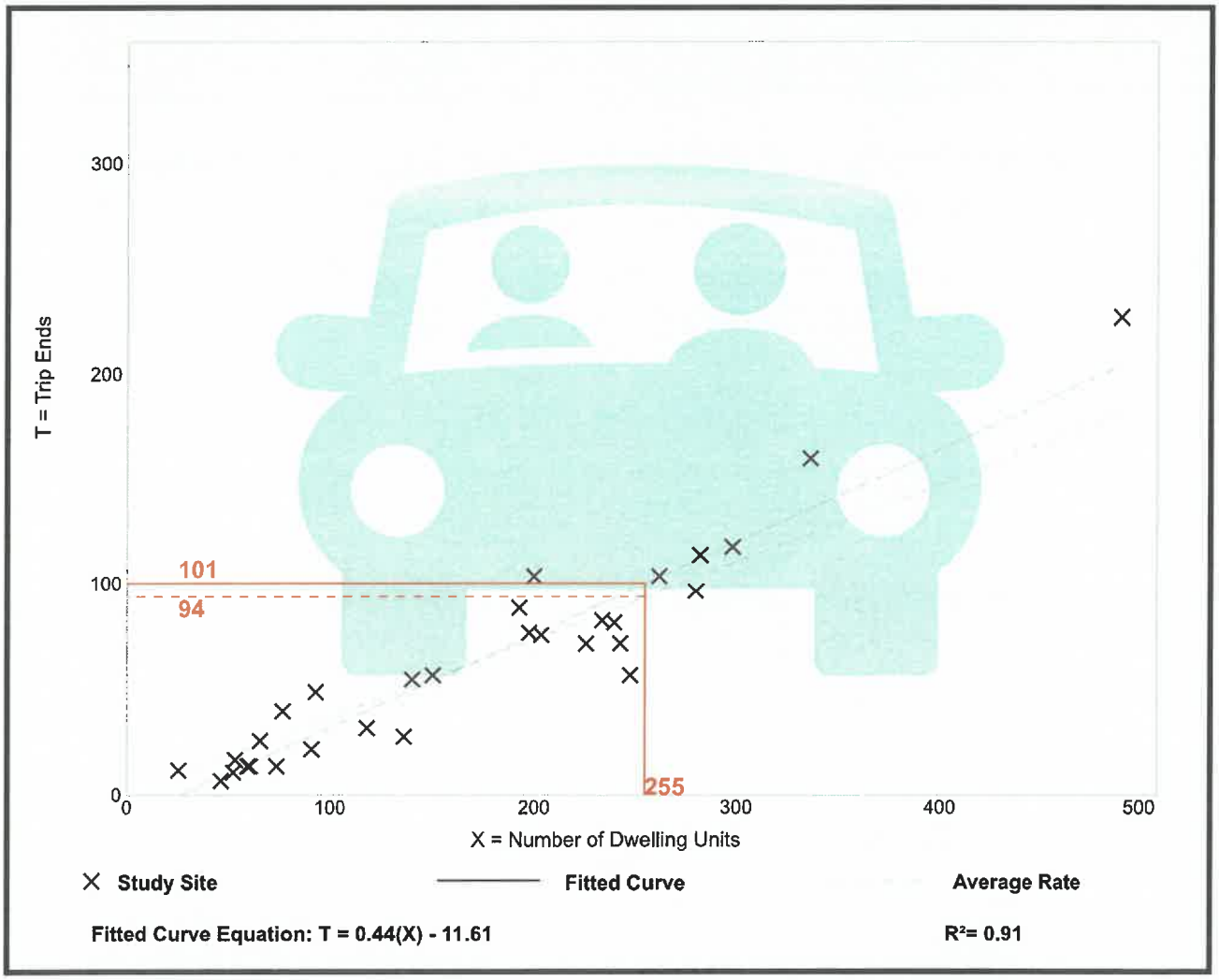
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 30
Avg. Num. of Dwelling Units: 173
Directional Distribution: 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.37	0.15 - 0.53	0.09

Data Plot and Equation



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Apartments

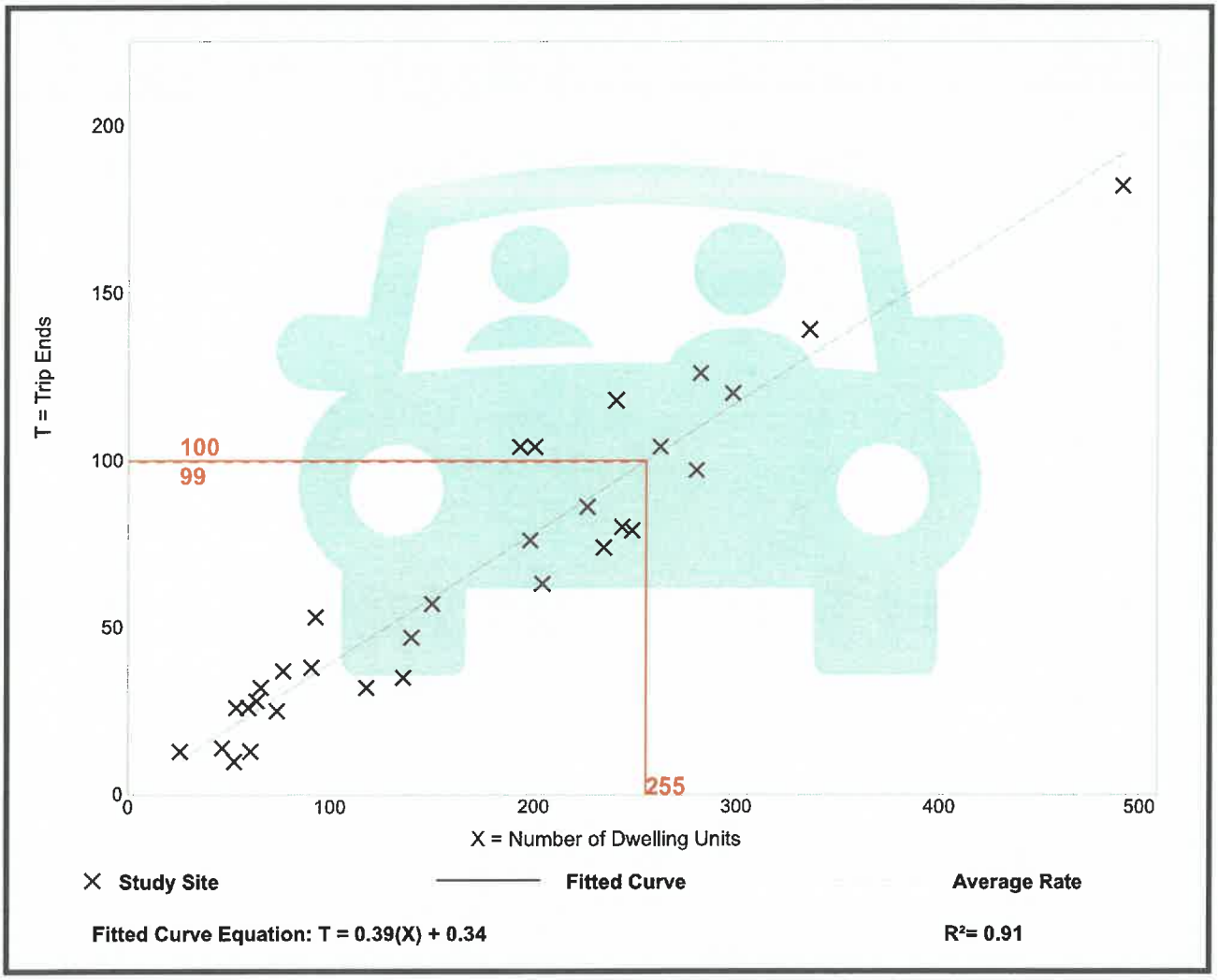
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 31
Avg. Num. of Dwelling Units: 169
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.19 - 0.57	0.08

Data Plot and Equation



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Parking Evaluation

Parking Evaluation - Thompson's Point - Portland, Maine (08/22/24)

	Existing																																		Existing Conditions Total	Currently Proposed					
Building Letter	Building A - Brick North																Building C - Brick South		Building F1		Building F2		Building L				Building B2		Building D		Satellite Building					Satellite Buildings					
	Leisure Time Cocktails		Rwanda Bean Roasting		Halo (Event Space)*		Office Space		Brewery & Restaurant		Brewery Tap Room		Color Me Mine		Cryptozoology Museum		Event Space*		Light Industrial / Warehouse (4)		Artist Studio		Office		Event Space*		Concession Building (Restaurant)		Hotel		Children's Museum					Apartments**					
Rate	Custom (1) - Open 12PM - 9PM	10	Custom (2) - Open 8AM - 4PM	1	Custom (3) - 3.5 people per vehicle	3.5	Small Office - 7 workers	1/10	Used LUC 932 - High-turnover sit down rest. (4624 SF) = 7 for brewery workers	0.44	Used LUC 932 - High-turnover sit down rest. (1200 SF) = 5 for brewery workers	0.44	Specialty Retail - 1 space per 200 SF	200	Custom (4) - Assumed 10 spaces - Open 10AM - 6PM	10	Custom (3) - 3.5 people per vehicle	3.5	LUC 110 - Light Industrial - 0.85 per 1000 SF	0.850	LUC 712 - Small Office - 2.56 per 1000	2.56	LUC 712 - Small Office - 2.56 per 1000	2.56	Custom (3) - 3.5 people per vehicle	3.5	Custom (5) - Assumed to supplement other onsite uses	969 SF	LUC 310 - Hotel - 0.74 per room	0.74	Based on Client info - 1.34 per 1000 SF	1.34				LUC 221 - Multi-Family (Mid-Rise) - 1.31 per unit	1.31				
SF or Unit	SF	1725	SF	675	People	400	Employees	7	SF ÷ 7 Employees	4624	SF ÷ 5 Employees	1200	SF	2136	SF	1919	People	2500	SF	14200	SF	1940	SF	4000	People	100	Employees	4	Room	168	SF	40000				Units	255					
6:00AM	0	0	0	0	0.00	0	0.00	0	0.00	7	0.00	5	0.00	0	0.00	0	0.00	0	1.00	9	0.00	0	0.00	0	0.00	0	1.00	4	0.81	100	0.00	0	125	0.83	277	278	403	403	403
7:00AM	0	0	0	0	0.01	1	0.00	0	0.00	7	0.00	5	0.20	2	0.00	0	0.01	4	1.00	9	0.00	0	0.20	0	0.01	0	1.00	4	0.89	97	0.48	26	155	0.71	237	238	393	390	389
8:00AM	0	0	1	1	0.01	1	1.00	7	0.00	7	0.00	5	0.84	7	0.10	1	0.01	4	0.75	7	0.27	1	0.27	3	0.01	0	1.00	4	0.90	99	1.00	54	200	0.61	204	204	404	401	400
9:00AM	0	0	1	1	0.01	1	1.00	7	0.00	7	0.00	5	0.03	10	1.00	10	0.01	4	0.75	7	0.69	3	0.69	7	0.01	0	1.00	4	1.00	110	0.75	40	216	0.55	184	184	400	397	396
10:00AM	0	0	1	1	0.01	1	1.00	7	0.26	18	0.26	8	1.00	11	1.00	10	0.01	4	0.50	5	0.88	4	0.88	9	0.01	0	1.00	4	0.98	107	0.50	27	218	0.54	180	181	397	394	393
11:00AM	0.1	1	1	1	0.01	1	1.00	7	0.43	26	0.43	10	1.00	11	1.00	10	0.01	7	0.50	5	1.00	5	1.00	10	0.01	0	1.00	4	0.89	97	1.00	54	249	0.53	177	178	427	420	419
12:00PM	1	10	1	1	0.01	1	1.00	7	0.65	48	0.65	16	0.90	10	1.00	10	0.01	7	0.50	5	0.81	4	0.81	8	0.01	0	1.00	4	0.85	93	0.75	40	265	0.50	167	168	433	426	425
1:00PM	1	10	1	1	0.01	1	1.00	7	0.65	48	0.65	16	0.90	10	1.00	10	0.01	7	0.50	5	0.81	4	0.81	8	0.01	0	1.00	4	0.75	82	0.25	13	227	0.49	164	164	391	384	383
2:00PM	1	10	1	1	0.02	2	1.00	7	0.49	28	0.49	11	1.00	11	1.00	10	0.02	11	0.50	5	0.84	4	0.84	9	0.02	0	1.00	4	0.81	89	1.00	54	255	0.49	164	164	419	409	407
3:00PM	1	10	1	1	0.03	3	1.00	7	0.39	24	0.39	9	1.00	11	1.00	10	0.03	21	0.50	5	0.86	4	0.86	9	0.03	1	1.00	4	0.70	77	0.75	40	237	0.50	167	168	405	394	391
4:00PM	1	10	1	1	0.10	11	1.00	7	0.37	23	0.37	9	0.93	10	1.00	10	0.10	71	0.75	7	0.92	5	0.92	9	0.10	3	1.00	4	0.74	81	0.75	40	303	0.59	194	194	497	426	415
5:00PM	1	10	0	0	0.55	63	1.00	7	0.62	34	0.62	12	0.64	7	1.00	10	0.55	393	0.25	7	0.85	4	0.85	9	0.55	18	1.00	4	0.65	71	0.50	27	674	0.64	214	214	888	496	433
6:00PM	1	10	0	0	0.85	97	0.00	0	0.89	50	0.89	16	0.20	2	1.00	1	0.85	607	1.00	9	0.94	6	0.94	9	0.85	24	1.00	4	0.73	80	0.50	27	929	0.67	224	224	1153	566	449
7:00PM	1	10	0	0	1.00	114	0.00	0	1.00	51	1.00	16	0.00	0	0.10	1	1.00	714	1.00	9	0.00	0	0.00	0	1.00	29	1.00	4	0.78	85	0.50	27	1061	0.70	234	234	1295	581	467
8:00PM	1	10	0	0	1.00	114	0.00	0	0.83	43	0.83	14	0.00	0	0.00	0	1.00	714	1.00	9	0.00	0	0.00	0	1.00	29	1.00	4	0.83	102	0.00	0	1040	0.76	254	254	1294	580	466
9:00PM	1	10	0	0	1.00	114	0.00	0	0.25	18	0.25	8	0.00	0	0.00	0	1.00	714	1.00	9	0.00	0	0.00	0	1.00	29	1.00	4	0.96	105	0.00	0	1012	0.83	277	278	1290	576	462
10:00PM	0.1	1	0	0	1.00	114	0.00	0	0.25	18	0.25	8	0.00	0	0.00	0	1.00	714	1.00	9	0.00	0	0.00	0	1.00	29	1.00	4	0.95	104	0.00	0	1002	0.90	301	301	1303	589	475

Notes:

1. Land Use Codes (LUC) are all from ITE Parking Generation 5th Edition
2. This Spreadsheet does not take "practical capacity" into consideration
3. This Spreadsheet does not take shared internal parking into consideration

Custom 1 - Based on 20 trips generated in the PM Peak Hour, assumes 1 space for each 2 trip ends during the peak hour.
Custom 2 - Based on assumption of one person coffee roasting.
Custom 3 - The 3.5 people per car for a special event was reviewed and approved by the City as part of a prior parking study for Thompsons Point
Custom 4 - These uses had an assumed parking need of 10 spaces that were held throughout the day
Custom 5 - This use is assumed to supplement existing on-site uses and and attract significant generation from off-site

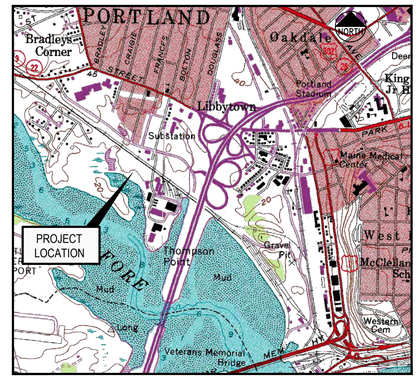
*Assumes Evening Event
**Based on ITE Parking Generation for LUC 221 - Weekday (Mon-Fri) - Dwelling Units

SITE DEVELOPMENT PLANS
FOR
MULTI-FAMILY RESIDENTIAL BUILDING (G)
THE FOREFRONT AT THOMPSON'S POINT
PORTLAND, MAINE
IN SUPPORT OF A MAJOR SITE PLAN APPLICATION
AUGUST 2024

APPLICANT \ FUTURE OWNER:
CPI MANAGEMENT, LLC (CATHARTES)
11 PORTWALK PLACE
PORTSMOUTH, NH 03801
ATTN: ROB SIMMONS
617.840.4778
ROBS@CATHARTES.COM

CURRENT OWNER:
FOREFRONT PARTNERS, I. LP
18 VAN AKEN WAY
PORTLAND, MAINE 04102
ATTN: CHRIS THOMPSON, PhD
207.747.5288
PARALLAXPARTNERS@GMAIL.COM

AGENT:
PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, MAINE 04102
ATTN: BO KENNEDY,P.E.
207.747.5288
BO@PLACEMAKERPARTNERS.COM



LOCATION MAP
N.T.S.

PROJECT PARCEL SITE

ZONING: B-5 URBAN COMMERCIAL MIXED USE ZONE

PORTLAND TAX ASSESSOR'S MAP & LOT NUMBERS:

MAP	BLOCK	LOTS
201	A	5

PARCEL 17 - SECTIONAL 4 SUBDIVISION PLAT OF THE FOREFRONT AT THOMPSON'S POINT SUBDIVISION

SITE ADDRESS:
125 THOMPSON'S POINT ROAD, PORTLAND , ME 04102

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A2.3	NORTH ELEVATIONS & GARAGE SECTION
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A2.5	BUILDING MATERIALS

UTILITIES

WATER
ATTN: ROBERT BARTELS
PORTLAND WATER DISTRICT
22 DOUGLAS STREET
P.O. BOX 3533
PORTLAND, MAINE 04104
207.761.8310

SEWER
ATTN: BEN PEARSON, P.E.
CITY OF PORTLAND
PUBLIC SERVICES ENGINEERING DEPT.
212 CANCO ROAD, SUITE B
PORTLAND, MAINE 04103
207.874.8830

POWER
ATTN: JAMIE COUGH
CENTRAL MAINE POWER
162 CANCO ROAD
PORTLAND, MAINE 04103
207.791.1023

TELEPHONE
ATTN: DARREN DIPIETRANTONIO
CONSOLIDATED COMMUNICATIONS
207.235.4209
www.consolidated.com

CABLE
ATTN: MARK PELLITIER
SPECTRUM
118 JOHNSON ROAD
PORTLAND, MAINE 04102
877.546.0962

INTERNET:
ATTN: JAMES HARDER
FIRST LIGHT
207-513-2820
jharder@firstlight.net

ATTN: DARREN DIPIETRANTONIO
CONSOLIDATED COMMUNICATIONS
207.235.4209
www.consolidated.com

NATURAL GAS
ATTN: SCOTT CARPENTER
UNITIL / FORMERLY NORTHERN UTILITIES
1075 FOREST AVENUE
PORTLAND, MAINE 04103
207.541.2543
email: carpenters@unitil.com

CALL BEFORE YOU DIG:
1.888.DIGSAFE (1.888.344.7233)
DIG SAFE MAINE

PERMITS / APPROVALS (APPLICABLE TO FULL DEVELOPMENT)

LOCAL	GOVERNING BODY	STATUS
SITE PLAN, SHORELAND ZONING AND SUBDIVISION REVIEW	CITY OF PORTLAND PLANNING AUTHORITY CITY HALL 389 CONGRESS STREET PORTLAND, MAINE 04101 207.874.8722 CONTACT: CHRISTINE GRIMANDO	REFER TO "PLAN REFERENCES" THIS SHEET
BUILDING AND DEMOLITION PERMITS	CITY OF PORTLAND CODE ENFORCEMENT OFFICE CITY HALL 389 CONGRESS STREET PORTLAND, MAINE 04101 207.874.8703	TO BE FILED PRIOR TO CONSTRUCTION BY CONTRACTOR FOR THIS PROJECT
MASTER DEVELOPMENT PLAN	CITY OF PORTLAND PLANNING AUTHORITY CITY HALL 389 CONGRESS STREET PORTLAND, MAINE 04101 207.874.8722 CONTACT: CHRISTINE GRIMANDO	APPROVED MARCH 2014

STATE	GOVERNING BODY	STATUS
SITE LOCATION OF DEVELOPMENT	CITY OF PORTLAND PLANNING AUTHORITY DELEGATED AUTHORITY CITY HALL, 389 CONGRESS STREET 207.874.8722 CONTACT: CHRISTINE GRIMANDO	APPROVED JUNE 5, 2012 UNDER CITY'S DELEGATED AUTHORITY AMENDED JANUARY 2016
NATURAL RESOURCES PROTECTION ACT (NRPA) / MAINE CONSTRUCTION GENERAL PERMIT	MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION 312 CANCO ROAD PORTLAND, MAINE 04103 207.822.6300 CONTACT: MARYBETH RICHARDSON	APPROVED JULY 2012 ORDER #L-25672-2G-A-N / L-25672-FS-B-N APPROVED JUNE 2014 UPDATED JUNE 15, 2023
MAINE DOT TRAFFIC MOVEMENT PERMIT	MAINE DEPARTMENT OF TRANSPORTATION STATE HOUSE STATION 16 AUGUSTA, MAINE 04333 207.624.3620 CONTACT: STEVE LANDRY	APPROVED JUNE 13, 2012 REG. 01-00155-A-N EXTENDED MARCH 1, 2024
MAINE VOLUNTARY RESPONSE ACTION PLAN (VRAP)	MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION 312 CANCO ROAD PORTLAND, MAINE 04103 207.623.8367 CONTACT: NICK HODGKINS	NO ACTION ASSURANCE LETTER ISSUED MARCH 6, 2013
PUBLIC RAIL CROSSING PETITION	MAINE DEPARTMENT OF TRANSPORTATION STATE HOUSE STATION 16 AUGUSTA, MAINE 04333	DECISION #364 - APRIL 3, 2012

FEDERAL	GOVERNING BODY	STATUS
U.S. ARMY CORPS OF ENGINEERS SECTION 404 PERMIT	U.S. ARMY CORPS OF ENGINEERS RR2 BOX 1855 MANCHESTER, MAINE 04351 207.623.8367 CONTACT: JANA JACOBSON	APPROVED AUGUST 24, 2012 CORP PERMIT #NAE-2012-00992 AMENDED APRIL 16, 2014 UPDATED OCTOBER 24, 2024

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PLAN REFERENCES:

TITLE	DATE APPROVED BY CITY
1. THE FOREFRONT AT THOMPSON'S POINT LEVEL III SITE PLAN	JUNE 5, 2012
2. THE FOREFRONT AT THOMPSON'S POINT LEVEL III SITE PLAN AMENDMENT	JUNE 19, 2013
3. BRICK NORTH BUILDING AT THE FOREFRONT AT THOMPSON'S POINT LEVEL III SITE PLAN	DECEMBER 17, 2013
4. THE FOREFRONT AT THOMPSON'S POINT MASTER PLAN	MARCH 11, 2014 (EXTENDED TO MARCH 11, 2024)
5. THE DEPOT BUILDING LEVEL II SITE PLAN	JUNE 10, 2014
6. BRICK NORTH BUILDING AT THE FOREFRONT AT THOMPSON'S POINT LEVEL III SITE PLAN AMENDMENT (PHASE 1A)	DECEMBER 4, 2014
7. SUBDIVISION APPLICATION	JANUARY 12, 2016 (AMENDED APRIL 2020)
8. BRICK NORTH AND SOUTH BUILDINGS - LEVEL III SITE PLAN	JANUARY 12, 2016
9. LEVEL II SITE PLAN -SECTIONAL 2 ROADWAY	JUNE 5, 2017
10. LEVEL III - CHILDREN'S MUSEUM & THEATRE OF MAINE (PHASE II) AND ROADWAY EXTENSION (PHASE I)	NOVEMBER 14, 2017
11. LEVEL III - HOTEL PORTLAND	JULY 8, 2017 (EXTENDED TO JULY 18, 2022)
12. LEVEL II - WAREHOUSE AND LIGHT INDUSTRIAL	SEPTEMBER 28, 2020
13. MINOR SITE PLAN - BUILDING B2 (FOOD AND BEVERAGE)	MAY 26, 2023

I HEREBY ACKNOWLEDGE THAT THESE PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MAINE AND THAT I AM COMPETENT TO PREPARE THIS DOCUMENT.

ALL PERMITS ARE ANTICIPATED TO HAVE CONDITIONS ATTENDANT WITH THEIR APPROVAL. THE CONTRACTOR SHALL REVIEW ALL PERMITS AND THE CONDITIONS ATTENDANT WITH APPROVALS PRIOR TO THE START OF THE WORK. UNLESS OTHERWISE STIPULATED BY THE CONTRACT DOCUMENTS, THE CONTRACTOR IS REQUIRED TO COMPLY AND FULFILL ALL CONDITIONS OF APPROVAL.

REV	DATE	DESCRIPTION
3	2/14/2025	REVISED PER CITY COMMENTS
2	12/23/2024	REVISED TO ADDRESS CITY COMMENTS
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY — No. 11994 — LICENSED PROFESSIONAL ENGINEER — 12/23/2024

P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

SHEET TITLE
COVER SHEET

CLIENT
CPI MANAGEMENT, LLC
(CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN: DB	DATE: AUGUST 2024
DESIGNED: BEK	SCALE: N.T.S.
FILE NAME: PANHANDLE-COV.dwg	
SHEET	C-1.0

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GENERAL NOTES

1. IN ADDITION TO THESE PLANS AND NOTES, THE CONTRACTOR SHALL REFER TO AND ADHERE TO CONTRACT DOCUMENTS WHICH INCLUDE BUT ARE NOT LIMITED TO ALL LOCAL, STATE, AND FEDERAL PERMITS APPLICABLE TO THE THOMPSON'S POINT SITE IN ADDITION TO ALL LOT 6 DEVELOPMENT PERMITS, THE MAINE DEP VRAP WORK PLAN, LEED SILVER DOCUMENT RECORDING, AND MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

2. THIS PROJECT WILL BE SUBJECT TO THE TERMS AND CONDITIONS OF ALL PERMITS ISSUED BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MAINE DEPARTMENT OF TRANSPORTATION, THE U.S DEPARTMENT OF THE ARMY CORPS OF ENGINEERS, LOCAL UTILITY COMPANIES AND THE CITY OF PORTLAND.

3. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF THE ENTRANCE, PAVING, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE POINTS. ENTRANCES IN MOST LOCATIONS REQUIRE STRUCTURAL SLABS. REFER TO THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR INFORMATION ON THE STRUCTURAL SLAB ENTRANCES.

4. ALL REQUIRED AND NECESSARY INSPECTIONS AND OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSIONS AND THE FINAL SERVICE CONNECTIONS.

5. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS, AT ITS SOLE COST.

6. MAINTENANCE OF EROSION CONTROL MEASURES IS OF PARAMOUNT IMPORTANCE TO THE APPLICANT AND THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ONSITE INSPECTIONS OF THE OWNER, THEIR REPRESENTATIVES, OR THE CITY, AT NO ADDITIONAL COST TO THE OWNER.

7. ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.

8. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE PROJECT SPECIFICATIONS, THE CITY OF PORTLAND AND SERVICING UTILITY REQUIREMENTS, IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SHALL APPLY AT NO EXTRA COST TO THE OWNER.

9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RECORD DRAWINGS THROUGHOUT THE PROJECT AND PROVIDING THE OWNER WITH A SET OF ELECTRONIC FINAL RECORD DRAWINGS WHEN THE PROJECT IS COMPLETE.

10. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO THOMPSON'S POINT AND ALL ADJACENT PROPERTIES INCLUDING THE RAILROAD R.O.W. AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS, SIGNAGE AND INCIDENTALS TO MAINTAIN SAFE VEHICLE AND PEDESTRIAN ACCESS THROUGH OUT THE LIFE OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE PORTLAND PUBLIC SAFETY DIVISION ROUTINELY REGARDING TEMPORARY IMPACT OR CHANGES TO EMERGENCY SITE ACCESS CONDITIONS.

SITE LAYOUT NOTES

1. ALL HANDICAP PARKING SPACES ARE TO RECEIVE HANDICAP SIGNS AND PAVEMENT MARKINGS AS ILLUSTRATED ON THE DETAIL SHEETS.

2. BITUMINOUS CONCRETE CURB, SLIPFORM CONCRETE CURB AND GRANITE CURB SHALL MEET THE REQUIREMENTS OF MDOT 702.001, 703.07 AND 609.04.

3. ALL DIMENSIONING, UNLESS NOTED OTHERWISE, IS TO THE FACE OF CURB OR THE FACE OF THE BUILDING.

4. EXCEPT WHERE INDICATED OTHERWISE, THE PAVEMENT IS TO BE STANDARD DUTY PAVEMENT. SEE DRAWINGS C-3.5 SURFACE TREATMENT PLAN FOR PAVEMENT TYPE.

5. ALL TRAFFIC CONTROL SIGNS INDICATED ON THE SITE LAYOUT PLAN ARE TO MEET ALL REQUIREMENTS & STANDARDS OF THE MAINE DEPARTMENT OF TRANSPORTATION, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITIONS AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS.

6. STRIPE PARKING AREAS, DRIVES AND ROADWAY AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, CROSSWALKS, HANDICAP SYMBOLS, PAINTED ISLANDS AND FIRE LANES. (ALL MARKINGS EXCEPT MEDIAN ISLANDS AND CENTERLINES TO BE CONSTRUCTED USING WHITE TRAFFIC PAINT). ALL TRAFFIC PAINT SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F". MEDIAN ISLANDS AND CENTERLINES TO BE CONSTRUCTED USING YELLOW TRAFFIC PAINT.

7. SEE DETAILS FOR PARKING STALL DIMENSIONS, HANDICAP SYMBOLS, SIGNS AND SIGN POSTS.

8. STOP BARS SHALL BE 12" WIDE.

9. PAINTED ISLANDS SHALL BE 4" WIDE DIAGONAL LINES @ 3'-0" O.C. BORDERED BY 4" WIDE LINES.

GRADING & DRAINAGE NOTES:

1. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF N = 0.012 OR LESS.

2. PROVIDE TURF REINFORCEMENT IN AREAS INDICATED ON THE PLANS.

3. AS "AS-BUILT" CERTIFICATION AND PLANS OF THE STORMWATER DRAINAGE SYSTEM IS REQUIRED PRIOR TO THE OWNER ACCEPTING ANY BUILDINGS AND PROPERTY. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ANY DEVIATION FROM THE PLANS MAY DELAY THE ACCEPTANCE OF THE PROJECT, WITH CONTRACTOR RESPONSIBLE FOR ANY ASSOCIATED COSTS.

4. A DETAILED O&M MANUAL FOR STORMWATER MANAGEMENT SYSTEMS IS (WILL BE) FILED WITH THE CITY OF PORTLAND DURING THE PERMIT REVIEW PROCESS. A SPECIFIC MANUAL HAS BEEN PREPARED FOR O&M OF THE DRAINAGE SYSTEM.

5. SEE EXISTING CONDITIONS FOR BENCHMARK INFORMATION.

6. SEE GRADING, DRAINAGE AND EROSION/SEDIMENT CONTROL FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.

7. ALL DISTURBED AREAS NOT TO BE PAVED, SODDED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED, FERTILIZER AND MULCH.

8. COMPACTION REQUIREMENTS:

LOCATION	MINIMUM COMPACTION*
SUBBASE AND BASE GRAVEL BELOW PAVED OR CONCRETE AREAS	95%
SUBGRADE FILL BELOW PAVED AREAS	90%
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL	95%
BELOW LOAM AND SEED AREAS	90%
STRUCTURAL FILL WITHIN PROPOSED BUILDING AREA	95%
SELECT FILL ADJACENT BUILDING FOUNDATIONS, EXTERIOR FOUNDATIONS AND WITHIN 8 INCHES OF THE SLAB-ON-GRADE	95%

*ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM-D-1557.

9. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.

10. CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCE AND EXIT RAMPS ADJACENT TO THE BUILDING AND ALONG NEW CURBED AREAS.

11. PROVIDE STABILIZATION OR SEPARATION GEOTEXTILE FABRIC OVER UNSTABLE SOILS AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND IN ACCORDANCE WITH THE FINAL GEOTECHNICAL RECOMMENDATIONS.

12. NATIVE SOILS RANGE FROM GRANULAR TO CLAYEY AND SILTY. CARE MUST BE EXERCISED TO LIMIT DISTURBANCE OF THE BEARING SOILS. THE NATIVE CLAYEY OR SILTY SOILS SHOULD NOT BE PROOF-ROLLED. SHOULD THE SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, DISTURBED AREAS SHOULD BE EXCAVATED AND BACKFILLED WITH COMPACTED SELECT FILL OR CRUSHED STONE AT NO EXTRA EXPENSE TO THE OWNER. ALL SUBGRADE PREPARATION IS SUBJECT TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER.

LOCAL APPROVALS, WAIVERS AND VARIANCES

THE CONSTRUCTION PLANS ARE TO BE SUBMITTED TO THE CITY OF PORTLAND FOR THEIR REVIEW, APPROVAL AND RECORDS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

UTILITY NOTES

1. ALL REQUIRED UTILITIES SERVING THE PROJECT SHALL BE COORDINATED AND CONSTRUCTED BY THE DIVISION SITE CONTRACTOR TO WITHIN 5 FEET OF THE BUILDINGS, AT A LOCATION COORDINATED WITH THE MEP CONTRACTOR(S) AND THE BUILDING PLANS. SITE WORK WITHIN 5 FEET OF UNDERSLAB UTILITIES SHALL CONSIST OF TRENCHING AND BACKFILLING. ACTUAL UTILITY INSTALLATION SHALL BE BY THE MEP CONTRACTOR. ALL REQUIRED CONNECTION FEES SHALL BE PAID BY THE OWNER.

2. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF AND/OR RELOCATION OF OVERHEAD AND UNDERGROUND TELEPHONE WITH FAIRPOINT COMMUNICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUITS, PULL WIRES, TRENCHING AND BACKFILLING NECESSARY TO COMPLETE THE WORK.

3. ALL SANITARY SEWER WORK SHALL MEET THE STANDARDS OF THE MAINE STATE PLUMBING CODE AND CITY OF PORTLAND PUBLIC SERVICES DIVISION.

4. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRIC SERVICE WITH CENTRAL MAINE POWER.

5. COORDINATE ALL UTILITY WORK WITH THE APPROPRIATE UTILITY COMPANY. ALL UTILITY WORK SHALL CONFORM TO THE STANDARDS OF THE UTILITY COMPANY AND PROJECT SPECIFICATIONS, WHICHEVER IS MORE STRINGENT.

6. THE LOCATIONS OF THE NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE SERVING UTILITY COMPANY, PROJECT ARCHITECTS AND MEP DESIGNERS.

7. UNDERGROUND ELECTRICAL, CONDUIT MATERIAL AND INSTALLATION SHALL CONFORM TO UTILITY COMPANY STANDARDS AND PROJECT SPECIFICATIONS, WHICH EVER IS MORE STRINGENT.

8. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OR WORK TO FINISH GRADE.

9. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.

10. THE CONTRACTOR SHALL OBTAIN, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO COMPLETION OF THE PROJECT.

11. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL, AT NO EXTRA EXPENSE TO THE OWNER.

12. A 10 FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18 INCH OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER AND SANITARY SEWER CROSSINGS.

13. THE CONTRACTOR SHALL PHASE UTILITY CONSTRUCTION AND PROVIDE TEMPORARY SERVICES AS REQUIRED TO PROVIDE CONTINUOUS SERVICE TO THE JOB SITE, SUBURBAN PROPANE AND NNEPRA TEMPORARY SERVICES SHALL COMPLY WITH ALL FEDERAL, STATE, LOCAL AND UTILITY COMPANY STANDARDS. COORDINATE ALL TEMPORARY SERVICES WITH UTILITY COMPANY, OWNER AND AFFECTED BUSINESSES.

LANDSCAPE NOTES

(SUBJECT TO COORDINATION WITH LANDSCAPE DRAWINGS. IN CASE OF CONFLICT BETWEEN THIS SECTION AND THE LANDSCAPE DRAWINGS, THE LANDSCAPING DRAWINGS SHALL GOVERN)

1. ALL PLANTS SHALL BE NURSERY GROWN AND WORKMANSHIP SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN, STANDARDS AND SHALL BE SUBJECT TO THE APPROVAL OF THE OWNERS REPRESENTATIVE BEFORE AND AFTER PLANTING.

2. PLANTS SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER INSPECTION AND ACCEPTANCE, AND SHALL HAVE AT LEAST 80% HEALTHY GROWTH AT THE END OF THE GUARANTEED PERIOD.

3. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM AND SEED AND 6" CLEAN COMMON BORROW AS DEFINED IN VRAP WORK PLAN BY CREDERE ASSOCIATES, DATED MARCH 6, 2013.

4. THREE (3) INCH BARK MULCH IS TO BE USED AROUND THE TREE AND SHRUB PLANTING AS SPECIFIED IN THE DETAILS. WHERE BARK MULCH IS USED IN A CURBED ISLAND, THE BARK SHALL MEET THE TIP INSIDE EDGE OF THE CURB. ALL OTHER AREAS SHALL RECEIVE 6" LOAM AND SEED.

5. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING AS SHOWN.

6. PARKING AREA PLANTED ISLANDS TO HAVE A MINIMUM OF 6" TOPSOIL. REMOVE ALL CONSTRUCTION DEBRIS BEFORE TOPSOILING. TOPSOIL SHALL BE PLACED TO TOP OF CURB.

7. ALL PLANT MATERIAL SHALL BE APPROVED BY THE OWNER OR THE OWNERS REPRESENTATIVE PRIOR TO ARRIVAL ON THE SITE.

8. PLANT MATERIAL SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS TO THE ORIGINAL PLANTING GRADE PRIOR TO DIGGING.

9. THE CONTRACTOR SHALL LOCATE, VERIFY, AND MARK ALL EXISTING AND NEWLY INSTALLED UNDERGROUND UTILITIES PRIOR TO ANY LAWN WORK OR PLANTING. ANY CONFLICTS WHICH MIGHT OCCUR BETWEEN PLANTINGS AND UTILITIES SHALL BE IMMEDIATELY REPORTED TO THE OWNER SO THAT ALTERNATE PLANTING LOCATIONS CAN BE DETERMINED.

10. NO SUBSTITUTION OF PLANT MATERIALS SHALL BE ALLOWED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE OWNER.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL PLANTING AND LAWNS AGAINST DAMAGE FROM ONGOING CONSTRUCTION. THIS PROTECTION SHALL BEGIN AT THE TIME THE PLANT IS INSTALLED AND CONTINUE UNTIL THE FORMAL ACCEPTANCE OF ALL THE PLANTINGS.

12. SEE PLANTING DETAILS FOR WEED BARRIER INFORMATION.

13. ALL PLANTING LOCATED AT THE ENTRANCE TO THE PROJECT OR AT INTERSECTIONS WITHIN THE SITE WILL BE MAINTAINED AND WILL NOT EXCEED 3 FEET IN HEIGHT WITHIN A TRIANGLE FORMED 25' INTO THE DRIVEWAY AND 25' ALONG THE TRAVEL WAY.

EROSION CONTROL NOTES:

1. PRIOR TO BEGINNING ANY LAND DISTURBING ACTIVITIES, CLEARING AND GRADING LIMITS SHALL BE STAKED BY THE CONTRACTOR BASED ON THE LIMITS OF GRADING SHOWN ON THE DRAWINGS AND ACCEPTED BY THE OWNER'S REPRESENTATIVE IN THE FIELD. AFTER THE CLEARING AND GRADING LIMITS HAVE BEEN ACCEPTED, THE CONTRACTOR SHALL INSTALL THE PERIMETER SILT FENCES, SEDIMENT BARRIERS AND THE CONSTRUCTION ENTRANCES ASSOCIATED WITH THE PROJECT.

2. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCHED AS SOON AS POSSIBLE. TEMPRORARY/PERMANENT SEED MIXTURES SHALL CONFORM TO THE SEEDING PLAN CONTAINED IN THE EROSION CONTROL PROJECT PREPARED FOR THIS PROJECT.

3. PRIOR TO PAVING, THE CONTRACTOR SHALL REMOVE SILT FROM ALL STORM LINES AND APPURTANCES.

4. ALL STORM DRAIN INLETS AND OUTLETS NOT IN PAVED AREAS ARE TO RECEIVE RIPRAP PROTECTION APRONS DURING CONSTRUCTION.

5. SILT FENCES SHALL BE INSPECTED, REPAIRED AND CLEANED AS NOTED IN THE EROSION CONTROL NOTES SHOWN ON THE EROSION CONTROL DETAIL SHEET.

6. THE CONTRACTOR SHALL REPAIR AND ADD STONE TO THE CONSTRUCTION ENTRANCE AS IT BECOMES SATURATED WITH MUD TO ENSURE THAT IT FUNCTIONS TO CAPTURE MUD FROM THE TIRES OF CONSTRUCTION VEHICLES DURING CONSTRUCTION. THE PURPOSE OF THE CONSTRUCTION ENTRANCE IS TO KEEP ADJACENT STREETS CLEAR OF DIRT AND MUD. SWEEPING OF THE ROADWAYS SHALL BE PERFORMED BY THE CONTRACTOR ON AN AS NEEDED BASIS, BUT AT A MINIMUM ONCE A WEEK.

7. SILT REMOVED FROM AROUND INLETS AND BEHIND THE SILT FENCES SHALL BE PLACED ON A TOPSOIL STOCKPILE AND MIXED INTO TOPSOIL FOR USE IN LANDSCAPING OPERATIONS.

8. LAND DISTURBING ACTIVITIES SHALL BE ACCOMPLISHED IN A MANNER AND SEQUENCE WHICH CAUSE THE LEAST PRACTICAL UNPROTECTED DENUDED AREAS ON THE SITE DURING CONSTRUCTION.

9. THE CONTRACTOR IS CAUTIONED THAT FAILURE TO COMPLY WITH THE SEQUENCE OF CONSTRUCTION, EROSION/SEDIMENT CONTROL PLAN, AND OTHER PERMIT REQUIREMENTS MAY RESULT IN MONETARY PENALTIES AS ENFORCED BY THE MEDEP OR LOCAL AGENCIES. THE CONTRACTOR SHALL BE ASSESSED ALL SUCH PENALTIES AT NO COST TO THE OWNER OR PERMITTEE.

10. A FULL EROSION/SEDIMENTATION CONTROL PLAN ACCOMPANIES THIS DRAWING SET AND IS ALSO CONTAINED IN THE DIV 312513 SPECIFICATIONS.

11. PROVIDE INLET PROTECTION BARRIERS AROUND ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS AS SHOWN AND MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED.

12. INSPECT EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH RAIN STORM OF 0.25 INCHES OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 OF THE STRUCTURE HEIGHT.

13. INSTALL CURLEX EROSION CONTROL MAT OR EQUAL ON ALL SLOPES STEEPER THAN 3:1.

14. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES, CUMBERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2003".

LEGEND

EXISTING	PROPOSED
BOUNDARY LINE/R.O.W.	BARRIER FREE SYMBOL
ABUTTER LINE/R.O.W.	SIGN
DEED LINE/ROW	SIGN LABEL
TIE LINE	GUIDERAIL - METAL
EASEMENT	GUIDERAIL - TIMBER
FLOODPLAIN	FENCE - CHAINLINK
CENTERLINE	FENCE - WOOD
IRON PIPE/ROD	BUILDING / BUILDING ACCESS
BENCHMARK	PROPERTY LINE
BUILDING	RETAINING WALL
WETLANDS	PEDESTRIAN CROSSWALK
EDGE WETLAND	TRAFFIC ARROWS
ROCK OUTCROP	BOLLARD
SIGN	VERTICAL GRANITE CURB
EDGE PAVEMENT	SLOPED GRANITE CURB
GRAVEL ROAD	CATCH BASIN
EDGE WATER	CONTOUR LABEL
CONTOURS (122 — 120)	DRAIN MANHOLE
SPOT GRADE (×30.20)	RIPRAP INLET APRON
CHAIN LINK FENCE	RIPRAP OUTLET APRON
DECIDUOUS TREE	SLOPE DESIGNATION (2 / 1 2:1)
CONIFEROUS TREE	SPOT GRADE (×8.33)
GUARDRAIL	SPOT GRADE AT CURB (TC 96.50 8.50 / BC 8.00)
WATER GATE VALVE	WATER MARK
HYDRANT	UNDERDRAIN (10"UD)
SEWER MH	STORM DRAIN (SD9)
CATCH BASIN	TREE LINE OR LIMIT OF CLEARING
DRAINAGE MH	CURB STOP
UNIDENTIFIED MH	HYDRANT
OVERHEAD UTILITY (OHU)	LIGHT POLE WITH FIXTURE(S)
ELECTRIC METER BOX (EM)	WALL MOUNT LIGHT
LIGHT POLE	SANITARY SEWER MANHOLE
UTILITY POLE	TEST PIT
GUY	TRANSFORMER PAD (T)
RIPRAP	UTILITY POLE
BOULDER	VALVE
SCHEDULE B – SECTION 2 EXCEPTIONS (15)	SANITARY SEWER (SAN9)
	WATER MAIN (6"W)
	GAS MAIN (2"G)
	UNDERGROUND ELECTRIC (UGE)
	OVERHEAD ELECTRIC (OHE)
	PEDESTRIAN FLASHER (P)

PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY No. 11994 — LICENSED PROFESSIONAL ENGINEER — 9/6/2024

P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

SHEET TITLE
GENERAL NOTES AND LEGEND

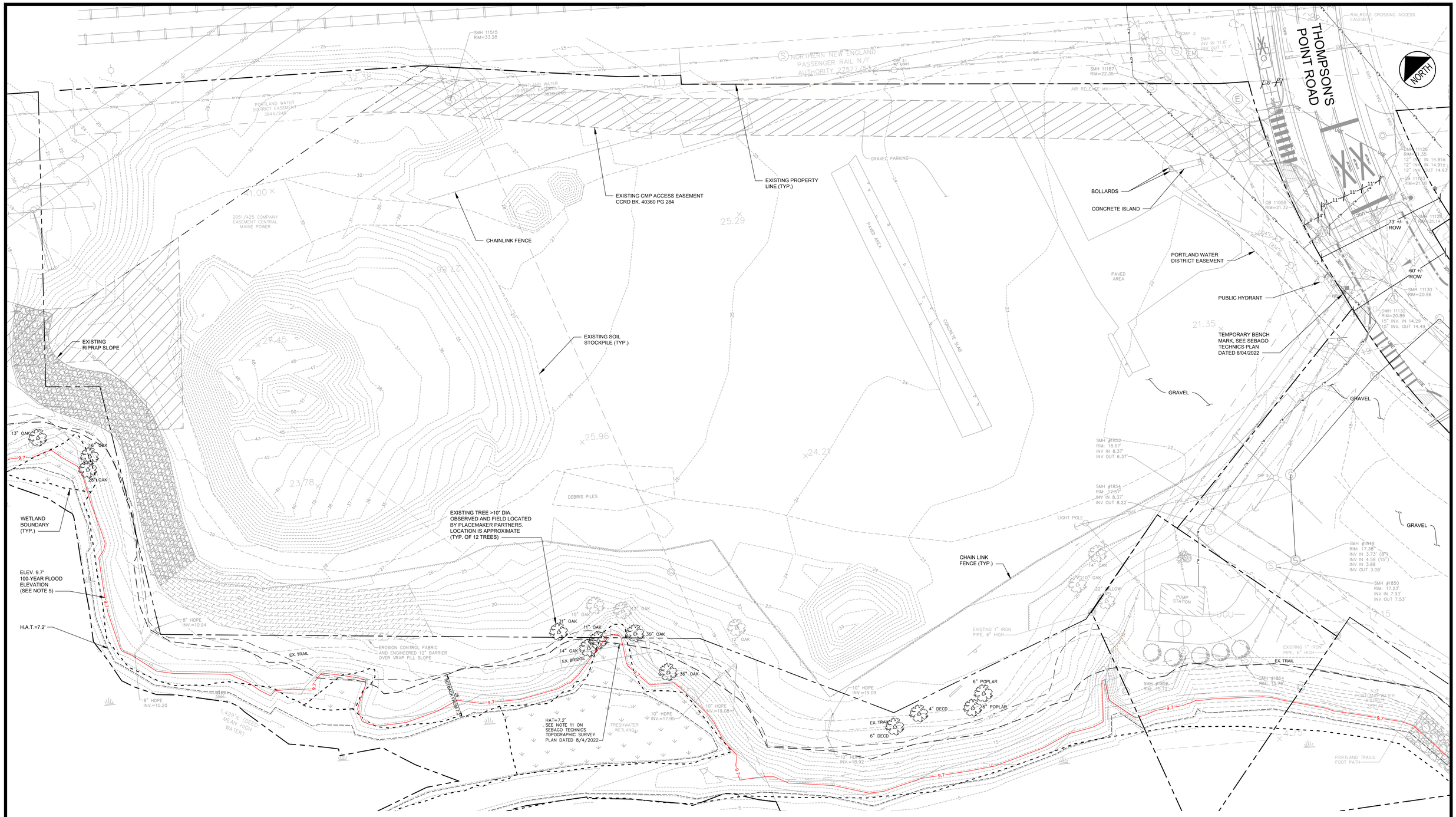
CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

N.T.S.

DRAWN: BEK	DATE: AUGUST 2024
DESIGNED: BEK	SCALE:
FILE NAME: PANHANDLE-GEN.dwg	
SHEET C-1.2	

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PLAN REFERENCES:

1. BOUNDARY AND TOPOGRAPHIC DATA PROVIDED BY SEBAGO TECHNICS AS SHOWN ON A PLAN TITLED ALTA/ACSM LAND TITLE SURVEY OF 1 THOMPSON'S POINT, DATED MAY 27, 2011 AND LAST REVISED ON NOVEMBER 23, 2011. THIS PLAN HAS BEEN UPDATED TO REFLECT A NEW TOPOGRAPHIC SURVEY COMPLETED BY SEBAGO TECHNICS ON AUGUST 4, 2022.
2. GEOTECHNICAL EXPLORATION BORINGS AND TEST PIT LOCATIONS NOT SHOWN. AVAILABLE UPON REQUEST.
3. ADDITIONAL UTILITY DATA TAKEN FROM CITY AND UTILITY COMPANY RECORD DRAWINGS. AS WELL AS OBSERVATIONS BY PLACEMAKER PARTNERS, LLC PERSONNEL DURING SITE VISITS.
4. THIS PLAN HAS BEEN PREPARED BY PLACEMAKER PARTNERS, LLC THROUGH SOURCES NOTED ABOVE AND FIELD OBSERVATIONS OF ABOVE GROUND FEATURES. PLACEMAKER PARTNERS, LLC DOES NOT CERTIFY ITS ACCURACY AND NOTES CHANGES MAY HAVE OCCURRED SINCE THIS PLAN WAS APPROVED. ALL CONTRACTORS SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL CONDITIONS PRIOR TO CONTRACT SIGNING.
5. FEMA 100 YEAR FLOOD ELEVATION AE AS PUBLISHED IN 2023 IS NOTED TO BE ELEVATION 9 FEET, NAVD 1988 VERTICAL DATUM. THESE PLANS ARE BASED ON VERTICAL DATUM NGVD 1929. ELEVATION 9 FEET CONVERTS TO 9.76 FEET AND THEREFORE SLIGHTLY LOWER THAN THE ELEVATION 10 FEET SHOWN HERE IN. ELEVATION 10 FEET IS SHOWN FOR CLARITY AS PREVIOUSLY ASSUMED BASED ON PAST FEMA PUBLISHINGS.

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
3	2/14/2025	REVISED PER CITY COMMENTS
2	12/23/2024	REVISED TO ADDRESS CITY COMMENTS
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE BO KENNEDY No. 11994 LICENSED PROFESSIONAL ENGINEER 12/23/2024

P.E. BO KENNEDY

LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

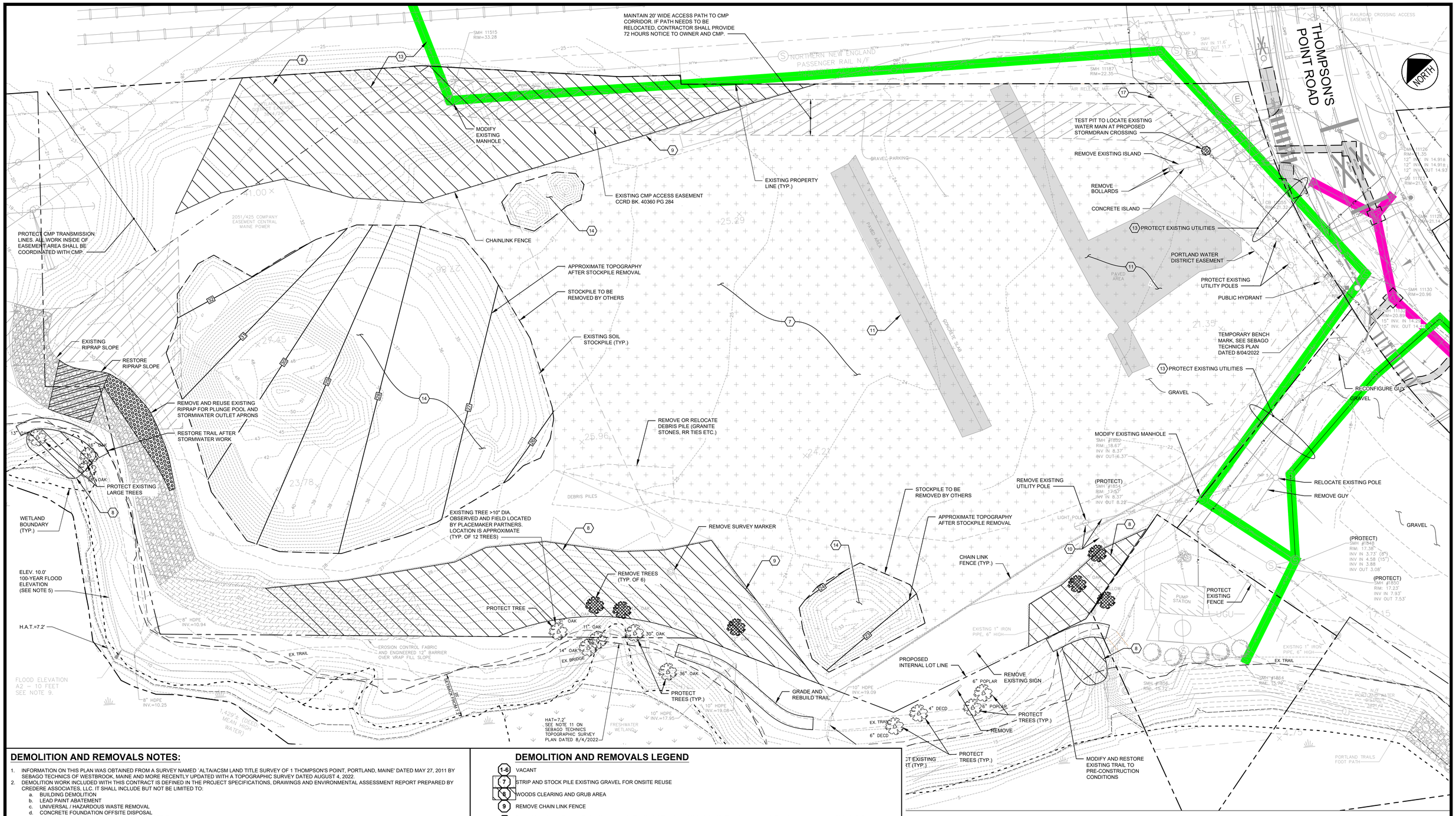
SHEET TITLE
EXISTING CONDITIONS PLAN

CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
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DRAWN: DB	DATE: AUGUST 2024
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SHEET	C-2.0

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DEMOLITION AND REMOVALS NOTES:

1. INFORMATION ON THIS PLAN WAS OBTAINED FROM A SURVEY NAMED "ALTA/ACSM LAND TITLE SURVEY OF 1 THOMPSON'S POINT, PORTLAND, MAINE" DATED MAY 27, 2011 BY SEBAGO TECHNICS OF WESTBROOK, MAINE AND MORE RECENTLY UPDATED WITH A TOPOGRAPHIC SURVEY DATED AUGUST 4, 2022.
2. DEMOLITION WORK INCLUDED WITH THIS CONTRACT IS DEFINED IN THE PROJECT SPECIFICATIONS, DRAWINGS AND ENVIRONMENTAL ASSESSMENT REPORT PREPARED BY CREDERE ASSOCIATES, LLC. IT SHALL INCLUDE BUT NOT BE LIMITED TO:
   a. BUILDING DEMOLITION
   b. LEAD PAINT ABATEMENT
   c. UNIVERSAL / HAZARDOUS WASTE REMOVAL
   d. CONCRETE FOUNDATION OFFSITE DISPOSAL
   e. UTILITY DISCONNECTION AT EACH RAZED BUILDING
   f. INSTALLATION OF EROSION AND SEDIMENT CONTROLS
   g. DUST CONTROL
3. THE CONTRACTOR SHALL REMOVE CONCRETE FOUNDATIONS TO A MINIMUM OF 2 FEET BELOW GRADE AND TRANSPORTED OFFSITE FOR DISPOSAL. FOUNDATION HOLES SHALL BE LEFT WITH OSHA COMPLIANT SIDEWALLS WITH A SLOPE NOT MORE THAN 3:1.
4. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY FACILITIES INCLUDING AN OFFICE TRAILER AND BATHROOM FACILITIES.
5. THE CONTRACTOR MUST OBTAIN ALL PERMITS REQUIRED BY THE CITY OF PORTLAND TO PERFORM CONTRACTED WORK INCLUDING BUT NOT LIMITED TO A CITY CONNECTION PERMIT (UTILITIES IN THE RIGHT-OF-WAY) PRIOR TO THE START OF WORK.
6. EROSION, SEDIMENT AND DUST CONTROL IS OF PARAMOUNT IMPORTANCE TO THE OWNER AND A CRITICAL COMPONENT OF THE PERMIT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO REFER TO THE PROJECT DOCUMENTS FOR ALL REQUIREMENTS AS DETAILED IN THE ENVIRONMENTAL ASSESSMENT REPORT AND ITS APPENDED REPORTS PREPARED BY CREDERE ASSOCIATES, LLC. THE DEMOLITION CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION AND SEDIMENT MEASURES UNTIL CLOSE OUT OF THE DEMOLITION CONTRACT.
7. THE CONTRACTOR IS REQUIRED TO SUBMIT A WRITTEN LOGISTICS PLAN A MIN. OF 48 HOURS PRIOR TO THE MOBILIZATION OF EQUIPMENT TO THE SITE. THE PLAN SHALL DETAIL LAYDOWN AREAS, ACCESS AREAS, STOCKPILE AREAS, SCHEDULE, ETC. THE OWNER RESERVES THE RIGHT TO MODIFY THE LOGISTICS PLAN TO BE CONSISTENT WITH THE PROJECT DOCUMENTS AT NO ADDITIONAL COST TO THE OWNER. THE PLAN SHALL BE CONSISTANT WITH THE APPROVED CONSTRUCTION MANAGEMENT PLAN.
8. THE CONTRACTOR SHALL HANDLE ALL DISTURBED SOILS IN ACCORDANCE WITH THE SOIL MANAGEMENT PLAN PREPARED BY CREDERE ASSOCIATES, LLC.
9. THE CONTRACTOR IS RESPONSIBLE FOR ALL DOCUMENTATION APPLICABLE TO THE GROUNDWATER AND SOIL REMOVAL AND DISPOSAL ACTIVITIES AS DETAILED IN THE GROUNDWATER MANAGEMENT PLAN AND SOIL MANAGEMENT PLAN BY CREDERE ASSOCIATES, LLC. AT NO EXTRA EXPENSE TO THE OWNER.
10. THE CONTRACTOR SHALL REMOVE, DISPOSE AND DOCUMENT ALL UNIVERSAL AND HAZARDOUS WASTE, LEAD-BASED PAINT AND SUB SLAB SOIL IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS INCLUDING THE PHASE II ENVIRONMENTAL ASSESSMENT REPORT AND MEDEP VRAP PLAN.
11. THE PROJECT SITE INCLUDES ONGOING TENANT ACTIVITIES, INCLUDING BUT NOT LIMITED TO RETAIL, EVENTS, OFFICE, AND NNEPRA, THAT SHALL REMAIN THROUGHOUT THE COURSE OF DEMOLITION AND CONSTRUCTION. CONSTRUCTION WORK SHALL BE CONDUCTED IN A MANNER TO MINIMIZE DISRUPTION TO THESE OPERATIONS.
12. SITE ACCESS TO THE CAMPUS, NNEPRA, CMP AND THE PORTLAND WATER DISTRICT MUST BE MAINTAINED AT ALL TIMES.
13. SITE ACCESS IS CURRENTLY THROUGH A PUBLIC RAILROAD CROSSING. NO EXTRA PAYMENT WILL BE MADE FOR TEMPORARY SHUTDOWNS RESULTING FROM RAILROAD OPERATIONS.
14. THE CONTRACTOR SHALL MAINTAIN CLEAR FIRE LANES ACCESS THE SITE THROUGHOUT THE DURATION OF WORK.
15. APPROXIMATE LOCATION OF HISTORICAL BUILDING PREVIOUSLY RAZED AS SHOWN ON THE SANBORN MAPS ATTACHED TO THE CREDERE ASSOCIATES ENVIRONMENTAL ASSESSMENT REPORT. THE CONTRACTOR SHOULD BE AWARE THAT REMNANTS OF THESE BUILDINGS MAY STILL BE PRESENT WHEN ENCOUNTERED DURING WORK OF THIS CONTRACT. WORK ASSOCIATED WITH REMOVAL OF BURIED FOUNDATIONS, SLABS OR OLD UTILITIES AND BACK FILL WITH CLEAN GRANULAR BORROW (MDOT 703.19) OF EXISTING VOIDS OR AS A RESULT OF REMOVAL SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND COMPLETED AT NO ADDITIONAL COST TO THE OWNER.
16. THE PORTLAND FIRE DEPARTMENT SHOULD BE NOTIFIED PRIOR TO ANY SHUTDOWN OF ONSITE WATER MAINS AND HYDRANTS. IT IS THE OWNER'S INTENT TO MAINTAIN THE HYDRANT SERVICES UPON COMPLETION OF THE DEMOLITION PHASE ACTIVITIES SO THE CONTRACTOR SHALL INCLUDE ALL NECESSARY MEASURES TO SATISFY THIS REQUIREMENT.
17. THE CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS; DOCUMENTING ALL UTILITY STUBS LOCATION, DEPTH, SIZE, TYPE AND CONDITION USING MEANS AND METHODS FOR CAPTURING DATA FOR DISPLAY IN AUTOCAD FORMAT.

DEMOLITION AND REMOVALS LEGEND

1-6 VACANT

7 STRIP AND STOCK PILE EXISTING GRAVEL FOR ONSITE REUSE

8 WOODS CLEARING AND GRUB AREA

9 REMOVE CHAIN LINK FENCE

10 CENTRAL MAINE POWER TO REMOVE UTILITY POLES AND OVERHEAD OR UNDERGROUND UTILITY WIRES AT A TIME WHEN TEMPORARY OR PERMANENT POWER CAN TAKE IT'S PLACE. ADJACENT PROPERTY OWNERS SUCH AS (BRICK NORTH, BRICK SOUTH, CMTM AND DEPOT) AND ON SITE TENANTS SHALL HAVE ACCESS TO POWER AT ALL TIMES. THE CONTRACTOR IS REQUIRED TO COORDINATE WITH THE UTILITY COMPANIES TO DISCONNECT POWER AT A TIME APPROVED BY THE OWNER.

11 EXISTING BITUMINOUS ASPHALT OR CONCRETE SURFACE TO BE REMOVED. THE CONTRACTOR MAY PROCESS (<4" DIA.) AND BLEND WITH GRAVEL FOR USE AS SUBBASE GRAVEL MATERIAL.

12 CONCRETE SLABS AND FOUNDATIONS TO BE DEMOLISHED - SALVAGEABLE MATERIAL INCLUDING BRICK AND CONCRETE BLOCK MAY BE PROCESSED ONSITE BUT MUST BE PROPERLY DISPOSED OF OFFSITE.FOUNDATIONS TO BE REMOVED A MINIMUM OF 2 FEET BELOW EXISTING GRADE. ALL UTILITY SERVICES SHALL BE CUT AND CAPPED 10'-0" FROM THE BUILDING WITH A WITNESS STAKE CLEARLY MARKED. THE CONTRACTOR IS RESPONSIBLE TO IDENTIFY AND DISCONNECT ALL UTILITIES CONNECTED TO THE BUILDING. SOME UTILITY CONNECTIONS MAY NOT BE SHOWN ON THIS PLAN AND SHALL BE DISCONNECTED AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL PROVIDE AN ALLOWANCE AND A PER CUBIC YARD PRICE TO REMOVE AND DISPOSE OF MATERIAL IN APPROVED OFF-SITE FACILITY. ALL TRUCKING SLIP VOLUMES SHALL BE TRACKED AND APPROVED BY OWNER OR ITS ASSIGNED REPRESENTATIVE PRIOR TO INVOICING.

13 EXISTING SANITARY SEWER OR STORM DRAINAGE STRUCTURE TO BE PROTECTED OR ALTERED

14 REMOVE SOIL STOCKPILE

15 EXISTING SANITARY SEWER OR DRAINAGE STRUCTURES AND PIPING TO BE REMOVED. ALL EXISTING SERVICE LEADERS SHALL REMAIN IN SERVICE UNTIL TEMPORARY OR PERMANENT SERVICE IS PROVIDED.

16 EXISTING WATER SUPPLY SYSTEM TO BE REMOVED INCLUDING ALL VALVES, SUPPLY MAINS, SERVICES AND BLOW OFFS TO THE LIMITS SHOWN ON PLANS.

17 PROTECT EXISTING WATER SUPPLY SYSTEM

EXISTING STORM DRAIN SEWER LINE WHICH IS BELIEVED TO DISCHARGE DIRECTLY TO THE FORE RIVER. ALL GROUNDWATER DISCHARGED TO THESE LINES SHALL BE TREATED IN ACCORDANCE WITH "SECTION 4.3 COLLECTION, TREATMENT, AND ON-SITE DISPOSAL" OF THE "GROUNDWATER MANAGEMENT PLAN" PREPARED BY CREDERE ASSOCIATES, LLC

EXISTING SANITARY SEWER LINES WHICH ARE TRIBUTARY TO THE PORTLAND WATER DISTRICT PUMP STATION. ALL GROUNDWATER DISCHARGED TO THESE LINES SHALL BE TREATED IN ACCORDANCE WITH "SECTION 4.2 COLLECTION AND DISPOSAL AT TREATMENT FACILITY OF THE GROUNDWATER MANAGEMENT PLAN PREPARED BY CREDERE ASSOCIATES, LLC. THE WATER DISCHARGED TO THIS SYSTEM WILL BE SUBJECT TO A MONETARY FEE PER VOLUME OF WATER AS SET FORTH BY THE CITY OF PORTLAND FOR ANY WATER DISCHARGED TO THIS SYSTEM DURING A RAIN EVENT WHEN THE COMBINED SYSTEM OVERFLOW LINE HAS BEEN ACTIVATED THE CONTRACTOR SHALL BE RESPONSIBLE TO TREAT THE DISCHARGE IN ACCORDANCE WITH SECTION 4.3 OF THE GROUNDWATER MANAGEMENT PLAN AND DIVERTED TO THE EXISTING STORM DRAIN SYSTEM.

NOTE TO CONTRACTOR:

1. THE CAMPUS IS A PUBLICLY ACTIVE SITE WITH OPEN BUSINESS ABUTTERS AND ON SITE TENANTS WITH RIGHTS TO ACCESS AND OPERATE THEIR FACILITIES AT ALL TIMES. THE CONTRACTOR SHALL MAINTAIN REASONABLE VEHICULAR AND PEDESTRIAN ACCESS TO, BUT NOT LIMITED TO THE FOLLOWING:
   ALL EXISTING BUILDINGS, HYDRANTS / FIRE PROTECTION APPURTENANCES, AND PUBLIC RIGHT-OF-WAY.
2. THIS PLAN MAY REQUIRE THE REMOVAL OR ALTERING OF EXISTING UTILITY SERVICES (ELECTRIC, COMMUNICATION, SANITARY SEWER, WATER AND DRAINAGE). ALL EXISTING USERS SHALL BE PROVIDED WITH TEMPORARY OR PERMANENT UTILITY CONNECTIONS PRIOR TO REMOVAL OR DISCONNECTION OF ANY UTILITY LINE WITH NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL COORDINATE ALL SHUT DOWNS WITH OWNER AND USERS 72 HOURS IN ADVANCE WITH A PLAN TO PROVIDE A REPLACEMENT SERVICE.

PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
2	12/23/2024	REVISED TO ADDRESS CITY COMMENTS
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY — No. 11994 — LICENSED PROFESSIONAL ENGINEER — 12/23/2024

P.E. BO KENNEDY
LIC. #11994

PROJECT: THE FOREFRONT AT THOMPSON'S POINT MULTI-FAMILY RESIDENTIAL BUILDING (G)

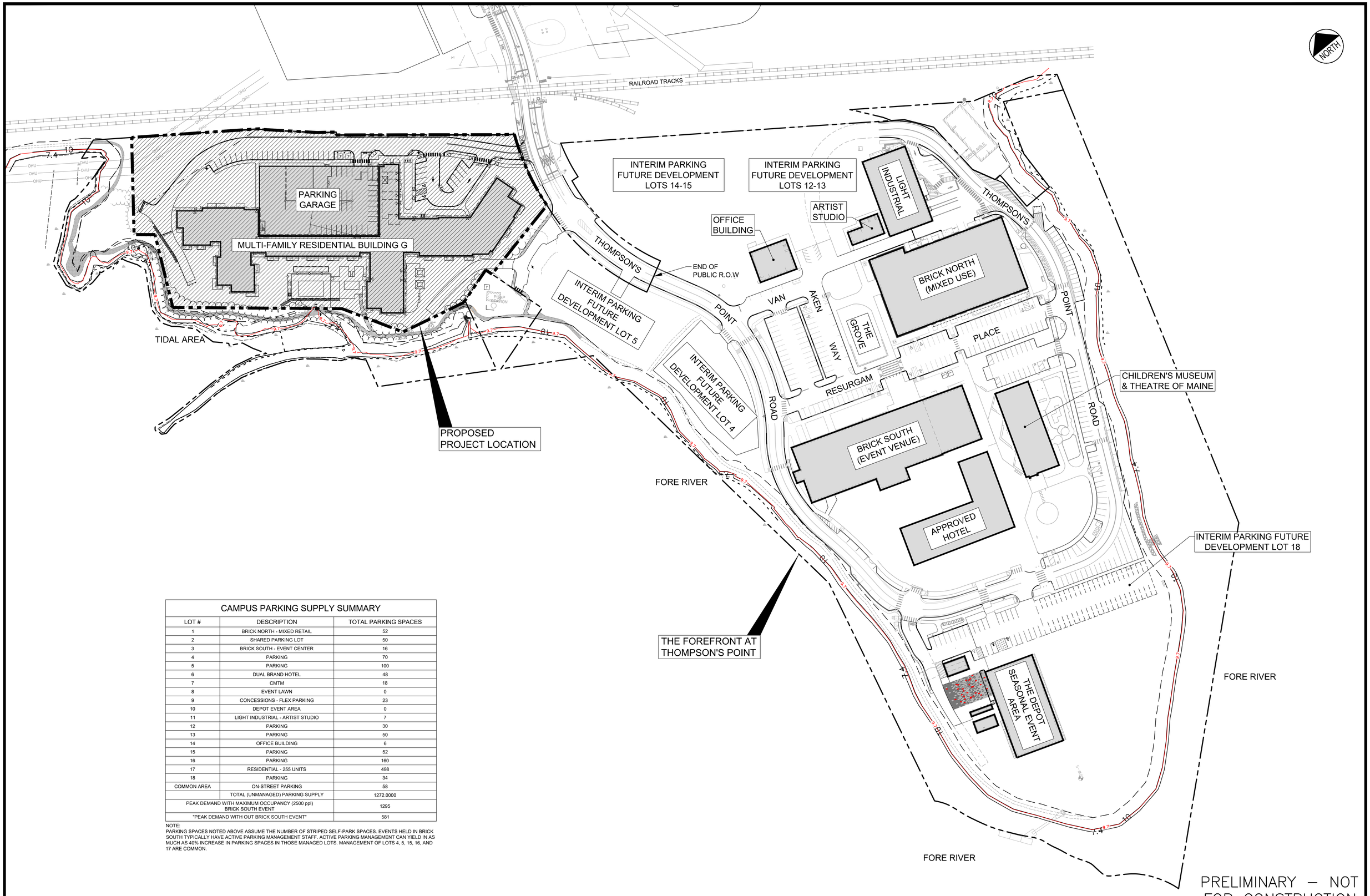
SHEET TITLE: DEMOLITION AND REMOVALS PLAN

CLIENT: CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN:	DB
DESIGNED:	BEK
DATE:	AUGUST 2024
SCALE:	1" = 20'
FILE NAME:	PANHANDLE-DEMO.dwg
SHEET	C-2.1

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CAMPUS PARKING SUPPLY SUMMARY		
LOT #	DESCRIPTION	TOTAL PARKING SPACES
1	BRICK NORTH - MIXED RETAIL	52
2	SHARED PARKING LOT	50
3	BRICK SOUTH - EVENT CENTER	16
4	PARKING	70
5	PARKING	100
6	DUAL BRAND HOTEL	48
7	CMTM	18
8	EVENT LAWN	0
9	CONCESSIONS - FLEX PARKING	23
10	DEPOT EVENT AREA	0
11	LIGHT INDUSTRIAL - ARTIST STUDIO	7
12	PARKING	30
13	PARKING	50
14	OFFICE BUILDING	6
15	PARKING	52
16	PARKING	160
17	RESIDENTIAL - 255 UNITS	498
18	PARKING	34
COMMON AREA	ON-STREET PARKING	58
	TOTAL (UNMANAGED) PARKING SUPPLY	1272.0000
PEAK DEMAND WITH MAXIMUM OCCUPANCY (2500 ppl) BRICK SOUTH EVENT		1295
"PEAK DEMAND WITH OUT BRICK SOUTH EVENT"		581

NOTE:
PARKING SPACES NOTED ABOVE ASSUME THE NUMBER OF STRIPED SELF-PARK SPACES. EVENTS HELD IN BRICK SOUTH TYPICALLY HAVE ACTIVE PARKING MANAGEMENT STAFF. ACTIVE PARKING MANAGEMENT CAN YIELD IN AS MUCH AS 40% INCREASE IN PARKING SPACES IN THOSE MANAGED LOTS. MANAGEMENT OF LOTS 4, 5, 15, 16, AND 17 ARE COMMON.

GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1 inch = 60 ft.

PRELIMINARY – NOT FOR CONSTRUCTION

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REVISIONS

STATE OF MAINE BO KENNEDY No. 11904 LICENSED PROFESSIONAL ENGINEER 12/23/2024

P.E. BO KENNEDY
LIC. #11994

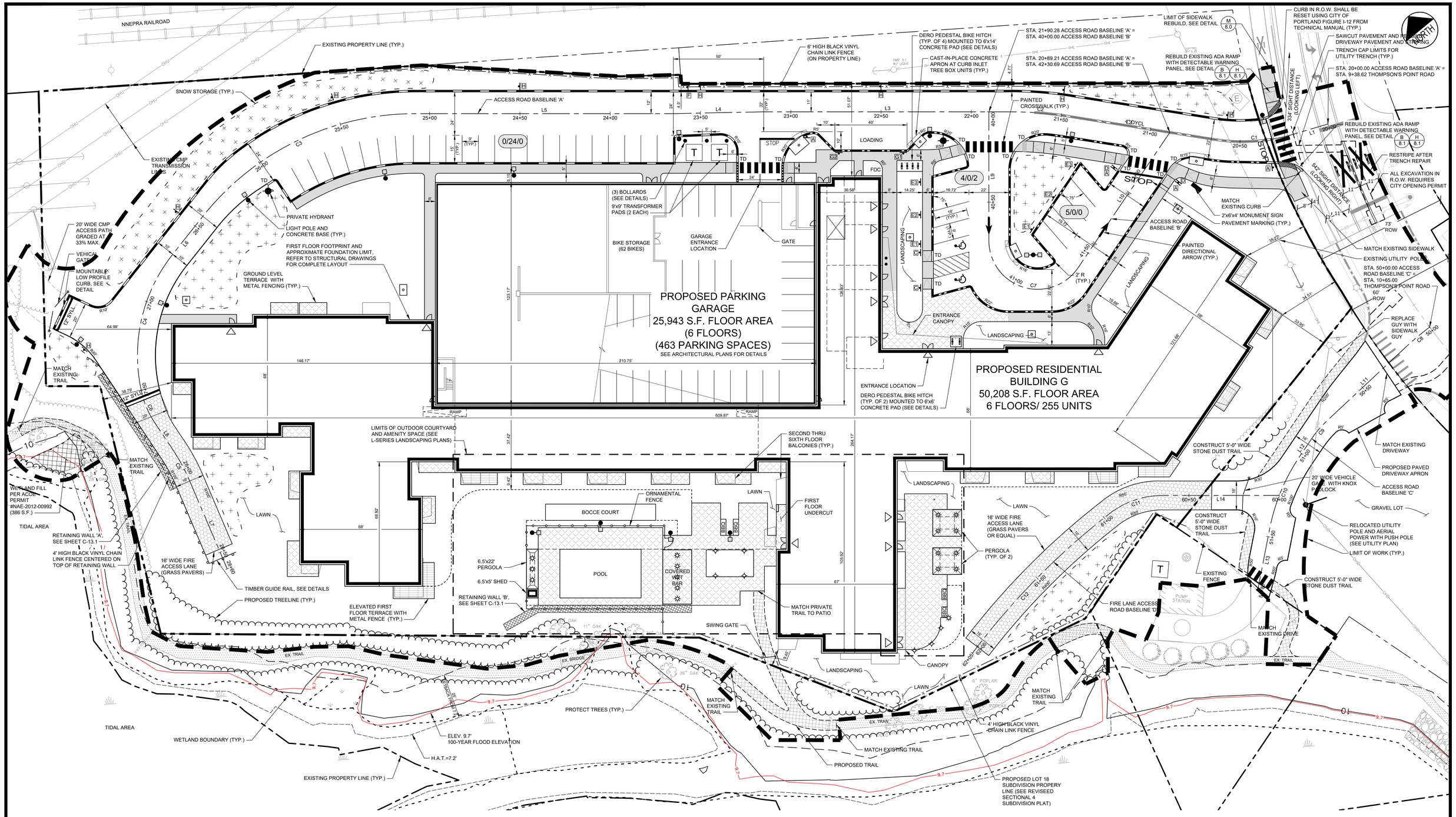
PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

SHEET TITLE
OVERALL CAMPUS PLAN

CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN: DB	DATE: AUGUST 2024
DESIGNED: BEK	SCALE: 1" = 60'
FILE NAME: PANHANDLE-OVERALL SP.dwg	
SHEET C-3.0	



LINE TABLE: ALIGNMENTS			
ID	LENGTH	DIRECTION
L1	19.82	N67° 07' 13.69"W
L2	81.63	N41° 34' 16.03"W
L3	137.46	N50° 35' 12.29"W
L4	50.01	N51° 44' 07.61"W
L5	143.04	N50° 35' 17.74"W
L6	27.00	S77° 52' 32.58"W
L7	52.84	S16° 18' 38.84"W
L8	17.11	S05° 28' 11.42"W
L9	71.28	S39° 24' 37.14"W
L10	90.67	N73° 33' 06.38"E
L11	60.27	S86° 19' 56.56"W
L12	11.91	S73° 28' 29.09"W
L13	34.54	S50° 26' 14.46"W
L14	64.65	N50° 35' 22.86"W

CURVE TABLE: ALIGNMENTS						
ID	RADIUS	ARC LENGTH	DELTA	TANGENT	PC STATION	PT STATION
C1	100.00	44.59	025° 33'	22.67	20+19.82	20+64.42
C2	200.00	31.47	009° 01'	15.77	21+46.05	21+77.52
C3	150.02	134.94	051° 32'	72.42	25+08.03	26+42.97
C4	90.00	82.02	052° 13'	44.11	26+69.97	27+51.99
C5	108.00	20.43	010° 50'	10.25	27+86.72	28+07.16
C6	50.00	17.62	020° 11'	8.90	27+51.99	27+69.61
C7	27.00	68.73	145° 52'	87.92	40+71.28	41+40.01
C8	150.00	16.84	006° 26'	8.43	50+00	50+16.84
C9	58.00	13.02	012° 51'	6.54	50+77.11	50+90.13
C10	108.00	43.42	023° 02'	22.01	51+02.04	51+45.46
C11	48.00	31.74	037° 54'	16.48	60+64.65	60+96.39
C12	408.00	108.61	015° 15'	54.63	60+96.39	62+05

PAVEMENT LEGEND*

- STANDARD DUTY PAVEMENT
- BITUMINOUS PAVEMENT SIDEWALK
- HARDSCAPE - FINAL SURFACE MATERIAL TBD
- SNOW STORAGE
- PROPOSED TRAIL
- EXISTING TRAIL

*SEE SHEET C-8.0 FOR SECTION BUILDUP DETAILS

CURB LEGEND

- SLIP FORM CONCRETE CURB (SLOPED DIRIGO - SEE DETAILS)
- MAINEDOT TYPE 1 VERTICAL GRANITE CURB
- MAINEDOT TYPE 1 VERTICAL GRANITE CURB - FLUSH
- MOUNTABLE LOW PROFILE CURB
- TD — TIP DOWN

SIGN LEGEND

	STOP	RESERVED PARKING	RESERVED PARKING	DO NOT ENTER	VISITOR PARKING	VISITOR PARKING	VISITOR PARKING	DEAD END	SHORT TERM LOADING ONLY	SHORT TERM LOADING ONLY	NO PARKING FIRE LANE
MUTCD SIZE	R1-1 24"x24"	R7-8 12"x18"	R7-8P 12"x6" VAN ACCESIBLE	R5-1 30"x30"	R7-8R 12"x18"	R7-8LR 12"x18"	R7-8L 12"x18"	W14-1 24"x24"	R7-8R 12"x18"	R7-8L 12"x18"	12"x18"
PLAN LABEL	A	B	C	D	E1	E2	E3	F	G1	G2	H

(20 / 5 / 2) PARKING SPACE - STANDARD / COMPACT / ACCESSIBLE

PAVEMENT MARKING LEGEND

4" DYCL 4" WIDTH DOUBLE YELLOW CENTERLINE
4" SYLL 4" WIDTH SOLID YELLOW LANE LINE
4" SWLL 4" WIDTH SOLID WHITE LANE LINE
STOP 12" WIDTH SOLID WHITE STOP LINE

ALL PARKING STALLS TO BE 4" WIDTH SINGLE SOLID WHITE LINE EXCEPT AS SHOWN ON SITE LAYOUT PLAN.

ALL SIGNAGE AND STRIPING SHALL CONFORM TO THE STANDARDS FOR SIZE, HEIGHT, LOCATION, COLOR, INSTALLATION AND REFLECTIVITY SET FORTH IN THE CURRENT VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

SITE LAYOUT NOTES

1. ALL BARRIER FREE PARKING SPACES ARE TO RECEIVE BARRIER FREE SIGNS AND PAVEMENT MARKINGS AS ILLUSTRATED ON THE DETAIL SHEETS.
2. ALL CURBING MATERIALS WILL BE SELECTED BY THE OWNER. THE DIMENSIONS PROVIDED ON THE PLAN ARE TO FACE OF CURB. ALL CURBING TYPES ARE DETAILED IN THE PROJECT DETAIL SHEETS.
3. ALL DIMENSIONING, UNLESS NOTED OTHERWISE, IS TO THE FACE OF CURB, THE EDGE OF PAVEMENT OR THE FACE OF THE BUILDING.
4. EXCEPT WHERE INDICATED OTHERWISE, THE PAVEMENT IS TO BE STANDARD DUTY PAVEMENT.

BARRIER LEGEND

- x — BLACK VINYL CHAIN LINK FENCE (REFER TO SITE PLAN FOR HEIGHT)
- TIMBER GUIDE RAIL
- ORNAMENTAL FENCE

GRAPHIC SCALE
30 0 10 20 40
(IN FEET)
1 inch = 20 ft.

DETAIL REFERENCE

B / 8.1 — DETAIL DESIGNATION / PLAN SHEET NUMBER

PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
3	2/14/2025	REVISED PER CITY COMMENTS
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REVISIONS

STATE OF MAINE — BO KENNEDY No. 11994 — LICENSED PROFESSIONAL ENGINEER — 12/23/2024

P.E. BO KENNEDY
LIC. #11994

PROJECT: THE FOREFRONT AT THOMPSON'S POINT MULTI-FAMILY RESIDENTIAL BUILDING (G)

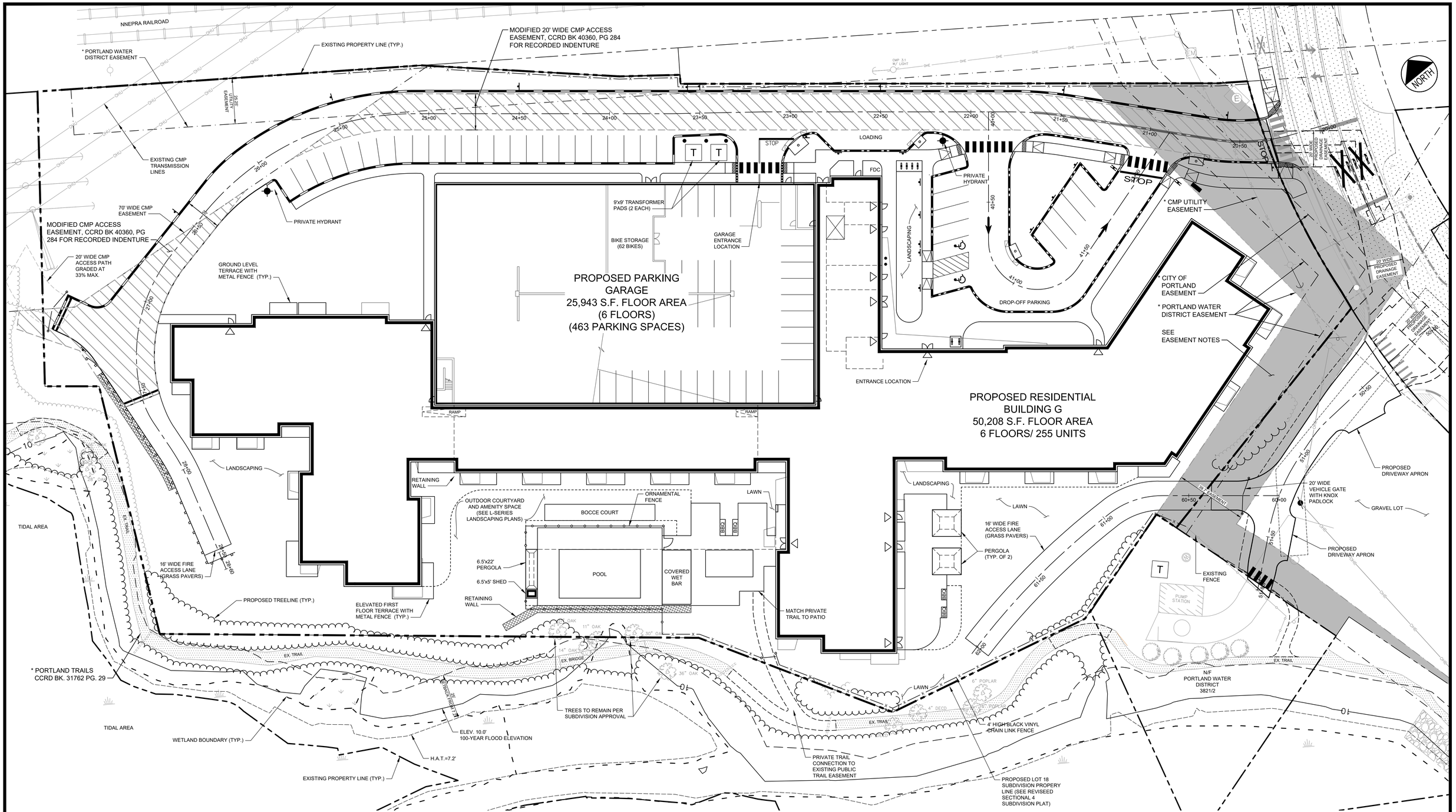
SHEET TITLE: SITE LAYOUT PLAN WITHOUT EASEMENTS

CLIENT: CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
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SHEET	C-3.1A

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NOTES

1. FOR SITE PLAN LAYOUT AND NOTES, SEE SHEET C-3.1A.

* EASEMENT NOTES

1. FOR FULL LIST OF EASEMENTS RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS (CCRD) REFERENCES, SEE SHEET C-2.0A SUBDIVISION PLAN EASEMENTS AND ENCUMBRANCES PLAN BOOK 223, PAGE 133.
2. EASEMENT LABELS ON THIS PLAN HAVE BEEN SIMPLIFIED FOR CLARIY.

PRELIMINARY – NOT FOR CONSTRUCTION

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

REV	DATE	DESCRIPTION
2	12/23/2024	REVISED TO ADDRESS CITY COMMENTS
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE BO KENNEDY No. 11904 LICENSED PROFESSIONAL ENGINEER 12/23/2024

P.E. BO KENNEDY
LIC. #11904

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

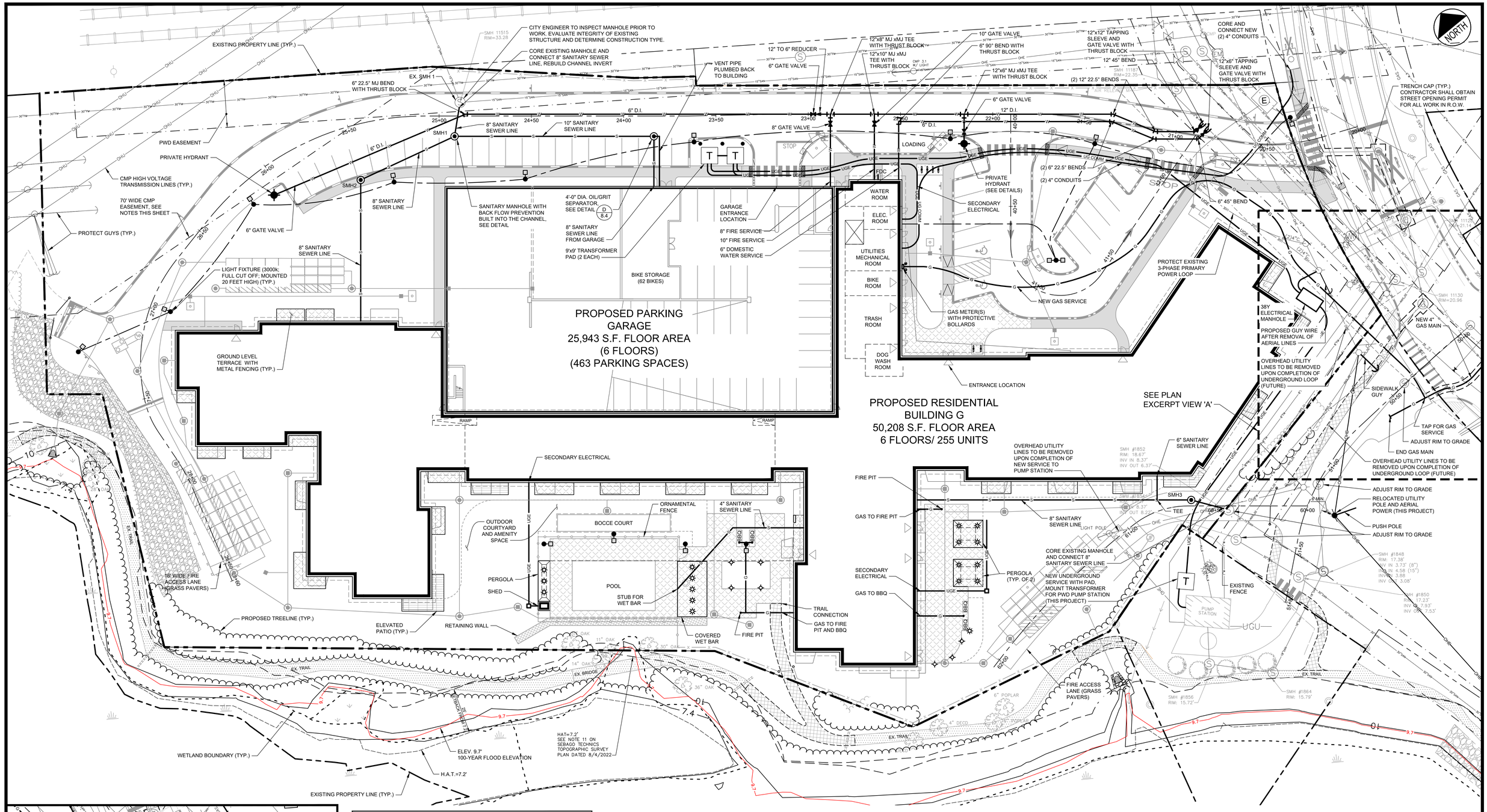
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SITE LAYOUT PLAN WITH EASEMENTS

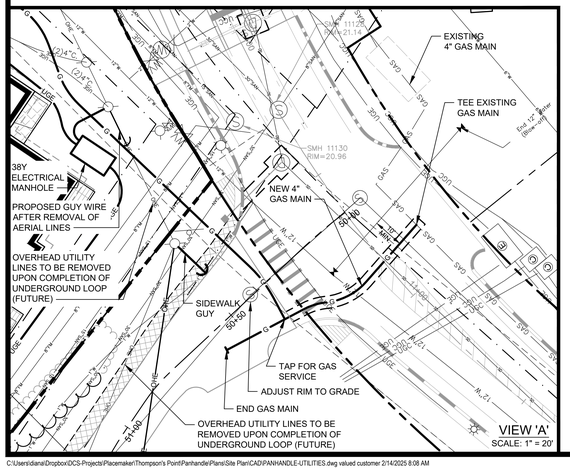
CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN: DB	DATE: AUGUST 2024
DESIGNED: BEK	SCALE: 1" = 20'
FILE NAME: PANHANDLE-SP-EASE.dwg	
SHEET C-3.1B	

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CONDUIT LEGEND

- A
- B
- C
- D
- E
- F
- G
- H
- I
- J

TO BE PROVIDED ON CONSTRUCTION DRAWINGS

UTILITY CONSTRUCTION NOTES:

1. SITE CONTRACTOR TO BRING 8" AND 10" FIRE SERVICES TO FLANGE INSIDE BUILDING. COORDINATE WITH GENERAL CONTRACTOR FOR EXACT PENETRATION LOCATION.
2. SITE CONTRACTOR SHALL BRING ALL UTILITIES (EXCEPT FIRE) TO WITHIN 10 FEET OF BUILDING AND CONNECT TO STUBS INSTALLED BY PLUMBER OR LEAVE CAPPED WITH WITNESS STAKE AND ELEVATION LABELED ON STAKE FOR PLUMBER TO CONTINUE.
3. CONTRACTOR SHALL TAKE NOTICE ALL WORK IN TRANSMISSION CORRIDOR SHALL BE COORDINATED WITH CMP AND FOLLOW ALL SAFETY PRECAUTIONS WITH REGARDS TO PROTECTING HIGH VOLTAGE TRANSMISSION LINES. ALL STRUCTURAL ELEMENTS ARE SPECIFICALLY PROHIBITED FROM EASEMENT AREA INCLUDING BUT NOT LIMITED TO LIGHT POLES, BUILDINGS, HYDRANTS, ETC.

GRAPHIC SCALE
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(IN FEET)
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REVISIONS

STATE OF MAINE · BO KENNEDY No. 11994 · LICENSED PROFESSIONAL ENGINEER · 12/23/2024

P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

SHEET TITLE
UTILITY PLAN

CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN: DB	DATE: AUGUST 2024
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FILE NAME: PANHANDLE-UTILITIES.dwg	
SHEET	C-4.0

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NNEPRA RAILROAD

EXISTING PROPERTY LINE (TYP.)

70' WIDE CMP EASEMENT

20' WIDE CMP ACCESS PATH GRADED AT 33% MAX.

PROPOSED PARKING GARAGE
25,943 S.F. FLOOR AREA
(6 FLOORS)
(463 PARKING SPACES)

9'x9' TRANSFORMER PADS (2 EACH)

GARAGE ENTRANCE LOCATION

GRADES IN GARAGE ARE APPROXIMATE. REFER TO GARAGE DESIGN PLANS FOR ALL GRADES

SEE ELARGED VIEW A

BIKE STORAGE

SEE ELARGED VIEW B

P.F.F.E. = 28.00

P.F.F.E. = 26.00

PROPOSED RESIDENTIAL BUILDING G
50,208 S.F. FLOOR AREA
6 FLOORS/ 255 UNITS
P.F.F.E. = 25.00

ENTRANCE LOCATION

LOADING

STOP

RAMP

MATCH EX. SIDEWALK GRADE

MATCH TOP OF EX. CURB

RAMP

MATCH EX. DRIVEWAY 21.7±

21.6± EX

RAMP

MATCH EX. SIDEWALK GRADE

ELEVATED TERRACE 25.00

MATCH EXISTING DRIVE

MATCH EXISTING DRIVE

16' WIDE FIRE ACCESS LANE (GRASS PAVERS)

LAWN

PERGOLA (TYP. OF 2)

PUMP STATION

LANDSCAPING

LAWN

TRAIL CONNECTION

ORNAMENTAL FENCE

BOCCE COURT

PERGOLA

SHED
F.F.E. = 24.00

POOL
(4' DEEP)

COVERED WET BAR

BBQ

ELEVATED PATIO (TYP.)

GROUND LEVEL TERRACE WITH METAL FENCING (TYP.)

MATCH EXISTING VEGETATIVE SLOPE

RETAINING WALL

MATCH EXISTING TRAIL

EX. TRAIL

EX. BRIDGE

WETLAND FILL (386 S.F.)

TIDAL AREA

WETLAND

ELEV. 10.0' 100-YEAR FLOOD ELEVATION

H.A.T.=7.4'

H.A.T.=7.2'

TIDAL AREA

SEE ELARGED VIEW C

EXISTING 2:1 SLOPE

16' WIDE FIRE ACCESS LANE (GRASS PAVERS)

HAT=7.2'
SEE NOTE 11 ON
SEBAGO TECHNICS
TOPOGRAPHIC SURVEY
PLAN DATED 8/4/2022

8" HDPE INV.=10.94

10" HDPE INV.=19.08

10" HDPE INV.=17.95

INV.=18.92

CB 11055 RIM=21.32

CB 11132 RIM=20.89

CMP 11126 RIM=21.35

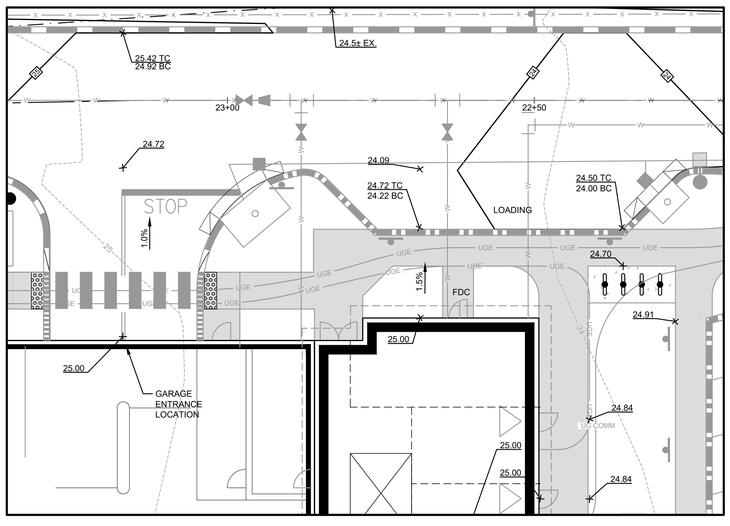
12" INV. IN 14.91±

12" INV. OUT 14.93

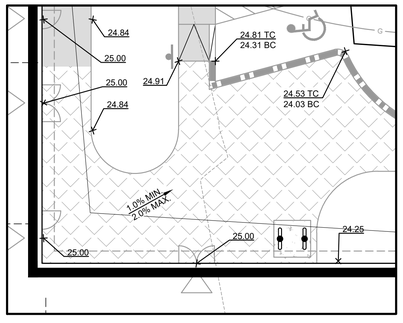
15" INV. IN 14.29±

15" INV. OUT 14.49±

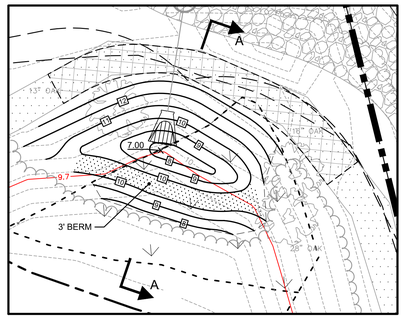
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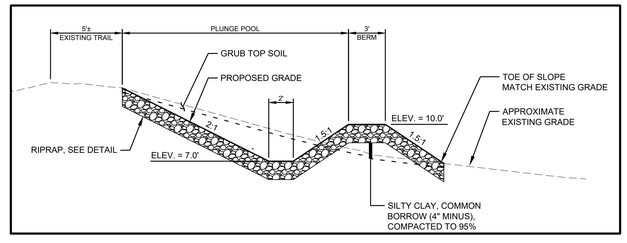
EXPANDED VIEW A
SCALE: 1"= 10'



EXPANDED VIEW B
SCALE: 1"= 10'



EXPANDED VIEW C
SCALE: 1"= 10'



CROSS SECTION A-A
NOT TO SCALE

GRAPHIC SCALE
30 0 10 20 40
(IN FEET)
1 inch = 20 ft.

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REVISIONS

STATE OF MAINE · BO KENNEDY · No. 11994 · LICENSED PROFESSIONAL ENGINEER

P.E. BO KENNEDY
LIC. #11994
12/23/2024

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

SHEET TITLE
GRADING PLAN

CLIENT
CPI MANAGEMENT, LLC
(CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN: DB	DATE: AUGUST 2024
DESIGNED: BEK	SCALE: AS NOTED
FILE NAME: PANHANDLE-GRADING.dwg	
SHEET C-5.0	

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NOTES:

1. PHASE (SWM ZONE B2) WILL TEMPORARILY DISCHARGE TO EXISTING STORM DRAIN DISCHARGE. STORM DRAIN SIZED TO BE TREATED AND DISCHARGED AT ZONE B OUTFALL WHEN FUTURE PHASE IS DEVELOPED.

LEGEND

- STORMWATER MANAGEMENT AREA BOUNDARY
- SUBCATCHMENT BOUNDARY
- LOT 7 DEVELOPMENT STORM WATER MANAGEMENT AREA INTERNALLY DRAINS TO SEPARATE SUBSURFACE STORAGE AND TREATMENT INFRASTRUCTURE. DISCHARGES TO ZONE F0 DISCHARGE
- DRAINAGE DISCHARGE OUTFALL
- D15B — SUBCATCHMENT DESIGNATION
- SUBSURFACE CHAMBER SYSTEM ISOLATOR ROW WITH INSPECTION PORTS

NORTH

TIDAL AREA

ZONE HB DISCHARGE HB-0 WITH RCP FLARED END AND BAR RACK INV. = 7.8

RIPRAP ENERGY DISPERSION PLUNGE POOL

ZONE HB HB-5 SUBSURFACE WATER QUALITY STORAGE

ZONE HB HB-3.1 JELLYFISH TREATMENT UNIT (JF-4-2-1) HB-3 8'x10' OVERFLOW DIVERSION MANHOLE

LANDSCAPED SLOPE TO SHEET FLOW DIRECTLY TO FORE RIVER

LANDSCAPED SLOPE TO SHEET FLOW DIRECTLY TO FORE RIVER

ZONE HB HB-11 SUBSURFACE WATER QUALITY STORAGE

STORMWATER MANAGEMENT ZONE HB
(DEVELOPMENT OF THIS SWM ZONE REDEVELOPED UNDER THIS PROJECT PHASE)

HB-5, HB-21, HB-22, HB-7, HB-17, HB-19, HB-20, HB-9, HB-23, HA-5, HA-4, HA-5, HA-6, HA-7, HA-2, HA-10, HA-CITY

BUILDING G, H-R5, H-R4, H-GR, H-R3, H-R2, H-R1

STORMWATER MANAGEMENT ZONE HC
(DEVELOPMENT OF THIS SWM ZONE REDEVELOPED UNDER THIS PROJECT PHASE)

LANDSCAPED SLOPE TO SHEET FLOW DIRECTLY TO FORE RIVER

ZONE HC HC-4 SUBSURFACE WATER QUALITY STORAGE

RIPRAP ENERGY DISPERSION OUTLET APRON AND CHANNEL PROTECTION

ZONE HC DISCHARGE HC_ WITH RCP FLARED END AND BAR RACK INV. = 13.0

ZONE HC HC-3.1 JELLYFISH TREATMENT UNIT (JF-4-2-1) HC-3 8'x10' OVERFLOW DIVERSION MANHOLE

HC-4, HC-3, HC-6

STORMWATER MANAGEMENT ZONE HA
(DEVELOPMENT OF THIS SWM ZONE REDEVELOPED UNDER THIS PROJECT PHASE)

ZONE HA HA-5.1 6'x10' FILTERRA TB
ZONE HA HA-8.1 4'x4' FILTERRA TB
ZONE HA HA-7.1 4'x4' FILTERRA TB
ZONE HA HA-4.1 4'x6' FILTERRA TB
ZONE HA HA-6.1 4'x8' FILTERRA TB
ZONE HA HA-9.1 4'x4' FILTERRA TB
ZONE HA HA-2.1 4'x8' FILTERRA TB
ZONE HA DISCHARGE HA-15 DISCHARGE TO CITY STORM DRAINAGE SYSTEM AND 36" OUTFALL D9.0

ZONE D D21 - (2) 4'x6' FILTERRA TB

FUTURE STORMWATER MANAGEMENT ZONE E
(AREA NOT REDEVELOPED AS OF THE DATE OF THIS PLAN)

ZONE D D20 - (2) 6'x6' FILTERRA TB

STORMWATER MANAGEMENT ZONE D

ZONE D D9.0 - SUBSURFACE WATER QUALITY STORAGE (78) SC-740 CHAMBERS

ZONE D D9.5 - JELLYFISH TREATMENT UNIT (J4-2-1) D19 - 8'x10' OVERFLOW DIVERSION MANHOLE

ZONE D D18 - (2) 4'x6' FILTERRA TB

ZONE D D19 - 4'x6' FILTERRA TB WITH INTERNAL BY-PASS

ZONE D D9.0 DISCHARGE 36" WITH RCP FLARED END AND BAR RACK INV. 7.40

ZONE D D27 - FOCAL POINT FILTER (FUTURE) AREA = 96 S.F.

ZONE D D25 13'x7' FILTERRA TB PEDESTRIAN GRATE AND GRASS PLANTING

ZONE D D24 6'x6' FILTERRA TB

STORMWATER MANAGEMENT ZONE D

APPROVED STORMWATER MANAGEMENT ZONE C
(TO BE CONSTRUCTED)

B2-14

BUILDING B1

LANDSCAPED SLOPE TO SHEET FLOW DIRECTLY TO FORE RIVER

STORMWATER MANAGEMENT ZONE B2

BUILDING B2

FORE RIVER

100-YEAR FLOOD STAGE ZONE, ELEV. 10.0
HIGHEST ANNUAL TIDE, ELEV. 7.4

STONE DRIP EDGE FILTER TREATMENT

B2-20, B2-12, B2-15, B2-20R, DMH-B13, CB-B12, CB-B14, CB-B15

BUILDING B

TEMPORARY CONNECTION TO EXISTING STORM DRAIN. STORM DRAIN TO BE CONNECTED TO SWM ZONE B IN FUTURE PHASE

EXISTING SD DISCHARGE

ZONE C C6-SUBSURFACE WATER QUALITY STORAGE (66) SC-740 CHAMBER

STORMWATER MANAGEMENT ZONE B

CONNECT SWM ZONE B2 TO STORM DRAIN STUB IN FUTURE PHASE

FUTURE EXPANDED STORMWATER MANAGEMENT ZONE B2
(AREA NOT REDEVELOPED AS OF THE DATE OF THIS PLAN)

ZONE B B3 - 7'x13' FILTERRA

ZONE B AND C DISCHARGE B0 36" WITH RCP FLARED END AND BAR RACK INV. 8.60

ZONE F CMTM STORM WATER MANAGEMENT (SEE SYSTEM NOTES)

ZONE F F13 - SUBSURFACE WATER QUALITY STORAGE (61) SC-740 CHAMBERS

ZONE F F12 - JELLYFISH TREATMENT UNIT (JF-4-2-1) F11 - 6'x12' OVERFLOW DIVERSION MANHOLE

ZONE F F14- 6'x6' FILTERRA TB

ZONE F AND G DISCHARGE F0 36" WITH RCP FLARED END AND BAR RACK INV. 10.0

ZONE F F15 - 6'x10' FILTERRA TB

LANDSCAPED SLOPE TO SHEET FLOW DIRECTLY TO FORE RIVER

FUTURE STORMWATER MANAGEMENT ZONE D
(AREA NOT REDEVELOPED AS OF THE DATE OF THIS PLAN)

FUTURE STORMWATER MANAGEMENT ZONE D AND G
(AREA NOT REDEVELOPED AS OF THE DATE OF THIS PLAN)

STORMWATER MANAGEMENT ZONE G

ZONE G G10.1 - 8'x4' FILTERRA TB

ZONE G G9 - HOODED OUTLET WITH DEEP SUMP

ZONE G G8 - HOODED OUTLET WITH DEEP SUMP

ZONE G G7 - HOODED OUTLET WITH DEEP SUMP

Z6.1 - HOODED OUTLET WITH DEEP SUMP

BUILDING L, BUILDING F2, BUILDING F1, BUILDING A, BUILDING I, BUILDING C, BUILDING D

STORMWATER MANAGEMENT ZONE F

CONNECT TO DOWNSPOUT

PROPANE FUEL PUMP

D25R, F6R, D27R, F5R, F3R, C15BR, D15BR, C13R, D24R, G12R

GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1 inch = 60 ft.

PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
2	12/23/2024	REVISED TO ADDRESS CITY COMMENTS
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY No. 11994 — REGISTERED PROFESSIONAL ENGINEER — LICENSED — 12/23/2024

P.E. BO KENNEDY
LIC. #11994

PROJECT: THE FOREFRONT AT THOMPSON'S POINT MULTI-FAMILY RESIDENTIAL BUILDING (G)

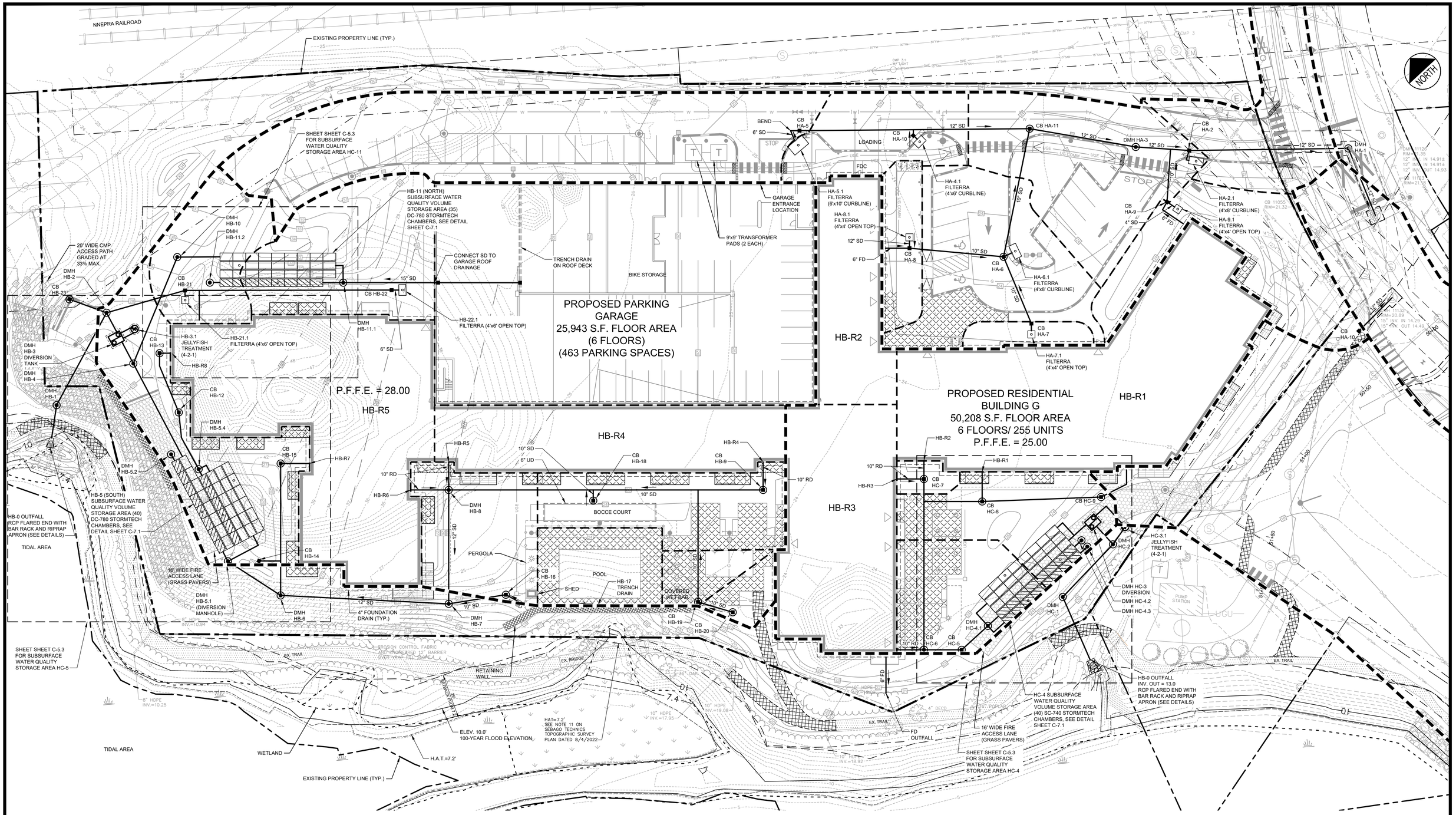
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CLIENT: CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN:	DB
DESIGNED:	BEK
DATE:	AUGUST 2024
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FILE NAME:	PANHANDLE-SMP_OVERALL.dwg
SHEET	C-5.1

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NOTE:
SEE SHEET C-5.2 FOR ZONE C AND D2 TABULAR STORMWATER QUALITY MANAGEMENT COMPUTATIONS.

PRELIMINARY – NOT FOR CONSTRUCTION

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20 0 10 20 40
(IN FEET)
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REVISIONS

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PROJECT
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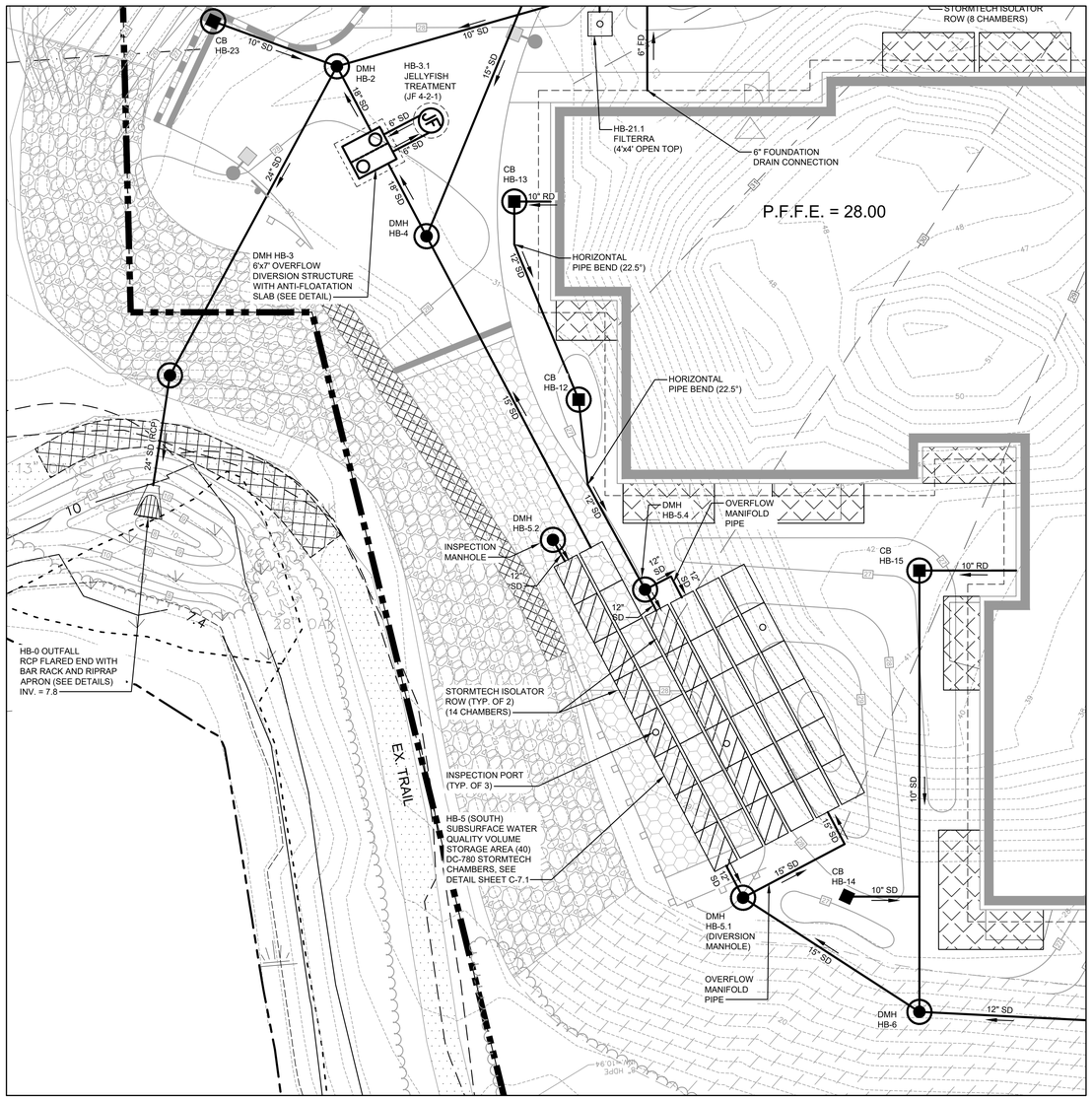
SHEET TITLE
STORMWATER MANAGEMENT PLAN - 1

CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

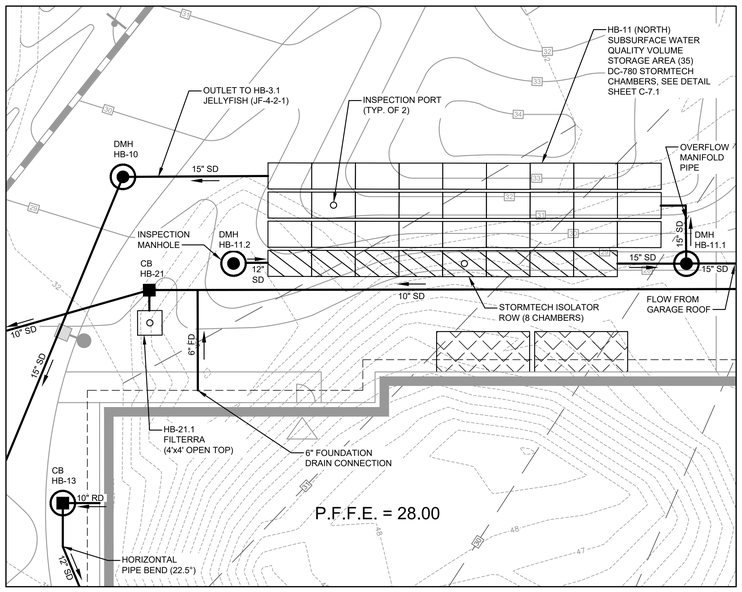
PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN:	BB
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DESIGNED:	BEK
SCALE:	1" = 20'
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SHEET	C-5.2

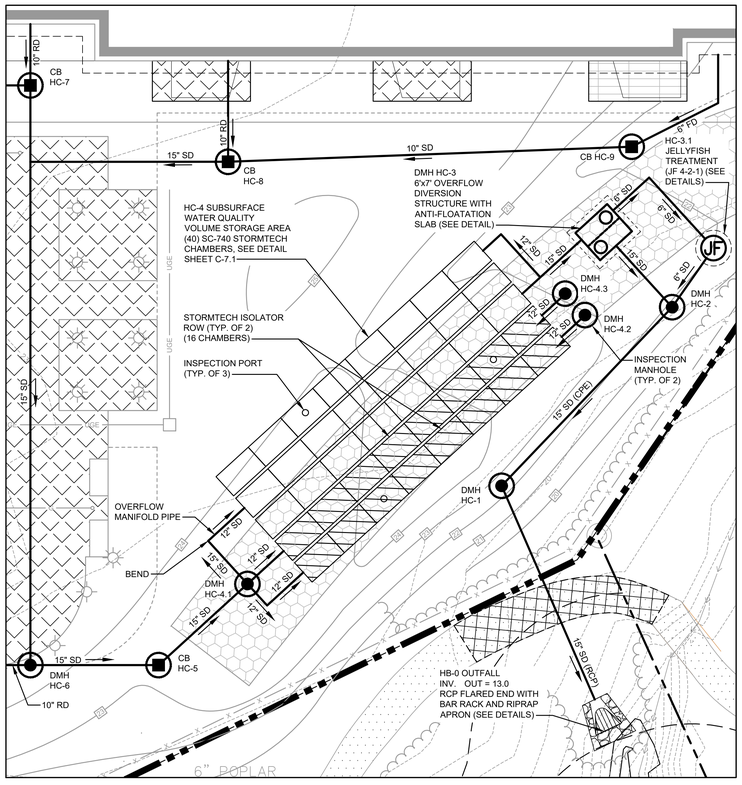
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SUBSURFACE WATER QUALITY STORAGE AREA HB-5
ENLARGED VIEW
SCALE: 1"=10'



SUBSURFACE WATER QUALITY STORAGE AREA HB-11
ENLARGED VIEW
SCALE: 1"=10'



SUBSURFACE WATER QUALITY STORAGE AREA HC-4
ENLARGED VIEW
SCALE: 1"=10'

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10 0 5 10 20
(IN FEET)
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12/23/2024
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PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

SHEET TITLE
STORMWATER MANAGEMENT PLAN - 2

CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN:	~~BB~~	DATE:	AUGUST 2024
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SHEET	C-5.3		

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Summary of Water Quality Treatment - Lot 17 (BLDG G - Multi-Family Residential)

Zone	Inlet ID	Impervious Area (sf)	Pervious Area (sf)	Total Area (sf)	Total Area (Acres) [1]	Required Water Quality Volume (CF) [2]	Existing Developed Area Mitigation Credits (SF) [9]	Treatment Approach [6]	Filter Size Area Required [4] (SF)	Jellyfish Unit Provided [5]	1 Yr 24-hr Storm Event Peak Flow Rate (cfs) [3]	Required Isolator Row Chambers (Stormtech SC-740 (JF)) [4]	Provided Filter Bed (SF)/Water Quality Volume (CF) [7]	Isolator Row Chambers (Stormtech SC-740) Provided (EA) [6]
Zone Ha Developed Area	Ha-9	0.00	1,607.00	1,607.00	0.04	53.57	0.00	filterra w open top	< 0.1 ac 1-(4x4)	N/A	0.02	N/A	N/A	N/A
	Ha-2	6,683.00	1,473.00	8,156.00	0.19	606.02	0.00	filterra - Curbline w/ top slab	< 0.202 ac 1-(4x8)	N/A	0.43	N/A	N/A	N/A
	Ha-6	6,585.00	847.00	7,432.00	0.17	576.98	0.00	filterra - Curbline w/ top slab	< 0.202 ac 1-(4x8)	N/A	0.41	N/A	N/A	N/A
	Ha-7	0.00	1,036.00	1,036.00	0.02	34.53	0.00	filterra w open top	< 0.1 ac 1-(4x4)	N/A	0.01	N/A	N/A	N/A
	Ha-8	667.00	1,147.00	1,814.00	0.04	93.82	0.00	filterra w open top	< 0.1 ac 1-(4x4)	N/A	0.06	N/A	N/A	N/A
	Ha-4	4,748.00	814.00	5,562.00	0.13	422.80	0.00	filterra - Curbline w/ top slab	< 0.151 ac 1-(4x6)	N/A	0.30	N/A	N/A	N/A
	Ha-5	12,313.40	1,513.60	13,827.00	0.32	1076.57	0.00	filterra - Curbline w/ top slab	< 0.378 ac 1 - (6x10)	N/A	0.77	N/A	N/A	N/A
	Zone Ha - Total	**30,996.40**	**8,437.60**	**39,434.00**	**0.91**	**2,864.29**	**0.00**	Filterra Tree Box Filter	-	-	2.00	N/A	N/A	N/A
Zone Hb Developed Area	Hb-R5 north (split in half for different Isolator rows)	7,222.00	0.00	7,222.00	0.17	601.83	0.00	Contech Jellyfish Filter	N/A	JF4 2-1	0.44	2.21	3,042.00	6.00
	Hb-13	1,469.00	259.00	1,728.00	0.04	131.05	0.00				0.09	0.47		
	Hb-12	1,209.00	346.00	1,555.00	0.04	112.28	0.00				0.08	0.39		
	Hb-5 Isolator south 1 Subtotal	**9,900.00**	**605.00**	**10,505.00**	**0.24**	**845.17**	**0.00**				**0.61**	**3.06**		
	Hb-R5 South (split in half for different Isolator rows)	7,222.00	0.00	7,222.00	0.17	601.83	0.00				0.44	2.21		8.00
	Hb-14	225.00	724.00	949.00	0.02	42.88	0.00				0.02	0.12		
	Hb-15	1,146.00	2,657.00	3,803.00	0.09	184.07	0.00				0.10	0.52		
	Hb-R4	7,038.00	0.00	7,038.00	0.16	586.50	0.00				0.43	2.15		
	Hb-16	586.00	3,935.00	4,521.00	0.10	180.00	0.00				0.09	0.43		
	Hb-17	3,056.00	179.00	3,235.00	0.07	260.63	0.00				0.19	0.94		
	Hb-18	716.00	1,298.00	2,014.00	0.05	102.93	0.00				0.06	0.30		
	Hb-9	1,246.00	1,622.00	2,868.00	0.07	157.90	0.00				0.10	0.48		
	Hb-19	1,093.00	461.00	1,554.00	0.04	106.45	0.00				0.07	0.36		
	Hb-20	601.00	506.00	1,107.00	0.03	66.95	0.00				0.04	0.22		
	Hb-5 Isolator South 2 Subtotal	**22,929.00**	**11,382.00**	**34,311.00**	**0.79**	**2,290.15**	**0.00**				**1.55**	**7.73**		
	Hb-5 South Storage Subtotal	**32,829.00**	**11,987.00**	**44,816.00**	**1.03**	**3,135.32**	**0.00**				**2.16**	**10.79**		**14.00**
	Hb-GR	25,934.00	0.00	25,934.00	0.60	2161.17	0.00				1.58	7.92	2,699.00	8.00
	Hb-11 North Storage/Isolator Subtotal	**25,934.00**	**0.00**	**25,934.00**	**0.60**	**2,161.17**	**0.00**				**1.58**	**7.92**		
	Hb-3.1 Jellyfish Total	**58,763.00**	**11,987.00**	**70,750.00**	**1.62**	**5,296.48**	**0.00**				**3.74**	**18.71**	**5,741.00**	**22.00**
Zone Hc Developed Area	Hb-21	1,522.00	2,257.00	3,779.00	0.09	202.07	0.00	filterra w open top	< 0.1 ac 1-(4x4)	N/A	0.12	N/A	N/A	N/A
	Hb-22	682.00	6,048.00	6,730.00	0.15	258.43	0.00	filterra w open top	< 0.151 ac 1-(4x6)	N/A	0.12	N/A	N/A	N/A
	Hb-Filterra Subtotal	**2,204.00**	**8,305.00**	**10,509.00**	**0.24**	**460.50**	**0.00**	Filterra Tree Box Filter	-	-	0.24			
	Hc-R1	15,256.00	0.00	15,256.00	0.35	1271.33	0.00	Contech Jellyfish Filter	N/A	JF4 2-1	0.93	4.66	2938	**16**
	Hc-R2	4,904.00	0.00	4,904.00	0.11	408.67	0.00				0.30	1.50		
	Hc-R3	8,572.00	0.00	8,572.00	0.20	714.33	0.00				0.52	2.62		
	Hc-5	2,495.00	1,852.00	4,347.00	0.10	269.65	0.00				0.18	0.88		
	Hc-7	1,587.00	2,781.00	4,368.00	0.10	224.95	0.00				0.13	0.66		
	Hc-6	0.00	460.00	460.00	0.01	15.33	0.00				0.01	0.03		
	Hc-4 Storage/Isolator Subtotal	**32,814.00**	**5,093.00**	**37,907.00**	**0.87**	**2,904.27**	**0.00**				**2.07**	**10.35**		
Zone H Developed Area Treated Subtotals	Ha + Hb + Hc	**124,777.40**	**33,822.60**	**158,600.00**	**3.64**	**11,525.54**	**0.00**	Proprietary Filter Devices	See above	See above	See above	See above	See above	See above
Tributary to Hb Outfall Untreated	Hb-23	520.00	262.00	782.00	0.02	52.07	0.00	None	N/A	N/A	N/A	N/A	N/A	N/A
Tributary to ROW SD Untreated	Ha-10	317.00	5,778.00	6,095.00	0.14	219.02	0.00	None	N/A	N/A	N/A	N/A	N/A	N/A
Tributary to Ha Offsite City CB Untreated	Ha-City	1,296.60	768.40	2,065.00	0.05	133.66	0.00	None	N/A	N/A	N/A	N/A	N/A	N/A
	Disturbed Perimeter Area (H27)	1,904.00	26,834.00	28,738.00	0.66	1053.13	0.00	None	N/A	N/A	N/A	N/A	N/A	N/A
Zone H Developed Area UnTreated Subtotals		**4,037.60**	**33,642.40**	**37,680.00**	**0.87**	**1,457.88**	**0.00**	None	N/A	N/A	N/A	N/A	N/A	N/A
Zone H Developed Area Subtotals		**128,815.00**	**67,465.00**	**196,280.00**	**4.51**	**12,983.42**	**0.00**	**N/A**	N/A	N/A	N/A	N/A	N/A	N/A
Zone H Existing Buildings	N/A	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Zone H Existing Building Subtotal		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Zone H Developed Area Totals	-	**128,815.00**	**67,465.00**	**196,280.00**	**4.51**	**12,983.42**	**0.00**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**

Developed Area Breakdown (This project phase only)		
A.) Total New Developed Area Treated (SF)	158,600.00	**3.64**
B.) Total New Developed Area untreated (SF)	37,680.00	**0.87**
C.) Total New Developed Area (SF) = A+B	196,280.00	**4.51**
D.) Existing Developed Area Treated (SF)	0.00	**0.00**
E.) Adjusted Existing Developed Area Treated (SF)	0.00	**0.00**
F.) Total Net Developed Area Treated (SF) = A+E	158,600.00	**3.64**

Impervious Area Breakdown		
G.) Total New Impervious Area treated (SF)	124,777.40	**2.86**
H.) Total New Impervious Area untreated (SF)	4,037.60	**0.09**
I.) Total New Impervious Area (SF) = G+H	128,815.00	**2.96**
J.) Existing Impervious Area Treated (SF)	0.00	**0.00**
K.) Adjusted Existing Impervious Area Treated (SF)	0.00	**0.00**
L.) Total Net Impervious Area Treated (SF) = G+K	124,777.40	**2.86**

atment Breakdown	Required	This Phase Only Provided
% of Net	80.00%	80.80%
npervious Area Treated = L/I	95.00%	96.87%

Add concessions to the below totals

Developed Area Breakdown (Cumulative Campus Development To-Date)			Cumulative Campus
A.) Total New Developed Area Treated (SF)	494,298.00	**11.35**	
B.) Total New Developed Area untreated (SF)	129,587.00	**2.97**	
C.) Total New Developed Area (SF) = A+B	623,885.00	**14.32**	
D.) Existing Developed Area Treated (SF)	72,596.00	**1.67**	
E.) Adjusted Existing Developed Area Treated (SF)	43,557.40	**1.00**	
F.) Total Net Developed Area Treated (SF) = A+E	537,855.40	**12.35**	
Impervious Area Breakdown			
G.) Total New Impervious Area treated (SF)	376,461.74	**8.64**	
H.) Total New Impervious Area untreated (SF)	63,280.60	**1.45**	
I.) Total New Impervious Area (SF) = G+H	439,742.34	**10.10**	
J.) Existing Impervious Area Treated (SF)	72,596.00	**1.67**	
K.) Adjusted Existing Impervious Area Treated (SF)	43,557.40	**1.00**	
L.) Total Net Impervious Area Treated (SF) = G+K	420,019.14	**9.64**	

atment Breakdown	Required	Provided
% of Net	80.00%	86.21%
npervious Area Treated = L/I	95.00%	95.51%

Development Projects Included in Cumulative Review (inorder of input):

Brick North and Brick South (Lots 1, 2, 3)
West Loop Rd (Common)
Hotel Portland (Lot 6)
East Loop Rd (Common)
CMTM (Lot 7)
Warehouse (Lot 11)
Concessions (Lot 9)
Multi-Family (Lot 17)

NOTES AND ASSUMPTIONS:

dated Sept 2024.
Sections 7.4, 7.5 and 7.6 of the Maine DEP Volume III BMP's Technical Design Manual. The volume is computed to be 1" times the method. The rainfall intensities are derived from the Cumberland chamber system. All isolator rows have been computed per a 7/29/2016 letter from State of Maine to Stormtech re: Pretreatment computed based on Contech Sizing requirements. The water quality provided it has been approved by the Maine DEP Chapter 500 delegated computed using 61.38 CF of storage per chamber based on Storm Tech 8.Vacant
9. According to Chapter 500 Maine DEP stormwater rules Dated 2015; the department allows applicants to take credit for the treatment of existing impervious areas on site. For existing roofs the credit can be calculated by multiplying the total treated area by 0.6. The overall project was approved using this methodology.
10. The MEDEP will now accept a Filterra tree box filter as a stand alone treatment unit and does not require an Isolator Row for eligible projects. This project meets the eligibility criteria noted in a letter dated June 27th, 2014 from the MEDEP and updated February 2, 2017.

PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE BO KENNEDY No. 11994 LICENSED PROFESSIONAL ENGINEER 9/6/2024
P.E. BO KENNEDY
LIC. #11994

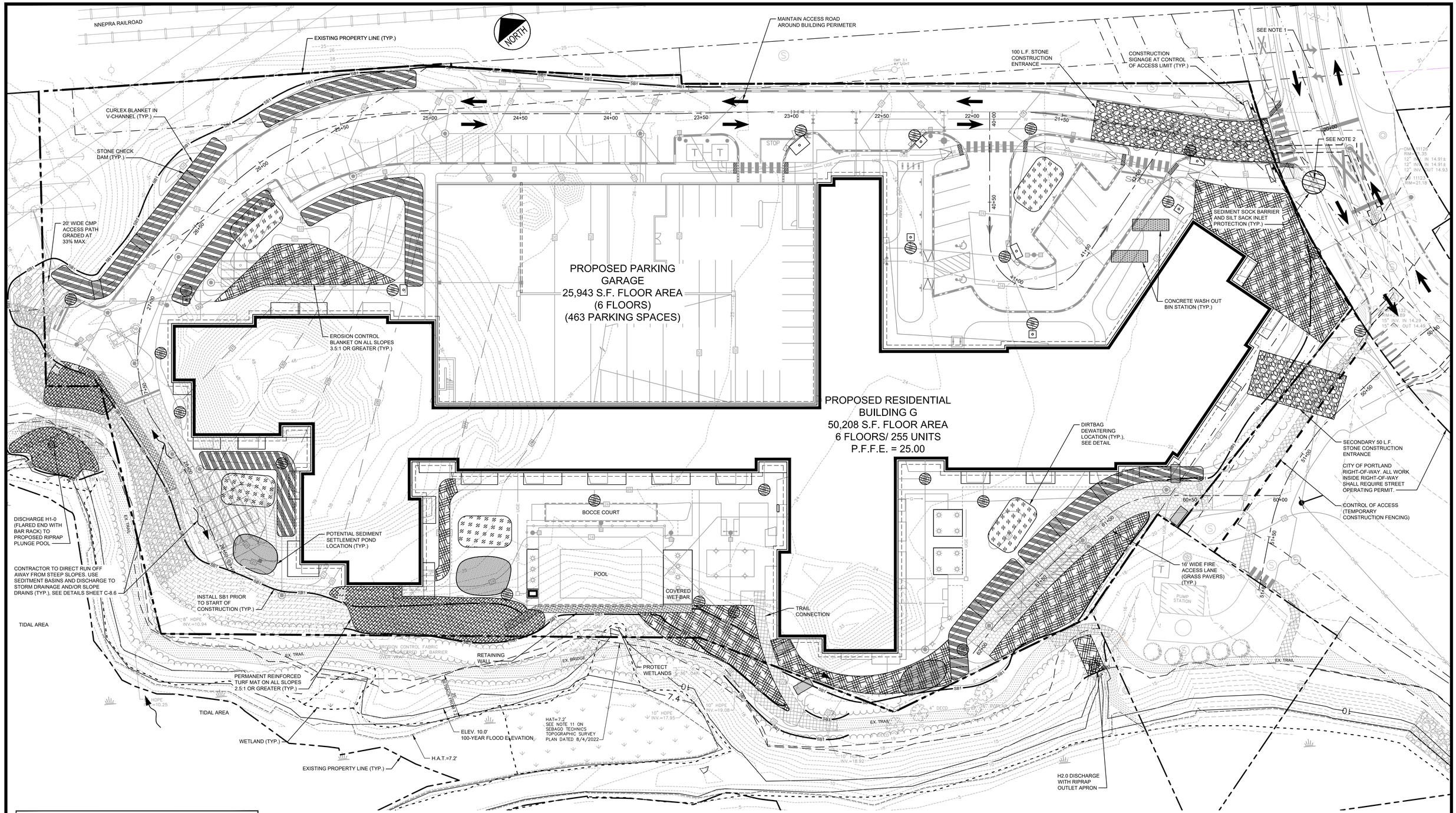
PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

SHEET TITLE
STORMWATER MANAGEMENT PLAN - 3

CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN:	DB	DATE:	AUGUST 2024
DESIGNED:	BEK	SCALE:	NONE
FILE NAME:	PANHANDLE-SMP.dwg		
SHEET	C-5.4		



LEGEND

- INLET PROTECTION (STONE OR HAY SEDIMENT BARRIER)
- FILTERRA INLET PROTECTION (PER MANUFACTURERS REQUIREMENTS)
- RIPRAP OUTLET PROTECTION
- CURLEX BLANKET
- PERMANENT REINFORCED TURF MAT
- EROSION CONTROL BLANKET
- WASH DOWN AREA
- STONE CONSTRUCTION ENTRANCE
- DIRTBAG DEWATERING
- POTENTIAL SEDIMENT SETTLEMENT POND
- STONE CHECK DAM

Summary of Storm Water Discharges

Discharge ID	Approximate Drainage Area (Ac)	Full Build Out 25 Yr Peak Flow (CFS)	Outlet Pipe Size (In)	Description	*Minimum Required Riprap D50 (IN)
HB-0	1.86	8.89	24	RCP Flared End W/ Bar Rack, Riprap Slope Apron	12
HC-0	0.87	4.62	15	RCP Flared End W/ Bar Rack, Riprap Slope Apron	12

* D50 is a median rock size. Riprap should be a well graded mix of angular rock from about 1.5 to 0.25 times the size of the D50. The contractor shall protect existing riprap slope or replace rock to the meet the minimum required D50 stone size.

SCHEDULE OF SILT BARRIER REQUIREMENTS

SILT BARRIER	TYPE PURPOSE	TIME OF INSTALLATION
SB1 TYPE 1 SILT BARRIER	TO TRAP SEDIMENT ALONG THE GRADING EDGE WHERE THE NEW CONTOURS NEARLY PARALLEL THE EXISTING CONTOURS	AT INITIAL SITE PREPARATION; PRIOR TO OTHER WORK

NOTES:

1. EXISTING PAVEMENT TO REMAIN AS TRACKING PAD. SWEEP CLEAN DAILY OR MORE FREQUENTLY AS REQUIRED TO PREVENT TRACKING SEDIMENT ALONG THOMPSON'S POINT ROAD. SHOULD SEDIMENT BE TRACKED OFFSITE, CONTRACTOR IS RESPONSIBLE FOR SWEEPING/CLEARING PAVEMENT AS NECESSARY TO PROTECT EXISTING STORMWATER COLLECTION INLETS. CONTRACTOR MAY BE REQUIRED TO INSTALL WASHING STATION OR OTHER TRACKING PREVENTATIVE MEASURE AT NO ADDITIONAL COST TO OWNER.
2. DISCHARGE OF EXCAVATION DEWATERING MAY BE DIRECTED TO EXISTING DRAINAGE STRUCTURES IF ALL TREATMENT REQUIREMENTS ARE MET. REFER TO ENVIRONMENTAL ASSESSMENT REPORT BY CREDERE ASSOCIATES, LLC AND PROJECT SPECIFICATIONS FOR ALL DEWATERING REQUIREMENTS.
3. ALL RUNOFF FROM DISTURBED AREAS SHALL BE DIRECTED TO A FILTERING DEVICE DESIGNATED TO LIMIT TURBIDITY IN ALL DISCHARGE TO THE FORE RIVER. THE FILTERING DEVICE MAY BE BUT IS NOT LIMITED TO SAND FILTERS, EROSION CONTROL MIX, STRAW WHATTLES, FLOCCULATION CHEMICALS, DIRT GLUE AND SILT FENCE.
4. ALL CATCH BASINS TO HAVE 4" UNDERDRAIN PER DETAIL 'L' ON SHEET C-8.5.
5. ALL SUBSURFACE DETENTION AREAS ARE NOT TO BE PLACED "ON-LINE" UNTIL TRIBUTARY AREA IS STABILIZED WITH PAVEMENT OR 75% VEGETATION COVERAGE
6. STOCKPILES TO BE TEMPORARILY SEEDED AND MULCHED AS REQUIRED BY THE PROJECT SPECIFICATIONS.
7. THE CONTRACTOR SHALL TREAT DISTURBED AREAS AND CONSTRUCTION HAUL PATH WITH DUST CONTROL BMPS TO LIMIT ALL FUGITIVE DUST.
8. ALL EXCESS COMMON BORROW SHALL BE PLACE IN DESIGNATED STOCKPILE ON PANHANDLE DETAILS INCLUDED IN SEPARATE PLAN SET BY REFERENCE.

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
2	12/23/2024	REVISED TO ADDRESS CITY COMMENTS
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE · BO KENNEDY No. 11994 · REGISTERED PROFESSIONAL ENGINEER · LICENSED · 12/23/2024

P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

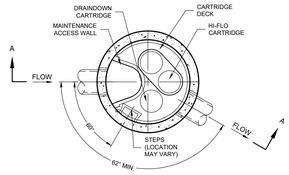
SHEET TITLE
EROSION CONTROL AND CONSTRUCTION MANAGEMENT PLAN

CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

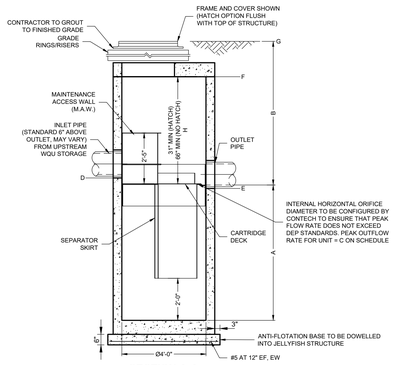
PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN: DB	DATE: AUGUST 2024
DESIGNED: BEK	SCALE: 1" = 20'
FILE NAME: PANHANDLE-EROSION.dwg	
SHEET C-6.0	

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PLAN VIEW



SECTION A-A



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.



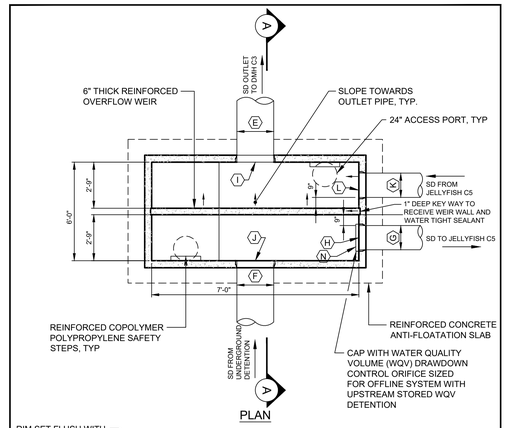
HATCH
(Ø36" CAST INTO SLAB)
N.T.S.

JELLYFISH DESIGN NOTES				
JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. THE STANDARD MANHOLE STYLE IS SHOWN. Ø48" MANHOLE JELLYFISH PEAK TREATMENT CAPACITY IS 0.45 CFS. IF THE SITE CONDITIONS EXCEED 0.45 CFS AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.				
CARTRIDGE SELECTION				
CARTRIDGE DEPTH	54"	40"	27"	15"
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-5"	5'-3"	4'-2"	3'-2"
FLOW RATE HIGH-FLO / DRAINDOWN (cfs) (per cart)	0.18 / 0.09	0.13 / 0.065	0.09 / 0.045	0.05 / 0.025
MAX. CARTS HIGH-FLO / DRAINDOWN	2 / 1			

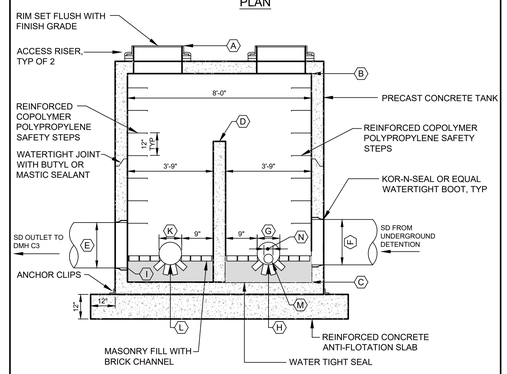
THIS PROJECT

SEE SCHEDULE IN DETAIL `D'

(A) JELLYFISH JF4 STANDARD DETAIL
N.T.S.



PLAN



SECTION A-A

NOTES:
1. ALL CONCRETE TO HAVE A MINIMUM OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS
2. DESIGN LOAD FOR H-20 WHEEL LOAD
3. STRUCTURE TO CONFORM TO ASTM-C478 SPECIFICATIONS
4. SET STRUCTURE ON 12" THICK CRUSHED STONE

OVERFLOW DIVERSION STRUCTURE SCHEDULE			
	ITEM DESCRIPTION	ZONE HB	ZONE HC
(A)	APPROXIMATE RIM ELEVATION	28.00 - 28.10	22.40 - 22.50
(B)	TOP OF INSIDE OF TANK	26.75	21.50
(C)	BOTTOM OF INSIDE OF TANK	15.20	16.27
(D)	TOP OF WEIR WALL	19.50	20.00
(E)	DIAMETER OF OVERFLOW OUTLET PIPE	18"	15"
(F)	DIAMETER OF INLET PIPE	18"	15"
(G)	DIAMETER OF OUTLET PIPE TO JELLYFISH	6"	6"
(H)	INV OF OUTLET PIPE TO JELLYFISH	16.30	17.30
(I)	INV OF OVERFLOW OUTLET PIPE	15.70	16.60
(J)	INV OF INLET PIPE	16.40	17.40
(K)	DIAMETER OF OUTLET PIPE FROM JELLYFISH	6"	N/A *
(L)	INVERT OF OUTLET PIPE FROM JELLYFISH	15.80	N/A *
(M)	INVERT OF WQV DRAWDOWN CONTROL ORIFICE	16.30	17.30
(N)	DIAMETER OF WQV DRAWDOWN CONTROL ORIFICE	1.4"	0.97"

* INLET PIPE ROUTED TO DOWNSTREAM MANHOLE

(C) OVERFLOW DIVERSION STRUCTURE
N.T.S.

ZONE H DATA REQUIREMENTS				
STRUCTURE ID			HB-3.1	HC-3.1
WATER QUALITY FLOW RATE (cfs)			0.092	0.044
PEAK FLOW RATE (cfs)			8.76	6.78
RETURN PERIOD OF PEAK FLOW (yrs)			25	25
# OF CARTRIDGES REQUIRED (HF / DD)			2 / 1	2 / 1
CARTRIDGE SIZE			54"	54"
PIPE DATA:	I.E.	MATERIAL	DIAMETER	DIAMETER
INLET PIPE #1	*	HDPE	6"	6"
INLET PIPE #2	*	-	N/A	N/A
OUTLET PIPE	*	HDPE	6"	6"
RIM ELEVATION			27.80	22.00
ANTI-FLOTATION SOIL			WIDTH	HEIGHT
			1'	13.75

NOTES/SPECIAL REQUIREMENTS:
MAINE DEP REQUIRES UPSTREAM WQU TO DRAIN IN 24-48 HOURS.
CONTECH RESPONSIBLE FOR SIZING INTERNAL ORIFICE TO CONTROL PEAK WATER QUALITY OUTFLOW TO REQUIRED RATE
* PER ENGINEER OF RECORD

(B) JELLYFISH TREATMENT UNIT DATA REQUIREMENTS
N.T.S.

JELLYFISH UNIT SCHEDULE		
Schedule ID	Zone	Zone
Schedule	HB	HC
A-Outlet Inv. to Bottom of Structure (ft)	6.50	6.50
B-Finished Grade to Outlet Inv.	10.70	5.30
C-Required Outflow (cfs)	0.092	0.044
D-Inlet Inv. From Water Quality Storage	16.30	17.30
E-Outlet Inv.	15.80	16.70
F-Underside of Slab	26.13	20.33
G-Rim Elevation	27.8	22.00
H-Underside of Slab to Outlet Inv. (ft)	10.33	3.63
Hatch Required or 36" Casting?	36" CASTING	HATCH

(D) JELLYFISH UNIT SCHEDULE
N.T.S.

PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
2	12/23/2024	REVISED TO ADDRESS CITY COMMENTS
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY No. 11994 — LICENSED PROFESSIONAL ENGINEER — 12/23/2024

P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

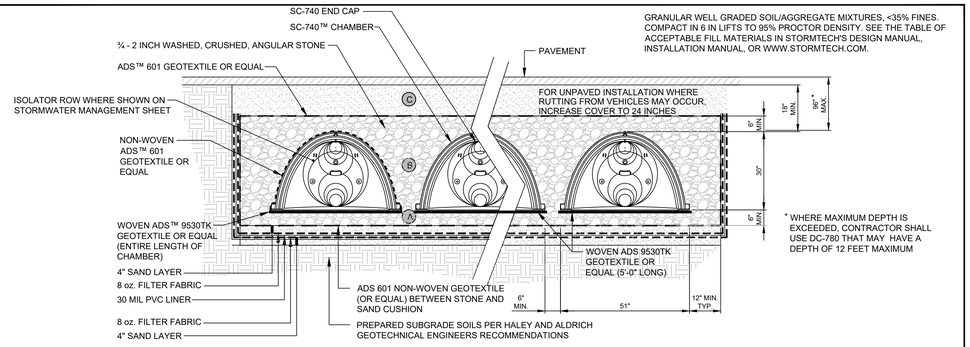
SHEET TITLE
STORMWATER DETAILS - JELLYFISH SYSTEMS

CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN:	DB
DESIGNED:	BEK
FILE NAME:	PANHANDLE-DET.dwg
DATE:	AUGUST 2024
SCALE:	N.T.S.
SHEET	C-7.0

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(A) SC-740 TYPICAL DETENTION SYSTEM CROSS SECTION

N.T.S.

*SEE STORMTECH'S DESIGN MANUAL

FOR STORMTECH® INFORMATION CALL 1-888-892-2694

ACCEPTABLE FILL MATERIALS
STORMTECH® SC-740™ CHAMBER SYSTEMS

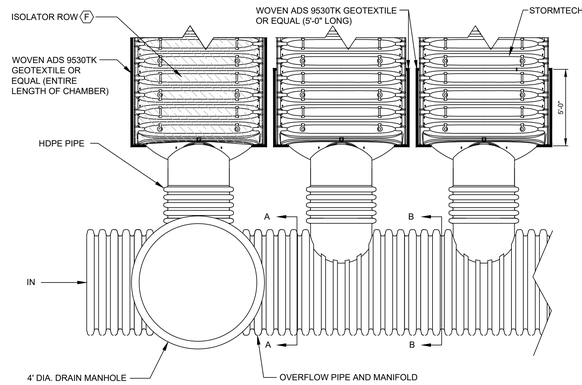
MATERIAL LOCATION	DESCRIPTION	AASHTO M43 DESIGNATION	AASHTO M145 DESIGNATION	COMPACTION/DENSITY REQUIREMENT
FILL MATERIAL FROM 18" TO GRADE ABOVE CHAMBERS	ANY SOIL/ROCK MATERIALS, NATIVE SOILS OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	N/A	PREPARE PER ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
(C) FILL MATERIAL FOR 6" TO 18" ELEVATION ABOVE CHAMBERS (24" FOR UNPAVED INSTALLATIONS)	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES.	3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	A-1 A-2 A-3	COMPACT IN 6" LIFTS TO A MINIMUM 95% STANDARD PROCTOR DENSITY. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 LBS. DYNAMIC FORCE NOT TO EXCEED 20,000 LBS.
(B) EMBEDMENT STONE SURROUNDING AND TO A 6" ELEVATION ABOVE CHAMBERS	WASHED ANGULAR STONE WITH THE MAJORITY OF PARTICLES BETWEEN ¾ - 2 INCH	3, 357, 4, 467, 5, 56, 57	N/A	NO COMPACTION REQUIRED
(A) FOUNDATION STONE BELOW CHAMBERS	WASHED ANGULAR STONE WITH THE MAJORITY OF PARTICLES BETWEEN ¾ - 2 INCH	3, 357, 4, 467, 5, 56, 57	N/A	PLATE COMPACT OR ROLL TO ACHIEVE A 95% STANDARD PROCTOR DENSITY

PLEASE NOTE: THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE WASHED CRUSHED ANGULAR. FOR EXAMPLE, THE STONE MUST BE SPECIFIED AS WASHED, CRUSHED, ANGULAR NO. 4 STONE.

NOTES:
1. THE INSTALLATION OF STORMTECH® CHAMBERS SHALL BE IN ACCORDANCE WITH THE LATEST STORMTECH® INSTALLATION INSTRUCTIONS
2. THE CONTRACTOR IS ADVISED TO REVIEW AND UNDERSTAND THE INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION. CALL **1.888.892.2694** OR VISIT **WWW.STORMTECH.COM** TO RECEIVE A COPY OF THE LATEST STORMTECH® INSTALLATION INSTRUCTIONS.

(B) STORMTECH® ACCEPTABLE FILL MATERIALS

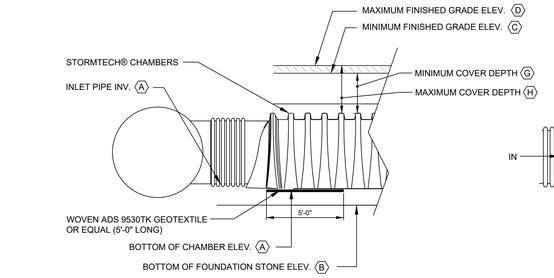
N.T.S.



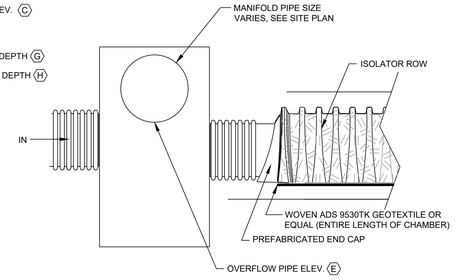
STORMTECH ELEVATIONS SCHEDULE

	ITEM DESCRIPTION	ZONE HB (NORTH)	ZONE HB (SOUTH)	ZONE HC
(A)	BOTTOM OF CHAMBERS	17.00	17.00	17.50
(B)	BOTTOM OF FOUNDATION STONE	16.50	16.50	17.00
(C)	APPROX. MIN. FINISHED GRADE ELEV.	27.50	27.50	22.90
(D)	APPROX. MAX. FINISHED GRADE ELEV.	30.50	30.50	24.25
(E)	OVERFLOW PIPE ELEV.	19.50	19.50	20.00
(F)	NUMBER OF ISOLATOR CHAMBERS	8	14	16
(G)	MINIMUM COVER DEPTH	8'	8'	2.9'
(H)	MAXIMUM COVER DEPTH	11' *	11' *	4.25'

* WHERE SYSTEM DEPTH EXCEEDS 96", CONTRACTOR MUST USE DC-780 CHAMBERS. MAXIMUM DEPTH FOR SC-740 CHAMBERS IS 96" (8'-0)



SECTION B-B

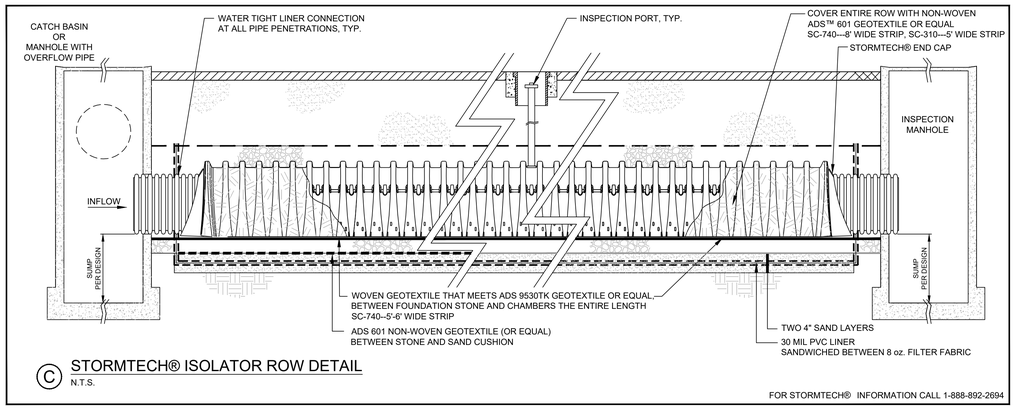


SECTION A-A

(F) STORMTECH® ELEVATIONS

N.T.S.

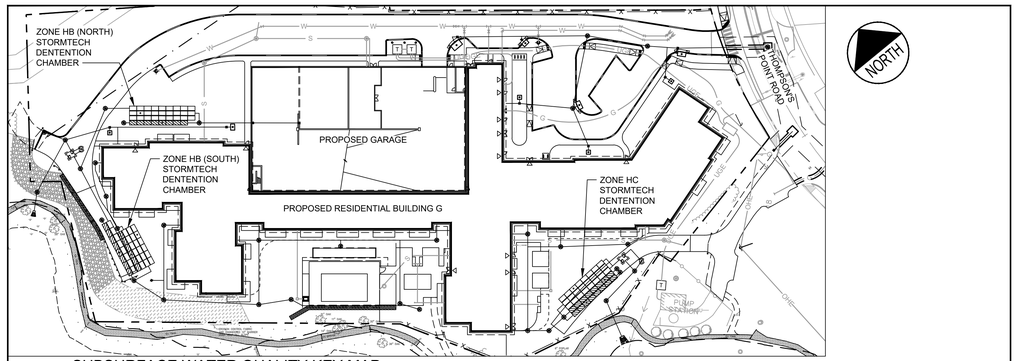
FOR STORMTECH® INFORMATION CALL 1-888-892-2694



(C) STORMTECH® ISOLATOR ROW DETAIL

N.T.S.

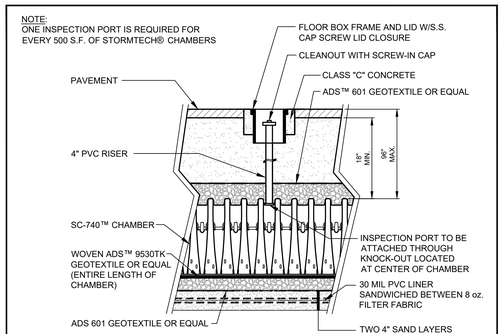
FOR STORMTECH® INFORMATION CALL 1-888-892-2694



(G) SUBSURFACE WATER QUALITY KEY MAP

N.T.S.

NOTE:
ONE INSPECTION PORT IS REQUIRED FOR EVERY 500 S.F. OF STORMTECH® CHAMBERS



STORMTECH® ISOLATOR INSPECTION PORT DETAIL (D)

N.T.S.

FOR STORMTECH® INFORMATION CALL 1-888-892-2694

PRELIMINARY – NOT FOR CONSTRUCTION

THE DETAILS SHOWN HERE ARE CONSISTENT WITH DEVELOPMENT ON THOMPSON'S POINT AND APPROVED AS PART OF THE MASTER DEVELOPMENT PERMIT, OVERALL AND SECTIONAL SUBDIVISION PERMITS, AND LEVEL I, II, III SITE APPLICATION PERMITS PRECEDING JANUARY 2023. THE CITY OF PORTLAND, MAINE UPDATED PARTS OF THE TECHNICAL MANUAL AS RECENTLY AS NOVEMBER 22, 2022. THE CONTRACTOR SHALL FOLLOW THESE DETAILS AS APPROVED EXCEPTING WHEREAS THE CITY OF PORTLAND TECHNICAL MANUAL DETAILS HAVE BEEN UPDATED AND CONFLICT; THE CONTRACTOR SHALL FOLLOW THE MORE STRINGENT MINIMUM DIMENSIONAL REQUIREMENTS.

REV	DATE	DESCRIPTION
2	12/23/2024	REVISED TO ADDRESS CITY COMMENTS
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY No. 11994 — LICENSED PROFESSIONAL ENGINEER — 12/23/2024

P.E. BO KENNEDY

LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

SHEET TITLE
STORMWATER DETAILS - SUBSURFACE WATER QUALITY VOLUME STORAGE DETAILS

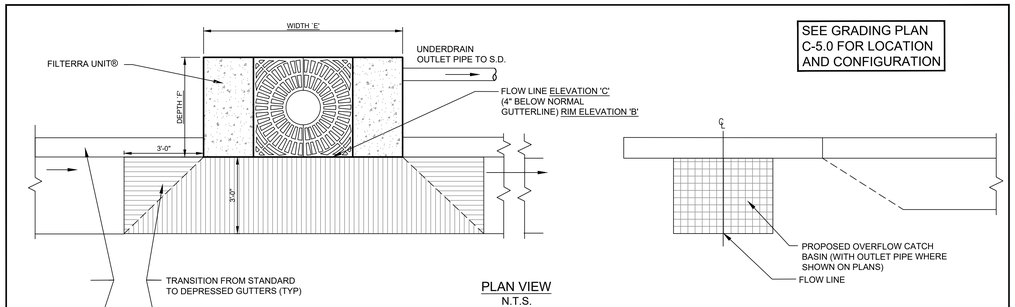
CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

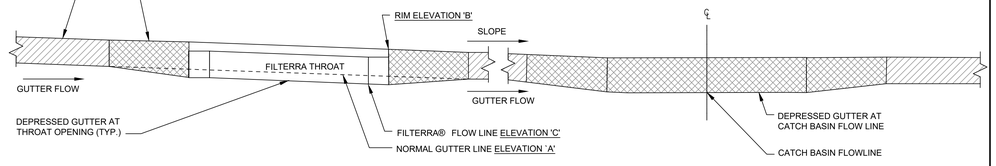
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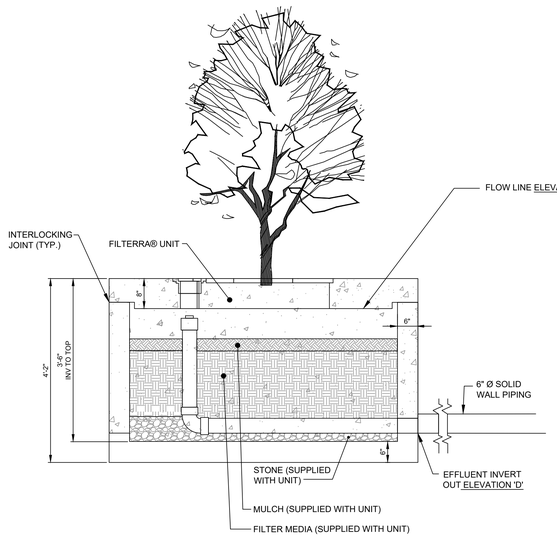
SEE GRADING PLAN
C-5.0 FOR LOCATION
AND CONFIGURATION



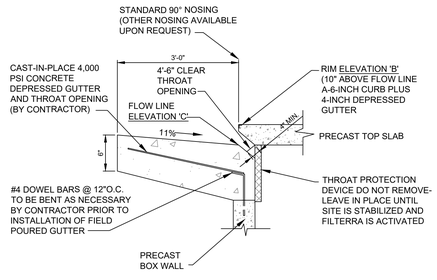
PLAN VIEW
N.T.S.



ELEVATION VIEW
N.T.S.



CROSS SECTION
N.T.S.



STANDARD FILTERRA THROAT OPENING
SECTION A-A
N.T.S.

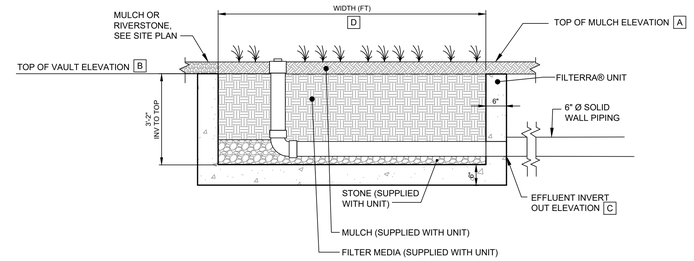
CONSTRUCTION OVERSIGHT NOTES:
FILTERRA UNITS SHALL ONLY BE ACTIVATED BY THE SUPPLIER. ACTIVATION INCLUDES THE INSTALLATION OF THE PLANTS AND MULCH LAYERS. ACTIVATION CANNOT BEGIN UNTIL THE PROJECT SITE IS FULLY STABILIZED AND CLEANED (FULL LANDSCAPING, GRASS COVER, FINAL PAVING AND SWEEPING COMPLETE). THE ONLY BOARDS WHICH SHOULD BE REMOVED ARE THE 2X4 WOODEN PLANKS SET BETWEEN THE FILTERRA BOX AND TOP SLAB. ALL REMAINING BOARDS SHALL REMAIN IN TACT DURING INSTALLATION AND WILL BE REMOVED DURING ACTIVATION OF THE UNIT BY AN AUTHORIZED FILTERRA REPRESENTATIVE.

ALL MANUFACTURED SYSTEMS SHALL BE INSPECTED BY A PROFESSIONAL ENGINEER APPROVED BY THE MANUFACTURER AND SHALL CONSIST OF AN APPROPRIATE NUMBER OF SITE VISITS TO THE SITE TO INSPECT SUBGRADE PREPARATION, GENERAL CONSTRUCTION, STONE PLACEMENT, CHAMBER PLACEMENT, FABRIC LAYMENT, AND STORMWATER OVERFLOW BYPASS CONSTRUCTION FROM INITIAL GROUND DISTURBANCE TO FINAL STABILIZATION.

Ⓐ FILTERRA® UNIT
N.T.S.

FILTERRA® UNIT SCHEDULE

	ITEM DESCRIPTION	ZONE HA			
		FILTERRA HA-2.1	FILTERRA HA- 4.1	FILTERRA HA- 5.1	FILTERRA HA- 6.1
Ⓐ	NORMAL GUTTER LINE ELEV.	21.90	23.70	24.40	24.11
Ⓑ	RIM ELEV.	22.40	24.20	24.90	22.40
Ⓒ	INLET FLOW LINE ELEV.	21.57	23.37	21.57	23.28
Ⓓ	OUTLET SD INV.	18.90	20.7	21.40	21.40
Ⓔ	FILTERRA WIDTH	8 FEET	6 FEET	10 FEET	8 FEET
Ⓕ	FILTERRA DEPTH	4 FEET	4 FEET	6 FEET	4 FEET



CROSS SECTION
N.T.S.

FILTERRA® BIOSCAPES SCHEDULE

	ITEM DESCRIPTION				ZONE HB	
		FILTERRA HA- 7.1	FILTERRA HA- 8.1	FILTERRA HA- 9.1	FILTERRA HB- 21.1	FILTERRA HB- 22.1
A	TOP OF MULCH	23.75	23.75	23.50	26.67	26.67
B	TOP OF CONCRETE	23.50	23.50	23.25	26.34	26.34
C	OUTLET SD INV.	20.33	20.33	20.08	23.17	23.17
D	FILTERRA WIDTH	4 FEET	4 FEET	4 FEET	4 FEET	4 FEET
E	FILTERRA DEPTH	4 FEET	4 FEET	4 FEET	4 FEET	4 FEET

Ⓑ BIO RETENTION BOX - FILTERRA BIOSCAPES ZONES HA AND HB
N.T.S.

NOTE:
THE APPLICANT RESERVES THE RIGHT TO OFFER AN `OR EQUAL' ALTERNATIVE TO THE FILTERRA® UNIT, SUBJECT TO REVIEW AND APPROVAL BY THE CITY OF PORTLAND REPRESENTATIVES

THE DETAILS SHOWN HERE ARE CONSISTENT WITH DEVELOPMENT ON THOMPSON'S POINT AND APPROVED AS PART OF THE MASTER DEVELOPMENT PERMIT, OVERALL AND SECTIONAL SUBDIVISION PERMITS, AND LEVEL I, II, III SITE APPLICATION PERMITS PRECEDING JANUARY 2023. THE CITY OF PORTLAND, MAINE UPDATED PARTS OF THE TECHNICAL MANUAL AS RECENTLY AS NOVEMBER 22, 2022. THE CONTRACTOR SHALL FOLLOW THESE DETAILS AS APPROVED EXCEPTING WHEREAS THE CITY OF PORTLAND TECHNICAL MANUAL DETAILS HAVE BEEN UPDATED AND CONFLICT; THE CONTRACTOR SHALL FOLLOW THE MORE STRINGENT MINIMUM DIMENSIONAL REQUIREMENTS.

PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
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1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY No. 11994 — LICENSED PROFESSIONAL ENGINEER
12/23/2024
P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

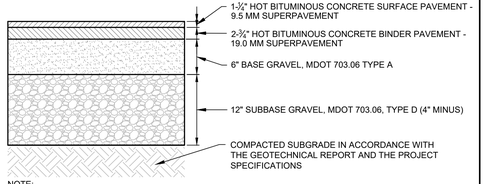
SHEET TITLE
STORMWATER DETAILS
FILTERRA UNITS

CLIENT
CPI MANAGEMENT, LLC
(CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

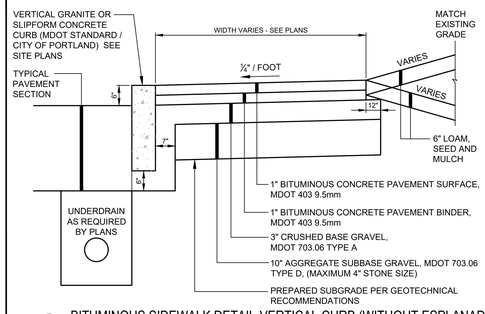
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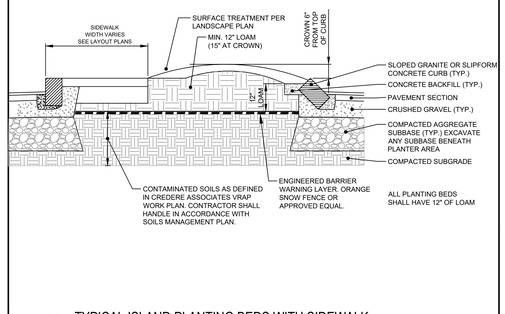


NOTE:
CONTRACTOR SHALL BE REQUIRED TO PROTECT ALL BEARING SOILS FROM EXCESSIVE DISTURBANCE. SHOULD SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, DISTURBED AREAS SHOULD BE EXCAVATED AND COMPACTED WITH SELECT GRANULAR FILL OR CRUSHED STONE AT NO EXTRA EXPENSE TO THE OWNER. WOVEN GEOTEXTILE TENSILE FABRIC (MIRAFI 600X OR EQUAL) SHALL BE PLACED OVER UNSUITABLE SUBGRADE AS DIRECTED PRIOR TO OR DURING CONSTRUCTION BY THE OWNER'S REPRESENTATIVE, AT NO EXTRA EXPENSE TO THE OWNER.

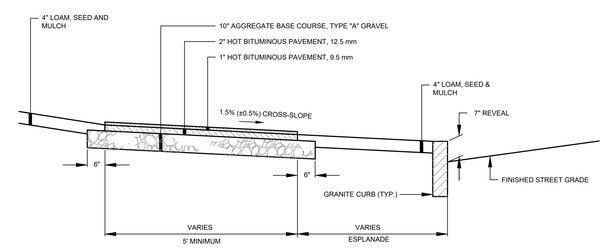
Ⓐ LIGHT DUTY BITUMINOUS CONCRETE PAVEMENT SECTION
N.T.S. SEE NOTE 1 BELOW



Ⓔ BITUMINOUS SIDEWALK DETAIL-VERTICAL CURB (WITHOUT ESPLANADE)
N.T.S. SEE NOTE 1 BELOW



Ⓘ TYPICAL ISLAND PLANTING BEDS WITH SIDEWALK
N.T.S. SEE NOTE 1 BELOW

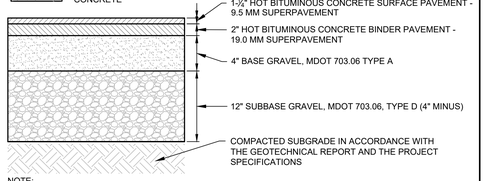


Ⓜ BITUMINOUS SIDEWALK IN CITY R.O.W.
N.T.S.

PAVEMENT TYPE IS DEPICTED ON DRAWING C3.0 SURFACE TREATMENT

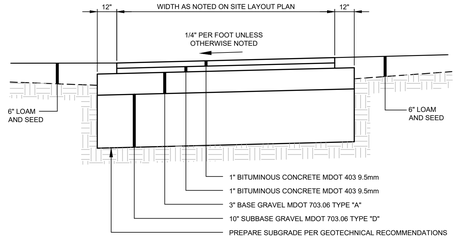
STANDARD DUTY BITUMINOUS CONCRETE
HEAVY DUTY BITUMINOUS CONCRETE
PORTLAND CEMENT CONCRETE

NOTES:
1. APPLY TACK COAT BETWEEN BINDER AND SURFACE COURSES.
2. ALL MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS, LATEST REVISION COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS AND GEOTECHNICAL REPORTS PREPARED BY THE GEOTECHNICAL ENGINEER WHICHEVER IS MORE STRINGENT

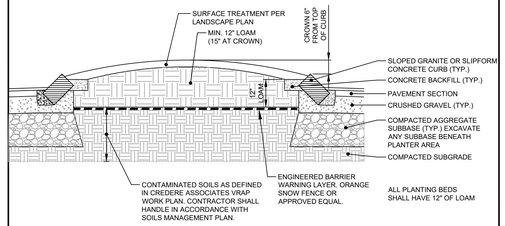


NOTE:
CONTRACTOR SHALL BE REQUIRED TO PROTECT ALL BEARING SOILS FROM EXCESSIVE DISTURBANCE. SHOULD SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, DISTURBED AREAS SHOULD BE EXCAVATED AND COMPACTED WITH SELECT GRANULAR FILL OR CRUSHED STONE AT NO EXTRA EXPENSE TO THE OWNER. WOVEN GEOTEXTILE TENSILE FABRIC (MIRAFI 600X OR EQUAL) SHALL BE PLACED OVER UNSUITABLE SUBGRADE AS DIRECTED BY THE OWNER'S REPRESENTATIVE, AT NO EXTRA EXPENSE TO THE OWNER.

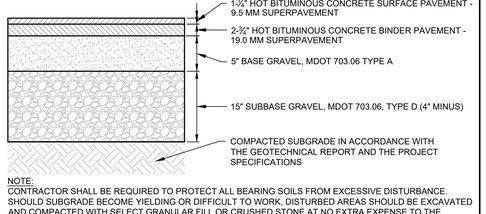
Ⓑ STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT SECTION
N.T.S. SEE NOTE 1 BELOW



Ⓕ NON-CURBED AREAS BITUMINOUS SIDEWALK/WALKWAY DETAIL
N.T.S. SEE NOTE 1 BELOW

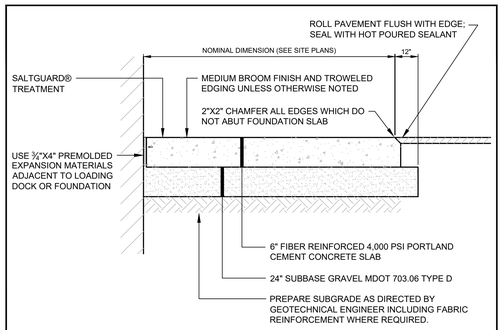


Ⓙ TYPICAL ISLAND PLANTING BEDS WITHOUT SIDEWALK
N.T.S. SEE NOTE 1 BELOW

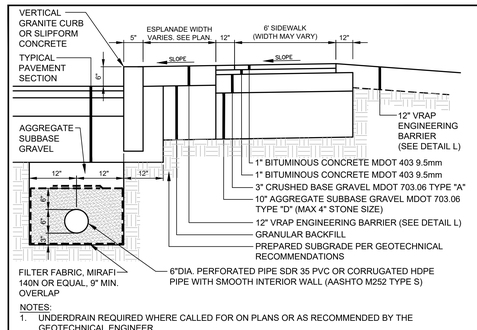


NOTE:
CONTRACTOR SHALL BE REQUIRED TO PROTECT ALL BEARING SOILS FROM EXCESSIVE DISTURBANCE. SHOULD SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, DISTURBED AREAS SHOULD BE EXCAVATED AND COMPACTED WITH SELECT GRANULAR FILL OR CRUSHED STONE AT NO EXTRA EXPENSE TO THE OWNER. WOVEN GEOTEXTILE TENSILE FABRIC (MIRAFI 600X OR EQUAL) SHALL BE PLACED OVER UNSUITABLE SUBGRADE AS DIRECTED PRIOR TO OR DURING CONSTRUCTION BY THE OWNER'S REPRESENTATIVE, AT NO EXTRA EXPENSE TO THE OWNER.

Ⓒ HEAVY DUTY BITUMINOUS CONCRETE PAVEMENT SECTION
N.T.S. SEE NOTE 1 BELOW



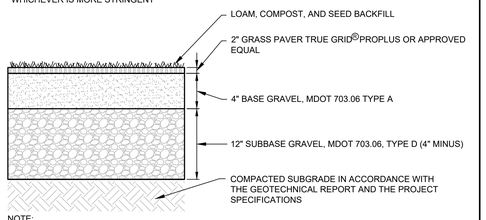
Ⓖ CONCRETE SLAB DETAIL
N.T.S. SEE NOTE 1 BELOW



NOTES:
1. UNDERDRAIN REQUIRED WHERE CALLED FOR ON PLANS OR AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER
2. UNDERDRAIN PIPE ELEVATIONS SHALL BE AT LEAST 42" BELOW GUTTER GRADE
3. PERFORATIONS IN UNDERDRAIN SHALL BE ORIENTATED DOWN

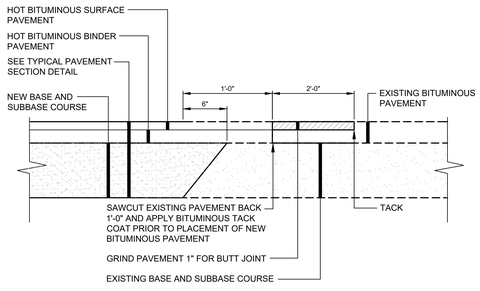
Ⓚ BITUMINOUS SIDEWALK DETAIL-CURBED AREAS (WITH ESPLANADE)
N.T.S. SEE NOTE 1 FOR PRIVATE PROPERTY
SEE DETAIL M FOR SIDEWALK IN CITY R.O.W.

NOTES:
1. ALL MATERIALS SHALL CONFORM TO MDOT SPECIFICATIONS, LATEST REVISION COMPACTION OF ALL MATERIALS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS AND GEOTECHNICAL REPORTS PREPARED BY THE GEOTECHNICAL ENGINEER WHICHEVER IS MORE STRINGENT

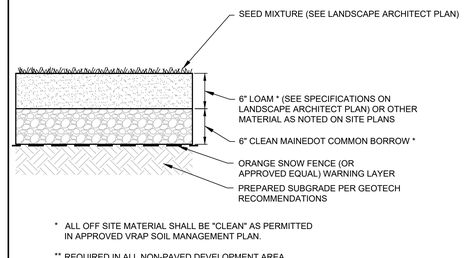


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Ⓓ GRASS PAVER - FIRE LANE
N.T.S.



Ⓗ PAVEMENT SAWCUT DETAIL
N.T.S.



* ALL OFF SITE MATERIAL SHALL BE "CLEAN" AS PERMITTED IN APPROVED VRAP SOIL MANAGEMENT PLAN.

** REQUIRED IN ALL NON-PAVED DEVELOPMENT AREA.

Ⓛ VRAP NON-PAVED ENGINEERING BARRIER **
N.T.S.

PRELIMINARY – NOT FOR CONSTRUCTION

NOTE:
1. DETAIL HAS BEEN DESIGNED TO MEET THE ENGINEERED BARRIER SPECIFICATIONS NOTED IN MEDEP VRAP WORK PLAN.

THE DETAILS SHOWN HERE ARE CONSISTENT WITH DEVELOPMENT ON THOMPSON'S POINT AND APPROVED AS PART OF THE MASTER DEVELOPMENT PERMIT, OVERALL AND SECTIONAL SUBDIVISION PERMITS, AND LEVEL I, II, III SITE APPLICATION PERMITS PRECEDING JANUARY 2023. THE CITY OF PORTLAND, MAINE UPDATED PARTS OF THE TECHNICAL MANUAL AS RECENTLY AS NOVEMBER 22, 2022. THE CONTRACTOR SHALL FOLLOW THESE DETAILS AS APPROVED EXCEPTING WHEREAS THE CITY OF PORTLAND TECHNICAL MANUAL DETAILS HAVE BEEN UPDATED AND CONFLICT; THE CONTRACTOR SHALL FOLLOW THE MORE STRINGENT MINIMUM DIMENSIONAL REQUIREMENTS.

REV	DATE	DESCRIPTION
2	12/23/2024	REVISED TO ADDRESS CITY COMMENTS
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY — No. 11994 — LICENSED PROFESSIONAL ENGINEER — 12/23/2024

P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

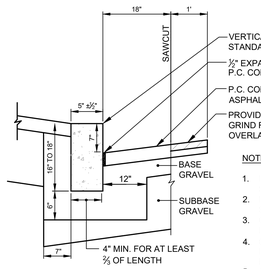
SHEET TITLE
PAVEMENT SECTIONS AND SIDEWALK DETAILS

CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN:	DB
DESIGNED:	BEK
FILE NAME:	PANHANDLE-DET.dwg
DATE:	AUGUST 2024
SCALE:	N.T.S.
SHEET	C-8.0

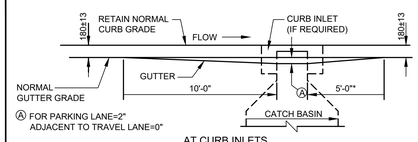
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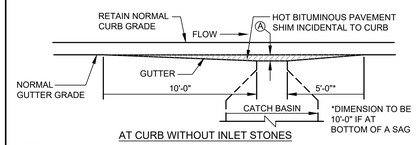
NOTES:

1. MAXIMUM LENGTH OF STRAIGHT CURB STONES = 8'
2. MINIMUM LENGTH OF STRAIGHT CURB STONES = 4'
3. CIRCULAR CURB REQUIRED FOR RADIUS LESS THAN 50'
4. GROUT OR CAULK ALL CURB JOINTS OVER ¼" IN WIDTH. INSTALL STRIP OF FILTER FABRIC BEHIND EACH CURB JOINT.
5. CURB REVEAL SHALL BE 7" IN MDOT OR CITY RIGHT-OF-WAY. ALL OTHER AREAS SHALL HAVE 6" CURB REVEAL.

Ⓐ VERTICAL GRANITE CURB DETAIL
N.T.S.



AT CURB INLETS



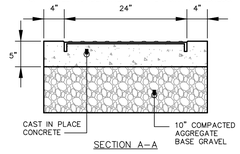
AT CURB WITHOUT INLET STONES

NOTE:
GRATES SHALL BE INSTALLED ON GRADIENT OF THE GUTTER AND BE DEPRESSED 50mm BELOW THE NORMAL GUTTER GRADE UNLESS THIS DEPRESSION INTERFERES WITH TRAFFIC.

Ⓓ GUTTER GRADE TRANSITION AT CATCH BASIN
N.T.S.

NOTES:

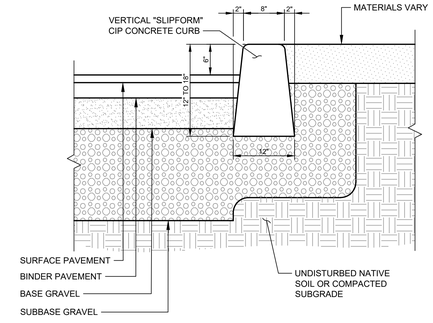
1. ALL DETECTABLE WARNING PLATES SHALL BE UNCOATED CAST IRON. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
2. CAST IN PLACE CONCRETE SHALL MEET SPECIFICATIONS FOR MDOT CLASS A STRUCTURAL CONCRETE, MINIMUM COMPRESSIVE STRENGTH 4,000 PSI. THE EXPOSED CONCRETE BORDER SHALL RECEIVE A UNIFORM BROOM FINISH PERPENDICULAR TO THE FLOW OF PEDESTRIAN TRAFFIC.
3. TRUNCATED DOMES SHALL BE ALIGNED IN ROWS, PARALLEL AND PERPENDICULAR TO THE PREDOMINANT DIRECTION OF TRAVEL. TRUNCATED DOME BRICKS AND GRANITE PAVERS ARE NOT ALLOWED.
4. SIZE: THE DETECTABLE WARNING PLATES SHALL EXTEND 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION TO THE STREET.
5. ORIENTATION: THE DETECTABLE WARNING PANEL SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE CURB LINE. THE PANEL SHALL BE ORIENTED TO THE DIRECTION OF TRAVEL AS IDENTIFIED BY THE POINT OF EGRESS.



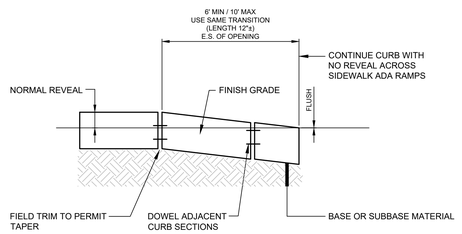
SECTION A–A

PLAN VIEW

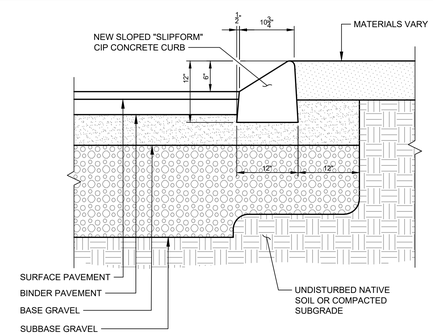
Ⓑ DETECTABLE WARNING PANEL
N.T.S.



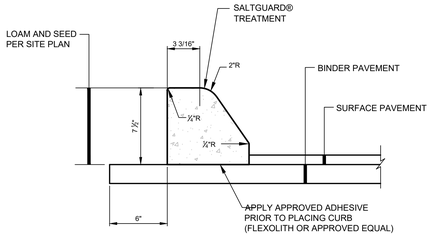
Ⓕ DIRIGO VERTICAL SLIPFORM CONCRETE CURB ON GRAVEL
N.T.S.



Ⓒ SLOPE OF GRANITE CURB AT ADA RAMPS AND DRIVEWAYS
N.T.S.



Ⓖ " x 12" SLOPED SLIPFORM CURB
N.T.S.

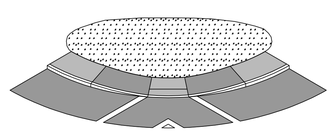


NOTE:
USE NEAR VERTICAL MOLD WHEN ADJACENT TO SIDEWALK

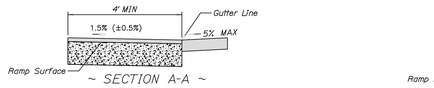
Ⓔ SLIPFORM CONCRETE CURB DETAIL - SLOPED MOLD
N.T.S.

GENERAL NOTES

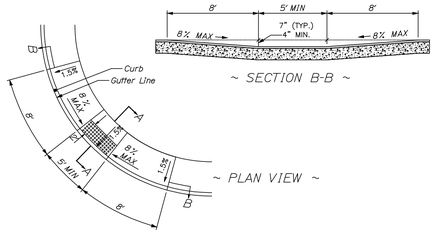
1. DESIGN OF ACCESSIBLE RAMPS AND ASSOCIATED FACILITIES ARE GOVERNED BY THE 2010 AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS FOR ACCESSIBLE DESIGN, WHICH IS DETAILED IN DOJ SECTION 28 CFR 35.151. ADDITIONAL GUIDANCE AND INFORMATION CAN BE FOUND IN THE PROPOSED PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES PUBLISHED BY THE U.S. ACCESS BOARD. IN ANY CASE WHERE THE DESIGN REQUIREMENTS ARE MORE STRINGENT BETWEEN ADA STANDARDS AND CITY REQUIREMENTS, THE ADA STANDARDS SHALL GOVERN.
2. SIDEWALKS SHALL BE CONSTRUCTED IN BRICK, CONCRETE, OR BITUMINOUS, ACCORDING TO THE SIDEWALK & DRIVEWAY APRON MATERIALS POLICY, UNLESS DIRECTED OTHERWISE BY THE CITY ENGINEER.
3. SIDEWALKS AND RAMPS SHALL BE BUILT ACCORDING TO THE FOLLOWING DIMENSIONS AND GRADES:
   SIDEWALK RUNNING SLOPE: MATCH ADJACENT STREET GRADE
   SIDEWALK CROSS SLOPE: 1.0% MINIMUM, 2.0% MAXIMUM
   SIDEWALK WIDTH: 5'-0" MINIMUM, WIDER PREFERRED
   ESPLANADE (WHERE PROVIDED) 2'-0" MINIMUM, 4'-0" OR GREATER PREFERRED IF LANDSCAPED.
4. TWO CURB RAMPS ARE REQUIRED AT EACH SIDEWALK CORNER. EACH CURB RAMP SHALL CONNECT THE PEDESTRIAN ACCESS ROUTE AT EACH PEDESTRIAN STREET CROSSING. IN ALTERATIONS WHERE PHYSICAL CONSTRAINTS PREVENT TWO CURB RAMPS FROM BEING INSTALLED AT A STREET CORNER, A SINGLE PEDESTRIAN CURB RAMP MAY BE PERMITTED.
5. OPPOSING CURB RAMPS AT A SINGLE CROSSING SHALL ALIGN TO PROVIDE A STRAIGHT PATH OF TRAVEL FROM THE TOP OF THE RAMP TO THE CURB RAMP ON THE OPPOSITE SIDE OF THE ROADWAY TO THE MAXIMUM EXTENT FEASIBLE.
6. ALL SIDEWALKS AND RAMPS SHALL DRAIN TOWARD THE STREET, DRIVEWAY, OR PARKING AREA, WITH A MAXIMUM CROSS SLOPE OF 2.0%.
7. LEVEL LANDINGS (NO GREATER THAN 2.0% SLOPE IN ANY DIRECTION) AT THE BOTTOM OF PERPENDICULAR RAMPS SHALL BE WHOLLY CONTAINED WITHIN MARKED CROSSWALKS.
8. PONDING SHALL NOT BE PERMITTED WITHIN THE CURB RAMP LIMITS. RAMPS SHALL NOT ALTER ROADWAY DRAINAGE PATTERNS.
9. TRANSITION FROM RAMPS TO WALKS OR STREET SURFACE SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. PAVEMENT AT THE STREET SURFACE SHALL BE MILLED AND REPAVED TO ACHIEVE FLUSH CONDITION.
10. CURB RAMP AND FORM WORK SLOPES SHALL BE CHECKED WITH A DIGITAL LEVEL OF AN APPROPRIATE LENGTH. NO PORTION OF A RAMP RUN SHALL EXCEED THE MAXIMUM SLOPE REQUIREMENT.
11. THE COUNTER SLOPE WITHIN 2' OF THE CURB RAMP SHALL BE 5% MAXIMUM. IN ALTERATIONS, IF THE COUNTER SLOPE OF 5% MAXIMUM CANNOT BE ACHIEVED, THE SLOPE ELEVATION MAY BE ADJUSTED SO THAT THE COMBINED COUNTER SLOPE AND RAMP SLOPE DO NOT EXCEED 13.3%
12. VERTICAL DROP-OFF EDGES TO RAMPS SHALL NOT BE BUILT UNLESS THE RAMP ABUTS AN ESPLANADE OR OTHER AREA NOT TO BE USED BY PEDESTRIANS.
13. AT MARKED CROSSWALKS, THE FULL WIDTH OF THE RAMP OR LANDING SHALL BE CONTAINED WITHIN THE PAVEMENT MARKINGS.
14. DETECTABLE WARNING PANELS SHALL BE PROVIDED ON ALL RAMPS AS PER FIGURE I–7 OF THESE STANDARD DETAILS.
15. RAMP FLARES SHOULD BE LOCATED OUTSIDE THE DIRECT LINE OF TRAVEL MOST LIKELY TO BE FOLLOWED BY THE VISUALLY IMPAIRED.
16. SIGNS, POLES, PLANTERS, MAILBOXES, ETC. SHALL NOT BE LOCATED WHERE THEY WILL INTERFERE WITH THE USE OF SIDEWALK RAMPS.
17. SIDEWALK RAMPS SHALL NOT BE LOCATED WHERE USERS MUST CROSS DROP INLET GRATES, MANHOLE COVERS, OR OTHER ACCESS LIDS. IF THIS CANNOT BE AVOIDED, THEN GRATE DESIGN AND PLACEMENT SHALL CONFORM TO ADA REQUIREMENTS.
18. THE PUBLIC-SIDEWALK CURB RAMP STANDARDS DEPICTED HERE MAY NOT BE APPROPRIATE FOR ALL LOCATIONS. FIELD CONDITIONS AT INDIVIDUAL LOCATIONS MAY REQUIRE SPECIFIC DESIGNS. RAMP DESIGNS THAT ARE COMPLIANT WITH ADA BUT NOT LISTED IN THESE DETAILS MAY BE APPROVED BY THE CITY ENGINEER.
19. DESIGNS MUST BE CONSISTENT WITH THE PROVISIONS OF THESE DETAILS AND TO ADA GUIDELINES TO THE MAXIMUM EXTENT FEASIBLE ON ALTERATION PROJECTS, AND WHEN STRUCTURALLY PRACTICABLE ON NEW CONSTRUCTION PROJECTS AS REQUIRED BY THE ADA ACCESSIBILITY GUIDELINES.
20. MAXIMUMS AND MINIMUMS DO NOT HAVE TOLERANCES AND ARE NOT TO BE EXCEEDED OR UNMET.
21. THE STANDARD TURNING SPACE (LEVEL LANDING) IS 4'–0" X 4'–0" SLOPING NO MORE THAN 2.0% WHERE THE TURNING SPACE SHALL BE 4'–0" MINIMUM BY 5'–0" MINIMUM. THE 5'–0" DIMENSION SHALL BE PROVIDED IN THE DIRECTION OF THE RAMP RUN.
22. DETECTABLE WARNINGS SHALL BE INSTALLED AT ALL SIGNED OR SIGNALIZED INTERSECTIONS. THEY SHALL HAVE A TRUNCATED DOME SURFACE. THE DOMES SHALL BE IN A SQUARE PATTERN AND ALIGNED WITH PEDESTRIAN TRAFFIC WHERE POSSIBLE.
23. DETECTABLE WARNINGS SHALL SPAN THE WIDTH OF THE PEDESTRIAN RAMP. SEE STANDARD DETAIL FIGURE I–7.
24. ALL DETECTABLE WARNING FIELDS PLACED AT THE SAME INTERSECTION SHALL BE MADE UP OF THE SAME UNIFORM MATERIAL TYPE. DETECTABLE WARNINGS SHALL BE CONTRASTING IN COLOR TO THE ADJACENT WALKWAY.
25. A RAMP WITH A RUNNING SLOPE LESS THAN 5.0% IS DEFINED AS A "BLENDED TRANSITION". BLENDED TRANSITIONS DO NOT REQUIRE A LEVEL LANDING AT THE TOP OF THE RAMP.
26. THE RAMP LENGTH SHALL NOT EXCEED 15 FEET. ADJUST RAMP LENGTH OR SLOPE AS NEEDED TO PROVIDE ACCESS TO THE MAXIMUM EXTENT FEASIBLE.
27. ALL CURB RAMP JOINTS AND GRADE BREAKS SHALL BE FLUSH.
28. RAMP GRADE BREAKS SHALL BE PERPENDICULAR TO THE RUNNING SLOPE.
29. THERE SHALL BE A MINIMUM OF 12" AGGREGATE SUBBASE COURSE – GRAVEL UNDER THE SIDEWALK SURFACE ON PEDESTRIAN RAMPS.
30. DRAINAGE STRUCTURES, UTILITY POLES, TRAFFIC SIGNAL EQUIPMENT OR OTHER OBSTRUCTIONS SHALL NOT BE INSTALLED IN THE CURB RAMP OR TURNING SPACE AREAS.
31. BEFORE RETROFITTING RAMPS, THE CONTRACTOR SHALL VERIFY REMOVAL LIMITS ARE SUFFICIENT TO PROVIDE POSITIVE DRAINAGE, MAINTAIN EXISTING DRAINAGE PATTERNS AND AVOID PONDING IN THE FINAL CONFIGURATION.
32. A TEMPORARY PEDESTRIAN ACCESS ROUTE SHALL BE PROVIDED WHENEVER THE EXISTING PEDESTRIAN ACCESS ROUTE IN THE PUBLIC RIGHT OF WAY IS BLOCKED BY CONSTRUCTION, ALTERATION, MAINTENANCE OR OTHER TEMPORARY CONDITIONS. REFER TO MUTCD FOR GUIDANCE.



~ ISOMETRIC VIEW ~
(NOT TO SCALE)



~ SECTION A-A ~



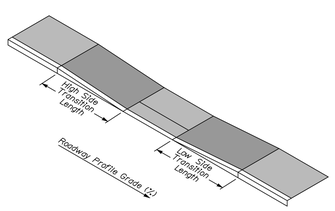
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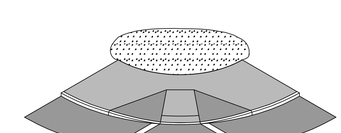
~ PLAN VIEW ~

NOTES:

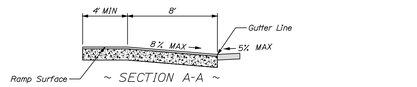
1. THIS LESS DESIRABLE DESIGN SHOULD NOT BE USED UNLESS REQUIRED BY DESIGN CONSTRAINTS. IT DOES NOT PROVIDE DIRECTIONAL CUES.
2. A MINIMUM CURB REVEAL OF 4" IS REQUIRED AT THE APEX OF THE CURB RADIUS.
3. MINIMUM TERMINAL CURB LENGTH SHALL BE 4 FEET.
4. SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY.

APEX RAMP – SIDEWALKS LESS THAN 6.5' WIDE
WITH NO ESPLANADE
I–6C

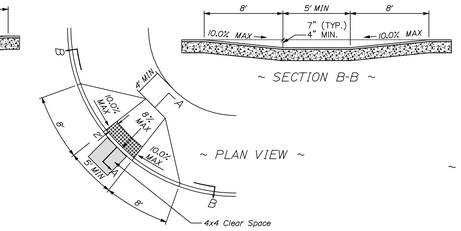




~ ISOMETRIC VIEW ~
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~ SECTION A-A ~



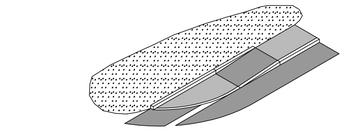
~ SECTION B-B ~

~ PLAN VIEW ~

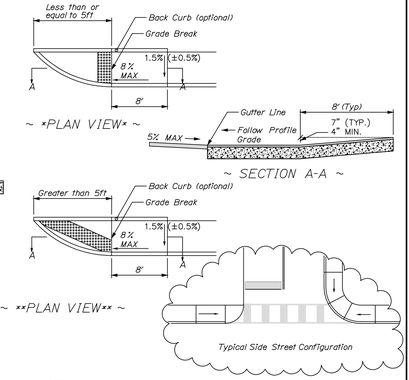
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3. MINIMUM TERMINAL CURB LENGTH SHALL BE 4 FEET.
4. SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY.

APEX RAMP – SIDEWALK GREATER THAN 6.5' WIDE
WITH OR WITHOUT ESPLANADE
I–6D



~ PERSPECTIVE VIEW ~
(NOT TO SCALE)



NOTES:

1. FOR USE ONLY WHEN NO SIDEWALK IS PRESENT ON THE SIDE ROAD.
2. USE *THIS* DETECTABLE WARNING PLACEMENT IF THE DISTANCE FROM THE GRADE BREAK TO THE GUTTERLINE IS LESS THAN OR EQUAL TO 5 FEET.
2. USE **THIS** DETECTABLE WARNING PLACEMENT IF THE DISTANCE FROM THE GRADE BREAK TO THE GUTTERLINE IS GREATER THAN 5 FEET.
3. SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY.

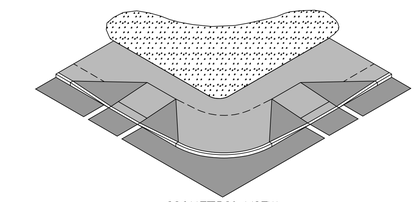
SIDE STREET RAMP
WITH OR WITHOUT ESPLANADE
I–6E

PEDESTRIAN RAMP LENGTH TABLE						
CURB REVEAL (INCHES)		7	6	5	4	3
	ROADWAY PROFILE GRADE	MINIMUM TRANSITION LENGTH REQUIRED (FEET)				
LOW SIDE TRANSITION LENGTH	-7% AND LOWER	4.0	4.0	4.0	4.0	4.0
	-6%	8.0	4.0	4.0	4.0	4.0
	-5%	8.0	4.0	4.0	4.0	4.0
	-4%	8.0	8.0	4.0	4.0	4.0
	-3%	8.0	8.0	4.0	4.0	4.0
	-2%	8.0	8.0	8.0	4.0	4.0
	-1%	8.0	8.0	8.0	4.0	4.0
	0%	8.0	8.0	8.0	8.0	4.0
HIGH SIDE TRANSITION LENGTH	1%	8.0	8.0	8.0	8.0	4.0
	2%	10.0	8.0	8.0	8.0	4.0
	3%	12.0	10.0	8.0	8.0	8.0
	4%	14.0	12.0	10.0	8.0	8.0
	5%	15.0	15.0	14.0	10.0	8.0
	6%	15.0	15.0	15.0	15.0	12.0
	7% AND HIGHER	15.0	15.0	15.0	15.0	15.0

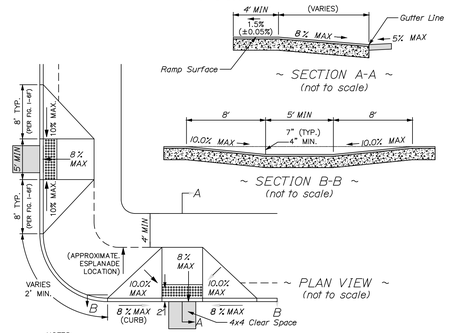
NOTE:
CHOOSE ROADWAY PROFILE GRADE BY ROUNDING UP FOR POSITIVE GRADES AND DOWN FOR NEGATIVE GRADES. ROUND TO THE NEAREST WHOLE INTEGER. IF CONSTRAINTS PREVENT PLACEMENT OF THE RAMP LENGTH REQUIRED BY THE TABLE, PLACE THE MAXIMUM LENGTH POSSIBLE AND CHECK THE SLOPE. IF ABOVE THE MAXIMUM ALLOWABLE SLOPE, CONSIDER DESIGN MODIFICATIONS BEFORE CONSIDERING TECHNICAL INFEASIBILITY.

RAMP LENGTH TABLE FOR SIDEWALK RAMPS
I–6F

Ⓗ BARRIER FREE RAMP DETAILS
N.T.S.



~ ISOMETRIC VIEW ~
(not to scale)



NOTES:

1. THIS DESIGN IS THE PREFERRED OPTION WHEN THE SIDEWALK WIDTH IS GREATER THAN 6.5'. USE OTHER OPTIONS ONLY WHEN REQUIRED BY DESIGN CONSTRAINTS.
2. A MINIMUM CURB REVEAL OF 4" IS REQUIRED AT THE APEX OF THE CURB RADIUS.
3. MINIMUM TERMINAL CURB LENGTH SHALL BE 4 FEET.
4. SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY.

PERPENDICULAR ADA RAMP – SIDEWALK WIDTH GREATER THAN 6.5' WIDE
WITH OR WITHOUT ESPLANADE
I–6G

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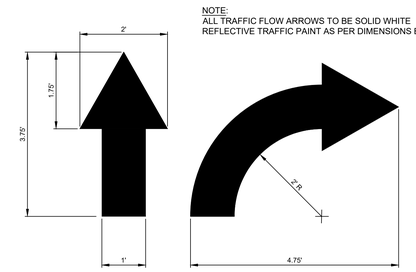
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CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

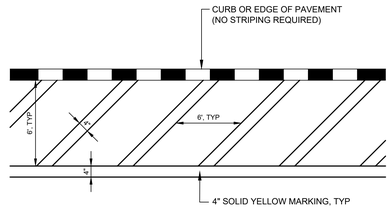
PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

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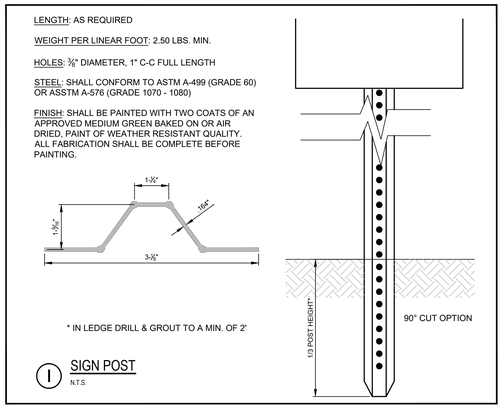
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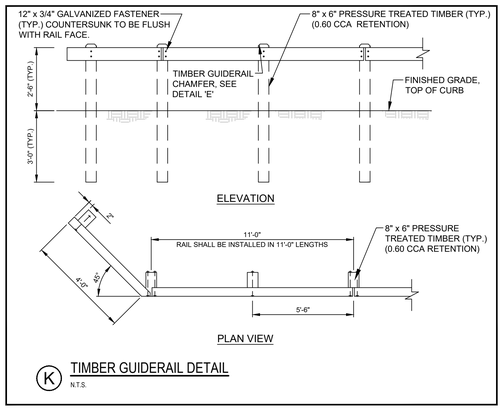
A TRAFFIC FLOW ARROW DETAIL
N.T.S.



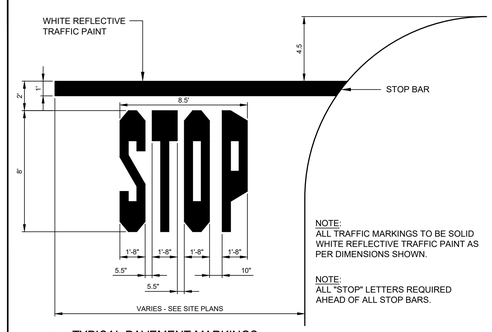
E CHEVRON STRIPING DETAIL
N.T.S.



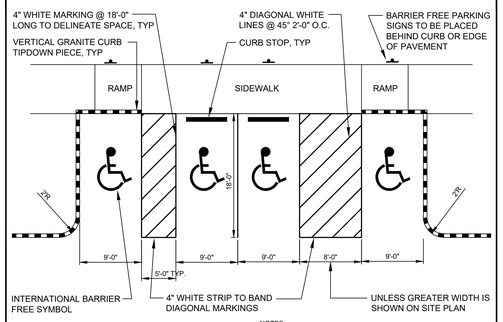
I SIGN POST
N.T.S.



K TIMBER GUIDERAIL DETAIL
N.T.S.

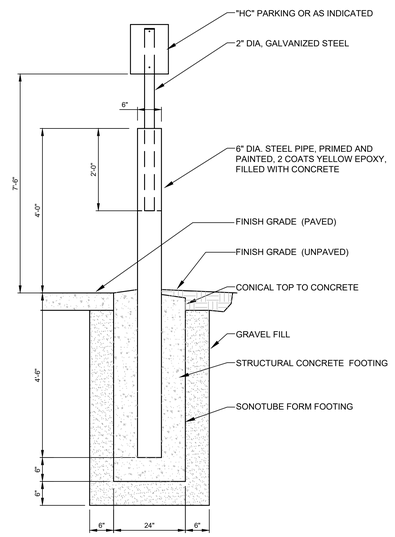


B TYPICAL PAVEMENT MARKINGS
N.T.S.

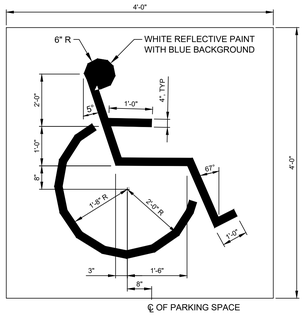


F ADA PARKING LOT STRIPING
N.T.S.

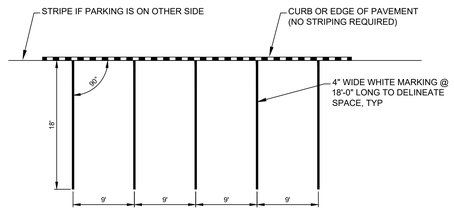
NOTES:
1. ONE IN EIGHT BARRIER FREE SPACES MUST BE VAN ASSESSABLE. THIS HAS BEEN PROVIDED FOR ON THE SITE LAYOUT PLAN.
2. BARRIER FREE GRAPHIC SYMBOL (PAINTED WHITE) TO BE CENTERED IN PARKING STALL. SYMBOL TO BE PAINTED ON BLUE NON-SKID BACKGROUND.



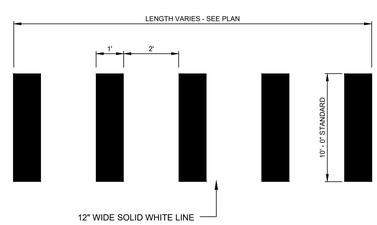
J BARRIER FREE PARKING SIGN
N.T.S.



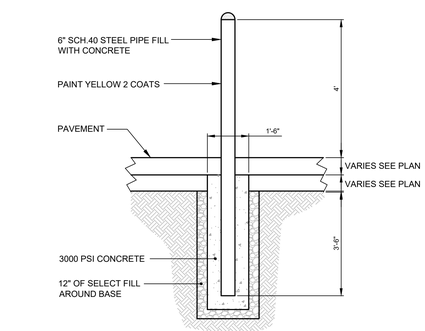
C INTERNATIONAL BARRIER FREE SYMBOL
N.T.S.



G STANDARD PARKING STALL STRIPING
N.T.S.



D CROSSWALK STRIPING DETAIL
N.T.S.



H GUARD POST/BOLLARD DETAIL
N.T.S.

PRELIMINARY – NOT FOR CONSTRUCTION

THE DETAILS SHOWN HERE ARE CONSISTENT WITH DEVELOPMENT ON THOMPSON'S POINT AND APPROVED AS PART OF THE MASTER DEVELOPMENT PERMIT, OVERALL AND SECTIONAL SUBDIVISION PERMITS, AND LEVEL I, II, III SITE APPLICATION PERMITS PRECEDING JANUARY 2023. THE CITY OF PORTLAND, MAINE UPDATED PARTS OF THE TECHNICAL MANUAL AS RECENTLY AS NOVEMBER 22, 2022. THE CONTRACTOR SHALL FOLLOW THESE DETAILS AS APPROVED EXCEPTING WHEREAS THE CITY OF PORTLAND TECHNICAL MANUAL DETAILS HAVE BEEN UPDATED AND CONFLICT; THE CONTRACTOR SHALL FOLLOW THE MORE STRINGENT MINIMUM DIMENSIONAL REQUIREMENTS.

REV	DATE	DESCRIPTION
2	12/23/2024	REVISED TO ADDRESS CITY COMMENTS
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY No. 11994 — LICENSED PROFESSIONAL ENGINEER — 12/23/2024

P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

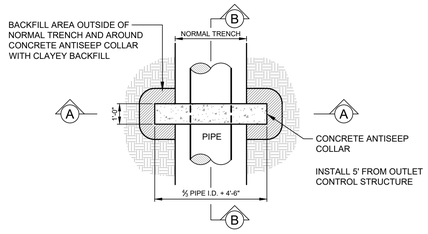
SHEET TITLE
PARKING AND TRAFFIC CONTROL DETAILS

CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

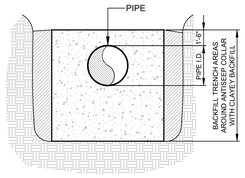
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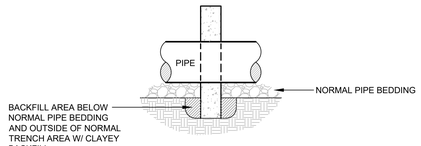
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PLAN

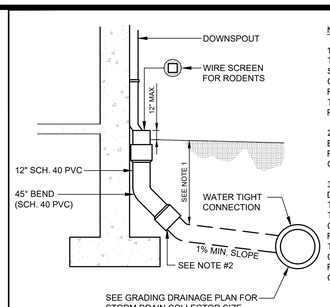


SECTION A-A



SECTION B-B

(A) ANTISEEP COLLAR
N.T.S.



NOTES:

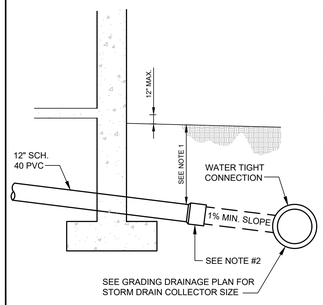
1. FOR ALL DEPTHS OF COVER LESS THAN TWO (2) FEET, PIPE MUST BE SCHEDULE 40 PVC. FOR DEPTHS OF COVER GREATER THAN TWO (2) FEET, FLEXIBLE PIPE MAY BE USED. REFER TO SPECIFICATIONS FOR ALLOWABLE PIPE TYPES.

2. A WATERTIGHT CONNECTION SHALL BE MAINTAINED WITH ANY TRANSITION FROM SCHEDULE 40 PVC PIPE TO ANY OTHER PIPE TYPE.

3. THE DOWNSPOUT COLLECTOR DRAIN SHALL BE INSTALLED BEFORE THE DOWNSPOUTS ARE INSTALLED ON THE BUILDING. SITE WORK CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK TO AND INCLUDING THE RODENT SCREEN. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONNECTION AT THE POINT OF THE RODENT SCREEN.

NOTE:
ARCHITECT MAY ELECT TO USE INTERNAL ROOF DRAINS - REFER TO ARCHITECTURAL PLANS

(C) ROOF DRAIN DETAIL - EXTERIOR DOWNSPOUT
N.T.S.



NOTES:

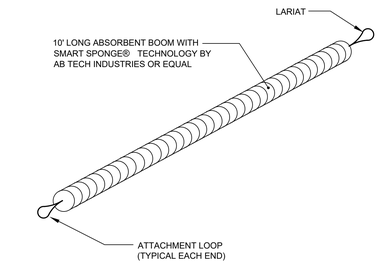
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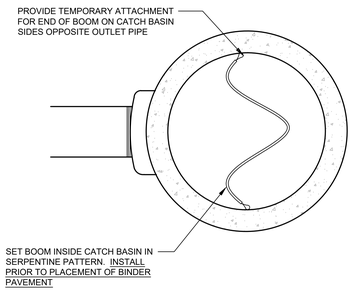
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NOTE:
ARCHITECT MAY ELECT TO USE INTERNAL ROOF DRAINS - REFER TO ARCHITECTURAL PLANS

(D) ROOF DRAIN DETAIL - INTERIOR ROOF LEADER
N.T.S.





PLAN VIEW LOOKING INTO CATCH BASIN

NOTES:
1. REQUIRED FOR ALL CATCH BASINS WHICH RECEIVE RUNOFF FROM PAVED AREAS.
2. REFER TO EROSION CONTROL REPORT FOR ADDITIONAL INFORMATION.
3. CONTRACTOR MAY SELECT OTHER TYPE OF EQUIVALENT OIL ABSORBENT PRODUCTS.
4. SUBMITTALS ARE REQUIRED FOR THESE ITEMS.

(B) TEMPORARY WATER QUALITY MEASURE INSIDE OF CATCH BASINS
N.T.S.

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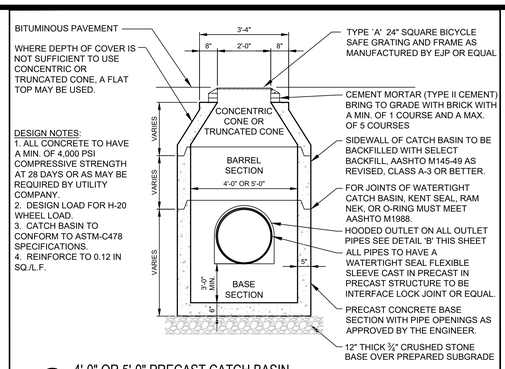
PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

SHEET TITLE
STORMWATER DETAILS

CLIENT
CPI MANAGEMENT, LLC
(CATHARTES)

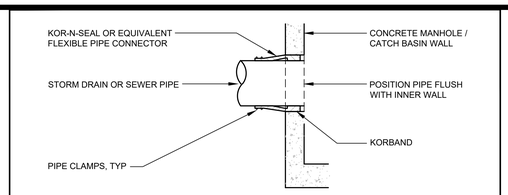
PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

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DESIGNED: BEK	SCALE: N.T.S.
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SHEET	C-8.3



DESIGN NOTES:
1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS OR AS MAY BE REQUIRED BY UTILITY COMPANY.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.12 IN SQ./L.F.

Ⓐ 4'-0" OR 5'-0" PRECAST CATCH BASIN
N.T.S.

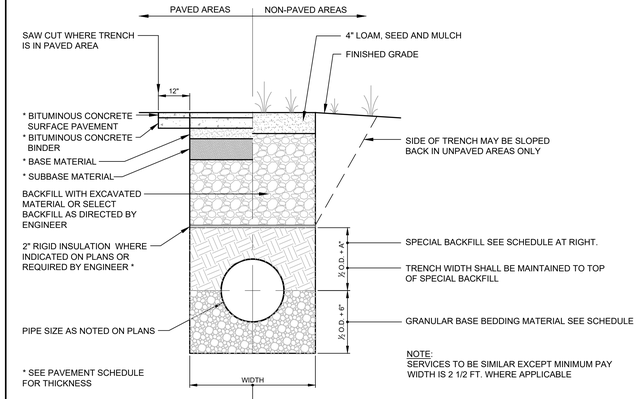


NOTES:
1. A FLEXIBLE PIPE TO MANHOLE CONNECTOR SHALL BE EMPLOYED IN THE CONNECTION OF ALL PIPE TO MANHOLE JUNCTIONS.
2. THE CONNECTOR SHALL BE KOR-N-SEAL AS MANUFACTURED BY NPC SYSTEMS, INC., OF MILFORD, NH OR EQUAL.
3. THE CONNECTOR SHALL BE THE SOLE ELEMENT RELIED ON TO ASSURE A FLEXIBLE WATERTIGHT SEAL OF THE PIPE TO MANHOLE. NO ADHESIVES OR LUBRICANTS SHALL BE EMPLOYED IN THE INSTALLATION OF THE CONNECTOR TO THE MANHOLE. THE RUBBER FOR THE CONNECTOR SHALL COMPLY TO ASTM C443 AND ASTM C923 AND CONSIST OF EPDM AND ELASTOMERS KNOWN TO BE RESISTANT TO OZONE, WEATHER ELEMENTS, CHEMICALS, INCLUDING ACIDS, ALKALIS, ANIMAL AND VEGETABLE FATS, OILS AND PETROLEUM PRODUCTS FROM SPILLS.
4. ALL STAINLESS STEEL ELEMENTS OF THE CONNECTOR SHALL BE TOTALLY NON-MAGNETIC SERIES 304 STAINLESS, EXCLUDING THE WORM SCREW USED FOR TIGHTENING THE STEEL BAND AROUND THE PIPE WHICH SHALL BE SERIES 305 STAINLESS. THE WORM SCREW USED FOR TIGHTENING THE STEEL BAND SHALL BE TORQUED BY A BREAK-AWAY TORQUE WRENCH AVAILABLE FROM THE PRECAST MANHOLE SUPPLIER, AND SET AT 60/70 in/lbs..
5. THE CONNECTOR SHALL BE INSTALLED IN THE MANHOLE WALL BY ACTIVATING THE EXPANDING MECHANISM IN STRICT ACCORDANCE WITH THE RECOMMENDATION OF THE CONNECTOR MANUFACTURER.
6. THE CONNECTOR SHALL BE OF A SIZE SPECIFICALLY DESIGNED FOR THE PIPE MATERIAL AND SIZE BEING UTILIZED ON THE PROJECT.
7. ALL CONNECTORS WHICH ARE CAPPED AWAITING PIPE INSTALLATION AT A LATER DATE MUST BE RESTRAINED.

Ⓔ PIPE CONNECTION TO PRECAST CONCRETE SANITARY SEWER AND STORM DRAINAGE STRUCTURE
N.T.S.

MAXIMUM ALLOWABLE TRENCH WIDTHS FOR SEWERS	
PIPE SIZE 10" OR LESS	MAXIMUM WIDTH
12 TO 15	4'-0"
18	4'-6"
24	5'-6"
30	6'-0"
36	6'-9"
42	7'-3"
48	8'-0"

SHEETING, IF REQUIRED, SHALL BE CUT OFF 2'-0" BELOW FINISH GRADE.



Ⓗ TYPICAL SEWER, WATER MAIN, AND STORM DRAIN TRENCH SECTION
N.T.S.

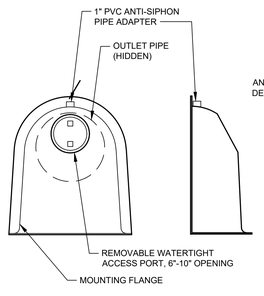
SCHEDULE OF BASE BACKFILL FOR NON-SANITARY INSTALLATIONS				
TYPE OF PIPE	BEDDING MATERIAL	SPECIAL BACKFILL	SPECIAL BACKFILL COVER "A" (IN)	SELECT BACKFILL
CONCRETE	3/4" CRUSHED STONE	GRANULAR AASHTO M145-49 A-3 OR BETTER	12	GRANULAR AASHTO M145-49 A-3 OR BETTER
PVC OR CORRUGATED POLYETHYLENE	3/4" CRUSHED STONE	GRANULAR AASHTO M145-49 A-3 OR BETTER	6	GRANULAR AASHTO M145-49 A-3 OR BETTER
CMP	3/4" CRUSHED STONE	GRANULAR AASHTO M145-49 A-3 OR BETTER	6	GRANULAR AASHTO M145-49 A-3 OR BETTER
DUCTILE IRON	GRANULAR AASHTO M145-49 A-3 OR BETTER	GRANULAR AASHTO M145-49 A-3 OR BETTER	6	GRANULAR AASHTO M145-49 A-3 OR BETTER

SCHEDULE OF BASE BACKFILL FOR SANITARY INSTALLATIONS				
TYPE OF PIPE	BEDDING MATERIAL	SPECIAL BACKFILL	SPECIAL BACKFILL COVER "A" (IN)	SELECT BACKFILL
PVC PRESSURE	3/4" CRUSHED STONE	3/4" CRUSHED STONE	6	GRANULAR AASHTO M145-49 A-3 OR BETTER
PVC GRAVITY	3/4" CRUSHED STONE	GRANULAR AASHTO M145-49 A-3 OR BETTER	6	GRANULAR AASHTO M145-49 A-3 OR BETTER
DUCTILE IRON	3/4" CRUSHED STONE	3/4" CRUSHED STONE	6	GRANULAR AASHTO M145-49 A-3 OR BETTER

NOTES:

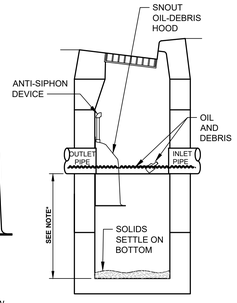
1. ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY:
   BEST MANAGEMENT PRODUCTS, INC.
   9 MATHEWS DRIVE, UNIT A1-A2.
   EAST HADDAM, CT 06423
   TOLL FREE: (800) 504-8008 OR (888) 434-0277, FAX: (877) 434-3197
   WEB SITE: www.bmpinc.com
   OR PRE-APPROVED EQUAL
2. ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
3. ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT PIPE AND ELBOW AS DRAWN. (SEE CONFIGURATION DETAIL)
4. THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION (SNOUT SIZE ALWAYS LARGER THAN PIPE SIZE).
5. THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A MINIMUM DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
6. THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 12" ACCORDING TO STRUCTURE CONFIGURATION.
7. THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL AND PIPE SHALL BE FINISHED FLUSH TO WALL.
8. ALL STRUCTURE JOINTS SHALL BE WATERTIGHT.
9. THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)
10. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT.
    INSTALLATION KIT SHALL INCLUDE:
    A. INSTALLATION INSTRUCTIONS
    B. PVC ANTI-SIPHON VENT PIPE AND ADAPTER
    C. OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING
    D. 3/8" STAINLESS STEEL BOLTS
    E. ANCHOR SHIELDS

CONFIGURATION DETAIL



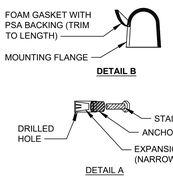
FRONT VIEW SIDE VIEW

TYPICAL INSTALLATION

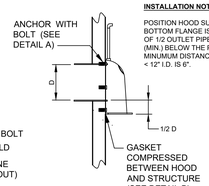


*NOTE:
SUMP DEPTH OF 36" MIN. FOR UP TO 12" ID PIPE. OUTLET. FOR PIPES 15" ID AND ABOVE SUMP DEPTH OF 2.5 TO 3 TIMES PIPE ID RECOMMENDED (E.G. 5' DEEP FOR 24" PIPE)

SNOUT OIL-WATER-DEBRIS SEPARATOR



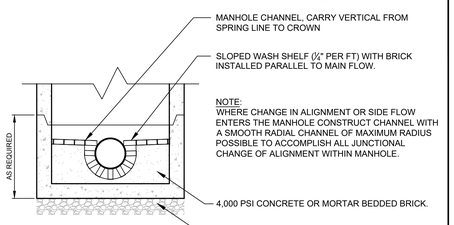
INSTALLATION DETAIL



INSTALLATION NOTE:
POSITION HOOD SUCH THAT BOTTOM FLANGE IS A DISTANCE OF 1/2 OUTLET PIPE DIAMETER (MIN.) BELOW THE PIPE INVERT. MINIMUM DISTANCE FOR PIPES < 12" I.D. IS 6".

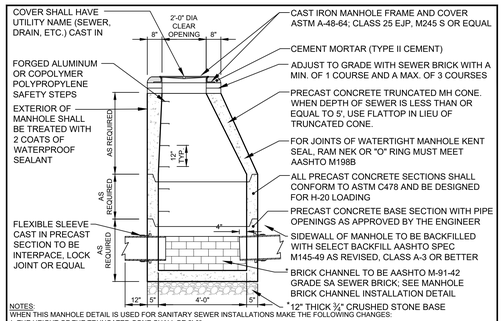
Ⓑ HOODED OUTLET DETAIL
N.T.S.

NOTE:
MANHOLE TEST TO BE ACCOMPLISHED AFTER CHANNEL INSTALLATION IS COMPLETE.



NOTES:
1. BRICK CHANNEL TO BE AASHTO M-91-42 GRADE AS SEWER BRICK OR, IF APPROVED BY ENGINEER, A PREFABRICATED FIBERLINER 2000 CHANNEL, AS MANUFACTURED BY GDT, INC, ESSEX, CT OR EQUAL MAY BE USED.
2. SLOPE CHANNEL DOWN FROM INLET TO OUTLET.
3. TOOL ALL JOINTS IN CHANNEL AND ON TABLE.

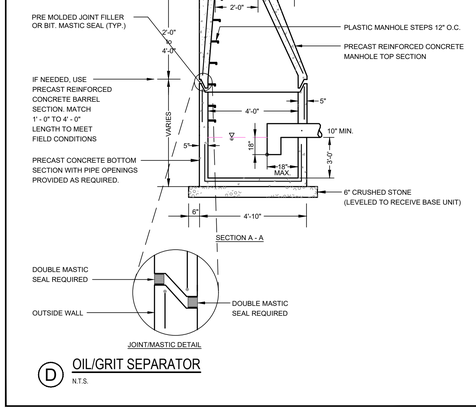
Ⓕ STORM AND SANITARY MANHOLE CHANNEL DETAIL
N.T.S.



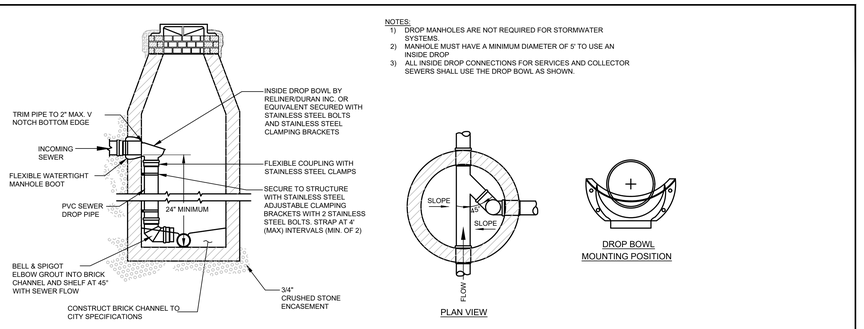
NOTES:
WHEN THIS MANHOLE DETAIL IS USED FOR SANITARY SEWER INSTALLATIONS MAKE THE FOLLOWING CHANGES:
1. THE HEIGHT OF THE TRUNCATED CONE SHALL BE 2'-0"
2. A POLYFROST BARRIER CONSISTING OF A MIN. OF 4 LAYERS, (EACH 6 MIL) SHALL BE PLACED AROUND THE STRUCTURE FROM THE SURFACE TO 5'-0 MIN. BELOW GRADE.
3. THE BACKFILL AROUND THE MANHOLE SHALL BE COMPACTED GRAVEL, A MIN. OF 24" OUTSIDE THE STRUCTURE.
4. THE CASTING SHALL BE GASKETED.

Ⓒ 4'-0" PRECAST SANITARY SEWER AND STORM DRAIN MANHOLE
N.T.S.

NOTES:
- FOR USE IN PARTIALLY OR TOTALLY ENCLOSED PARKING GARAGES, AUTOMOTIVE REPAIR FACILITIES OR ANY OTHER PROPOSED STRUCTURE WHERE DEEMED APPROPRIATE BY THE CITY ENGINEER.
- DISCHARGE SHALL BE TO SANITARY SEWER.
- A VENT PIPE MAY BE REQUIRED THAT HAS A VERTICAL OUTLET OFF TO THE SIDE OF THE STRUCTURE.
- AN OIL ABSORBENT BOOM IS REQUIRED TO BE PLACED WITHIN THE MANHOLE ON THE WATER SURFACE AND REPLACED AT A MINIMUM ANNUALLY.

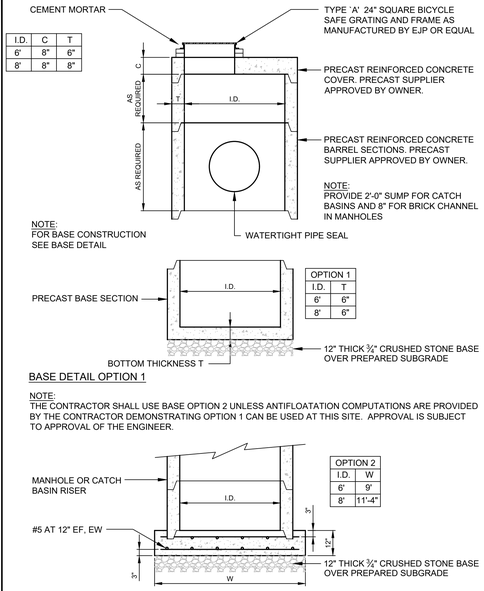


Ⓓ OIL/GRIT SEPARATOR
N.T.S.



NOTES:
1) DROP MANHOLES ARE NOT REQUIRED FOR STORMWATER SYSTEMS.
2) MANHOLE MUST HAVE A MINIMUM DIAMETER OF 5' TO USE AN INSIDE DROP.
3) ALL INSIDE DROP CONNECTIONS FOR SERVICES AND COLLECTOR SEWERS SHALL USE THE DROP BOWL AS SHOWN.

Ⓘ INSIDE DROP MANHOLE
N.T.S.



I.D.	C	T
6'	8"	6"
8'	8"	8"

NOTE:
FOR BASE CONSTRUCTION SEE BASE DETAIL

OPTION 1	
I.D.	T
6'	6"
8'	6"

BASE DETAIL OPTION 1

NOTE:
THE CONTRACTOR SHALL USE BASE OPTION 2 UNLESS ANTIFLOATATION COMPUTATIONS ARE PROVIDED BY THE CONTRACTOR DEMONSTRATING OPTION 1 CAN BE USED AT THIS SITE. APPROVAL IS SUBJECT TO APPROVAL OF THE ENGINEER.

OPTION 2	
I.D.	W
6'	9'
8'	11'-4"

BASE DETAIL OPTION 2

DESIGN NOTES
1. ALL CONCRETE TO HAVE A MIN. 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS
2. DESIGN FOR H-20 WHEEL LOADING
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS
4. REINFORCE TO .12 IN. SQ./L.F.

Ⓖ LARGE DIAMETER STORM DRAIN MANHOLE & CATCH BASIN WITH FLAT TOP
N.T.S.

PRELIMINARY – NOT FOR CONSTRUCTION

THE DETAILS SHOWN HERE ARE CONSISTENT WITH DEVELOPMENT ON THOMPSON'S POINT AND APPROVED AS PART OF THE MASTER DEVELOPMENT PERMIT, OVERALL AND SECTIONAL SUBDIVISION PERMITS, AND LEVEL I, II, III SITE APPLICATION PERMITS PRECEDING JANUARY 2023. THE CITY OF PORTLAND, MAINE UPDATED PARTS OF THE TECHNICAL MANUAL AS RECENTLY AS NOVEMBER 22, 2022. THE CONTRACTOR SHALL FOLLOW THESE DETAILS AS APPROVED EXCEPTING WHEREAS THE CITY OF PORTLAND TECHNICAL MANUAL DETAILS HAVE BEEN UPDATED AND CONFLICT; THE CONTRACTOR SHALL FOLLOW THE MORE STRINGENT MINIMUM DIMENSIONAL REQUIREMENTS.

REV	DATE	DESCRIPTION
2	12/23/2024	REVISED TO ADDRESS CITY COMMENTS
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY — No. 11994 — LICENSED PROFESSIONAL ENGINEER — 12/23/2024

P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

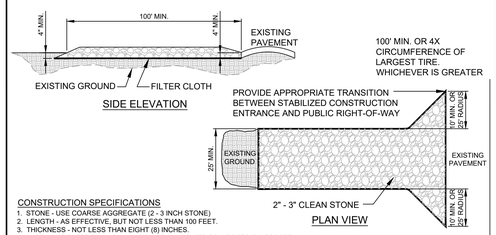
SHEET TITLE
STORMWATER AND SANITARY SEWER DETAILS

CLIENT
CPI MANAGEMENT, LLC
(CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN: DB	DATE: AUGUST 2024
DESIGNED: BEK	SCALE: N.T.S.
FILE NAME: PANHANDLE-DET.dwg	
SHEET	C-8.4

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SIDE ELEVATION

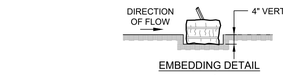
PLAN VIEW

CONSTRUCTION SPECIFICATIONS

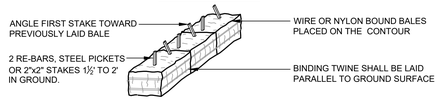
1. STONE - USE COARSE AGGREGATE (2 - 3 INCH STONE).
2. LENGTH - AS EFFECTIVE, BUT NOT LESS THAN 100 FEET.
3. THICKNESS - NOT LESS THAN EIGHT (8) INCHES.
4. WIDTH - NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
5. WASHING - WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE THROUGH USE OF SAND BAGS, GRAVEL, BOARDS OR OTHER APPROVED METHODS.
6. MAINTENANCE - THE ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
7. 12' X 24' METAL GRATE MAY BE USED. GRATE SHALL BE 25' AWAY FROM PAVEMENT AND APPROPRIATE SEDIMENT CONTROL TRAPPING DEVICE SHALL BE USED AT GRATE OUTLET POINT.

(A) STABILIZED CONSTRUCTION ENTRANCE

N.T.S.



EMBEDDING DETAIL



ANCHORING DETAIL

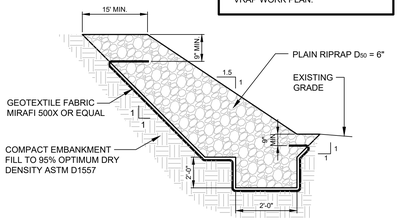
CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

(E) STRAW OR HAY BALE BARRIER

N.T.S.

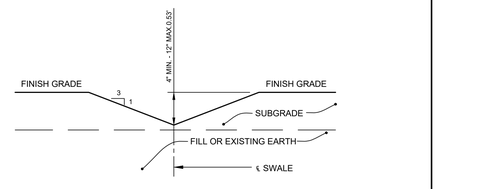
NOTE:
1. DETAIL HAS BEEN DESIGNED TO MEET THE ENGINEERED BARRIER SPECIFICATIONS NOTED IN MEDEP VRAP WORK PLAN.



NOTE:
INSTALL RIPRAP SLOPE PROTECTION AS DIRECTED BY THE OWNER'S REPRESENTATIVE OR GEOTECHNICAL ENGINEER IF REQUIRED, DUE TO DISCOVERED FIELD CONDITIONS, AT NO EXTRA EXPENSE TO THE OWNER.

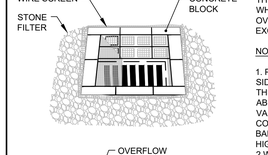
(H) RIPRAP SLOPE PROTECTION DETAIL

N.T.S.

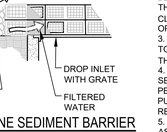


(M) TYPICAL TEMPORARY DRAINAGE SWALE DETAIL

N.T.S.



SECTION VIEW



PLAN VIEW

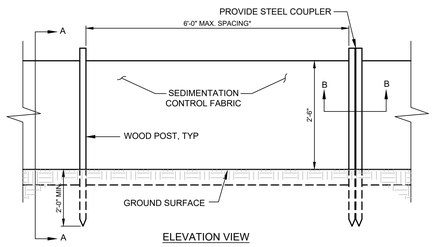
(B) PIPE/CULVERT INLET APRON

N.T.S.

SCHEDULE

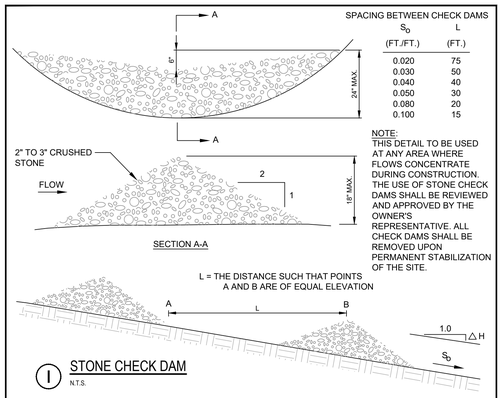
CULVERT DIAMETER (D)	WIDTH (W)	STONE D_{50}	RIPRAP THICKNESS
12"	2'	6"	14"
15"	4'	6"	14"
18"	4'	6"	14"
24"	6'	6"	14"
36"	8'	12"	27"
42"	10'	12"	27"
48"	12'	12"	27"

NOTE:
RIPRAP GRADATION AND PLACEMENT - THE RIPRAP GRADATION SHALL BE A WELL-GRADED MIX FROM ABOUT 1.5 TIMES THE D SIZE TO ABOUT 25 PERCENT OF THE D SIZE. THE RIPRAP STONES SHALL BE CAREFULLY PLACED WORKING FROM THE TOE OF THE SLOPE UPWARD. THE STONES SHOULD BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12 INCHES ONTO THE GEOTEXTILE. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH UNIFORMLY SLOPED SURFACE.



ELEVATION VIEW

*NOTE:
THE SILT FENCE SHOULD HAVE A MAXIMUM STAKING DISTANCE OF 6' UNLESS THE FENCE IS SUPPORTED BY WIRE FENCE REINFORCEMENT A MAXIMUM 14 GAUGE AND WITH A MINIMUM MESH SPACING OF 6".



NOTE:
THIS DETAIL TO BE USED AT ANY AREA WHERE FLOWS CONCENTRATE DURING CONSTRUCTION. THE USE OF STONE CHECK DAMS SHALL BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE. ALL CHECK DAMS SHALL BE REMOVED UPON PERMANENT STABILIZATION OF THE SITE.

(I) STONE CHECK DAM

N.T.S.

SILTSACK®
SPECIFICATIONS

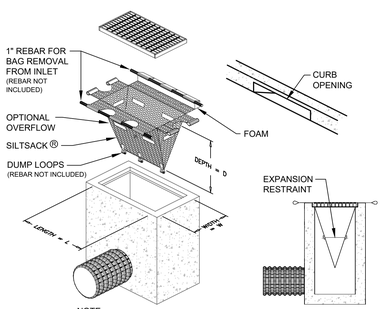
NOTE:
THE SILTSACK® WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS.

REGULAR FLOW SILTSACK®
(FOR SIDE SLOPE USE)
(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80%
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC -1

HI-FLOW SILTSACK®
(FOR USE IN LOW POINTS/SAGS)
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90%
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1

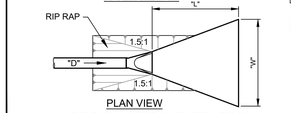


NOTE:
REQUIRED FOR ALL INLETS

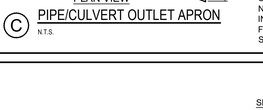
SIDE VIEW INSTALLED
INSTALLATION DETAIL

(N) SILTSACK® DETAIL AND SPECIFICATIONS

N.T.S.



SECTION VIEW



PLAN VIEW

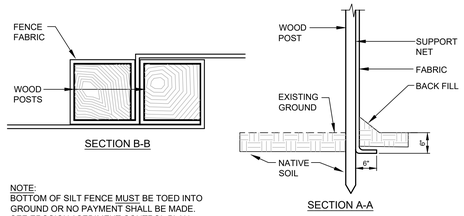
(C) PIPE/CULVERT OUTLET APRON

N.T.S.

SCHEDULE

CULVERT DIAMETER (D)	WIDTH (W)	LENGTH (L)	STONE D_{50}	RIPRAP THICKNESS
12"	8'	10'	6"	14"
15"	8'	10'	6"	14"
18"	10'	14'	6"	14"
24"	12'	16'	9"	21"
30"	12'	16'	12"	27"
36"	20'	24'	12"	27"
42"	24'	26'	12"	27"
48"	28'	32'	12"	27"

NOTE:
RIPRAP GRADATION AND PLACEMENT - THE RIPRAP GRADATION SHALL BE A WELL-GRADED MIX FROM ABOUT 1.5 TIMES THE D SIZE TO ABOUT 25 PERCENT OF THE D SIZE. THE RIPRAP STONES SHALL BE CAREFULLY PLACED WORKING FROM THE TOE OF THE SLOPE UPWARD. THE STONES SHOULD BE LOWERED TO THE SLOPE AND NOT BE ALLOWED TO DROP MORE THAN 12 INCHES ONTO THE GEOTEXTILE. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH UNIFORMLY SLOPED SURFACE.



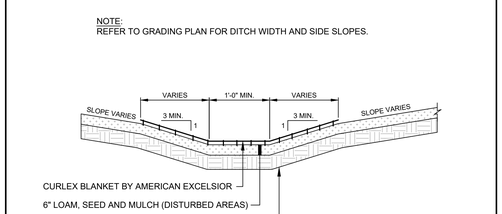
SECTION B-B

SECTION A-A

NOTE:
BOTTOM OF SILT FENCE MUST BE TOED INTO GROUND OR NO PAYMENT SHALL BE MADE. SEE EROSION / SEDIMENT CONTROL PLAN DRAWINGS FOR SILT FENCE INSTALLATION SCHEDULE.

(F) SILTATION FENCE DETAIL

N.T.S.



(J) VEGETATED DRAINAGE SWALE

N.T.S.

SPECIFIC APPLICATION

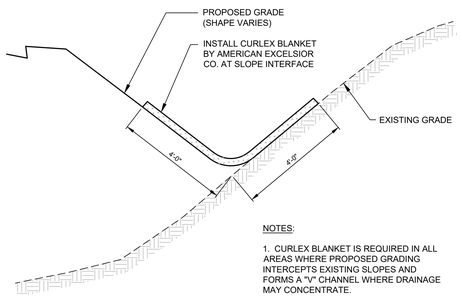
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.

NOTES:

1. PLACE CONCRETE BLOCKS LENGTHWISE ON THEIR SIDES IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET, WITH THE ENDS OF ADJACENT BLOCKS ABUTTING. THE HEIGHT OF THE BARRIER CAN BE VARIED, DEPENDING ON DESIGN NEEDS, BY STACKING COMBINATIONS OF 4", 8" AND 12" WIDE BLOCKS. THE BARRIER OF BLOCKS SHALL BE AT LEAST 12 INCHES HIGH, AND NO GREATER THAN 24" HIGH.
2. WIRE MESH SHALL BE PLACED OVER THE OUTSIDE VERTICAL FACE (WEBBING) OF THE CONCRETE BLOCKS TO PREVENT STONE FROM BEING WASHED THROUGH THE HOLES IN THE BLOCKS. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH ½" OPENINGS SHALL BE USED.
3. STONE SHALL BE PILED AGAINST THE WIRE TO THE TOP OF THE BLOCK BARRIER, AS SHOWN IN DETAIL. THE STONE FILTER SHALL BE ¾" CRUSHED STONE.
4. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FROM THE BLOCKS, CLEANED AND REPLACED.
5. PREMANUFACTURED SILT-SACKS™ MAY BE USED AS AN EQUIVALENT TO STONE SEDIMENT BARRIERS.

(D) STONE SEDIMENT BARRIER

N.T.S.



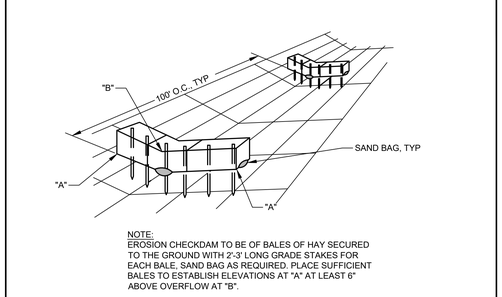
NOTES:

1. CURLEX BLANKET IS REQUIRED IN ALL AREAS WHERE PROPOSED GRADING INTERCEPTS EXISTING SLOPES AND FORMS A "V" CHANNEL WHERE DRAINAGE MAY CONCENTRATE.

2. STAPLE SIZE AND DISTRIBUTION PER MANUFACTURERS SPECIFICATION.

(G) CURLEX BLANKET DETAIL

N.T.S.



NOTE:
EROSION CHECKDAM TO BE OF BALES OF HAY SECURED TO THE GROUND WITH 2'-3' LONG GRADE STAKES FOR EACH BALE. SAND BAG AS REQUIRED. PLACE SUFFICIENT BALES TO ESTABLISH ELEVATIONS AT "A" AT LEAST 6" ABOVE OVERFLOW AT "B".

(K) HAYBALE CHECKDAM DETAIL

N.T.S.

PRELIMINARY – NOT FOR CONSTRUCTION

THE DETAILS SHOWN HERE ARE CONSISTENT WITH DEVELOPMENT ON THOMPSON'S POINT AND APPROVED AS PART OF THE MASTER DEVELOPMENT PERMIT, OVERALL AND SECTIONAL SUBDIVISION PERMITS, AND LEVEL I, II, III SITE APPLICATION PERMITS PRECEDING JANUARY 2023. THE CITY OF PORTLAND, MAINE UPDATED PARTS OF THE TECHNICAL MANUAL AS RECENTLY AS NOVEMBER 22, 2022. THE CONTRACTOR SHALL FOLLOW THESE DETAILS AS APPROVED EXCEPTING WHEREAS THE CITY OF PORTLAND TECHNICAL MANUAL DETAILS HAVE BEEN UPDATED AND CONFLICT; THE CONTRACTOR SHALL FOLLOW THE MORE STRINGENT MINIMUM DIMENSIONAL REQUIREMENTS.

REV	DATE	DESCRIPTION
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY — No. 11994 — LICENSED PROFESSIONAL ENGINEER — 9/6/2024

P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

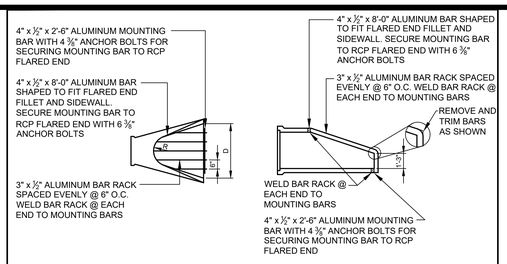
SHEET TITLE
EROSION AND SEDIMENT CONTROL DETAILS

CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
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PORTLAND, ME 04102
bo@placemakerpartners.com

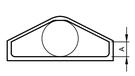
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SHEET	C-8.5

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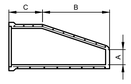


PLAN VIEW - TYP EACH PIPE

SECTION



END VIEW



SECTION

DIA.	A	B	C	D	E	R
18"	9"	2'-3"	3'-10"	3'-0"	2½"	11"
24"	9½"	3'-7½"	2'-6"	4'-0"	3"	14"
30"	12"	4'-6"	1'-7¾"	5'-0"	3½"	15"
36"	15"	5'-3"	2'-10¾"	6'-0"	4"	1'-8"
42"	21"	5'-3"	2'-11"	6'-6"	4½"	22"
48"	24"	6'-0"	2'-2"	7'-0"	5"	22"
54"	27"	5'-5"	2'-11"	7'-6"	5½"	24"
60"	30"	5'-0"	3'-3"	8'-0"	6"	24"

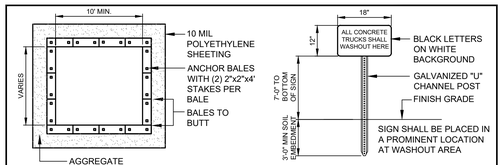
NOTE:
JOINTS MAY BE FURNISHED WITH EITHER BELL AND SPIGOT OR TONGUE AND GROOVE ENDS.

* BAR RACKS ARE ONLY REQUIRED ON PIPES 18" AND OVER IN SIZE.

* USE FIELD MITER FOR CULVERTS WITH A DIAMETER OF LESS THAN 18"

REQUIRED FOR ALL INLETS/OUTLETS FOR PIPE OVER 18" DIAMETER.

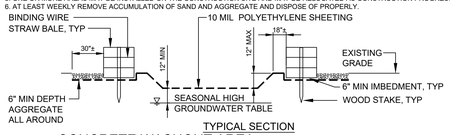
A RCP FLARED END WITH BAR RACK DETAIL
N.T.S.



PLAN

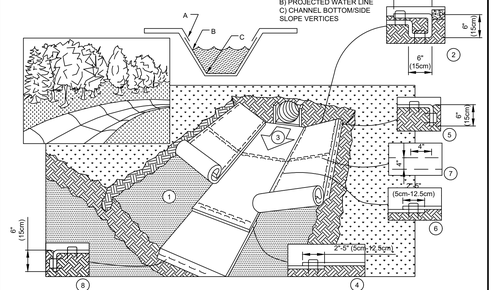
WASHOUT SIGN

NOTES:
1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
6. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.



TYPICAL SECTION

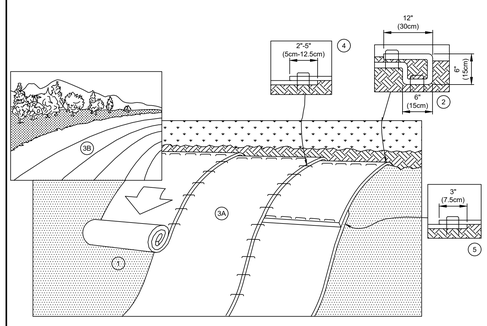
B CONCRETE WASHOUT AREA
N.T.S.



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" (15CM) DEEP X 6" (15CM) WIDE TRENCH WITH APPROXIMATELY 12" (30CM) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30CM) PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30CM) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" (10CM-15CM) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10CM) APART AND 4" (10CM) ON CENTER TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30CM) APART IN A 6" (15CM) DEEP X 6" (15CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (5CM-12.5CM)(DEPENDING ON BLANKET SIZE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30' TO 40' (9M-12M) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10CM) APART AND 4" (10CM) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30CM) APART IN A 6" (15CM) DEEP X 6" (15CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

NOTE:
* HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.
** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

EROSION CONTROL BLANKET DETAIL FOR CHANNEL INSTALLATION

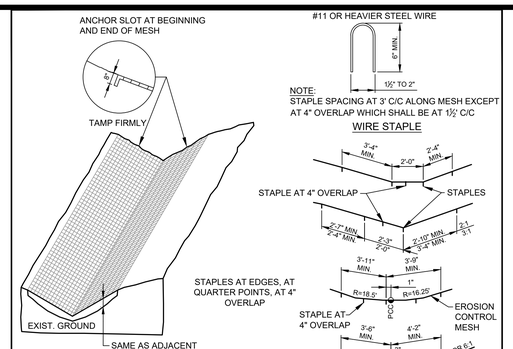


1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30cm) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30cm) PORTION OF THE BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH THE APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2'-5" (5cm-12.5cm) OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET WIDTH.

EROSIONAL CONTROL BLANKET DETAIL FOR SLOPE INSTALLATION

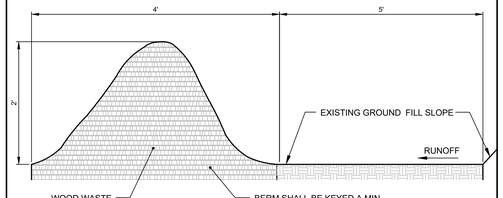
D EROSION CONTROL BLANKET
N.T.S.

NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAT BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

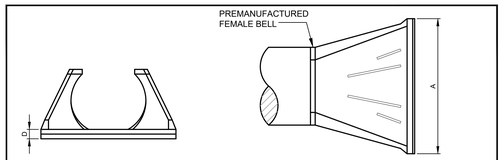


F EROSION CONTROL MESH
N.T.S.

NOTES:
1. THE WOOD WASTE COMPOST/BARK MIX SHALL CONFORM TO THE FOLLOWING STANDARDS:
   A. MOISTURE CONTENT - 30-60%
   B. pH - 5.0-8.0
   C. SCREEN SIZE - 100% LESS THAN 3", MAX. 70% LESS THAN 1"
   D. NO LESS THAN 40% ORGANIC MATERIAL (DRY WEIGHT) BY LOSS OF IGNITION
   F. NO STONES LARGER THAN 2" IN DIAMETER
2. THE COMPOST BERM SHALL BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR.
3. THE WOOD WASTE COMPOST/BARK FILTER BERM MAY BE USED IN LIEU OF SILTATION FENCE, AT THE TOE OF SHALLOW SLOPES, ON FROZEN GROUND, LEDGE OUT CROPS, VERY ROOTED FORESTED AREA OR AT THE EDGE OF GRAVEL PARKING AREAS.
4. BERMS SHALL REMAIN IN PLACE UNTIL UPSTREAM AREA IS COMPLETED OR 70% CATCH OF VEGETATION IS ATTAINED. BERMS SHALL BE REMOVED BY SPREADING SUCH THAT THE NATIVE EARTH CAN BE SEEN BELOW.



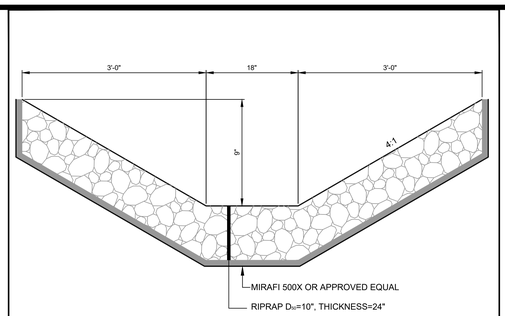
G WOOD WASTE COMPOST/BARK FILTER BERM DETAIL
N.T.S.



FLARED PIPE DIMENSION SCHEDULE			
	PIPE DIAMETER		
DIMENSION	10" / 12"	15"	18"
A	42"	41"	49"
B	14.5"	19"	22"
C	33"	34"	43"
D	6"	6"	6"

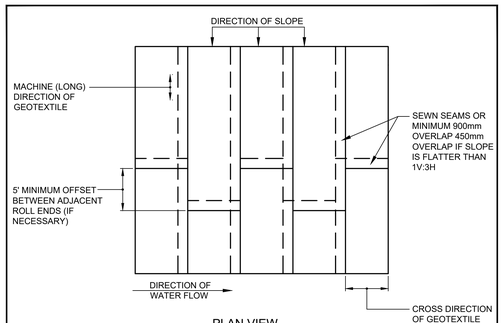
THE FLARED INLET IS TO BE CONSTRUCTED OF HDPE WITH EXTRA CARBON FOR UV RESISTANCE OR GALVANIZED CORRUGATED METAL

H FLARED INLETS FOR 10" TO 18" PIPES
N.T.S.



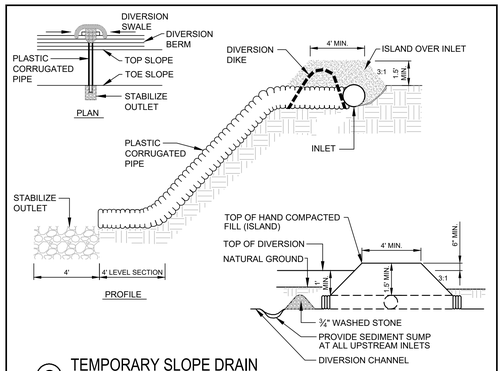
EXTEND CHANNEL INTO RECEIVING VEGETATED CHANNEL AND CONTINUE DOWNSTREAM 30'

J RIPRAP CHANNEL DETAIL
N.T.S.

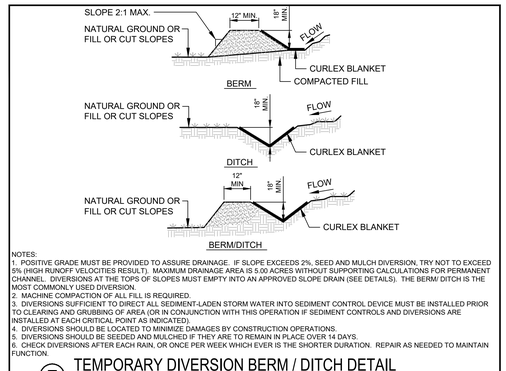


PLAN VIEW

GEOTEXTILE PLACEMENT FOR PROTECTION OF SLOPES ADJACENT TO STREAMS AND TIDAL AREAS
N.T.S.

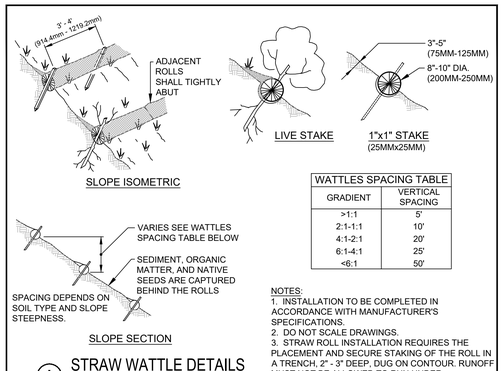


C TEMPORARY SLOPE DRAIN
N.T.S.



NOTES:
1. POSITIVE GRADE MUST BE PROVIDED TO ASSURE DRAINAGE. IF SLOPE EXCEEDS 2%, SEED AND MULCH DIVERSION. TRY NOT TO EXCEED 5% (HIGH RUNOFF VELOCITIES RESULT). MAXIMUM DRAINAGE AREA IS 5.00 ACRES WITHOUT SUPPORTING CALCULATIONS FOR PERMANENT CHANNEL. DIVERSIONS AT THE TOPS OF SLOPES MUST EMPTY INTO AN APPROVED SLOPE DRAIN (SEE DETAILS). THE BERM/ DITCH IS THE MOST COMMONLY USED DIVERSION.
2. MACHINE COMPACTION OF ALL FILL IS REQUIRED.
3. DIVERSIONS SUFFICIENT TO DIRECT ALL SEDIMENT-LADEN STORM WATER INTO SEDIMENT CONTROL DEVICE MUST BE INSTALLED PRIOR TO CLEARING AND GRUBBING OF AREA (OR IN CONJUNCTION WITH THIS OPERATION IF SEDIMENT CONTROLS AND DIVERSIONS ARE INSTALLED AT EACH CRITICAL POINT AS INDICATED).
4. DIVERSIONS SHOULD BE LOCATED TO MINIMIZE DAMAGES BY CONSTRUCTION OPERATIONS.
5. DIVERSIONS SHOULD BE SEEDED AND MULCHED IF THEY ARE TO REMAIN IN PLACE OVER 14 DAYS.
6. CHECK DIVERSIONS AFTER EACH RAIN, OR ONCE PER WEEK WHICH EVER IS THE SHORTER DURATION. REPAIR AS NEEDED TO MAINTAIN FUNCTION.

E TEMPORARY DIVERSION BERM / DITCH DETAIL
N.T.S.



WATTLES SPACING TABLE	
GRADIENT	VERTICAL SPACING
>1:1	5'
2:1-1:1	10'
4:1-2:1	20'
6:1-4:1	25'
<6:1	50'

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 2" - 3" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER
4. DRIVE STAKE SO THAT 2"-3" REMAINS EXPOSED

I STRAW WATTLE DETAILS
N.T.S.

PRELIMINARY – NOT FOR CONSTRUCTION

THE DETAILS SHOWN HERE ARE CONSISTENT WITH DEVELOPMENT ON THOMPSON'S POINT AND APPROVED AS PART OF THE MASTER DEVELOPMENT PERMIT, OVERALL AND SECTIONAL SUBDIVISION PERMITS, AND LEVEL I, II, III SITE APPLICATION PERMITS PRECEDING JANUARY 2023. THE CITY OF PORTLAND, MAINE UPDATED PARTS OF THE TECHNICAL MANUAL AS RECENTLY AS NOVEMBER 22, 2022. THE CONTRACTOR SHALL FOLLOW THESE DETAILS AS APPROVED EXCEPTING WHEREAS THE CITY OF PORTLAND TECHNICAL MANUAL DETAILS HAVE BEEN UPDATED AND CONFLICT; THE CONTRACTOR SHALL FOLLOW THE MORE STRINGENT MINIMUM DIMENSIONAL REQUIREMENTS.

REV	DATE	DESCRIPTION
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY — No. 11904 — LICENSED PROFESSIONAL ENGINEER — 9/6/2024

P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

SHEET TITLE
EROSION AND SEDIMENT CONTROL DETAILS

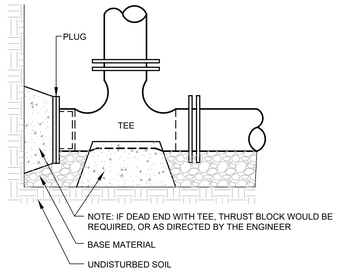
CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN: DB	DATE: AUGUST 2024
DESIGNED: BEK	SCALE: N.T.S.
FILE NAME: PANHANDLE-DET.dwg	
SHEET	C-8.6

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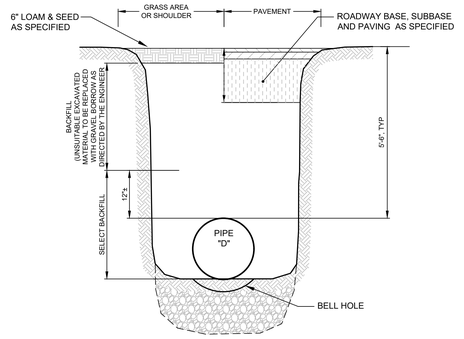
NOTE: KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS



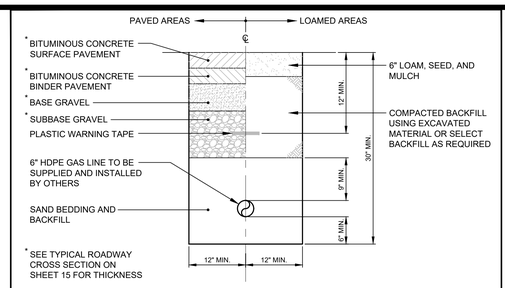
USE GRIPRINGS^{TM} AT ALL RESTRAINED JOINTS

SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL (B)

(D) STANDARD TEE BLOCKING DETAIL
N.T.S.



(G) STANDARD WATER MAIN BY PWD SECTION THRU EARTH TRENCH
N.T.S.



NOTE:
THE CONTRACTOR IS RESPONSIBLE FOR EXCAVATION AND BACKFILL OF UNDERGROUND GAS LINE TRENCH. IN ADDITION, THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION WITH GAS SUPPLIER FOR THE INSTALLATION OF THE GAS LINE. CONTRACTOR SHALL BE RESPONSIBLE FOR INITIAL REVIEW AND CONSTRUCTION COSTS FOR GAS LINE INSTALLATION; UPON FINAL DETERMINATION OF COSTS BY THE UTILITY COMPANY, CONTRACTOR SHALL BILL OWNER FOR ACTUAL COST.

(J) UNDERGROUND GAS LINE TRENCH DETAIL
N.T.S.

1. INSTALL POLY BARRIER BETWEEN PIPE AND ALL THRUST BLOCKS.

2. ANY MODIFICATION TO THRUST BLOCK SIZING OR PIPE RESTRAINT REVISIONS SHALL BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO IMPLEMENTATION IN THE FIELD.

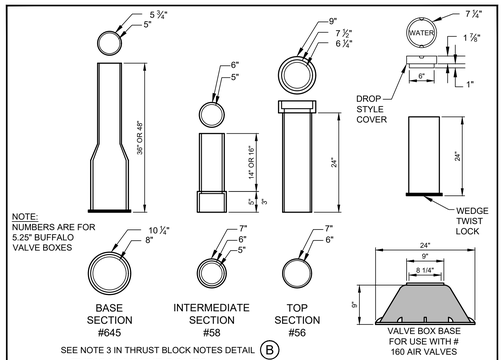
3. ANY WORK RELATING TO WATER PIPING OR DETAILS SHALL BE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT SPECIFICATIONS.

4. ALL RESTRAINED JOINTS MUST HAVE GRIPRING$_{TM}$

BEARING SURFACE REQUIRED IN SQUARE FEET

PIPE SIZE	1/32 BEND	1/16 BEND	1/8 BEND	1/4 BEND	TEES/CAPS
6"/8"	5.0	5.0	5.0	6.5	5.0
12"	11.5	11.5	11.5	20.0	22.0

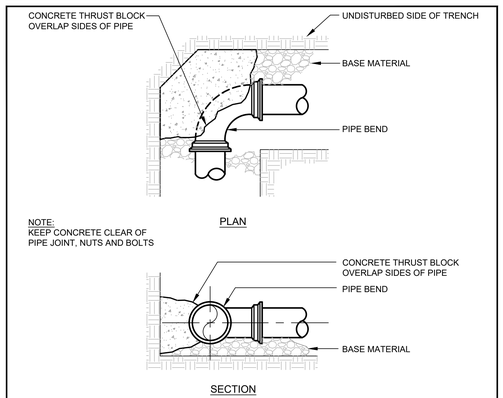
(B) THRUST BLOCK NOTES
N.T.S.



NOTE:
NUMBERS ARE FOR 5.25" BUFFALO VALVE BOXES

SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL (B)

(E) TYPICAL VALVE BOXES
N.T.S.



PLAN

NOTE:
KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS

SECTION

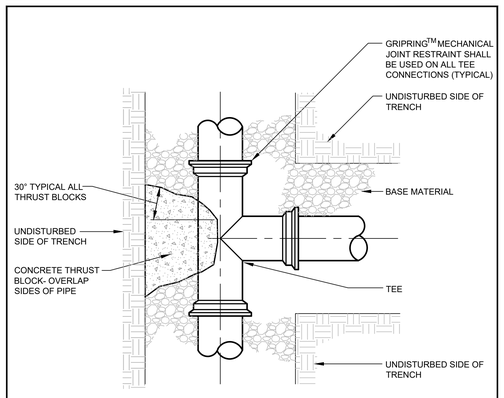
THRUST/RETAINER GLAND SCHEDULE		
¼ BEND	(90°)	USE POURED-IN-PLACE THRUST BLOCK WITH GRIPRING^{TM} MECHANICAL JOINT RESTRAINT
⅛ BEND	(45°)	THRUST BLOCK w/ GRIPRING^{TM}
1/16 BEND	(22 ½°)	THRUST BLOCK w/ GRIPRING^{TM}
1/32 BEND	(11 ¼°)	THRUST BLOCK w/ GRIPRING^{TM}

THE ABOVE SCHEDULE IS SUBJECT TO THE APPROVAL OF THE ON-SITE INSPECTOR DUE TO SOILS AND WORKING PRESSURES IN THE AREA.

NOTES:

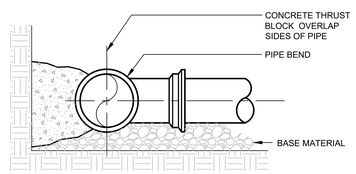
1. THE PORTLAND WATER DISTRICT MAY HAVE INSPECTION FEES AND REQUIRE OBSERVATION OF ALL PIPING INSTALLATION BEFORE BURIAL. REFER TO SPECIFICATIONS.
2. FOR WATER MAIN LAYOUT SEE DRAWINGS C-4.0
3. FOR WATER MAIN PROFILE SEE CONSTRUCTION DRAWINGS C-11.0
4. FOR WATER MAIN TRENCH SEE DETAILS ON THIS SHEET
5. REFER TO PORTLAND WATER DISTRICT SPECIFICATIONS FOR TESTING AND CHLORINATION REQUIREMENTS.
6. ALL HYDRANTS AND VALVES TO BE EPOXY COATED, NUTS AND BOLTS TO BE STAINLESS STEEL.
7. SERVICE RODS FOR DOMESTIC SERVICE OR AIR VALVES TO BE STAINLESS STEEL.

(C) TYPICAL THRUST BLOCK PLACEMENT BENDS
N.T.S.



PLAN

NOTE:
KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS



SECTION

(F) TYPICAL THRUST BLOCK PLACEMENT ON TEES
N.T.S.

PRELIMINARY – NOT FOR CONSTRUCTION

THE DETAILS SHOWN HERE ARE CONSISTENT WITH DEVELOPMENT ON THOMPSON'S POINT AND APPROVED AS PART OF THE MASTER DEVELOPMENT PERMIT, OVERALL AND SECTIONAL SUBDIVISION PERMITS, AND LEVEL I, II, III SITE APPLICATION PERMITS PRECEDING JANUARY 2023. THE CITY OF PORTLAND, MAINE UPDATED PARTS OF THE TECHNICAL MANUAL AS RECENTLY AS NOVEMBER 22, 2022. THE CONTRACTOR SHALL FOLLOW THESE DETAILS AS APPROVED EXCEPTING WHEREAS THE CITY OF PORTLAND TECHNICAL MANUAL DETAILS HAVE BEEN UPDATED AND CONFLICT; THE CONTRACTOR SHALL FOLLOW THE MORE STRINGENT MINIMUM DIMENSIONAL REQUIREMENTS.

REV	DATE	DESCRIPTION
2	12/23/2024	REVISED TO ADDRESS CITY COMMENTS
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY No. 11994 — LICENSED PROFESSIONAL ENGINEER — 12/23/2024

P.E. BO KENNEDY
LIC. #11994

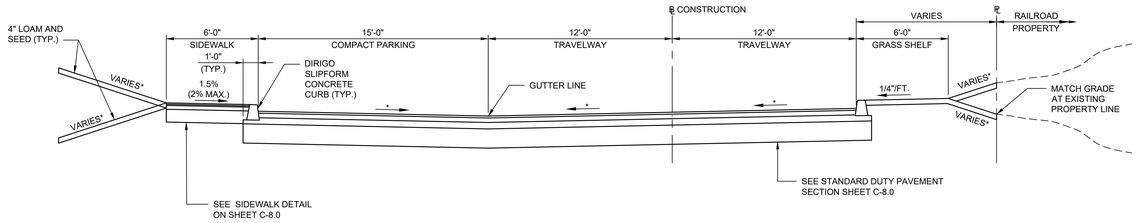
PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

SHEET TITLE
WATER AND GAS SERVICE DETAILS

CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

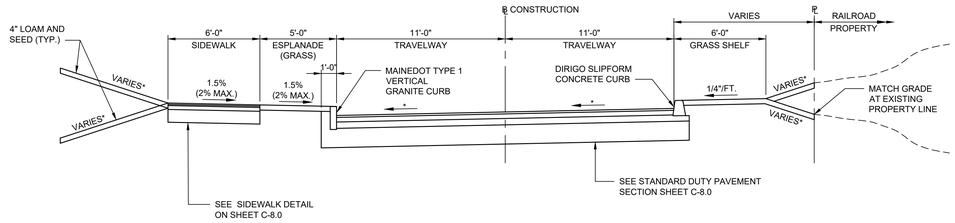
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SHEET	C-8.7



* SEE GRADING PLAN FOR SLOPE

TYPICAL ROADWAY SECTION
STA. 23+60 TO STA. 26+00

NOT TO SCALE



* SEE GRADING PLAN FOR SLOPE

TYPICAL ROADWAY SECTION
STA. 20+25 TO STA. 23+60

NOT TO SCALE

PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY No. 11994 — LICENSED PROFESSIONAL ENGINEER — 9/6/2024

P.E. BO KENNEDY, LIC. #11994 — DB

PROJECT: THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

SHEET TITLE: TYPICAL SECTIONS

CLIENT: CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN: DB	DATE: AUGUST 2024
DESIGNED: BEK	SCALE: N.T.S.
FILE NAME: PANHANDLE-TYPSECT.dwg	
SHEET: C-8.8	

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3. CODE SUMMARY PER NFPA 1 AND FIRE DEPT. TECHNICAL STANDARDS FOR PROPOSED MULTI-FMILY HOUSING

FIRE/BUILDING CODES:

-THE BUILDING WILL BE DESIGNED IN ACCORDANCE WITH THE CITY BUILDING CODE, AS WELL AS ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES/LAWS. THE BUILDING WILL BE FULLY SPRINKLERED IN ACCORDANCE WITH NFPA 13, AND WILL HAVE FIRE DETECTION/ALARM SYSTEMS AS DICTATED BY NFPA 72 AND THE UNDERLYING CODES.

TECHNICAL STANDARD 3.2 - FIRE HYDRANTS:

-THERE IS (1) MUNICIPAL FIRE HYDRANT AND (2) PROPOSED PRIVATE HYDRANT LOCATED WITHIN 500 FEET RADIUS OF THE BUILDING. PLEASE SEE THE ATTACHED FIRE SAFETY COMPLIANCE PLAN C-9.0.

TECHNICAL STANDARD 3.3 - SINGLE AND TWO FAMILY RESIDENTIAL DEVELOPMENT:

-MULTI-FAMILY BUILDING WILL BE FULLY SPRINKLERED

TECHNICAL STANDARD 3.4 - SITE ACCESS STANDARDS:

3.4.1. - PRIVATE ROAD PROVIDES TURNAROUND DESIGNED TO ACCOMODATE 45' LADDER TRUCK

3.4.2. - FIRE DEPARTMENT ACCESS IS PROVIDED VIA THOMPSON'S POINT ACCESS ROAD AND A PRIVATE DRIVE FOR ACCESS TO 2 SIDES OF THE BUILDING.

3.4.3. - ZONING DOES NOT REQUIRE BUILDING SETBACKS

3.4.4. - FIRE DEPARTMENT ACCESS ROADS EXTEND TO WITHIN 50' OF ENTRANCES TO BUILDING

3.4.5. - ALL SITE ACCESS PROVIDES NO LESS THAN 9 FEET IN CLEARANCE HEIGHT.

3.4.6. - ALL ELEVATORS WILL ACCOMMODATE AN 80 X 24 STRETCHER.

3.4.7. - THE STREET NUMBERING AND 911 ADDRESS HAS BEEN REVIEWED AND APPROVED BY THE CITY OF PORTLAND PUBLIC WORKS.

3.4.8. - THE BUILDING WILL DISPLAY THE ASSIGNED STREET NUMBERS. ANTICIPATED 911 ADDRESS IS 125 THOMPSON'S POINT ROAD.

TECHNICAL STANDARD 3.5 - STANDARDS FOR EMERGENCY ACCESS LANES AND GATES:

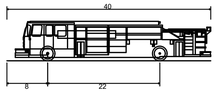
ALL ACCESS ROADS EXCEED 16' IN WIDTH AND ROAD RADIUS CAN ACCOMMODATE A 45' LONG FIRE TRUCK

TECHNICAL STANDARD 3.6 - SUBDIVISION STANDARDS:

APPROVED SUBDIVISION WITH 1 ACCESS ROAD

TECHNICAL STANDARDS 3.7 THROUGH 3.11 - STANDARDS FOR BLASTING AND REGULATION OF EXPLOSIVES:

-GEOTECHNICAL EXPLORATIONS WERE PERFORMED AND THE SUBSURFACE CONDITION DOES NOT CONTAIN BEDROCK. BASED ON THE FINDINGS, LARGE BLAST OPERATIONS ARE NOT ANTICIPATED.



Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	7.745ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

FIRE TRUCK VEHICLE PROFILE
N.T.S

EMERGENCY EVACUATION CONGREGATION AREAS

NORTH

26' WIDE SWING GATE WITH CLICK TO ENTER ACCESS

FIRE TRUCK TURNING MOVEMENT SIMULATION (10 MPH) VEHICLE: 40' FIRE TRUCK, SEE PROFILE

GARAGE ENTRANCE LOCATION

PROPOSED PRIVATE HYDRANT

6' CLEAR RADIUS AROUND HYDRANT (TYP.)

BIKE STORAGE (62 BIKES)

FIRE DEPARTMENT CONNECTION

PROPOSED PARKING GARAGE
25,943 S.F. FLOOR AREA
(6 FLOORS)
(463 PARKING SPACES)

WATER ROOM

ELEC. ROOM

UTILITIES MECHANICAL ROOM

BIKE ROOM

TRASH ROOM

DOG WASH ROOM

LOADING

STOP

PROPOSED PRIVATE HYDRANT

DROP-OFF PARKING

ENTRANCE LOCATION

ANNUNCIATOR PANEL

KNOX BOX (TYP.)

RAMP

RAMP

PROPOSED RESIDENTIAL BUILDING G
50,208 S.F. FLOOR AREA
6 FLOORS/ 255 UNITS

EXISTING PUBLIC HYDRANT
STATIC PRESSURE PSI 112±
RESIDUAL PRESSURE TESTED 102 PSI ±

100' (TYP.)

250' (TYP.)

GRAVEL LOT

PUMP STATION

16' WIDE FIRE ACCESS LANE (GRASS PAVERS OR EQUAL)

18' WIDE FIRE ACCESS LANE (GRASS PAVERS)

BOCCE COURT

6.5'x22' PERGOLA

6.5'x5' SHED

POOL

COVERED WET BAR

PERGOLA (TYP. OF 2)

EX. TRAIL

EX. BRIDGE

EROSION CONTROL FABRIC

WATER VAPOR BARRIER

HAT=7.2'

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

PRELIMINARY – NOT FOR CONSTRUCTION

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REVISIONS

STATE OF MAINE — BO KENNEDY No. 11994 — LICENSED PROFESSIONAL ENGINEER — 12/23/2024

P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

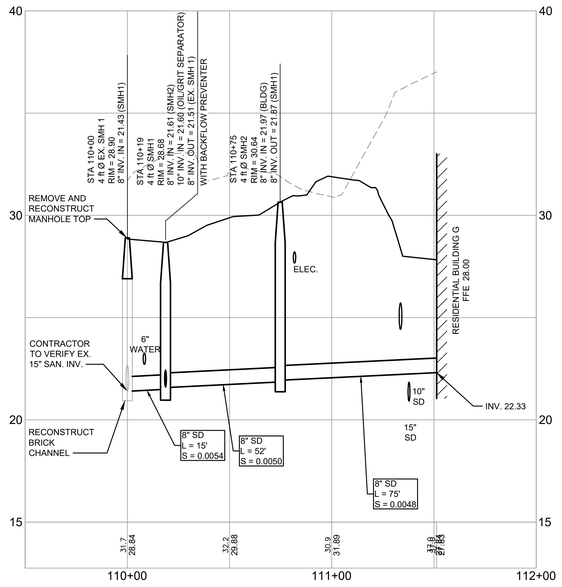
SHEET TITLE
FIRE SAFETY PLAN

CLIENT
CPI MANAGEMENT, LLC
(CATHARTES)

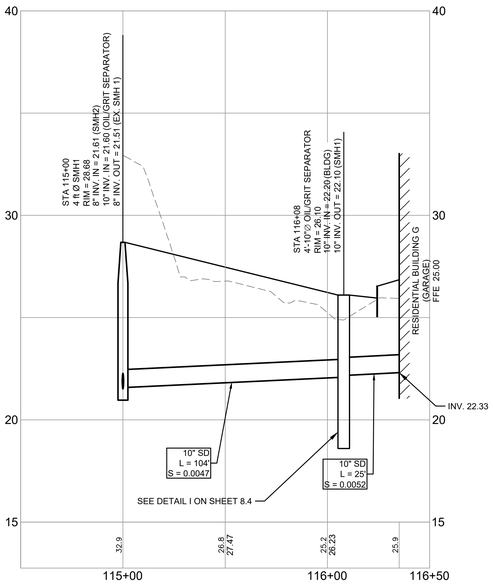
PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

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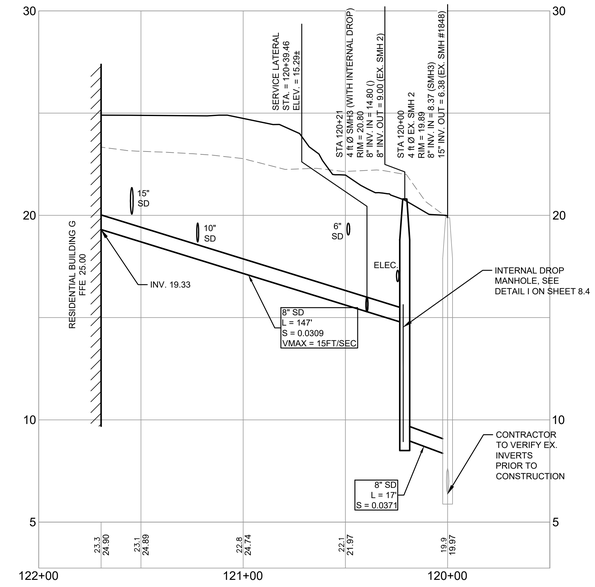
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SANITARY SEWER PROFILE `A'
SCALE: H 1" = 30'
V 1" = 3'.

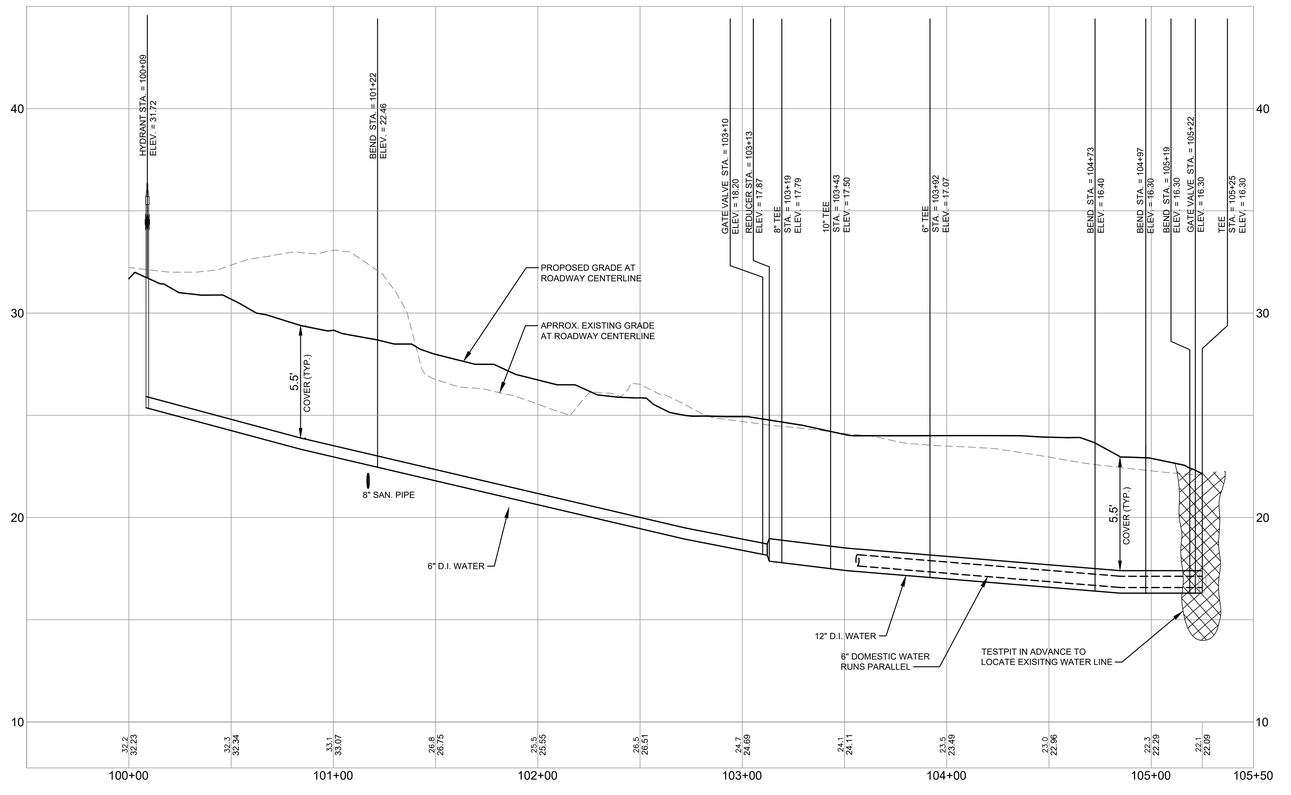


SANITARY SEWER PROFILE `B'
SCALE: H 1" = 30'
V 1" = 3'.



SANITARY SEWER PROFILE `C'
SCALE: H 1" = 30'
V 1" = 3'.

ORIENTATION SKETCH
SCALE: 1" = 50'



WATER LINE PROFILE `A'
SCALE: H 1" = 30'
V 1" = 3'.

PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
3	2/14/2025	REVISED PER CITY COMMENTS
2	12/23/2024	REVISED TO ADDRESS CITY COMMENTS
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY No. 11994 — LICENSED PROFESSIONAL ENGINEER — 12/23/2024
P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

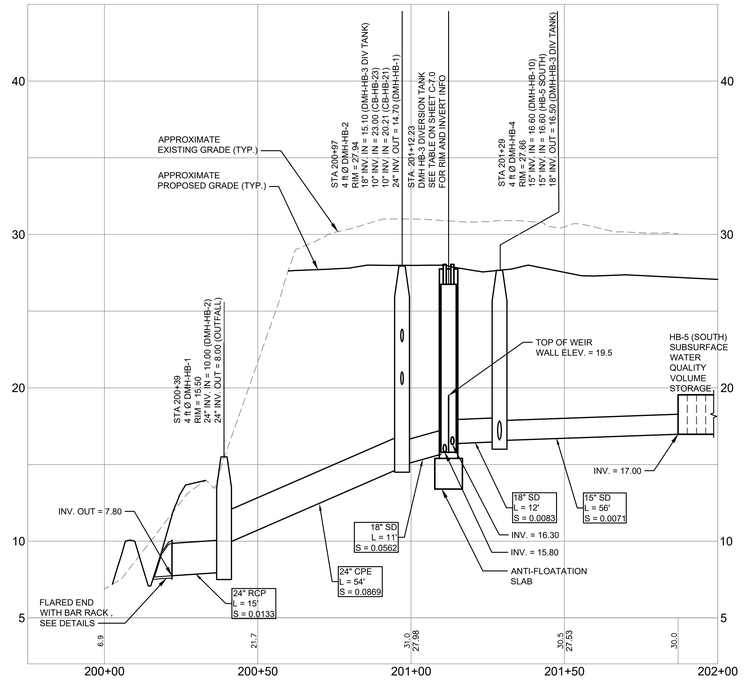
SHEET TITLE
SANITARY SEWER AND WATER LINE PROFILES

CLIENT
CPI MANAGEMENT, LLC (CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

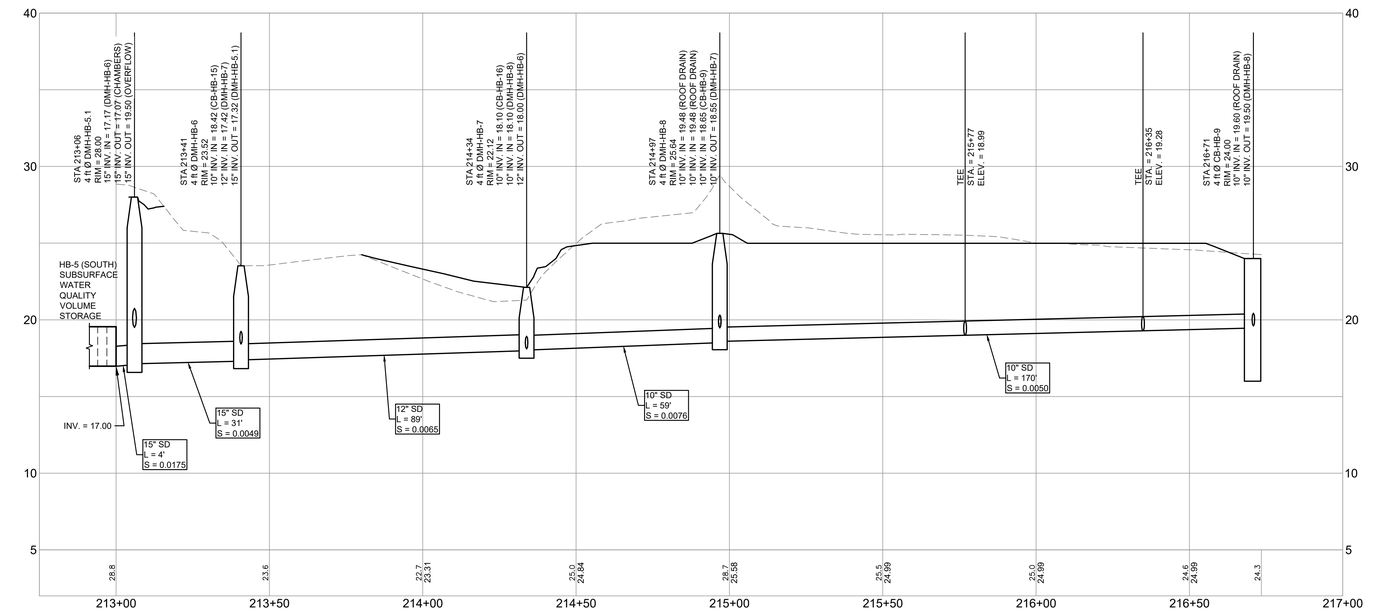
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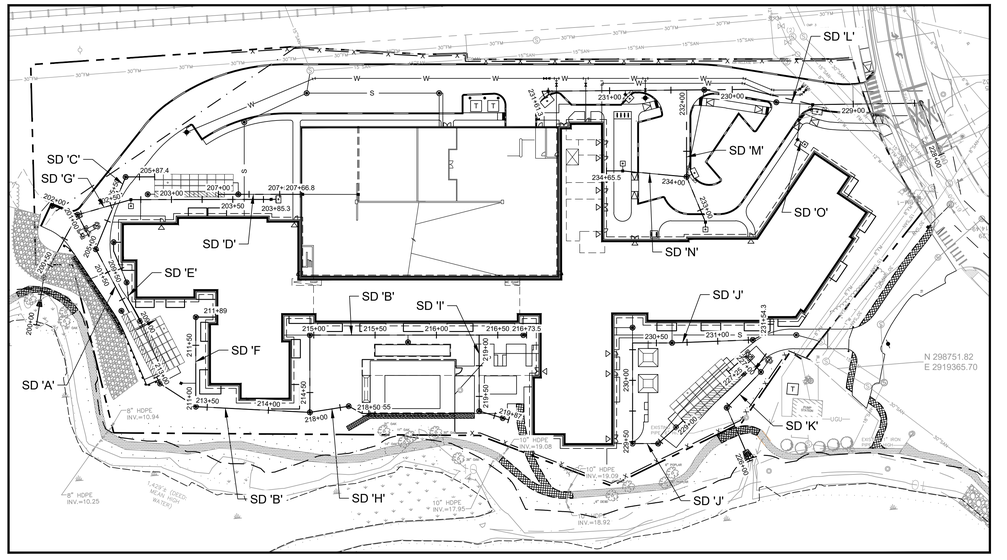
STORM DRAIN PROFILE 'A'

SCALE: H 1" = 20'
V 1" = 4'.



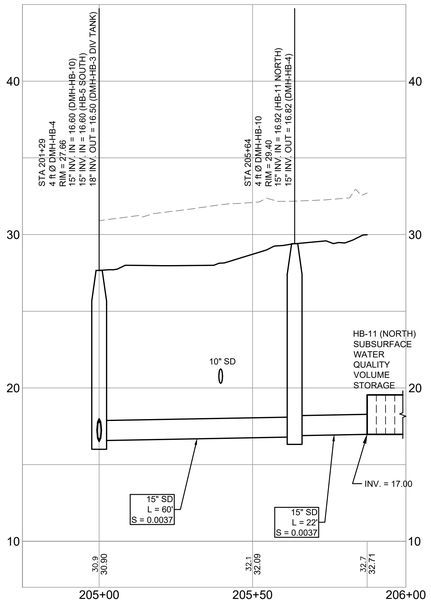
STORM DRAIN PROFILE 'B'

SCALE: H 1" = 20'
V 1" = 4'.



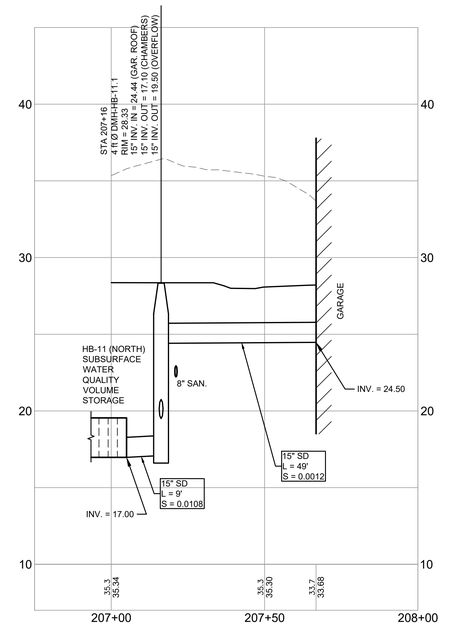
ORIENTATION SKETCH

SCALE: 1" = 50'



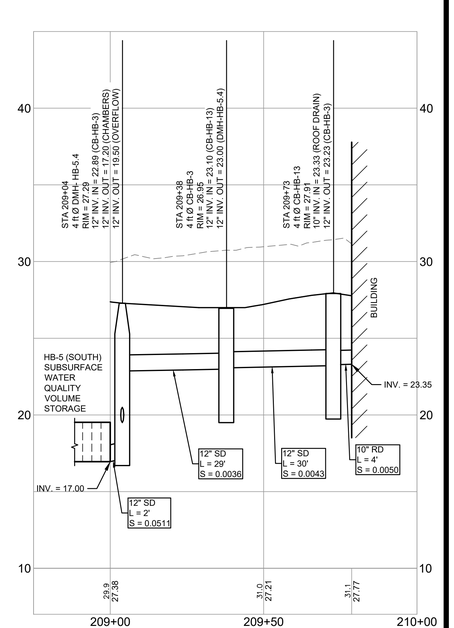
STORM DRAIN PROFILE 'C'

SCALE: H 1" = 20'
V 1" = 4'.



STORM DRAIN PROFILE 'D'

SCALE: H 1" = 20'
V 1" = 4'.



STORM DRAIN PROFILE 'E'

SCALE: H 1" = 20'
V 1" = 4'.

PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
2	12/23/2024	REVISED TO ADDRESS CITY COMMENTS
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY No. 11994 — LICENSED PROFESSIONAL ENGINEER — 12/23/2024

P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

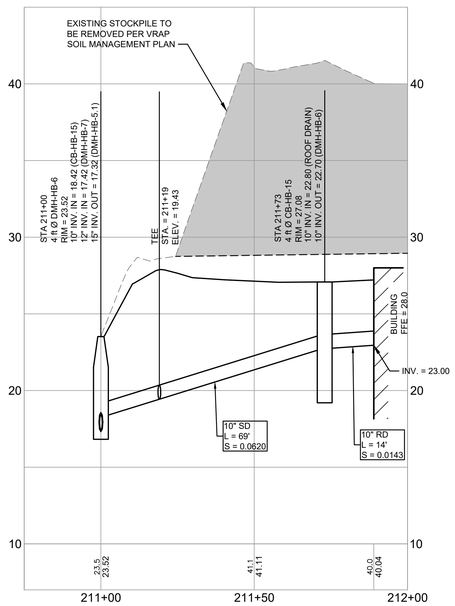
SHEET TITLE
STORM DRAIN PROFILES - 1

CLIENT
CPI MANAGEMENT, LLC
(CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

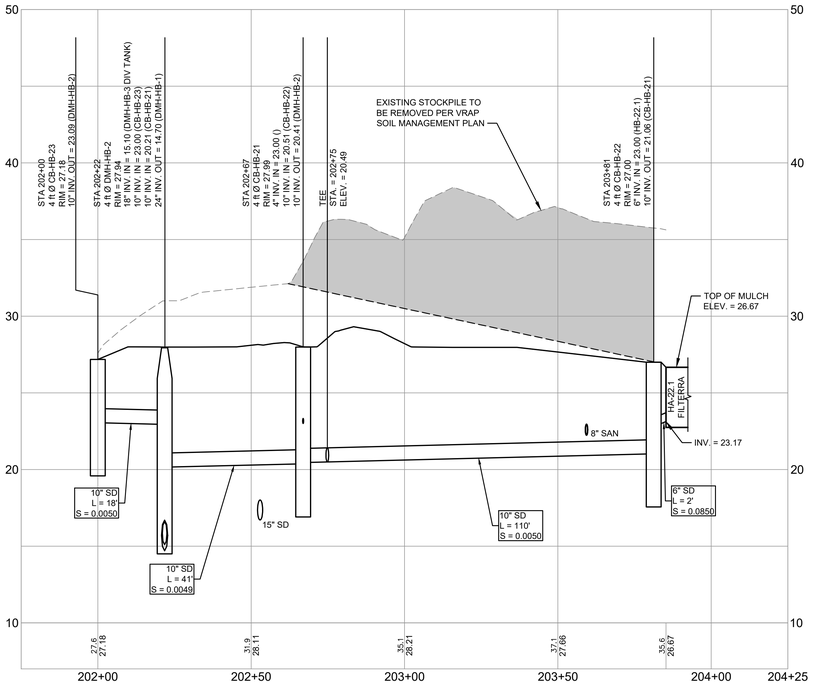
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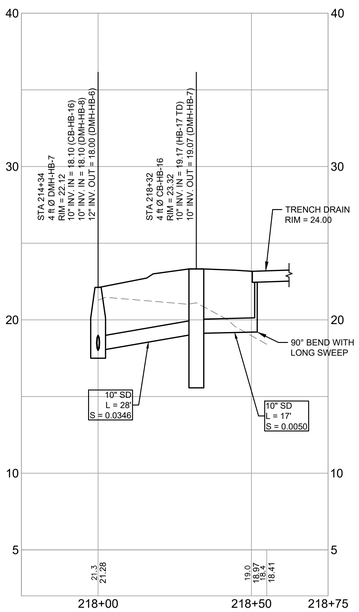
STORM DRAIN PROFILE 'F'

SCALE: H 1" = 20'
V 1" = 4'.



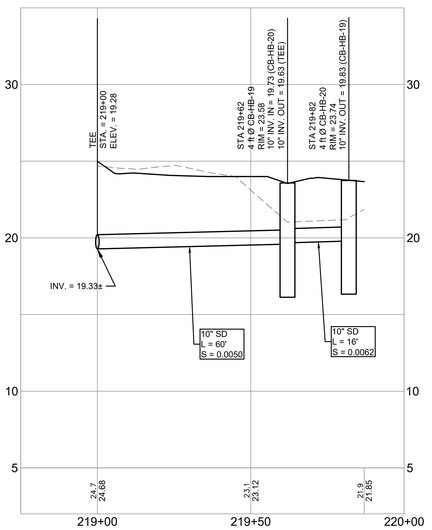
STORM DRAIN PROFILE 'G'

SCALE: H 1" = 20'
V 1" = 4'.



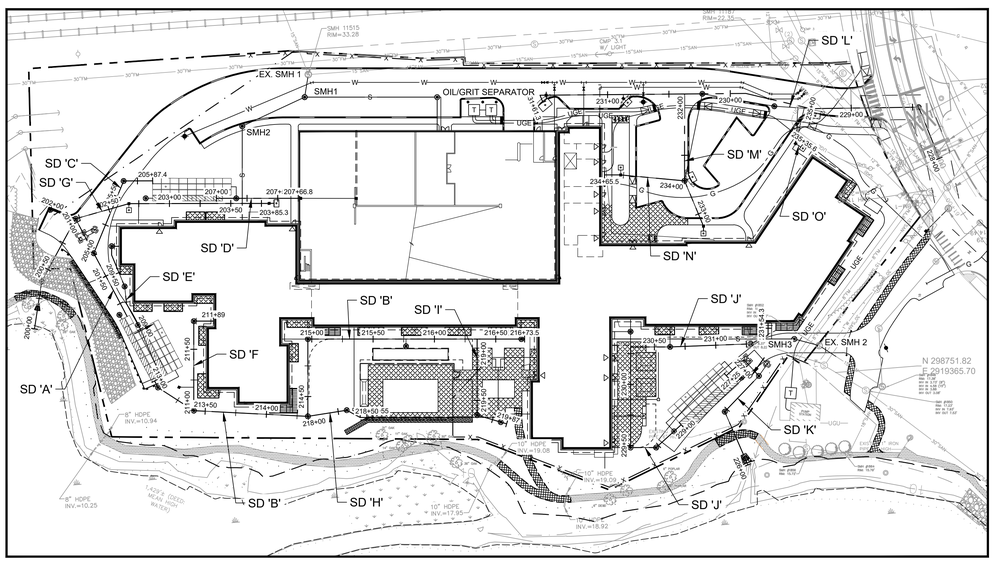
STORM DRAIN PROFILE 'H'

SCALE: H 1" = 20'
V 1" = 4'.



STORM DRAIN PROFILE 'I'

SCALE: H 1" = 20'
V 1" = 4'.



ORIENTATION SKETCH

SCALE: 1" = 50'

PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
2	12/23/2024	REVISED TO ADDRESS CITY COMMENTS
1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE — BO KENNEDY No. 11904 — LICENSED PROFESSIONAL ENGINEER — 12/23/2024

P.E. BO KENNEDY
LIC. #11994

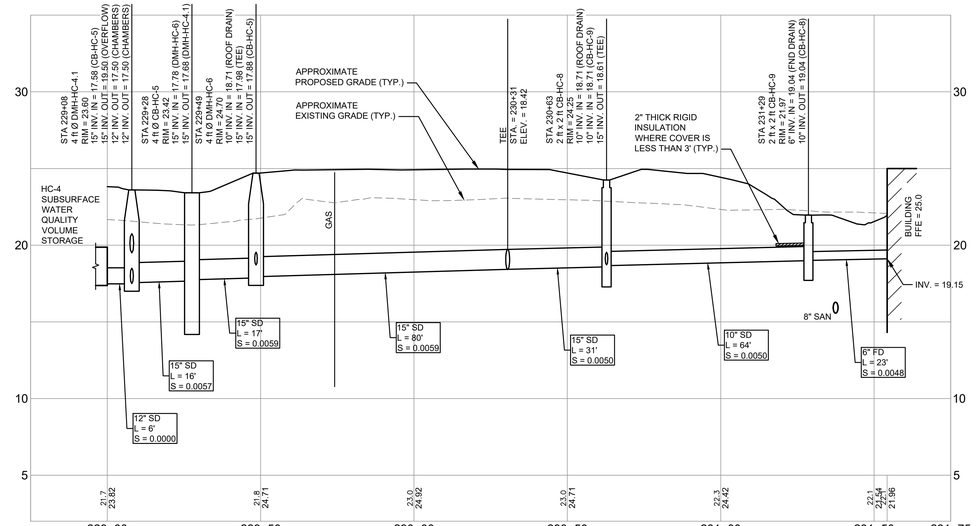
PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

SHEET TITLE
STORM DRAIN PROFILES - 2

CLIENT
CPI MANAGEMENT, LLC
(CATHARTES)

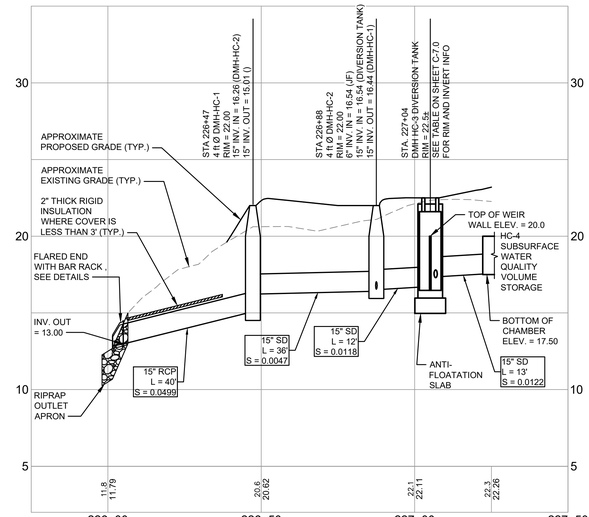
PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

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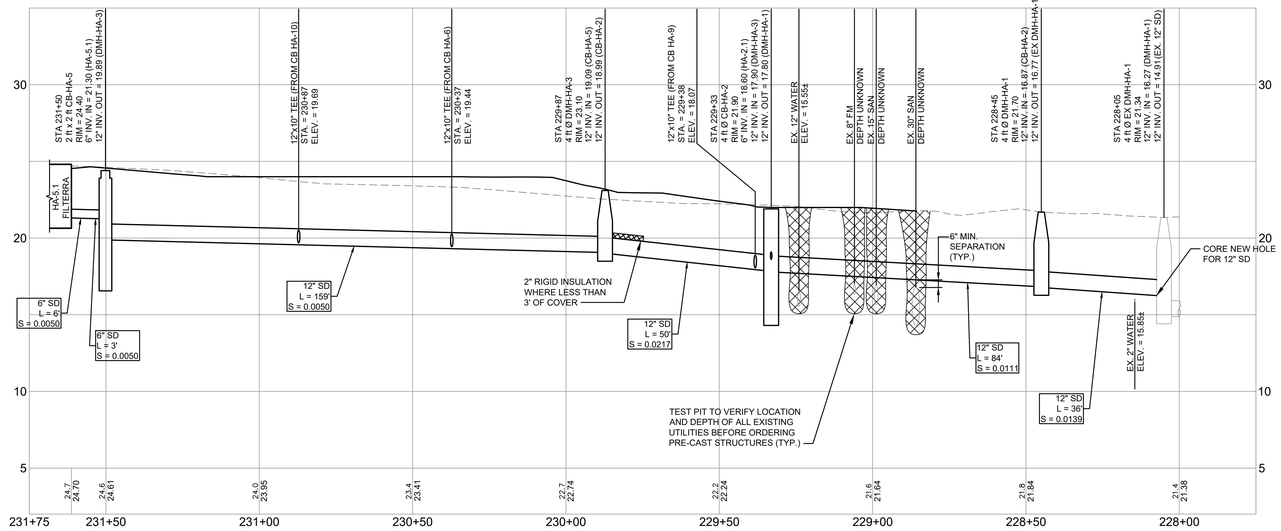
STORM DRAIN PROFILE 'J'

SCALE: H 1" = 20'
V 1" = 4'.



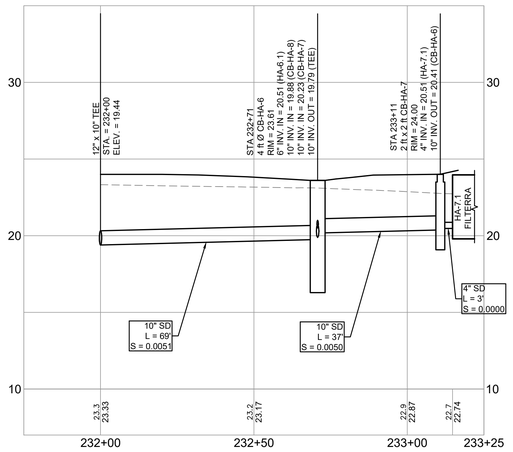
STORM DRAIN PROFILE 'K'

SCALE: H 1" = 20'
V 1" = 4'.



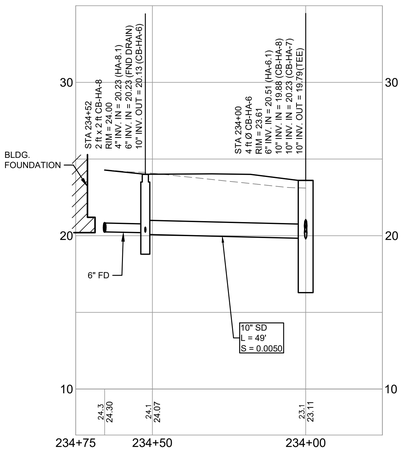
STORM DRAIN PROFILE 'L'

SCALE: H 1" = 20'
V 1" = 4'.



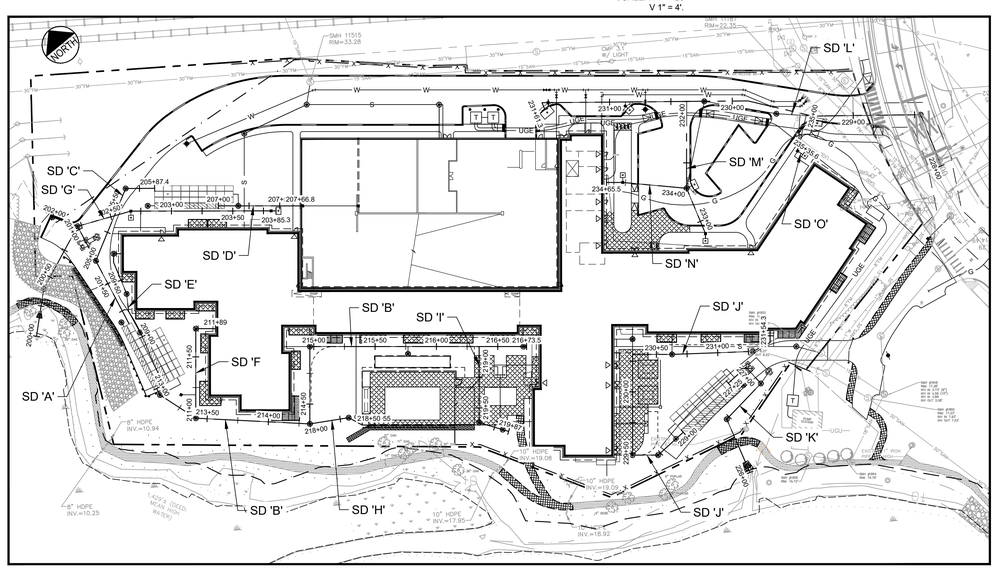
STORM DRAIN PROFILE 'M'

SCALE: H 1" = 20'
V 1" = 4'.



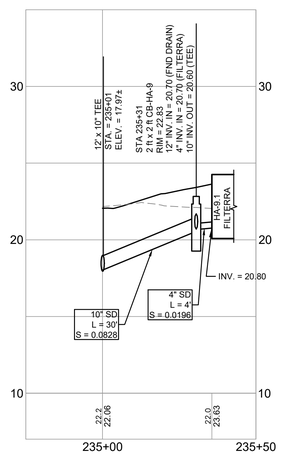
STORM DRAIN PROFILE 'N'

SCALE: H 1" = 20'
V 1" = 4'.



ORIENTATION SKETCH

SCALE: 1" = 50'



STORM DRAIN PROFILE 'O'

SCALE: H 1" = 20'
V 1" = 4'.

PRELIMINARY – NOT FOR CONSTRUCTION

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1	9/6/2024	MAJOR SITE PLAN APPLICATION

REVISIONS

STATE OF MAINE · BO KENNEDY · No. 11994 · LICENSED PROFESSIONAL ENGINEER
12/23/2024
P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MULTI-FAMILY RESIDENTIAL BUILDING (G)

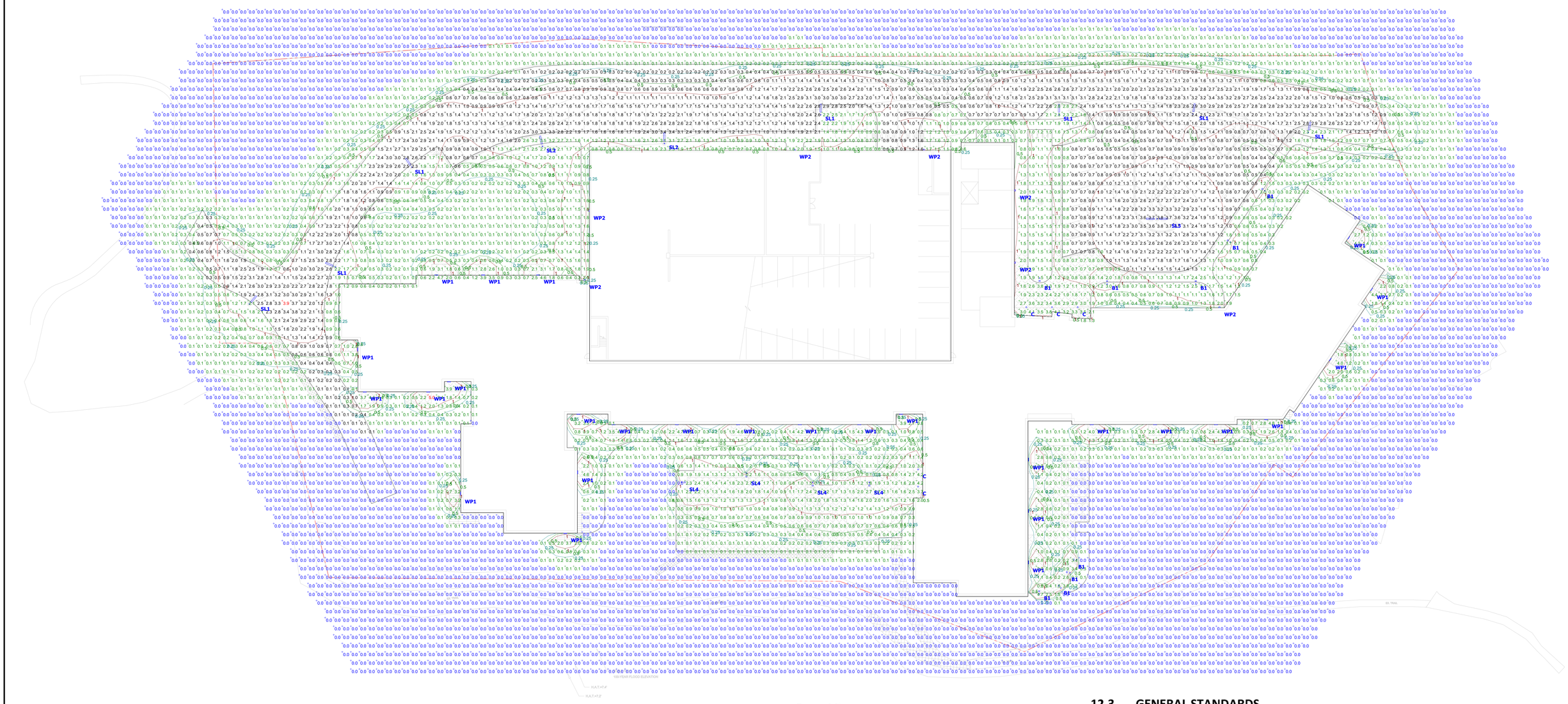
SHEET TITLE
STORM DRAIN PROFILES - 3

CLIENT
CPI MANAGEMENT, LLC
(CATHARTES)

PLACEMAKER PARTNERS, LLC
18 VAN AKEN WAY
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN:	DB
DESIGNED:	BEK
DATE:	AUGUST 2024
SCALE:	AS SHOWN
FILE NAME:	PANHANDLE-UTIL-PROFILE.dwg
SHEET	C-12.2

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Plan View
Scale - 1" = 20ft

DISCLAIMER:

-THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION. VALUES REPRESENTED ARE AN APPROXIMATION GENERATED FROM MANUFACTURERS PHOTOMETRIC IN-HOUSE OR INDEPENDANT LAB TEST WITH DATA SUPPLIED BY LAMP MANUFACTURERS.

SCHEDULE

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lumens Per Lamp	Light Loss Factor	Wattage
	B1	9	Lumenpulse	BLDB-TM1-VOLTAGE-CSL-N03-30K-CRI 80-3--FINISH-CONTROL	Lumenblade Bollard - Single - Clearsite Lens - 300LM - 3000K - 80 CRI - Type 3	199	0.9	3
	SL1	7	Lumenpulse	BLDM-SD-120/277-CSL-M80-30K-CRI 80-2	Lumenblade - Side - Clearsite Lens - 8000LM - 3000K - 80 CRI - Type 2	6281	0.9	80
	SL2	2	Lumenpulse	BLDM-SD-120/277-CSL-M80-30K-CRI 80-3	Lumenblade - Side - Clearsite Lens - 8000LM - 3000K - 80 CRI - Type 3	6786	0.9	80
	SL3	1	Lumenpulse	BLDM-SD-120/277-CSL-M100-30K-CRI 80-4	Lumenblade - Side - Clearsite Lens - 10000LM - 3000K - 80 CRI - Type 4	7738	0.9	230
	SL4	4	Lumenpulse	BLDC-TM1-VOLTAGE-10FT-CSL-XS25-30K-CRI 80-4-FINISH-CONTROL	Lumenblade Coulmn - Clearsite Lens - 2500LM - 3000K - 80 CRI - Type 4	1727	0.9	30
	WP1	27	Brownlee Lighting Inc	7075-12-TW-H08-30K	Outdoor Linear Wall Mount with Forward Throw Diffuser	858	0.9	9.43
	WP2	7	Lumenpulse	BLDN-WM-VOLTAGE-CSL-XS25-30K-CRI 80-3-FINISH-CONTROL	Lumenblade Nano - Clearsite Lens - 2500LM - 3000K - 80 CRI - Type 3	2294	0.9	30
	C	5	LUMINIS	SN800C-L1L11-30K-VOLTAGE-CONDUIT-PHOTOCELL-LOUVERS-FINISH-XX	Scena - Ceiling Round 8.5in	1180	0.9	13.9

12.3. GENERAL STANDARDS

Outdoor lighting standards listed below apply to all new developments.

1. Uniformity: As measured in foot candles at grade, maximum to minimum illumination levels shall not exceed a ratio of twenty (20) to one (1.)

2. Illumination Levels: Minimum, Maximum, and Average illumination levels for areas intended to be lighted, as measured at grade, shall be:

Minimum	0.2 foot candles (fc)
Maximum	5.0 foot candles (fc)
Average	1.25 foot candles (fc)

NOTES:

-REFLECTANCES ASSUMED:
WALL: 50
GROUND: 20

- MOUNTING HEIGHTS:
SL1/2/3: 20'-0"
SL4: 10'-0"
WP1: 8'-0"
WP2: 15'-0"
C: 10'-0"

- TASK HEIGHT: 0" ABOVE GRADE
- CALCULATION POINT SPACING: 5'X5' OC

STATISTICS

DESCRIPTION	SYMBOL	AVG.	MAX	MIN.	MAX/MIN	AVG/MIN
Pavement	+	1.4 fc	3.9 fc	0.0 fc	N/A	N/A
Full Calc Zone	+	0.4 fc	5.0 fc	0.0 fc	N/A	N/A

Thompson Point
09-13-2024

Designer Benjamin P. Rowe
Date 09/06/2024
Scale Not to Scale
Drawing No.
Summary
1 of 1

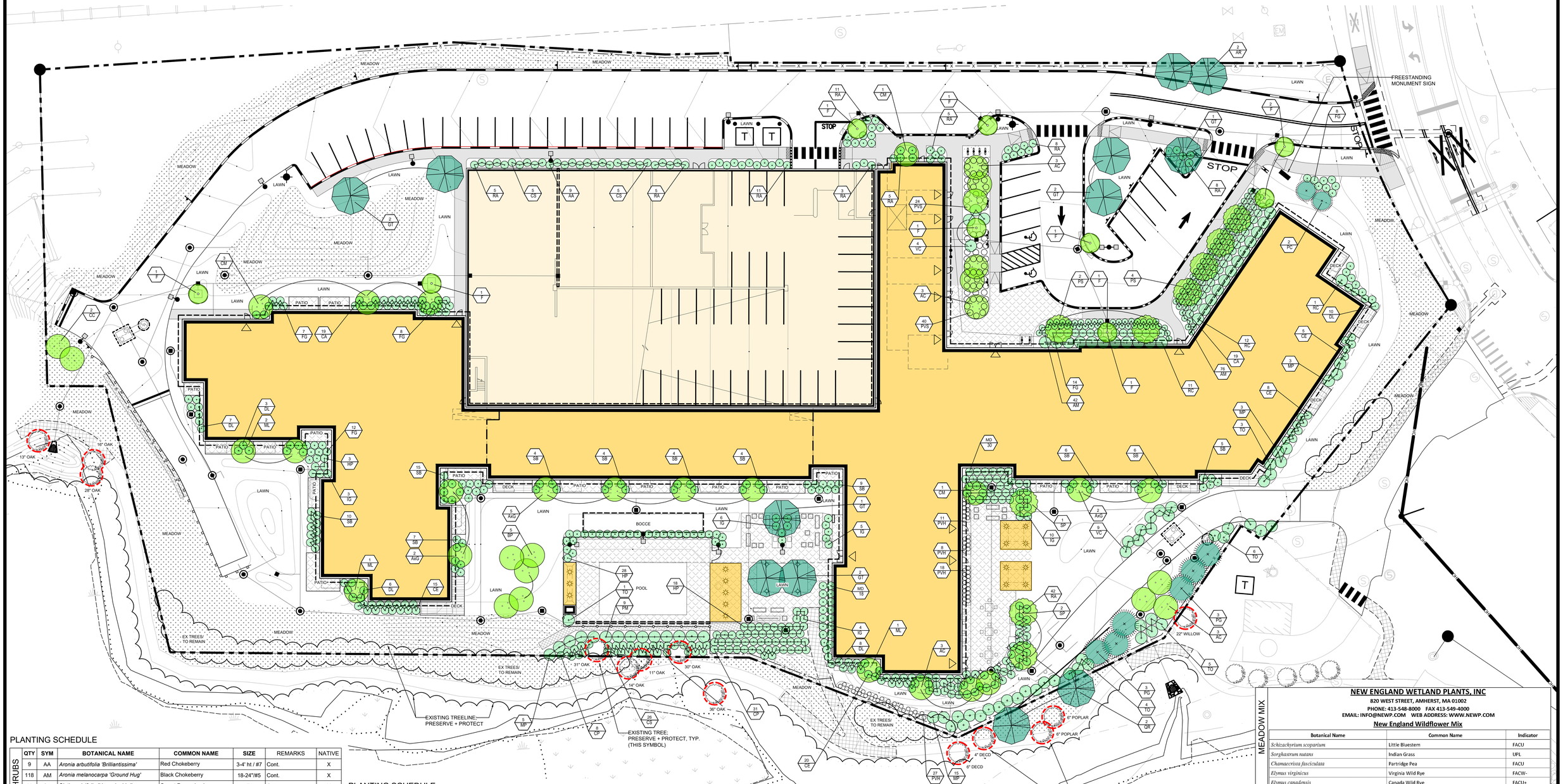
PLANTING NOTES:

1. CONTRACTOR SHALL BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING AND SHALL CONTINUE UNTIL FINAL ACCEPTANCE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS AND METHODS OF WATERING AND MAINTENANCE.
2. CONTRACTOR SHALL SUPPLY PLANTS IN QUANTITIES SUFFICIENT TO COMPLETE WORK SHOWN ON THE PLAN. ANY DISCREPANCY BETWEEN THE QUANTITIES SHOWN IN THE PLANT SCHEDULE AND THOSE REQUIRED ON THE PLAN SHALL NOT ENTITLE THE CONTRACTOR TO ADDITIONAL RENUMERATION. ANY DISCREPANCIES SHALL BE CLARIFIED WITH THE LANDSCAPE ARCHITECT PRIOR TO ORDERING PLANT MATERIAL.
3. ALL MATERIALS SHALL CONFORM TO SPECIFICATIONS OF THE AMERICAN STANDARDS FOR NURSERY STOCK (LATEST EDITION) AS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
4. ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISH GRADE AS THE ORIGINAL GRADES BEFORE DIGGING.
5. THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR ONE (1) FULL YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
6. ALL PLANT MATERIALS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT AT THE NURSERY AND AT THE SITE.
7. ALL PLANT BEDS SHALL MEET MINIMUM TOPSOIL REQUIREMENTS (SEE SPECIFICATIONS).
8. NO PLANT MATERIAL SHALL BE INSTALLED UNTIL GRUBBING, BED PREPARATION, AND FINISH GRADING HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
9. ALL PLANTS BEDS AND TREE WELLS SHALL HAVE A MINIMUM OF 3" OF UNIFORMLY DISTRIBUTED, DARK, SHREDDED BARK MULCH.
10. CONTRACTOR SHALL SUBMIT SOIL SAMPLE AND TEST OF TOPSOIL TO LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. SOIL ADMIXTURE SHALL BE ADDED TO EXISTING SOIL (BY CONTRACTOR) IF DEEMED NECESSARY BY SOIL TEST RESULTS.
11. ROUGH GRADING AND BED PREPARATION SHALL BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PLANT INSTALLATION. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT 48 HOURS PRIOR TO REQUIRED SITE VISIT.
12. ALL PLANTS SHALL BE BALLED AND WRAPPED OR CONTAINER GROWN AS SPECIFIED. ALL ROOT WRAPPING AND CONTAINER MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED AT THE TIME OF PLANTING.
13. ALL BROAD LEAF EVERGREEN PLANTS SHALL BE SPRAYED WITH AN ANTI-DESSICANT AT THE BEGINNING OF THEIR FIRST WINTER.
14. ALL PLANTS SHALL BE INSTALLED AS PER DETAILS AND THE CONTRACT SPECIFICATIONS. THE LANDSCAPE CONTRACTOR SHALL REFER TO THE CONTRACT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
15. ALL PLANTS SHALL BE WATERED BY THE CONTRACTOR, AS NECESSARY TO INSURE HEALTH UNTIL FINAL ACCEPTANCE.
16. CONTRACTOR SHALL STAKE TREES IF DEEMED NECESSARY BY THE LANDSCAPE ARCHITECT.
17. THE LANDSCAPE CONTRACTOR SHALL PROVIDE PREPARED SOIL PLANTING MIX AS PER THE CONTRACT SPECIFICATIONS.
18. THE LANDSCAPE CONTRACTOR SHALL REFER TO THE PLANT LIST AND PLANTING SPECIFICATIONS FOR SEASONAL REQUIREMENTS AND OTHER RESTRICTIONS RELATED TO THE TIME AND SEASON OF PLANTING.
19. PLANTING SOIL MIX: 1 PART COMPOST, 8 PARTS TOPSOIL, 3 PARTS HUMUS.
    TOPSOIL: FERTILE, FRIABLE, NATURAL TOPSOIL OF LOAMY CHARACTER, WITHOUT ADMIXTURE OF SUBSOIL MATERIAL, FREE FROM CLAY, LUMPS, COARSE SANDS, STONES, PLANTS, ROOTS, STICKS, AND OTHER FOREIGN MATERIALS GREATER THAN 1" IN ANY DIMENSION, PH RANGE 5.0-7.0 , AND SHALL CONTAIN NOT LESS THAN 6% ORGANIC MATTER BY WEIGHT. SANDY LOAM OR LOAM SOIL AS DEFINED BY THE USDA SOIL CONSERVATION SERVICE, AND HAVE THE FOLLOWING MECHANICAL ANALYSIS:

TEXTURAL CLASS	% OF TOTAL WEIGHT	AVERAGE %
SAND (0.05- 2.0 MM)	45 TO 75%	60%
SILT (0.002- 0.05 MM)	15 TO 35%	25%
CLAY (< 0.002 MM)	5 TO 25%	15%

20. LAWN SEED MIX: "YARDSCAPING / BAYSCAPING MIX" BY ALLEN STERLING LOTHROP, FALMOUTH, MAINE

NAME	PROPORTION BY WEIGHT	% GERMINATION
CREEPING RED FESCUE (ENDOPHYTE ENHANCED)	40%	80
TRIFECTA PERENNIAL RYEGRASS (ENDOPHYTE ENHANCED)	30%	80
KENBLUE KENTUCKY BLUEGRASS	20%	85
CHEWINGS FESCUE	10%	90



PLANTING SCHEDULE

SHRUBS

QTY	SYM	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	NATIVE
9	AA	*Aronia arbutifolia 'Brilliantissima'*	Red Chokeberry	3-4' ht / #7	Cont.	X
118	AM	*Aronia melanocarpa 'Ground Hug'*	Black Chokeberry	18-24"/#5	Cont.	X
38	CA	*Clethra alnifolia 'Hummingbird'*	Sweet Pepperbush	#5	Cont.	X
48	CE	*Ceanothus americanus*	New Jersey Tea	#5	Cont.	X
39	CP	*Comptonia peregrina*	Sweetfern	#5	Cont.	X
36	CS	*Cornus sericea 'Farrow'*	Red Twig Dogwood	3' ht / #7	Cont.	X
34	DL	*Diervilla lonicera*	Northern Bush Honeysuckle	#5	Cont.	X
49	FG	*Fothergilla gardenii*	Dwarf Bottlebrush Bush	2.5-3'/#5	Cont.	
49	HP	*Hydrangea paniculata' Little Lime'*	Hydrangea	18-24"/#5	Cont.	
28	IG	*Ilex glabra 'Shamrock'*	Inkberry	#7	Cont.	X
48	MD	*Microbiota decussata 'Celtic Pride'*	Siberian Carpet Cypress	#5	Cont.	
26	MP	*Myrica pensilyvanica 'Bobee'*	Northern Bayberry	#7	Cont.	X
9	PM	*Prunus maritima*	Beach Plum	4' ht.	B+B	X
64	PVH	*Panicum virgatum 'Heavy Metal'*	Switchgrass	#3	Cont.	X
64	PVS	*Panicum virgatum 'Shenandoah*	Switchgrass	#3	Cont.	X
103	RA	*Rhus aromatica 'Gro-Low'*	Fragrant Sumac	#5	Cont.	X
24	RC	*Rhododendron catawba 'Album'*	Rhododendron	3-3.5' ht.	B+B	
74	SB	*Spirea x bumalda 'Anthony Waterer'*	Spirea	18-24"/#5	Cont., full	
13	VC	*Viburnum cassinoides*	Witherod	3' ht.	B+B	X

PLANTING SCHEDULE

TREES

QTY	SYM	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	NATIVE
12	AC	*Amelanchier canadensis*	Shadbush	8-10' ht.	Multi-stem	X
8	AxG	*Amelanchier x grandiflora 'Robin Hill'*	Serviceberry	2.5-3" cal.	Single stem	
2	AR	*Acer rubrum 'Karpick' or 'Bowhall'*	Red Maple	2.5-3" cal.	Matching	X
5	BP	*Betula papyrifera 'Renaissance Oasis'*	Paper Birch	10-12' ht.	Multi-stem	X
2	CC	*Crataegus crusgalli 'Crusader'*	Hawthorn	2.5-3" cal.	Matching	X
5	CM	Cornus mas 'Golden Glory'	Corneliancherry Dogwood	2.5-3" cal.	Single stem	
9	F	TBD / Filterra unit tree	-	-	To be supplied by Contech	
8	GT	*Gleditsia triacanthos 'Shademaster'*	Honeylocust	2.5-3" cal.		
4	ML	*Magnolia loebneri 'Leonard Messel'*	Magnolia	2.5-3" cal.	Single stem	
2	PC	*Pinus cembra*	Swisstone Pine	8-10' ht.	Matching	
6	PG	Picea glauca	White Spruce	8-10' ht.		X
6	PS	*Prunus sargentii 'Pink Flair'*	Cherry	2.5-3" cal.		
2	QR	*Quercus rubra*	Red Oak	2.5-3" cal.		X
3	SP	Stewartia pseudocamellia	Stewartia	2.5-3" cal.		
19	TO	Thuja occidentalis 'Smaragd'	Arborvitae	6-7' ht.		X

MEADOW MIX

NEW ENGLAND WETLAND PLANTS, INC

820 WEST STREET, AMHERST, MA 01002
PHONE: 413-548-8000 FAX 413-549-4000
EMAIL: INFO@NEWP.COM WEB ADDRESS: WWW.NEWP.COM

New England Wildflower Mix

Botanical Name	Common Name	Indicator
Schizachyrium scoparium	Little Bluestem	FACU
Sorghastrum nutans	Indian Grass	UPL
Chamaecrista fasciculata	Partridge Pea	FACU
Elymus virginicus	Virginia Wild Rye	FACW-
Elymus canadensis	Canada Wild Rye	FACU+
Festuca rubra	Red Fescue	FACU
Asclepias tuberosa	Butterfly Milkweed	NI
Vernonia noveboracensis	New York Ironweed	FACW+
Oenothera biennis	Evening Primrose	FACU-
Aster novae-angliae (Symphyotrichum novae-anglia	New England Aster	FACW-
Rudbeckia hirta	Black Eyed Susan	FACU-
Solidago juncea	Early Goldenrod	
Eupatorium fistulosum (Eutrochium fistulosum)	Hollow-Stem Joe Pye Weed	FACW
Aster lateriflorus (Symphyotrichum lateriflorum)	Starved/Calico Aster	FACW

REV	DATE	DESCRIPTION
2	2025.02.14	REVISED PER CITY COMMENTS
1	2024.08.23	SITE PLAN APPLICATION

REVISIONS

NOT FOR CONSTRUCTION 02.14.2025

PATRICK CARROLL
LIC. # 127

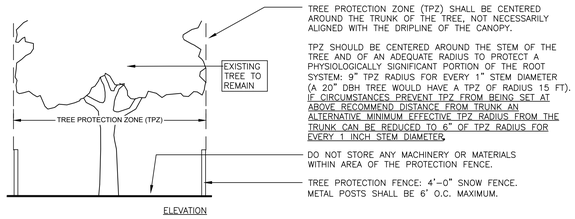
PROJECT
THE FOREFRONT AT THOMPSONS POINT
RESIDENTIAL BUILDING - G

SHEET TITLE
LANDSCAPE PLAN

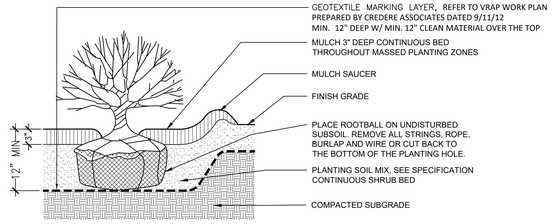
CLIENT
FOREFRONT PARTNERS, LP

CARROLL ASSOCIATES

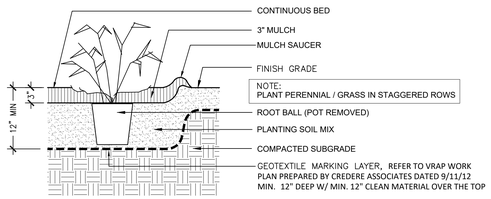
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1 TREE PROTECTION
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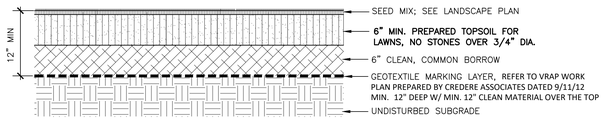
4 SHRUB PLANTING
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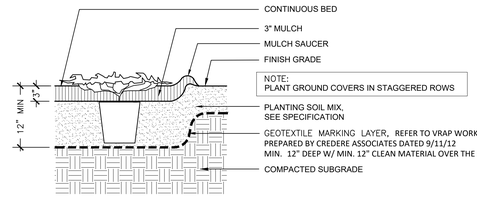
5 ORNAMENTAL GRASS / PERENNIAL PLANTING
SCALE:1"=1'-0"

TOPSOIL: FERTILE, FRIABLE, NATURAL TOPSOIL OF LOAMY CHARACTER, WITHOUT ADMIXTURE OF SUBSOIL MATERIAL, FREE FROM CLAY, LUMPS, COARSE SANDS, STONES, PLANTS, ROOTS, STICKS, AND OTHER FOREIGN MATERIALS GREATER THAN 1" IN ANY DIMENSION, PH RANGE 5.0–7.0 , AND SHALL CONTAIN NOT LESS THAN 6% ORGANIC MATTER BY WEIGHT. SANDY LOAM OR LOAM SOIL AS DEFINED BY THE USDA SOIL CONSERVATION SERVICE, AND HAVE THE FOLLOWING MECHANICAL ANALYSIS:

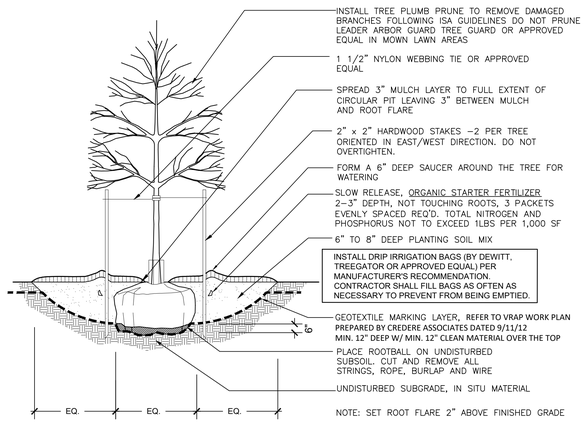
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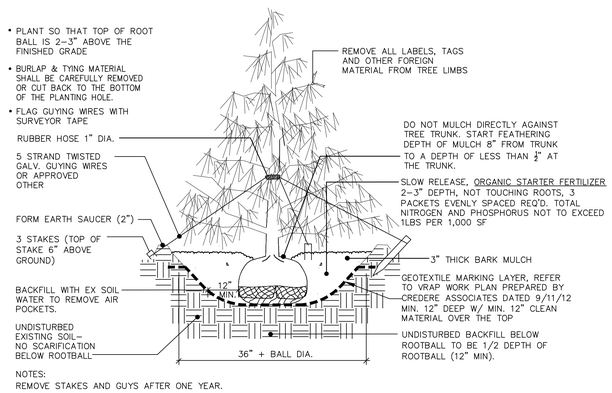
2 SEEDED OR SODDED LAWN
SCALE:1"=1'-0"



6 GROUND COVER PLANTING
SCALE:1"=1'-0"



3 DECIDUOUS TREE IN LAWN OR ESPLANADE
SCALE:1"=1'-0"



7 EVERGREEN TREE
SCALE:1"=1'-0"

REV	DATE	DESCRIPTION
2	2025.02.14	REVISED PER CITY COMMENTS
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REVISIONS

NOT FOR CONSTRUCTION 02.14.2025

PATRICK CARROLL
LIC. # 127

PROJECT
THE FOREFRONT AT THOMPSONS POINT
RESIDENTIAL BUILDING - G

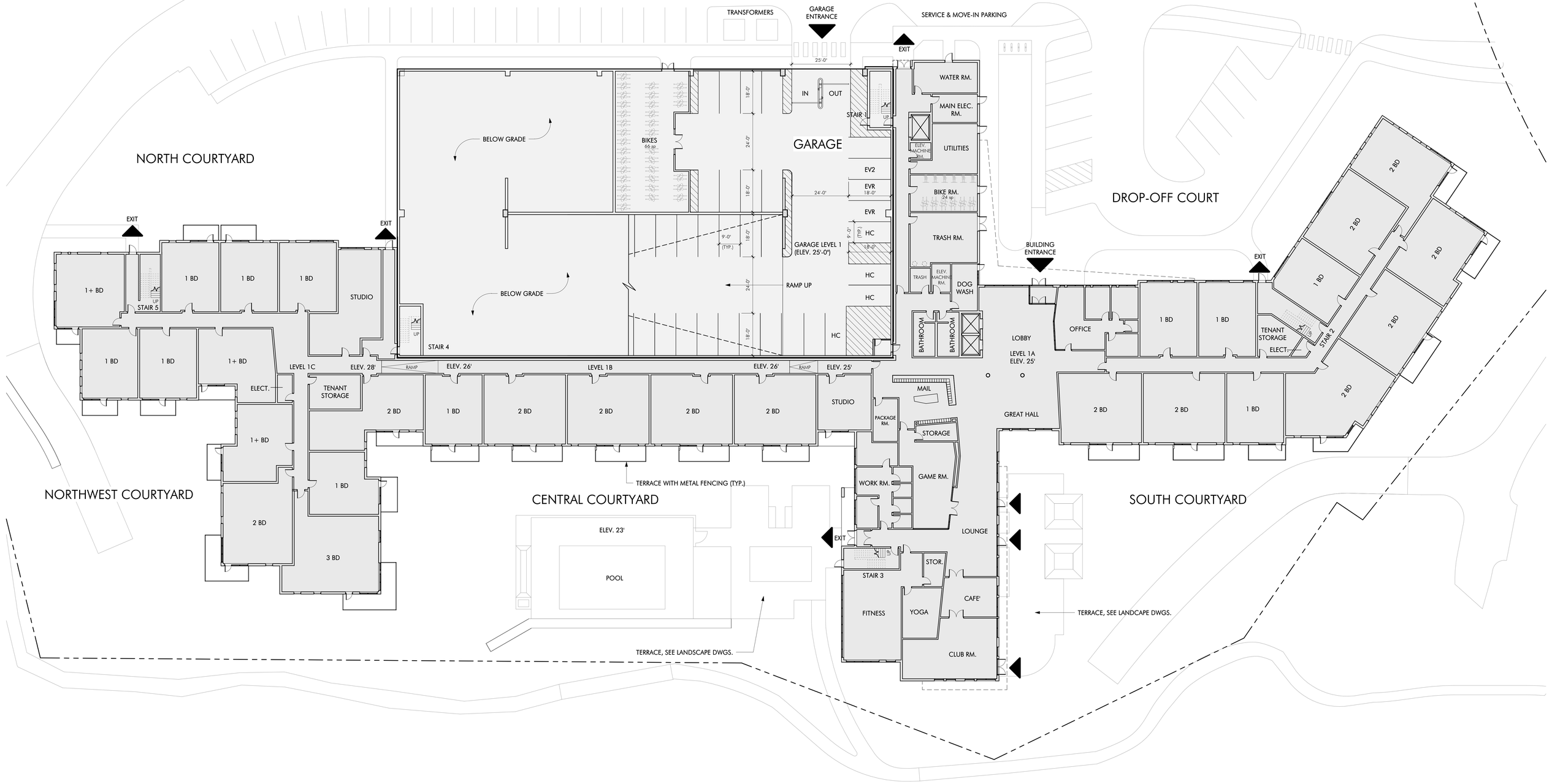
SHEET TITLE
LANDSCAPE DETAILS

CLIENT
FOREFRONT PARTNERS, LP

CARROLL ASSOCIATES

DRAWN:	MAP	DATE:	AUG 2024
DESIGNED:	MAP	SCALE:	-
CHECKED:	PC	JOB NO.	-
FILE NAME:			

SHEET L-200



ABBREVIATIONS

HC	ACCESSIBLE PARKING SPACE
HV/EV	ACCESSIBLE SPACE EQUIPPED WITH CHARGING STATION
EV1	LEVEL 1 ELECTRIC VEHICLE CHARGING STATION
EV2	LEVEL 2 ELECTRIC VEHICLE CHARGING STATION
EVR	EV READY SPACE

PARKING GARAGE ALLOCATION MATRIX

TOTAL SPACES	463
MANAGED SPACES	86
LEVEL 1 EV SPACES	0
LEVEL 2 EV SPACES	1
EV READY SPACES	2
RESIDENTIAL SPACES	377
LEVEL 1 EV SPACES	14
LEVEL 2 EV SPACES	9
EV READY SPACES	23
ACCESSIBLE SPACES	24
COMPACT SPACES	70

TOTAL GROSS SQUARE FOOTAGE

TOTAL GSF OF BUILDING	305,170 GSF
TOTAL GSF OF GARAGE	152,656 GSF

UNIT MATRIX

TYPE	# OF UNITS	UNIT %	AVERAGE SF/UNIT
STUDIO	22	8.6%	657 SF
1 BED	101	39.6%	782 SF
1+ BED	23	9%	918 SF
2 BED	92	36%	1,093 SF
3 BED	17	6.8%	1,358 SF
TOTAL	255		

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GROUND FLOOR PLAN - LEVEL 1

SCALE: 1/16" = 1'-0"

△ REV 1 12/17/24: ADDED TYP. PARKING STALL DIMS

△ REV 2 02/14/24: ADDED PARKING AISLE DIMS

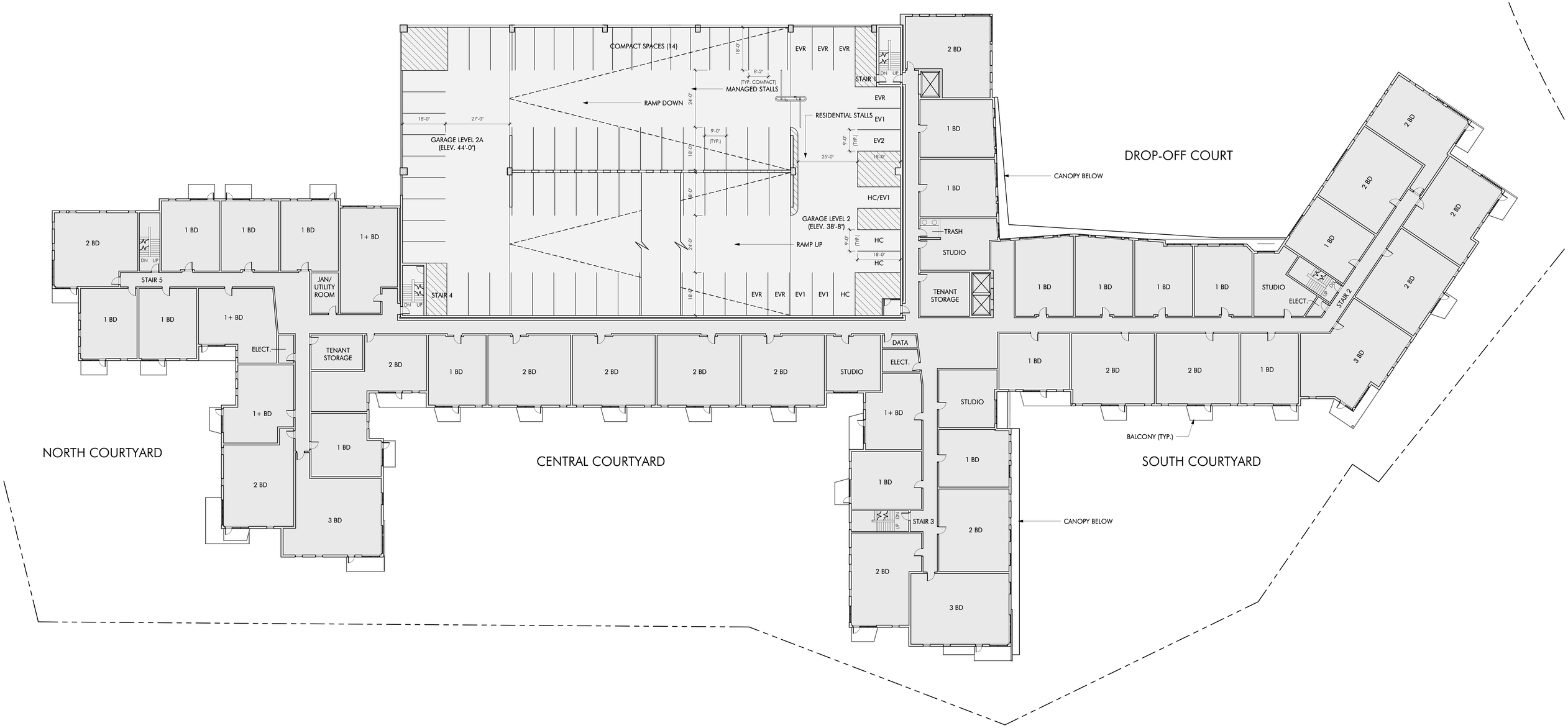
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THOMPSON'S POINT
11 THOMPSON'S POINT RD
PORTLAND, ME 04102
09/06/2024

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ABBREVIATIONS

HC	ACCESSIBLE PARKING SPACE
HV/EV	ACCESSIBLE SPACE EQUIPPED WITH CHARGING STATION
EV1	LEVEL 1 ELECTRIC VEHICLE CHARGING STATION
EV2	LEVEL 2 ELECTRIC VEHICLE CHARGING STATION
EVR	EV READY SPACE

PARKING GARAGE ALLOCATION MATRIX

TOTAL SPACES	463
MANAGED SPACES	86
LEVEL 1 EV SPACES	0
LEVEL 2 EV SPACES	1
EV READY SPACES	2
RESIDENTIAL SPACES	377
LEVEL 1 EV SPACES	14
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3 BED	17	6.8%	1,358 SF
TOTAL	255		

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SECOND FLOOR PLAN - LEVEL 2

SCALE: 1/16" = 1'-0"

△ REV 1 12/17/24: ADDED TYP. PARKING STALL DIMS & PARKING GATE

△ REV 2 02/14/24: ADDED PARKING AISLE DIMS

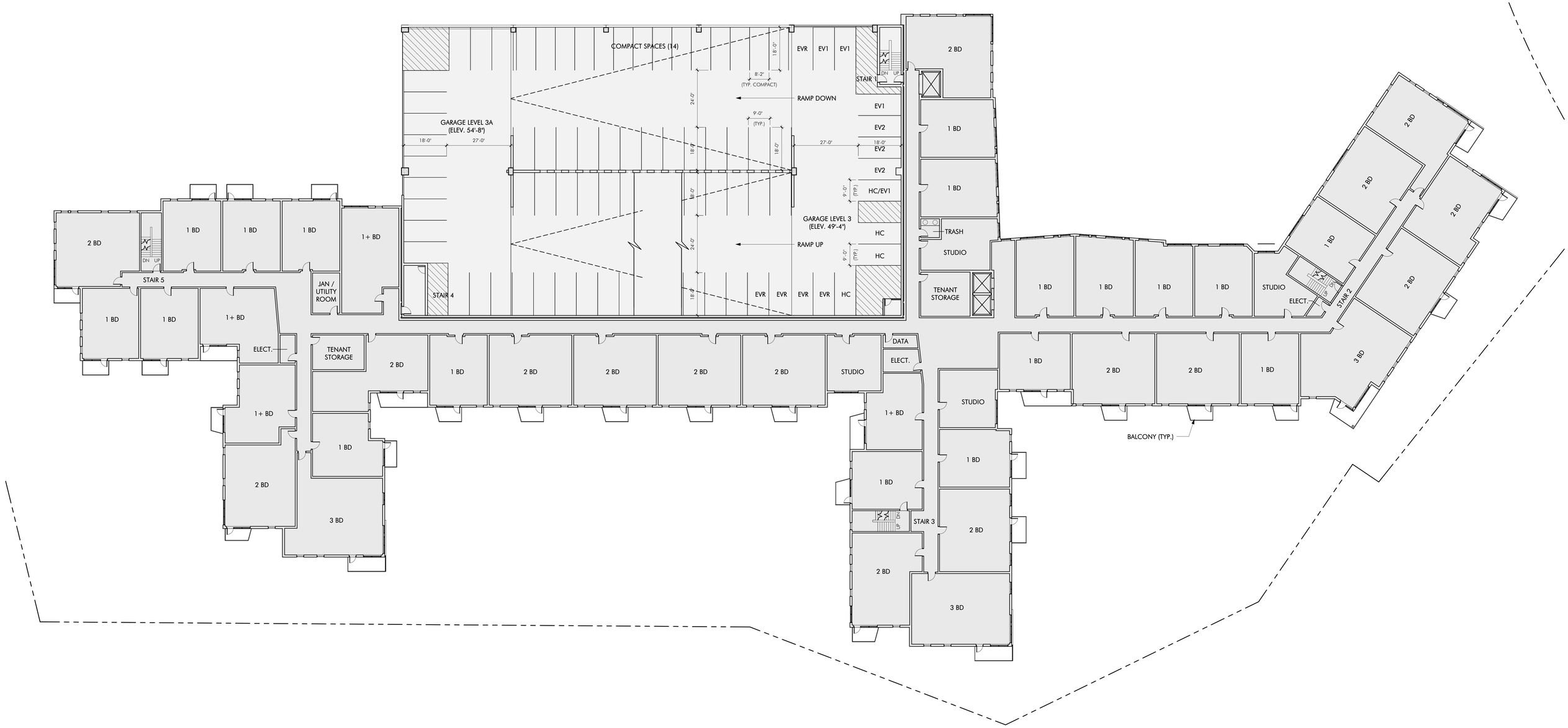
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THOMPSON'S POINT
11 THOMPSON'S POINT RD
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09/06/2024

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ABBREVIATIONS

HC	ACCESSIBLE PARKING SPACE
HV/EV	ACCESSIBLE SPACE EQUIPPED WITH CHARGING STATION
EV1	LEVEL 1 ELECTRIC VEHICLE CHARGING STATION
EV2	LEVEL 2 ELECTRIC VEHICLE CHARGING STATION
EVR	EV READY SPACE

PARKING GARAGE ALLOCATION MATRIX

TOTAL SPACES	463
MANAGED SPACES	86
LEVEL 1 EV SPACES	0
LEVEL 2 EV SPACES	1
EV READY SPACES	2
RESIDENTIAL SPACES	377
LEVEL 1 EV SPACES	14
LEVEL 2 EV SPACES	9
EV READY SPACES	23
ACCESSIBLE SPACES	24
COMPACT SPACES	70

TOTAL GROSS SQUARE FOOTAGE

TOTAL GSF OF BUILDING	305,170 GSF
TOTAL GSF OF GARAGE	152,656 GSF

UNIT MATRIX

TYPE	# OF UNITS	UNIT %	AVERAGE SF/UNIT
STUDIO	22	8.6%	657 SF
1 BED	101	39.6%	782 SF
1+ BED	23	9%	918 SF
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3 BED	17	6.8%	1,358 SF
TOTAL	255		

EMBARC | CATHARTES

TYPICAL FLOOR PLAN - LEVEL 3 - 6

SCALE: 1/16" = 1'-0"

REV 1 12/17/24: ADDED TYP. PARKING STALL DIMS

REV 2 02/14/24: ADDED PARKING AISLE DIMS

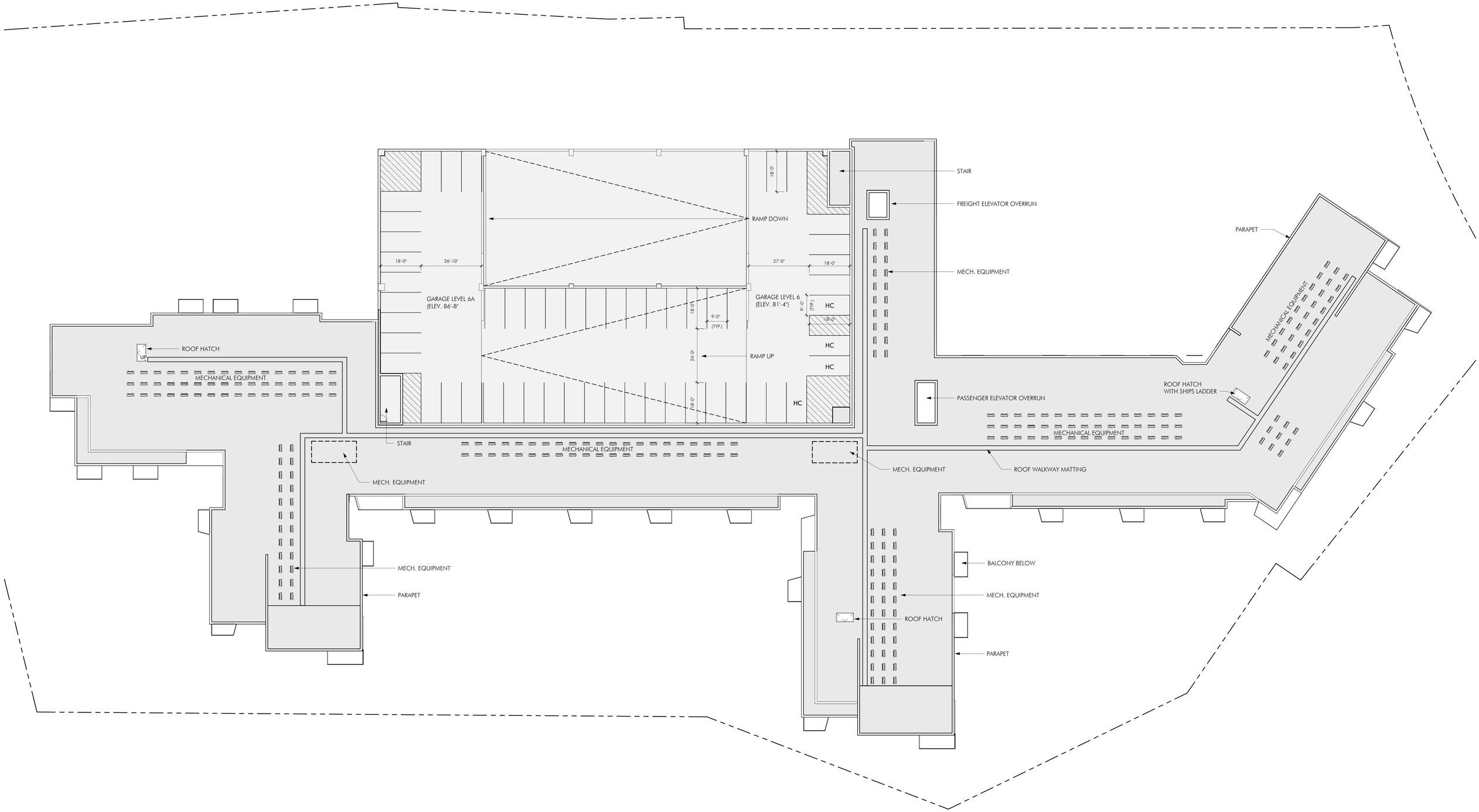
0 8 16 32

THOMPSON'S POINT
11 THOMPSON'S POINT RD
PORTLAND, ME 04102
09/06/2024

A1.3

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ABBREVIATIONS

HC	ACCESSIBLE PARKING SPACE
HV/EV	ACCESSIBLE SPACE EQUIPPED WITH CHARGING STATION
EV1	LEVEL 1 ELECTRIC VEHICLE CHARGING STATION
EV2	LEVEL 2 ELECTRIC VEHICLE CHARGING STATION
EVR	EV READY SPACE

PARKING GARAGE ALLOCATION MATRIX

TOTAL SPACES	463
MANAGED SPACES	86
LEVEL 1 EV SPACES	0
LEVEL 2 EV SPACES	1
EV READY SPACES	2
RESIDENTIAL SPACES	377
LEVEL 1 EV SPACES	14
LEVEL 2 EV SPACES	9
EV READY SPACES	23
ACCESSIBLE SPACES	24
COMPACT SPACES	70

TOTAL GROSS SQUARE FOOTAGE

TOTAL GSF OF BUILDING	305,170 GSF
TOTAL GSF OF GARAGE	152,656 GSF

UNIT MATRIX

TYPE	# OF UNITS	UNIT %	AVERAGE SF/UNIT
STUDIO	22	8.6%	657 SF
1 BED	101	39.6%	782 SF
1+ BED	23	9%	918 SF
2 BED	92	36%	1,093 SF
3 BED	17	6.8%	1,358 SF
TOTAL	255		

EMBARC | CATHARTES

ROOF PLAN

SCALE: 1/16" = 1'-0"

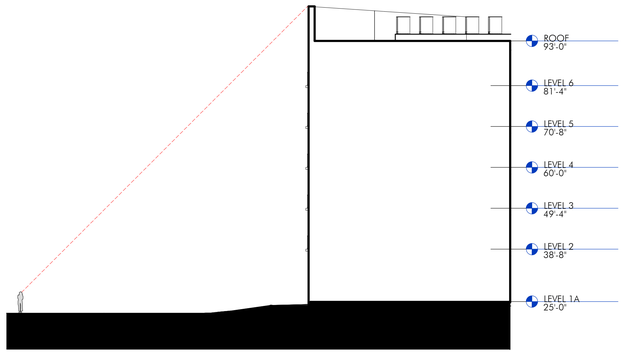
△ REV 1 12/17/24: ADDED TYP. PARKING STALL DIMS
△ REV 2 02/14/24: ADDED PARKING AISLE DIMS

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THOMPSON'S POINT
11 THOMPSON'S POINT RD
PORTLAND, ME 04102
09/06/2024

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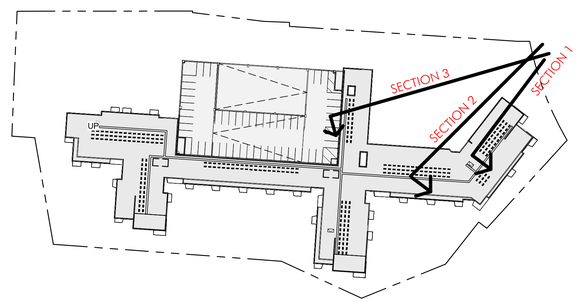
1 SECTION-3-ROOF TOP EQUIPMENT
1/16" = 1'-0"



2 SECTION-2-ROOF TOP EQUIPMENT
1/16" = 1'-0"



3 SECTION-1- ROOF TOP EQUIPMENT
1/16" = 1'-0"



4 KEY PLAN FOR SITE LINE STUDIES
1" = 80'-0"

EMBARC

SITE LINE STUDIES OF ROOF TOP MECHANICAL UNITS

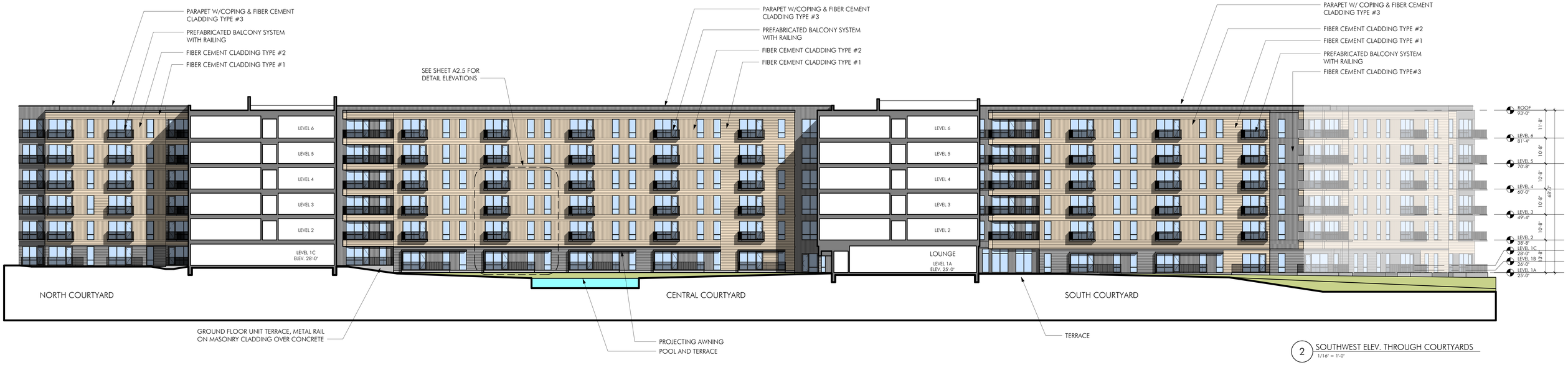
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11 THOMPSON'S POINT RD
PORTLAND, ME 04102

A1.7

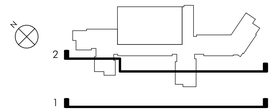
copyright: EMBARC INC.
C:\Local Revit\220005_Thompson Point_v23_Building_rdelavoie@embarcstudios.com.rvt



1 SOUTHWEST ELEVATION
1/16" = 1'-0"



2 SOUTHWEST ELEV. THROUGH COURTYARDS
1/16" = 1'-0"



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SOUTH ELEVATIONS

SCALE: 1/16" = 1'-0"

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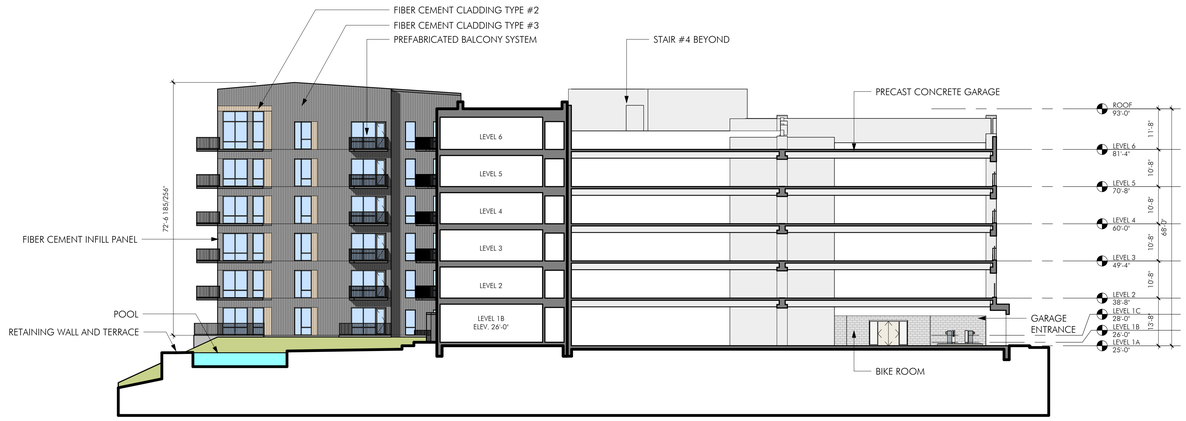
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11 THOMPSONS POINT RD
PORTLAND, ME 04102
09/06/2024

A2.1

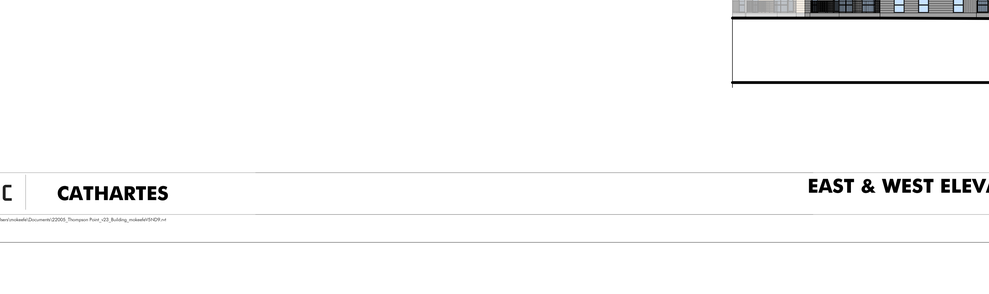
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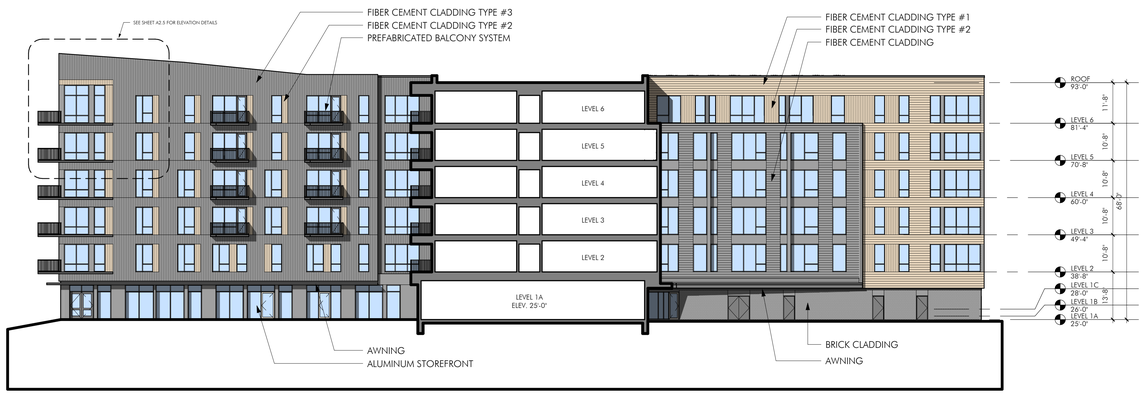
1 NORTHWEST ELEVATION
1/16" = 1'-0"



3 SECTION THROUGH GARAGE FACING WEST
1/16" = 1'-0"



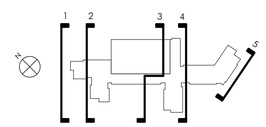
2 NORTHWEST SECTION
1/16" = 1'-0"



4 SECTION THROUGH ENTRANCE LOBBY FACING WEST
1/16" = 1'-0"



5 ELEVATION OF EAST WING FACING NORTH
1/16" = 1'-0"



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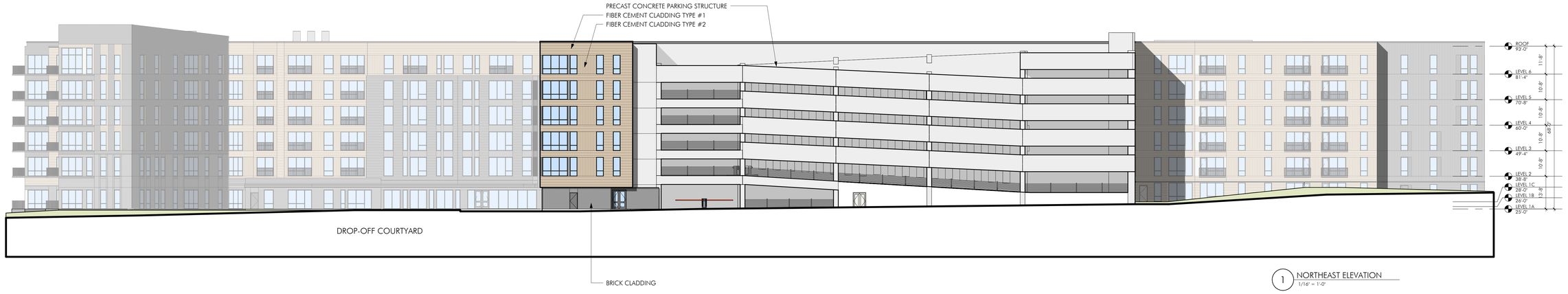
EAST & WEST ELEVATIONS AND BUILDING SECTIONS

SCALE: 1/16" = 1'-0"

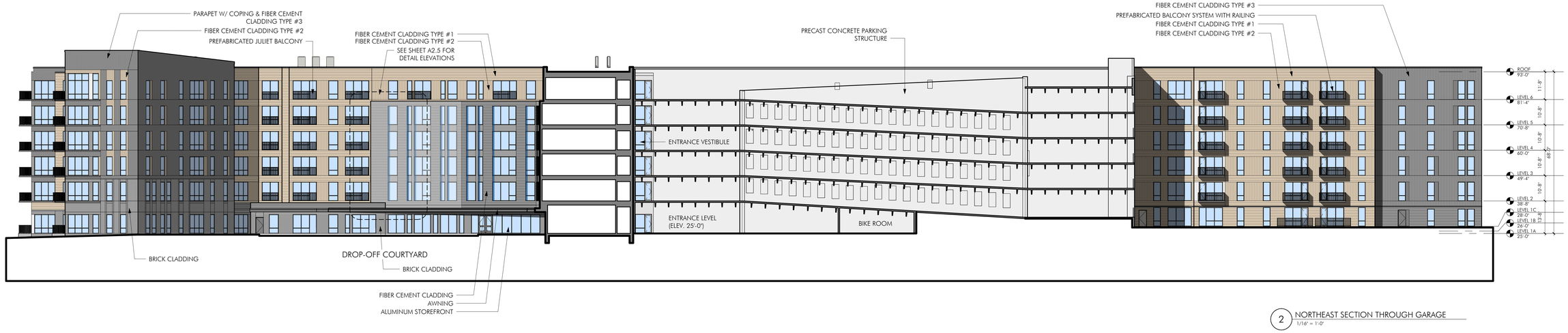
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THOMPSON'S POINT
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PORTLAND, ME 04102
09/06/2024

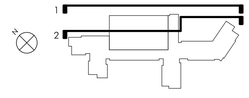
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1 NORTHEAST ELEVATION
1/16" = 1'-0"



2 NORTHEAST SECTION THROUGH GARAGE
1/16" = 1'-0"



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NORTH ELEVATIONS & GARAGE SECTION

SCALE: 1/16" = 1'-0"

0 8 16 32

THOMPSON'S POINT
11 THOMPSON'S POINT RD
PORTLAND, ME 04102
09/06/2024

A2.3



1. VIEW OF DROP-OFF COURT



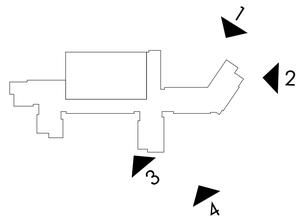
2. VIEW OF SOUTHEAST CORNER



3. VIEW OF CENTRAL COURTYARD



4. VIEW FROM WATERFRONT



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TEXTURED FIBER CEMENT PANELS

DETAIL OF DROP-OFF COURTYARD





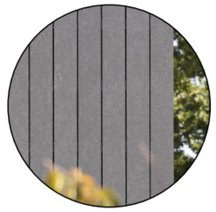
MATERIAL IMAGE SHOWING CONTRASTING FIBER CEMENT CLADDING TYPE #3 WITH FIBER CEMENT CLADDING TYPE #2 INFILL PANELS AT WINDOWS



MATERIAL IMAGE SHOWING FIBER CEMENT CLADDING TYPE #3 & WIDE FIBER CEMENT INFILL PANELS BETWEEN WINDOWS



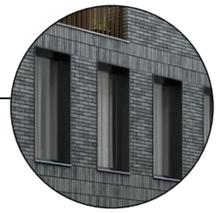
TYPICAL FIBER CEMENT CLADDING TYPE #3



TYPICAL FIBER CEMENT CLADDING TYPE #3

DETAIL OF SHORT BUILDING WINGS







IRONSPOT BRICK WITH SOLDIER COURSE DETAILING

DETAIL OF DROP-OFF COURTYARD

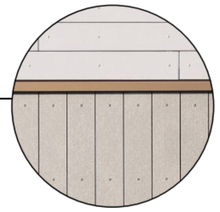


PREFABRICATED STEEL BALCONY & RAILING WITH DIAGONAL TENSION RODS



COLORED FIBER CEMENT ACCENT PANELS





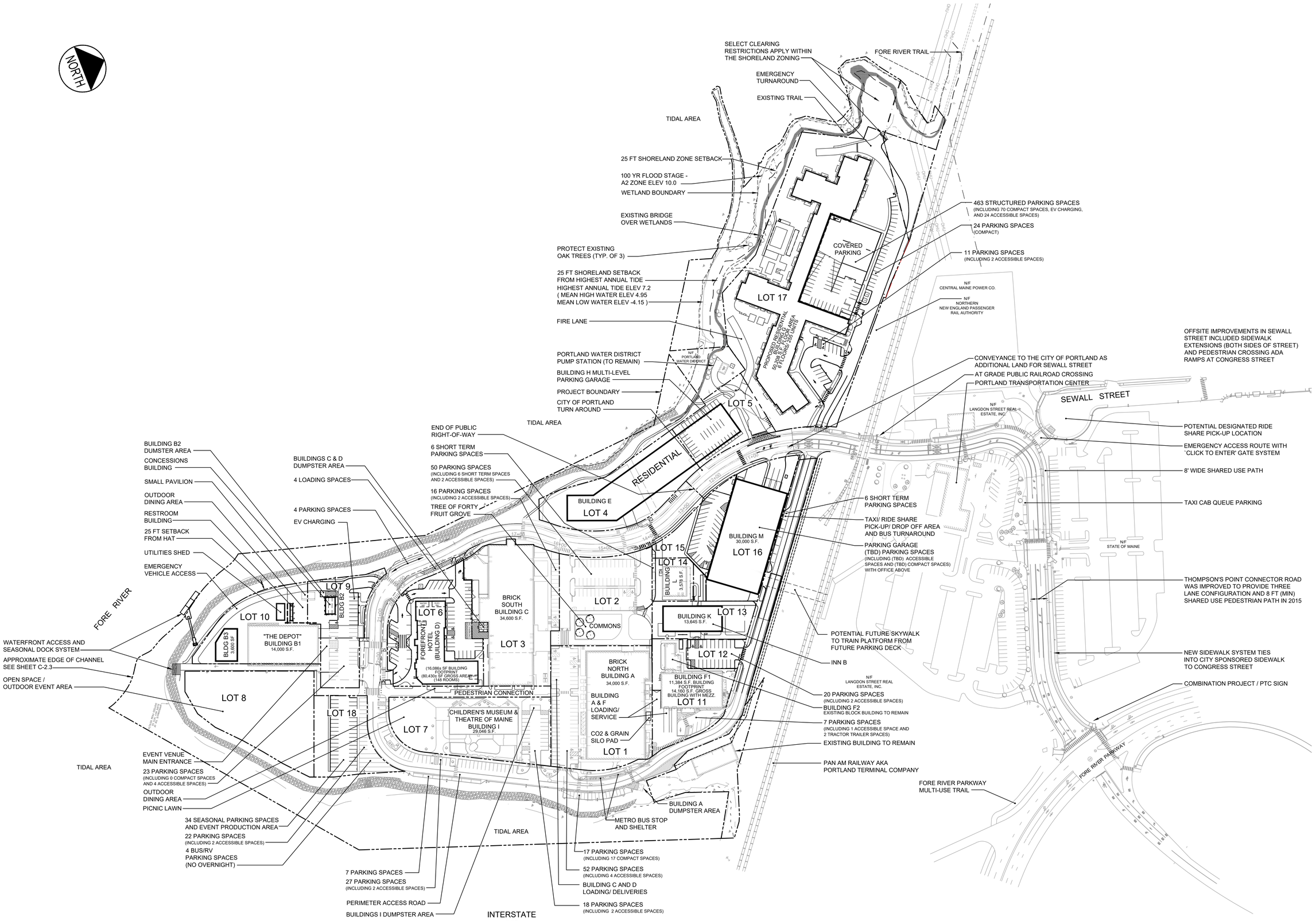
FIBER CEMENT CLADDING TYPE #1 & #2



CLADDING TYPE # 1 AT CORNER BALCONIES

DETAIL OF TYPICAL COURTYARD ELEVATIONS

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PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
3	9/06/2024	UPDATES TO BUILDINGS G SITE PLAN
2	7/07/2020	UPDATES TO BUILDINGS B2 & F
1	10/09/2019	UPDATES TO BUILDINGS F, K AND B

REVISIONS

STATE OF MAINE BO KENNEDY No. 11994 LICENSED PROFESSIONAL ENGINEER 9/6/2024

P.E. BO KENNEDY

LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT
MASTER PLAN

SHEET TITLE
OVERALL MASTER PLAN

CLIENT
FOREFRONT PARTNERS I, LP

PLACEMAKER PARTNERS, LLC
501 DANFORTH STREET
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN:	DB
DESIGNED:	BEK
FILE NAME:	MASTER_SITE LAYOUT.dwg
DATE:	MARCH 2018
SCALE:	1" = 80'
SHEET	C-3.0

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NORTH

SELECT CLEARING RESTRICTIONS APPLY WITHIN THE SHORELAND ZONING
FORE RIVER TRAIL
EMERGENCY TURNAROUND
EXISTING TRAIL
TIDAL AREA
25 FT SHORELAND ZONE SETBACK
100 YR FLOOD STAGE - A2 ZONE ELEV 10.0
WETLAND BOUNDARY
EXISTING BRIDGE OVER WETLANDS
PROTECT EXISTING OAK TREES (TYP. OF 3)
25 FT SHORELAND SETBACK FROM HIGHEST ANNUAL TIDE
HIGHEST ANNUAL TIDE ELEV 7.2
(MEAN HIGH WATER ELEV 4.95
MEAN LOW WATER ELEV -4.15)
FIRE LANE
PORTLAND WATER DISTRICT PUMP STATION (TO REMAIN)
BUILDING H MULTI-LEVEL PARKING GARAGE
PROJECT BOUNDARY
CITY OF PORTLAND TURN AROUND
TIDAL AREA
END OF PUBLIC RIGHT-OF-WAY
6 SHORT TERM PARKING SPACES
50 PARKING SPACES (INCLUDING 6 SHORT TERM SPACES AND 2 ACCESSIBLE SPACES)
16 PARKING SPACES (INCLUDING 2 ACCESSIBLE SPACES)
TREE OF FORTY FRUIT GROVE
BUILDINGS C & D DUMPSTER AREA
4 LOADING SPACES
4 PARKING SPACES
EV CHARGING
BUILDING B2 DUMSTER AREA
CONCESSIONS BUILDING
SMALL PAVILION
OUTDOOR DINING AREA
RESTROOM BUILDING
25 FT SETBACK FROM HAT
UTILITIES SHED
EMERGENCY VEHICLE ACCESS
WATERFRONT ACCESS AND SEASONAL DOCK SYSTEM
APPROXIMATE EDGE OF CHANNEL SEE SHEET C-2.3
OPEN SPACE / OUTDOOR EVENT AREA
TIDAL AREA
EVENT VENUE MAIN ENTRANCE
23 PARKING SPACES (INCLUDING 0 COMPACT SPACES AND 4 ACCESSIBLE SPACES)
OUTDOOR DINING AREA
PICNIC LAWN
34 SEASONAL PARKING SPACES AND EVENT PRODUCTION AREA
22 PARKING SPACES (INCLUDING 2 ACCESSIBLE SPACES)
4 BUS/RV PARKING SPACES (NO OVERNIGHT)
7 PARKING SPACES
27 PARKING SPACES (INCLUDING 2 ACCESSIBLE SPACES)
PERIMETER ACCESS ROAD
BUILDINGS I DUMPSTER AREA
INTERSTATE 295
TIDAL AREA
17 PARKING SPACES (INCLUDING 17 COMPACT SPACES)
52 PARKING SPACES (INCLUDING 4 ACCESSIBLE SPACES)
BUILDING C AND D LOADING/ DELIVERIES
18 PARKING SPACES (INCLUDING 2 ACCESSIBLE SPACES)
METRO BUS STOP AND SHELTER
BUILDING A DUMPSTER AREA
POTENTIAL FUTURE SKYWALK TO TRAIN PLATFORM FROM FUTURE PARKING DECK
INN B
20 PARKING SPACES (INCLUDING 2 ACCESSIBLE SPACES)
BUILDING F2 EXISTING BLOCK BUILDING TO REMAIN
7 PARKING SPACES (INCLUDING 1 ACCESSIBLE SPACE AND 2 TRACTOR TRAILER SPACES)
EXISTING BUILDING TO REMAIN
PAN AM RAILWAY AKA PORTLAND TERMINAL COMPANY
463 STRUCTURED PARKING SPACES (INCLUDING 70 COMPACT SPACES, EV CHARGING, AND 24 ACCESSIBLE SPACES)
24 PARKING SPACES (COMPACT)
11 PARKING SPACES (INCLUDING 2 ACCESSIBLE SPACES)
N/F CENTRAL MAINE POWER CO.
N/F NORTHERN NEW ENGLAND PASSENGER RAIL AUTHORITY
CONVEYANCE TO THE CITY OF PORTLAND AS ADDITIONAL LAND FOR SEWALL STREET
AT GRADE PUBLIC RAILROAD CROSSING
PORTLAND TRANSPORTATION CENTER
N/F LANGDON STREET REAL ESTATE, INC.
6 SHORT TERM PARKING SPACES
TAXI/ RIDE SHARE PICK-UP/ DROP OFF AREA AND BUS TURNAROUND
PARKING GARAGE (TBD) PARKING SPACES (INCLUDING (TBD) ACCESSIBLE SPACES AND (TBD) COMPACT SPACES) WITH OFFICE ABOVE
N/F LANGDON STREET REAL ESTATE, INC.
OFFSITE IMPROVEMENTS IN SEWALL STREET INCLUDED SIDEWALK EXTENSIONS (BOTH SIDES OF STREET) AND PEDESTRIAN CROSSING ADA RAMPS AT CONGRESS STREET
SEWALL STREET
POTENTIAL DESIGNATED RIDE SHARE PICK-UP LOCATION
EMERGENCY ACCESS ROUTE WITH 'CLICK TO ENTER' GATE SYSTEM
8' WIDE SHARED USE PATH
TAXI CAB QUEUE PARKING
N/F STATE OF MAINE
THOMPSON'S POINT CONNECTOR ROAD WAS IMPROVED TO PROVIDE THREE LANE CONFIGURATION AND 8 FT (MIN) SHARED USE PEDESTRIAN PATH IN 2015
NEW SIDEWALK SYSTEM TIES INTO CITY SPONSORED SIDEWALK TO CONGRESS STREET
COMBINATION PROJECT / PTC SIGN
FORE RIVER PARKWAY
FORE RIVER PARKWAY MULTI-USE TRAIL
FORE RIVER
PEDESTRIAN CONNECTION
COMMONS
BUILDING E LOT 4
BUILDING M 30,000 S.F. LOT 16
LOT 15
LOT 14
BUILDING L 3,575 S.F.
BUILDING K 13,645 S.F.
LOT 13
LOT 12
BUILDING F1 11,384 S.F. BUILDING FOOTPRINT 14,160 S.F. GROSS BUILDING WITH MEZZ.
LOT 11
LOT 2
LOT 3
LOT 1
LOT 5
LOT 6
LOT 7
LOT 8
LOT 9
LOT 10
LOT 17
LOT 18
BLDG J2 19,350 SF
BLDG J1 50,000 SF
COVERED PARKING
BLDG G 22,350 SF
PROPOSED BUILDING FOOTPRINT 50,298 S.F. RESIDENTIAL BUILDING AREA 6 FLOORS 120 UNITS
BRICK SOUTH BUILDING C 34,600 S.F.
BRICK NORTH BUILDING A 34,000 S.F.
BUILDING A & F LOADING/ SERVICE
CO2 & GRAIN SILO PAD
FOREFRONT HOTEL (BUILDING D)
(16,086± SF BUILDING FOOTPRINT (80,430± SF GROSS AREA) (148 ROOMS)
CHILDREN'S MUSEUM & THEATRE OF MAINE BUILDING I 29,046 S.F.
"THE DEPOT" BUILDING B1 14,000 S.F.
BLDG B3 2,600 S.F.
BLDG B2
RESIDENTIAL
N/F PORTLAND WATER DISTRICT
N/F LANGDON STREET REAL ESTATE, INC.
N/F STATE OF MAINE
LANGDON STREET REAL ESTATE, INC.

PRELIMINARY – NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
3	9/06/2024	UPDATES TO BUILDINGS G SITE PLAN
2	7/07/2020	UPDATES TO BUILDINGS B2 & F
1	10/09/2019	UPDATES TO BUILDINGS F, K AND B

REVISIONS

STATE OF MAINE BO KENNEDY No. 11994 LICENSED PROFESSIONAL ENGINEER 9/6/2024
P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT MASTER PLAN

SHEET TITLE
OVERALL MASTER PLAN

CLIENT
FOREFRONT PARTNERS I, LP

PLACEMAKER PARTNERS, LLC
501 DANFORTH STREET
PORTLAND, ME 04102
bo@placemakerpartners.com

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DESIGNED: BEK	SCALE: 1" = 80'
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SHEET C-3.0	

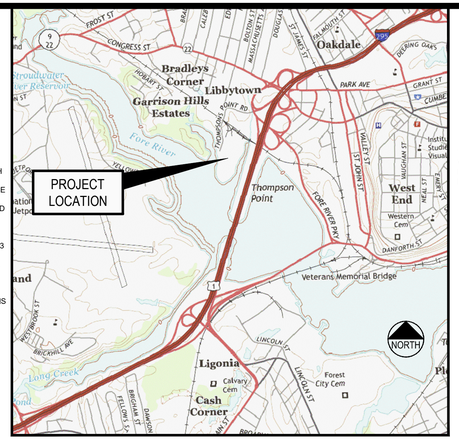
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PLAN NOTES:

1. OWNER OF RECORD - FOREFRONT PARTNERS I, LP 501 DANFORTH STREET PORTLAND, MAINE 04102 CCRD BOOK: 30781, PAGE: 282
   OWNER OF RECORD - LOT 1 FOREFRONT BRICK NORTH, LLC 501 DANFORTH STREET PORTLAND, MAINE 04102 CCRD BOOK: 32199, PAGE: 247
   OWNER OF RECORD - LOT 3 FOREFRONT BRICK SOUTH, LLC 501 DANFORTH STREET PORTLAND, MAINE 04102 CCRD BOOK: 33619, PAGE: 253
   OWNER OF RECORD - LOT 7 CHILDREN'S MUSEUM AND THEATRE OF MAINE 142 FREE STREET PORTLAND, MAINE 04101 CCRD BOOK: 34533, PAGE: 1
2. LOCUS IS SHOWN AS LOTS 5, 8 & 10 ON PORTLAND ASSESSOR'S MAP 201 AND LOTS 1 & 4, MAP 202.
3. BEARINGS ARE BASED ON GRID NORTH MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802, NAD83.
4. THIS SUBDIVISION PLAN IS PART OF A DEVELOPMENT PLAN SET FOR DEVELOPMENT OF LAND AT THOMPSON'S POINT. A DEVELOPMENT PLAN SET TITLED "THE FORE FRONT AT THOMPSON'S POINT" PREPARED BY FAY, SPOFFORD & THORNDIKE, INC. APPROVED BY THE PLANNING BOARD ON JANUARY 12, 2016. THE PLAN TITLED "CITY OF PORTLAND PLANNING BOARD SUBDIVISION APPROVAL FOR SECTIONAL RECORDING OF PHASE 1A" RECORDED ON MARCH 10, 2015 BOOK 215 PAGE 75 AT CCRD IS SUPERSEDED WITH THIS PLAN. SEE COMPLETE PLAN SET APPROVED JANUARY 12, 2016 FOR ALL PERTINENT EXISTING CONDITIONS, EXISTING AND PROPOSED ACTIVITIES, DRAINAGE SYSTEM AND PROPOSED IMPROVEMENTS.
5. SEE DECLARATION OF EASEMENTS, COVENANTS AND RESTRICTIONS AS DECLARED BY FOREFRONT PARTNERS I, LP AS DECLARANT AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS, IN 33608-1 AND AMENDED 37125-46; WHICH DECLARATION SETS FORTH THE PROTECTIVE COVENANTS, RESTRICTIONS, COMMON EASEMENTS AND THE ENFORCEMENT THEREOF, PROVIDES FOR INGRESS AND EGRESS ACCESS TO ALL OF THE LOTS IN THE SUBDIVISION AND A COMMON SCHEME OF THE MAINTENANCE AND IMPROVEMENT TO SAID COMMON AREA.
6. BOUNDARY AND TOPOGRAPHIC DATA PROVIDED BY SEBAGO TECHNICS, INC. AS SHOWN ON A PLAN TITLED "ALTA/ACSM LAND TITLE SURVEY OF 1 THOMPSON'S POINT", DATED MAY 27, 2011, NOVEMBER 23, 2011 AND LAST REVISED ON MAY 19, 2016.
7. VERTICAL DATUM BASED ON DRAWING PREPARED BY SEBAGO TECHNICS, INC. DATED MAY 27, 2011 AND LAST REVISED ON MAY 19, 2016. GENERAL NOTE 27 (NGVD 29).
8. CONVEYANCE TO MDOT AS ADDITIONAL LAND FOR SEWALL STREET PER MDOT FILE NO. 3-593 AND RECORDED IN BOOK 32803 PAGE 199 (SEWALL STREET EXTENSION PART I) AND BOOK 30781 PAGE 288 (SEWALL STREET EXTENSION PART II) AT CCRD AND SUBSEQUENTLY ACCEPTED BY THE CITY OF PORTLAND CITY COUNCIL AND RECORDED IN CCRD BOOK 37499 PAGE 240. THE CITY ACCEPTANCE OF A PUBLIC WAY IS REFERENCED AS: CITY COUNCIL ORDER 131-20/21.
9. REFER TO "SUBDIVISION PLAN EASEMENTS AND ENCUMBRANCES SHEET 2.0A" RECORDED IN CCRD (CCRD BOOK 223, PAGE 133).
10. "COMMON AREAS" ARE THE AREAS DEFINED AS SUCH IN THE DECLARATION OF EASEMENTS, COVENANTS AND RESTRICTIONS REFERRED TO IN NOTE 5 ABOVE, AND THE USE OF WHICH IS GOVERNED BY THE TERMS OF SAID DECLARATION.

SECTIONAL RECORDING NOTES:

1. THIS PLAN WAS APPROVED BY THE CITY OF PORTLAND PLANNING BOARD ON JANUARY 12, 2016, WITH AN AMENDMENT APPROVED BY THE CITY OF PORTLAND PLANNING AUTHORITY ON OCTOBER 19, 2017 AND MOST RECENTLY AMENDED ON SEPTEMBER 20, 2018. THIS PLAN IS INTENDED TO SUPPLEMENT THE PREVIOUSLY RECORDED "AMENDED SUBDIVISION PLAN - SECTIONAL 1 RECORDING PLAT" RECORDED ON NOVEMBER 21, 2018, BOOK 218, PAGE 501 OR SUBSEQUENT REVISION THERETO.
2. LOTS 1-5, 7, 10, 11-13 AND 17-19 HAVE BEEN PREVIOUSLY APPROVED (SEE SPECIAL CONDITIONS OF PLANNING BOARD APPROVAL NOTES ON THIS SHEET) AND SHOWN ON THIS PLAN FOR REFERENCE PURPOSES ONLY, BUT WILL NOT BE CREATED UNTIL A FUTURE SECTIONAL RECORDING PLAT.
3. FUTURE PHASE INFRASTRUCTURE OR OTHER WORK WILL REQUIRE A SEPARATE RECORDING PLAT AND POSTING OF A FURTHER PERFORMANCE GUARANTEE.



LOCATION MAP
N.T.S.

SPECIAL CONDITIONS OF PLANNING BOARD APPROVAL DATED JAN. 12, 2016

On January 12, 2016, the Planning Board considered a Level III Site Plan and Subdivision application for an amended subdivision plan consisting of 19 lots, an amended Site Location of Development Act approval, a Level III site plan for the renovation of an existing building (Brick South) for use as a flexible 2,500 person event/assembly space with associated parking, utilities and stormwater management within the 34,000 square foot building. Included in this site plan is coordination with a previous approval of Brick North and adjacent site work. Both the site plan and subdivision application are applications towards fulfillment of the previously approved Master Development Plan for this site. The Planning Board reviewed the proposal for conformance with the standards of the: Shoreland Zoning Regulations, Floodplain Management Regulations, Traffic Movement Permit, Subdivision Ordinance and Site Plan Ordinance, including the Site Development of Location Act. The Planning Board voted 5-0 (Elizabeth Boepple absent) to approve the application with the following waivers and condition(s) as presented below.

WAIVERS

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations, contained in the Planning Board Report for the public hearing on January 12, 2015 for applications #2015-133 and #2015-159 relevant to Portland's Technical and Design Standards and other regulations, and the testimony presented at the Planning Board hearing, the Planning Board voted 5-0 (Boepple absent) to waive the following Technical Manual standards regarding City street design:

1. 1. 7 .2.1, requiring a perpendicular driveway connection to the street, to allow for an alternative angle for the proposed Parking Garage Entrance (Lot 14/Building F 1).
2. 1.7.2.9, requiring that vehicular circulation to be contained off-site and to not utilize the adjacent street system, to allow for anticipated delivery truck maneuvers.
3. 10.8, requiring a minimum aggregate base course thickness of 3 inches for collector roads, to allow for alternative road design specifications as noted on Sheet C7-0 ..
4. Figure I-2 (Collector Street Cross-Section), requiring continuous sidewalks on both sides of the collector road to allow for sidewalk not to be built on an easterly portion of the road, as shown on the Site Layout Plan, sheet C-3.0, for the purposes of the Level III site plan (2015-159) subject to a condition of approval for completion of full sidewalk design as shown on Sheet C-3.0, *Overall Site Plan* is (2015-133) at a future phase.
5. Figure I-2 (Collector Street Cross-Section), requiring a minimum roadway width of 40 feet for collector roads, to allow for a variable width of 30-39 feet.
6. Figure 1-2 (Collector Street Cross-Section), requiring a minimum esplanade width of 5feet for collector roads, to allow for a 4ft wide esplanade.

SUBDIVISION REVIEW

The Planning Board voted 5-0 (Boepple absent) that the plan is in conformance with the subdivision standards of the Land Use Code and the Site Location of Development Act, subject to the following condition(s) of approval:

1. The applicant shall finalize the subdivision plat for review and approval by Corporation Counsel, the Department of Public Works, and the Planning Authority. The subdivision plats shall note all conditions of public access, all relevant easements including any for city vehicle access and turning, language regarding rights of lot ingress/egress/egress, and final street turnaround easement location and design in accordance with City of Portland Technical Manual section 1.3.
2. Prior to the issuance of certificates of occupancy, the applicant shall provide a revised Declaration of Easements, Covenants and Restrictions document for review and approval by Corporation Counsel;
3. Street Lighting: The proposed street lights on the 1st segment of the public portion of the Sewell Street extension are to be privately owned, metered and maintained by the Forefront at Thompson's Point. The City shall grant a license for such a purpose at the time of street acceptance.

SPECIAL CONDITIONS OF PLANNING AUTHORITY APPROVAL DATED JUNE 26, 2017

THE SECTIONAL 2 RECORDING PLAN WILL BE RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS PRIOR TO A CERTIFICATE OF OCCUPANCY PERMIT BEING ISSUED FOR NEW CONSTRUCTION ON LOT 7.

APPROVED LOT TO BE RECORDED UNDER SUBSEQUENT SECTIONAL RECORDING PLAT SEE SECTIONAL RECORDING NOTE 2

LAND TO BE RETAINED BY FOREFRONT PARTNERS I, LP. EXCLUDED FROM SUBDIVISION OF LAND FOR CONVEYANCE TO NNEPRA (0.028 AC)

LINE TABLE		
ID	LENGTH	DIRECTION
L200	45.94'	S71° 14' 38"E
L201	18.00'	N18° 45' 22"E
L202	133.17'	S71° 14' 38"E
L203	25.82'	N18° 43' 30"E
L204	108.01'	S71° 04' 04"E
L205	205.48'	S19° 05' 13"W
L206	13.00'	S19° 05' 13"W
L207	123.52'	N70° 54' 47"W
L211	15.26'	N99° 46' 00"W
L212	62.25'	S70° 54' 33"E
L213	103.66'	S15° 43' 23"W
L214	58.40'	S12° 23' 05"W
L215	45.58'	S19° 05' 13"W
L216	67.85'	S45° 39' 41"W
L217	51.35'	S50° 01' 16"W
L218	53.26'	S48° 02' 03"W
L219	70.16'	S45° 02' 19"W
L220	50.04'	S56° 40' 21"W
L221	58.03'	S79° 09' 24"W
L222	46.67'	N70° 54' 47"W
L223	293.39'	N19° 04' 39"E

LINE TABLE		
ID	LENGTH	DIRECTION
L224	56.07'	S70° 43' 32"E
L225	120.98'	N19° 14' 37"E
L226	13.34'	N89° 55' 04"E
L227	44.13'	S70° 43' 32"E
L228	11.00'	S19° 16' 28"W
L229	113.22'	S70° 43' 32"E
L230	88.00'	S19° 14' 37"W
L231	54.05'	N70° 43' 32"W
L232	90.51'	N70° 43' 32"W
L233	30.00'	S19° 16' 28"W
L234	96.46'	N70° 43' 32"W
L235	30.36'	N10° 27' 43"E
L236	102.57'	N12° 40' 14"E
L237	45.44'	N00° 04' 56"W
L238	88.06'	N26° 03' 09"E
L241	62.74'	N00° 49' 03"W
L242	23.87'	N26° 07' 33"W
L243	176.82'	N07° 10' 00"E
L244	185.06'	S70° 43' 32"E
L245	9.62'	S19° 05' 13"W
L208 THRU L210, L239 AND L240 NOT USED		

CURVE TABLE				
ID	RADIUS	LENGTH	DELTA	CHORD LENGTH / BEARING
C200	130.00'	158.84'	070° 00' 28"	149.14' / N35° 54' 33"W
C201	529.00'	81.82'	008° 51' 41"	81.73' / N05° 20' 09"W
C202	113.00'	149.73'	075° 55' 05"	139.01' / N71° 07' 41"E
C203	129.85'	118.20'	052° 09' 19"	114.16' / S44° 38' 52"E

REGISTRY BLOCK

STATE OF MAINE

CUMBERLAND COUNTY REGISTRY OF DEEDS

RECEIVED _____, 20_____

AT _____h _____m _____M. AND RECORDED IN

PLAN BOOK _____PAGE _____

ATTEST _____REGISTRAR

LOT ID	AREA (SF)	AREA (AC)
COMMON AREA	463,482	10.64
RETAINED LAND TO BE SUBDIVIDED AT A LATER DATE (FUTURE LOTS 17-19)	203,626	4.67
RETAINED LAND TO BE SUBDIVIDED AT A LATER DATE (PORTIONS OF FUTURE LOTS 11-16)	7,620	0.17
1	63,335	1.45
2	44,355	1.02
3	58,807	1.35
4	41,410	0.95
5	24,240	0.56
7	48,958	1.12
10	38,373	0.88
SECTION 1 SUB TOTAL	319,478	7.33
6	48,762	1.12
8	48,307	1.11
9	28,397	0.65
18	24,731	0.57
SECTION 2 SUB TOTAL	150,196	3.45
TOTAL	1,144,402	26.27
RETAINED LAND CONVEYED TO NNEPRA (CCRD BK 33910 PG 328)	30,092	0.69

SECTIONAL RECORDING 1 PREVIOUSLY RECORDED

SECTIONAL RECORDING 2 RECORDED ON THIS PLAN

CITY OF PORTLAND PLANNING AUTHORITY AMENDMENT TO CITY OF PORTLAND PLANNING BOARD SUBDIVISION APPROVAL FOR SECTIONAL 2 RECORDING PLAT AS RECORDED ON JUNE 27, 2023 IN PLAN BK 223, PG 190

DIRECTOR _____ DATE _____

LEGEND

- LIMIT OF UTILITY INFRASTRUCTURE IMPROVEMENTS INCLUDED WITH SECTIONAL RECORDING
- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE (PART OF SECTIONAL 2 RECORDING)
- PROPOSED PROPERTY LINE (PART OF FUTURE SECTIONAL RECORDING)
- PROPOSED EASEMENT LINE
- EXISTING EASEMENT LINE
- 25' SETBACK FROM HIGHEST ANNUAL TIDE ELEVATION 7.4
- PIN TO BE SET

SURVEYOR'S STATEMENT

THIS SURVEY WAS PERFORMED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT WAS DONE IN ACCORDANCE WITH CHAPTER 90, PART 1 (PROFESSIONAL STANDARDS OF PRACTICE) AND PART 2 (TECHNICAL STANDARDS OF PRACTICE) OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS.

THE SEALING OF THIS PLAN BY SEBAGO TECHNICS, INC. IS FOR THE EXTERNAL BOUNDARIES AND THE REVIEW OF THE INTERNAL BOUNDARIES AS DEPICTED HEREON ONLY.

MONUMENTS DEPICTED HEREON ARE PROPOSED TO BE SET, NO MONUMENTATION HAS BEEN SET AT THIS TIME.

CHRISTOPHER D. LAMOTTE, MAINE PLS 2591 DATE

CHRISTOPHER D. LAMOTTE
MAINE PLS 2591

REV	DATE	DESCRIPTION
10	08.09.2024	DIVIDED LOT 8 AS PART OF LOT 17-19 CONSOLIDATION
9	06.16.2023	DEMINIMIS CHANGE TO LINE TABLE
8	11.21.2022	REVISED LOT 6
7	03.19.2020	MINOR REVISIONS TO LOTS 8-16 TO REFLECT SITE PLAN APPLICATION
6	06.28.18	REVISED PER INTERNAL REVIEW
5	05.31.18	AMENDED SUBDIVISION PLAT FOR CHANGES TO SUBURBAN
4	05.04.17	AMENDED SUBDIVISION SUBMISSION TO CITY
3	09.16.16	FINAL SUBDIVISION PLANS
2	11.09.15	FINAL PLANS REVISED PER CITY COMMENTS
1	08.13.15	FINAL SUBDIVISION APPLICATION SUBMISSION

REVISIONS

STATE OF MAINE · BO KENNEDY · No. 11994 · LICENSED PROFESSIONAL ENGINEER · 06.16.2023

P.E. BO KENNEDY
LIC. #11994

PROJECT: THOMPSON'S POINT ROAD PORTLAND, MAINE 04101 THE FOREFRONT AT THOMPSON'S POINT

SHEET TITLE: 2ND AMENDED SUBDIVISION PLAN SECTIONAL 2 RECORDING PLAT

OWNER: FOREFRONT PARTNERS I, LP 501 DANFORTH ST, PORTLAND, MAINE 04101

PLACEMAKER PARTNERS, LLC
501 DANFORTH STREET
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN:	DB	DATE:	MAY 2018
DESIGNED:	BEK	SCALE:	AS NOTED
CHECKED:	BEK	JOB NO.	195350044
FILE NAME:	2982.05-SUB SUBDIVISION SECTIONALS		
SHEET	C-2.2		

C:\Users\diana\Dropbox\DCS-Projects\Placemaker\Thompson's Point\Subdivision - Master Plan\Plans\Site Plan\CAD\2982.05-SUB SUBDIVISION SECTIONALS.dwg diana 9/6/2024 8:39 AM

PLAN NOTES:

1. OWNER OF RECORD:
FOREFRONT PARTNERS I, LP
501 DANFORTH STREET
PORTLAND, MAINE 04102
CCRD BOOK: 30781, PAGE: 282

OWNER OF RECORD - LOT 1
FOREFRONT BRICK NORTH, LLC
501 DANFORTH STREET
PORTLAND, MAINE 04102
CCRD BOOK: 32199, PAGE: 247

OWNER OF RECORD - LOT 3
FOREFRONT BRICK SOUTH, LLC
501 DANFORTH STREET
PORTLAND, MAINE 04102
CCRD BOOK: 33619, PAGE: 253

OWNER OF RECORD - LOT 7
CHILDREN'S MUSEUM AND THEATRE OF MAINE
142 FREE STREET
PORTLAND, MAINE 04101
CCRD BOOK: 34533, PAGE: 1

OWNER OF RECORD - LOT 6
PORTLAND POINT HOTEL, LLC
10 CABOT ROAD, SUITE 209
MEDFORD, MA.

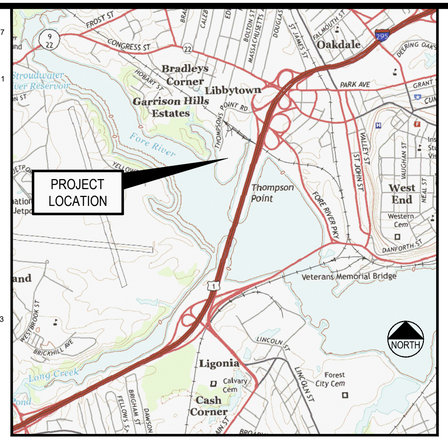
OWNER OF RECORD - LOT 9,10
FOREFRONT POINT, LLC
18 VAN AKEN WAY
PORTLAND, MAINE 04102

OWNER OF RECORD - LOT 11
FOREFRONT COMMONS WAREHOUSE, LLC
18 VAN AKEN WAY
PORTLAND, MAINE 04102

2. LOCUS IS SHOWN AS LOTS 5, 8 & 10 ON PORTLAND ASSESSOR'S MAP 201 AND LOTS 1 & 4, MAP 202.
3. BEARINGS ARE BASED ON GRID NORTH MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802, NAD83.
4. THIS SUBDIVISION PLAN IS PART OF A DEVELOPMENT PLAN SET FOR DEVELOPMENT OF LAND AT THOMPSON'S POINT. A DEVELOPMENT PLAN SET TITLED "THE FORE FRONT AT THOMPSON'S POINT" PREPARED BY FAY, SPOFFORD & THORNDIKE, INC. APPROVED BY THE PLANNING BOARD ON JANUARY 12, 2016. THE PLAN TITLED "CITY OF PORTLAND PLANNING BOARD SUBDIVISION APPROVAL FOR SECTIONAL RECORDING OF PHASE 1A" RECORDED ON MARCH 10, 2015 BOOK 215 PAGE 75 AT CCRD IS SUPERSEDED WITH THIS PLAN. SEE COMPLETE PLAN SET APPROVED JANUARY 12, 2016 FOR ALL PERTINENT EXISTING CONDITIONS, EXISTING AND PROPOSED ACTIVITIES, DRAINAGE SYSTEM AND PROPOSED IMPROVEMENTS.
5. SEE DECLARATION OF EASEMENTS, COVENANTS AND RESTRICTIONS AS DECLARED BY FOREFRONT PARTNERS I, LP AS DECLARANT AND TO BE RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS, AND DATED OF NEAR OR EVEN DATE TO THE RECORDING OF THIS SECTIONAL 1 RECORDING PLAT; WHICH DECLARATION SETS FORTH THE PROTECTIVE COVENANTS, RESTRICTIONS, COMMON EASEMENTS AND THE ENFORCEMENT THEREOF. PROVIDES FOR INGRESS AND EGRESS ACCESS TO ALL OF THE LOTS IN THE SUBDIVISION AND A COMMON SCHEME OF THE MAINTENANCE AND IMPROVEMENT TO SAID COMMON AREA.
6. BOUNDARY AND TOPOGRAPHIC DATA PROVIDED BY SEBAGO TECHNICS, INC. AS SHOWN ON A PLAN TITLED "ALTA/ACSM LAND TITLE SURVEY OF 1 THOMPSON'S POINT", DATED MAY 27, 2011, NOVEMBER 23, 2011 AND LAST REVISED ON MAY 19, 2016.
7. VERTICAL DATUM BASED ON DRAWING PREPARED BY SEBAGO TECHNICS, INC. DATED MAY 27, 2011 AND LAST REVISED ON MAY 19, 2016. GENERAL NOTE 27 (NGVD 29).
8. CONVEYANCE TO MDOT AS ADDITIONAL LAND FOR SEWALL STREET PER MDOT FILE NO. 3-593 AND RECORDED IN BOOK 32803 PAGE 199 (SEWALL STREET EXTENSION PART **I**) AND BOOK 30781 PAGE 288 (SEWALL STREET EXTENSION PART **II**) AT CCRD AND SUBSEQUENTLY ACCEPTED BY THE CITY OF PORTLAND CITY COUNCIL AND RECORDED IN CCRD BOOK 37499 PAGE 240. THE CITY ACCEPTANCE OF A PUBLIC WAY IS REFERENCED AS: CITY COUNCIL ORDER 131-20/21.
9. REFER TO "SUBDIVISION PLAN EASEMENTS AND ENCUMBRANCES SHEET 2.0A" RECORDED IN CCRD (CCRD BOOK 223, PAGE 133).
10. "COMMON AREAS" ARE THE AREAS DEFINED AS SUCH IN THE DECLARATION OF EASEMENTS, COVENANTS AND RESTRICTIONS REFERRED TO IN NOTE 5 ABOVE, AND THE USE OF WHICH IS GOVERNED BY THE TERMS OF SAID DECLARATION.

SECTIONAL RECORDING NOTES:

1. THIS PLAN WAS APPROVED BY THE CITY OF PORTLAND PLANNING BOARD ON JANUARY 12, 2016. THIS PLAN IS INTENDED TO SUPPLEMENT THE PREVIOUSLY RECORDED SUBDIVISION PLAN - SECTIONAL 1 RECORDING PLAT, SUBDIVISION PLAN - SECTIONAL 2 RECORDING PLAT AND SUBDIVISION PLAN - SECTIONAL 3 RECORDING PLAT.



LOCATION MAP
N.T.S.

SPECIAL CONDITIONS OF PLANNING BOARD APPROVAL DATED JAN. 12, 2016

On January 12, 2016, the Planning Board considered a Level III Site Plan and Subdivision application for an amended subdivision plan consisting of 19 lots, an amended Site Location of Development Act approval, a Level III site plan for the renovation of an existing building (Brick South) for use as a flexible 2,500 person event/assembly space with associated parking, utilities and stormwater management within the 34,000 square foot building. Included in this site plan is coordination with a previous approval of Brick North and adjacent site work. Both the site plan and subdivision application are applications towards fulfillment of the previously approved Master Development Plan for this site. The Planning Board reviewed the proposal for conformance with the standards of the: Shoreland Zoning Regulations, Floodplain Management Regulations, Traffic Movement Permit, Subdivision Ordinance and Site Plan Ordinance, including the Site Development of Location Act. The Planning Board voted 5-0 (Elizabeth Boepple absent) to approve the application with the following waivers and condition(s) as presented below.

WAIVERS

On the basis of the application, plans, reports and other information submitted by the applicant, findings and recommendations, contained in the Planning Board Report for the public hearing on January 12, 2015 for applications #2015-133 and #2015-159 relevant to Portland's Technical and Design Standards and other regulations, and the testimony presented at the Planning Board hearing, the Planning Board voted 5-0 (Boepple absent) to waive the following Technical Manual standards regarding City street design:

1. 1. 7 .2.1, requiring a perpendicular driveway connection to the street, to allow for an alternative angle for the proposed Parking Garage Entrance (Lot 14/Building F 1).
2. 1.7.2.9, requiring that vehicular circulation to be contained off-site and to not utilize the adjacent street system, to allow for anticipated delivery truck maneuvers.
3. 10 .8, requiring a minimum aggregate base course thickness of 3 inches for collector roads, to allow for alternative road design specifications as noted on Sheet C7-0 ..
4. Figure I-2 (Collector Street Cross-Section), requiring continuous sidewalks on both sides of the collector road to allow for sidewalk not to be built on an easterly portion of the road, as shown on the Site Layout Plan, sheet C-3.0, for the purposes of the Level III site plan (2015-159) subject to a condition of approval for completion of full sidewalk design as shown on Sheet C-3.0, *Overall Site Plan* is (2015-133) at a future phase.
5. Figure I-2 (Collector Street Cross-Section), requiring a minimum roadway width of 40 feet for collector roads, to allow for a variable width of 30-39 feet.
6. Figure 1-2 (Collector Street Cross-Section), requiring a minimum esplanade width of 5feet for collector roads, to allow for a 4ft wide esplanade.

SUBDIVISION REVIEW

The Planning Board voted 5-0 (Boepple absent) that the plan is in conformance with the subdivision standards of the Land Use Code and the Site Location of Development Act, subject to the following condition(s) of approval:

1. The applicant shall finalize the subdivision plat for review and approval by Corporation Counsel, the Department of Public Works, and the Planning Authority. The subdivision plats shall note all conditions of public access, all relevant easements including any for city vehicle access and turning, language regarding rights of lot ingress/egress/regress, and final street turnaround easement location and design in accordance with City of Portland Technical Manual section 1.3.
2. Prior to the issuance of certificates of occupancy, the applicant shall provide a revised Declaration of Easements, Covenants and Restrictions document for review and approval by Corporation Counsel;
3. Street Lighting: The proposed street lights on the 1st segment of the public portion of the Sewell Street extension are to be privately owned, metered and maintained by the Forefront at Thompson's Point. The City shall grant a license for such a purpose at the time of street acceptance.

LINE TABLE		
ID	LENGTH	DIRECTION
L401	155.37'	S77° 58' 14"W
L402	13.27'	N16° 30' 59"W
L403	69.31'	S73° 29' 01"W
L404	118.99'	N76° 31' 09"W
L405	115.04'	N29° 39' 20"W
L406	298.32'	N50° 10' 32"W
L407	132.36'	N25° 39' 32"E
L408	36.86'	N50° 55' 09"W
L409	171.51'	N37° 58' 14"E
L410	217.81'	S54° 29' 34"E
L411	109.87'	S47° 24' 13"E
L412	33.52'	S52° 01' 46"E
L413	5.00'	S35° 30' 26"W
L414	297.80'	S50° 39' 19"E
L415	16.01'	S54° 25' 45"E

CURVE TABLE				
ID	RADIUS	LENGTH	DELTA	CHORD LENGTH / BEARING
C400	401.96'	128.17'	018° 16' 13"	127.63' / S15° 20' 31"W
C401	390.00'	10.51'	001° 32' 38"	10.51' / N08° 34' 34"E

REGISTRY BLOCK

STATE OF MAINE
CUMBERLAND COUNTY REGISTRY OF DEEDS
RECEIVED _____, 20_____
AT _____h _____m _____M. AND RECORDED IN
PLAN BOOK _____PAGE _____
ATTEST _____REGISTRAR

	LOT ID	AREA (SF)	AREA (AC)
2	COMMON AREA	502,635	11.54
SECTIONAL RECORDING 1 PREVIOUSLY RECORDED	1	63,335	1.45
	2	44,355	1.02
	3	58,807	1.35
	4	41,410	0.95
	5	24,240	0.56
	7	48,958	1.12
	10	38372.8359	0.88
1	SECTION 1 SUB TOTAL	319,478	7.33
SECTIONAL RECORDING 2 PREVIOUSLY RECORDED	6	48,762	1.12
	8	48,307	1.11
	9	28,397	0.65
	18	24,731	0.57
	SECTION 2 SUB TOTAL	150,196	3.45
SECTIONAL RECORDING 3 PREVIOUSLY RECORDED	11	32,771	0.75
	12	27,630	0.63
	13	9,246	0.21
	14	14,914	0.34
	15	14,734	0.34
	16	21,986	0.50
	SECTION 3 SUB TOTAL	121,281	2.78
SECTIONAL RECORDING 4 RECORDED ON THIS PLAN	17	203,610	4.67
	SECTION 4 SUB TOTAL	203,610	4.67
	TOTAL	1,297,201	29.78

CITY OF PORTLAND PLANNING AUTHORITY AMENDMENT TO CITY OF PORTLAND PLANNING BOARD SUBDIVISION APPROVAL FOR SECTIONAL 4 RECORDING PLAT

DIRECTOR _____ DATE _____

LEGEND

- LIMIT OF UTILITY INFRASTRUCTURE IMPROVEMENTS INCLUDED WITH SECTIONAL RECORDING
- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE (PART OF SECTIONAL 4 RECORDING)
- PROPOSED EASEMENT LINE
- EXISTING EASEMENT LINE
- 25' SETBACK FROM HIGHEST ANNUAL TIDE ELEVATION 7.4
- PIN TO BE SET

SURVEYOR'S STATEMENT

THIS SURVEY WAS PERFORMED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT WAS DONE IN ACCORDANCE WITH CHAPTER 90, PART 1 (PROFESSIONAL STANDARDS OF PRACTICE) AND PART 2 (TECHNICAL STANDARDS OF PRACTICE) OF THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS.

THE SEALING OF THIS PLAN BY SEBAGO TECHNICS, INC. IS FOR THE EXTERNAL BOUNDARIES AND THE REVIEW OF THE INTERNAL BOUNDARIES AS DEPICTED HEREON ONLY.

MONUMENTS DEPICTED HEREON ARE PROPOSED TO BE SET, NO MONUMENTATION HAS BEEN SET AT THIS TIME.

CHRISTOPHER D. LAMOTTE, MAINE PLS 2591 DATE

CHRISTOPHER D. LAMOTTE
MAINE PLS 2591

REV	DATE	DESCRIPTION
8	08.09.2024	CONSOLIDATED LOTS 17 THROUGH 19
2	03.19.2020	MINOR REVISIONS TO LOTS 8-16 TO REFLECT SITE PLAN APPLICATION
6	06.28.18	REVISED PER INTERNAL REVIEW
5	05.31.18	AMENDED SUBDIVISION PLAT FOR CHANGES TO SUBURBAN
3	09.16.16	FINAL SUBDIVISION PLANS
2	11.09.15	FINAL PLANS REVISED PER CITY COMMENTS
1	08.13.15	FINAL SUBDIVISION APPLICATION SUBMISSION

REVISIONS

STATE OF MAINE BO KENNEDY No. 11994 LICENSED PROFESSIONAL ENGINEER
03.19.2020
P.E. BO KENNEDY
LIC. #11994

PROJECT
THE FOREFRONT AT THOMPSON'S POINT

SHEET TITLE
AMENDED SUBDIVISION PLAN SECTIONAL 4 RECORDING PLAT

OWNER
FOREFRONT PARTNERS I, LP
501 DANFORTH ST, PORTLAND, MAINE 04101

PLACEMAKER PARTNERS, LLC
501 DANFORTH STREET
PORTLAND, ME 04102
bo@placemakerpartners.com

DRAWN:	DB	DATE:	MAY 2018
DESIGNED:	BEK	SCALE:	AS NOTED
CHECKED:	BEK	JOB NO.	195350044
FILE NAME:	2982.05-SUB SUBDIVISION		
SHEET	C-2.4		

C:\Users\diana\Dropbox\DCS-Projects\Placemaker\Thompson's Point\Subdivision - Master Plan\Plans\Site Plan\CAD\2982.05-SUB SUBDIVISION SECTIONALS.dwg diana 9/6/2024 8:36 AM

NOTES:

1. BASE IMAGE AND ZONE AE LIMIT ARE FROM FEMA 2023 PUBLICATION PANEL 23005C0693. GIS DATA IS PROJECTED INTO PROJECT FILE COORDINATE SYSTEM.

2. FEMA 100 YEAR FLOOD ELEVATION AE AS PUBLISHED IN 2023 IS NOTED TO BE ELEVATION 9 FEET, NAVD 1988 VERTICAL DATUM. THESE PLANS ARE BASED ON VERTICAL DATUM NGVD 1929. ELEVATION 9 FEET CONVERTS TO 9.71 FEET. THIS LINE HAS BEEN PROJECTED FROM THE EXISTING TOPOGRAPHIC INFORMATION PREPARED BY SEBAGO TECHNICS SURVEY AS NOTED IN NOTE 1.

NORTH

RAILROAD

PROPOSED PROJECT BOUNDARY

PROPOSED PARKING GARAGE
25,943 S.F. FLOOR AREA
(6 FLOORS)
(463 PARKING SPACES)

PROPOSED RESIDENTIAL BUILDING G
50,208 S.F. FLOOR AREA
6 FLOORS/ 255 UNITS

FLOOD ZONE AE
(EL. 9.71 - NGVD 29)
(SEE NOTE 2)

ZONE AE
(EL 9)

THOMPS
POINT R

100 0 50 100 200
1 inch = 100' ft.

PLACEMAKER PARTNERS, LLC 18 VAN AKEN WAY PORTLAND, ME 04102 bo@placemakerpartners.com	DRAWN: DB DESIGNED: BEK CHECKED: BEK	DATE: 2.04.2025 SCALE: 1" = 100'	THE FOREFRONT AT THOMPSON'S POINT MULTI-FAMILY RESIDENTIAL BUILDING (G)	FEMA FLOOD PLAN MAP	EXHIBIT NO.: A


RAIL
CROSSING
ROAD
RAIL
CROSSING
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2
TRACKS
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DO NOT
STOP
ON
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mpsons Point


CONCORD
COACH LINES



716 Stevens Avenue
Institutional Overlay Zone, Zone Map and Text Amendment
ZN-003059-2024
University of New England

Submitted to:	Portland Planning Board	**Prepared By:**	Natasha Kypfer
Public Hearing Date:	February 25, 2025	**Date:**	February 21, 2025

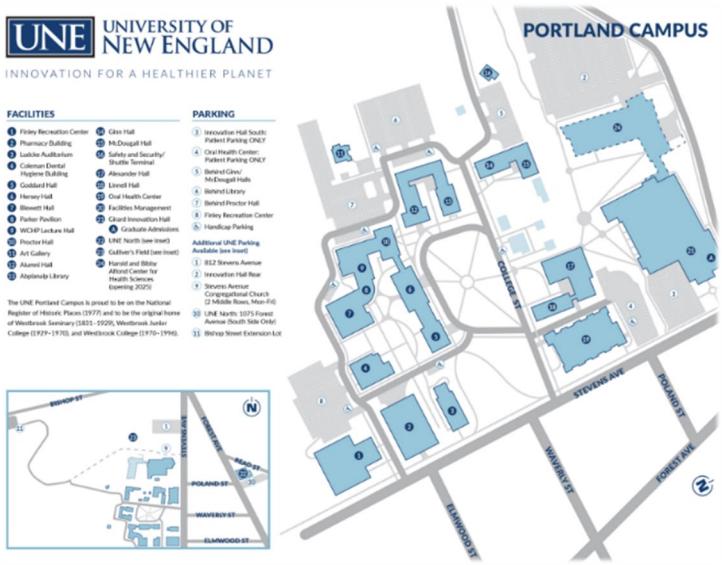


Figure 1: Image of the UNE Portland campus map, provided by the applicant.

I. INTRODUCTION

The University of New England (UNE) has submitted a zoning map and text amendment application to establish an Institutional Overlay Zone (IOZ) for UNE's Portland Campus and to rezone the campus from a mixture of residential (RN-1 and RN-3), commercial (B-2), and industrial (I-M and I-H) zones, to B-2 Community Business, with certain environmentally sensitive areas being proposed as OS-P Open Space. This application is intended to establish zoning regulations that are conducive to the University's long-term development plans and would allow for on-campus housing, academic buildings, and athletic facilities.

In the process of designating the IOZ, the Planning Board is tasked with reviewing the proposal and its associated components, including: 1) the Institutional Development Plan (IDP), a proactive planning document utilized to guide the anticipated growth for the institution and inform the Regulatory Framework, and 2) the Regulatory Framework, which establishes zoning requirements intended to facilitate future growth as outlined in the IDP. The Planning Board reviews these documents for consistency against the standards found within Section 8.5 of the Land Use Code, ultimately resulting in a recommendation to the City Council to adopt the IOZ boundaries and the Regulatory Framework.

Review of the UNE IOZ has spanned across multiple Planning Board workshops. The first Planning Board workshop on this item, which was held on November 12, 2024, served as an initial introduction to the project and the IOZ process. The second Planning Board workshop, which was held on January 28, 2025, focused on the proposed Regulatory Framework language and the proposed rezoning of the campus to B-2 Community Business and OS-P

Open Space. This report is intended to summarize the application's consistency with the applicable review standards for an institutional overlay zone, listed under Section 8.3.4.D and 8.3.5.E in the Land Use Code, and with *Portland's Plan 2030*.

The Planning and Urban Development Department mailed 191 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the February 13, 2025 and the February 14, 2025 editions of the *Portland Press Herald*.

Applicant: University of New England, Alan Thibeault

Representatives: Woodard & Curran, Caitlin Suhr
Bernstein Shur, Mary Costigan
Sewall Infrastructure, Diane Morabito

II. THE PURPOSE AND COMPONENTS OF AN IOZ

Section 8.5.1 of the Land Use Code describes the Institutional Overlay Zone (IOZ) as a regulatory mechanism, available solely to the five major medical and higher educational institutions within Portland, wherein an improved regulatory structure can be sought in order to facilitate a consistent, predictable, and clear growth management process. The five institutions are: Maine Medical Center, Mercy Hospital, the University of Southern Maine, the University of New England, and The Roux Institute at Northeastern University. Maine Med piloted the first IOZ back in 2017, with Roux following suit in 2022, therefore making UNE the third institution to pursue an IOZ.

The Land Use Code requires the following three components as part of the IOZ submission:

- The *Institutional Development Plan* (*IDP*) serves as a background document, or comprehensive plan, which is developed specifically by the eligible institution and is intended to guide development over the life cycle of the plan through its short-, medium-, and long-term growth. The IDP is intended to function as a stand-alone document and is envisioned as a fundamental component of the IOZ itself. The IDP would be approved by the Planning Board and is subject to meeting the content and review standards listed under Section 8.5.4, C&D.

- The *Regulatory Framework*, establishes supplemental zoning and land-use regulations, specific to the institution, that are directly informed by the IDP, and which are intended to allow for orderly growth and manage off-site impacts. The regulatory framework is first considered by the Planning Board, which makes a recommendation to the City Council around its adoption. If adopted by the Council, the regulatory framework would be added directly into the Land Use Code.

- The *IOZ Zoning Map* depicts the boundaries of an institution's IOZ, and is a geographic element intended as an amendment to the City's official zoning map. As with the regulatory framework, the IOZ map would require City Council adoption, following a recommendation by the Planning Board.

III. PROJECT SITE DATA

Property Size	72± acres
Property Address	716 Stevens Avenue
Existing Zoning	R-3, R-5, B-2, I-M, and I-H
Existing Use	UNE Portland Campus

Proposed Zoning	B-2, Community Business OS-P, Open Space Preservation

IV. BACKGROUND AND EXISITING CONDITIONS

The University of New England is Maine's largest private university, with campuses here in Portland, in Biddeford, in Tangier, Morocco, as well as online. The IOZ application is exclusively for the Portland campus. Beginning as the Westbrook Seminary in 1831, today the campus occupies a roughly 72-acre site (see Figure 2), situated within the Deering Center neighborhood. UNE's campus includes the College of Dental Medicine, the Westbrook College of Health Professions, the College of Graduate and Professional Studies, Innovation Hall, and other fixtures like the Oral Health Center and Dental Hygiene Center clinics, and the UNE Art Gallery and Maine Women Writers Collection.

UNE's Portland campus is comprised of 25 separate buildings, 11 off-street parking areas, extensive forested open space areas, and other campus green spaces. The campus is centered around a historic campus core; the locally designated Westbrook College Historic District, which occupies the southeastern corner of the campus and includes several historic academic buildings organized around a campus quad. With regard to the surrounding campus context, Warren Avenue, Bishop Street Extension, and Bishop Street are to the north; Stevens Avenue is to the east; and the Evergreen Cemetery and Central Maine Power Utility Corridor are positioned to the south. Within the campus are several privately-owned residential properties that are situated along College Street (see Figure 1). Additionally, three UNE-owned parcels are located proximate to the campus proper but not directly on-site, with these being the properties at 1075 Forest Avenue, 798 Stevens Avenue, and 812 Stevens Avenue.

Prior to this application, the University had submitted a separate application (ZN-001549-2021) with the same aim of establishing an IOZ for UNE's Portland Campus. UNE worked closely with City staff and other stakeholders to develop a draft IDP and Regulatory Framework, and came before the Planning Board for a single workshop, which was held on January 25, 2022. This application was ultimately withdrawn, as the University prioritized the permitting of the Center for Health Sciences, Application PL-002017-2022, which was approved by the Planning Board on September 27, 2022.

V. REVIEW OF ZONE CHANGE TO B-2 AND OS-P

This application requests that the City rezone UNE's campus from RN-1, RN-3, B-2, I-M, and I-H to a combination of B-2 Community Business and OS-P Open Space Preservation, in order to create a more uniform underlying zoning framework for the university. As detailed in the application, the B-2 zone permits post-secondary schools by-right (definition included below), with this use being conditional in the RN-3, and not permitted within the other zones found within the campus. Rezoning the campus to B-2 would permit a range of activities and uses across the entire UNE Portland campus and would provide a more predictable permitting pathway for the University to grow as outlined in their draft IDP.

> Post-secondary school Definition
> A Post-secondary school is: *A facility for postsecondary higher learning that grants associate or bachelor's degrees. The institution may also have research facilities and/or professional schools that grant master and doctoral degrees. Post-secondary schools may also include additional uses as part of the principal use, such as dormitories, cafeterias, restaurants, retail sales, indoor or outdoor recreational facilities, preschool facilities, and similar uses.*

In examination of the zoning context, UNE is located just south of Morrill's Corner, which is anchored by a cluster of properties zoned TOD-1 Transit Neighborhood zone, which allows a diverse array of uses, and permits higher intensity development, to support high-frequency transit activity in this location. South of Morrill's Corner along Steven's Avenue, the zoning transitions from TOD-1 to B-2 Community Business, with various commercial, institutional (including outparcels owned and operated by UNE), and residential uses. Immediately across from UNE's campus is a large parcel zoned RN-5, which is the site of Park Danforth; a large-scale senior assisted living facility. The zoning then transitions to RN-3 along the east side of Stevens Avenue as one moves towards Deering Center, and these properties feature a mixture of small- and mid-scale residential development, a childcare facility (The Children's Center), a private school (St. Brigid School) and St. Joseph's Catholic Church. Beyond these properties, the zoning again transitions to B-1 Neighborhood Business and RN-5 at the site of the former St. Joseph's Convent, which has since been converted into age-restricted housing with additional on-site amenities and other commercial leased space. Along the west side of Steven's Avenue, property is predominantly zoned OS-R, which encompasses Evergreen Cemetery.

As stated above, the applicant is requesting that the UNE Portland Campus be rezoned to B-2 Community Business and OS-P Open Space Preservation. The purpose statements for these two zones are provided below.

> B-2 Purpose Statement
> The purpose of the B-2 zone is: *To provide locations for a mixture of commercial, service, and residential uses in a comfortable pedestrian environment that is easily accessible and well-connected to surrounding neighborhoods. Such a mixture may serve the daily needs of nearby residents within walking distance, as well as surrounding neighborhoods via multiple modes of transportation. The zone provides a broad range of goods and services with a mixture of large and small buildings, such as grocery stores, shops and services located in shopping centers and along arterial streets. The B-2 zone's multi-modal orientation accommodates all modes of transportation, and the standards of the zone require that development relate to surrounding neighborhoods by design, orientation, and circulation patterns. The zone encourages mixed-use development, and provides locations for moderate to high-density housing, including three-family, four-family, townhouse, and multi-family structures in urban neighborhoods along arterials.*

> OS-P Purpose Statement
> The purpose of the OS-P zone is: *To preserve and protect open space as a limited and valuable resource, and to further the City of Portland's goals related to climate adaptation and resiliency. The OS-P zone prioritizes preservation and protection of Portland's critical conservation and natural resource areas. Very limited development may be allowed for sustainable energy generation, passive recreation and educational purposes, but must be compatible with and cause little impact to these areas.*

In assessing the appropriateness of the B-2 use and dimensional provisions, Staff would note that the B-2 is generally more permissive than the current RN-1 and RN-3 zones, which constitute the majority of the University's land area, and all of the core upper campus area. As noted previously, the RN-3 zone does permit post-secondary schools as a conditional use, however the dimensional restrictions for the RN-3 are geared towards small-scale residential development, and are not well-suited for larger-scale institutional development. For example, building heights are limited to 35 feet, and lot coverage is limited to 50% for non-residential uses. The B-2 meanwhile permits building heights of up to 75 feet, and allows for more intensive development, with a requirement that just 10% of the lot be landscaped open space. From a use perspective, the B-2 zone permits a wide variety of different uses as detailed in Table 6-C in the Land Use Code, with a mixture of residential, institutional, commercial and light-industrial uses. These permitted uses encompass the vast majority of uses anticipated to occur at UNE's campus, as

indicated within the IDP under their 10± year development plan, including: student housing, an athletic facility, and future academic buildings and renovation/expansions to existing academic buildings.

In reviewing this application and the proposed zoning, City staff encouraged the Applicant to consider formally rezoning the applicant's proposed designated open space areas to OS-P, Open Space Preservation. As depicted in Figures 2 and 3 below, the evolution of the open space areas can be seen. In the first submission of this application, these areas were not defined. Based upon feedback from City staff, which encouraged the University to preserve high-value natural areas on campus within the Capisic Brook Watershed area, the applicant revised their height map to delineate open space or no-build areas as seen in Figure 3. The City then recommended that these areas be rezoned to OS-P, as this is an already defined zone with clear use and dimensional restrictions, and a purpose statement that aligns with the City's goals for the preservation of these critical natural resource areas on UNE's campus.



Figure 2: Rendering of original Height Overlay Map, provided by the applicant with their 11/08/2024 submittal.



Figure 3: Rendering of current Open Space and Height Map, provided by the applicant with their 2/7/2025 submittal.

VI. UPDATES BASED ON PREVIOUS WORKSHOPS AND FURTHER DISCUSSION

At the November 12, 2024 workshop, the Planning Board indicated support for the creation of the IOZ by UNE, and through discussions, highlighted several areas that deserved further study. In response, the Applicant provided revisions with their resubmission. Further, in light of the adoption of Recode, effective December 4, 2024, and in response to comments from the Board, Staff, and the public, UNE made significant revisions to their IOZ height map, by: plotting three OS-P areas (i.e. effectively 'no build areas' or 0-foot maximum height zones) and aligning the three outparcels along Forest and Stevens Avenues with the B-2 maximum height of 75-feet (in addition to the areas not within either the Open Space, or the two areas marked with 85-feet maximum height allowances). These changes are depicted above in Figures 2 and 3 above, as previously detailed.

At the January 28, 2025 workshop, the Planning Board largely focused on the following topics:

- Reducing the allowable building height between the proposed residential development and open space area/25-foot transition zone. This area was proposed to have a maximum building height of 75 feet, and the City had recommended that this be reduced to either 50 feet, as is permitted within the transition zone, or to be mapped as additional open space, in order to provide additional buffer in this location. This area abuts numerous homes along Mayfield Street. Minimizing activity in this location and reducing building heights would curtail numerous potential impacts to these abutters, including noise, light, and visual impacts.
- Reducing allowable building heights within the proposed transition zones, or establishing these zones as no-build areas.
- Consider expanding upon the required community engagement.
- Rezoning proposed open space areas to OS-P. Staff sought the Board's feedback on the appropriateness of this, and the extent of the identified area(s).

VII. REVIEW OF INSTITUTIONAL DEVELOPMENT PLAN

A primary function of the IDP is to identify likely future development and identify whether such development is a short-term (1-5 years), medium-term (5-10 years) or long-term (10+ years) priority for the institution, as detailed in Section 8.5.4.B. The IDP itself is subject to several review standards, which are intended to ensure that the IDP comprehensively details the institution's development plans, necessary infrastructure improvements, and strategies for mitigating development impacts and engaging with the surrounding neighborhood. Table 1 below provides an overview of each content category, listing whether or not the required information has been provided, and where within the IDP document the materials can be found.

TABLE 1: Section 8.3.4.C, Required Content of the Institutional Development Plan (IDP)			
	Content Category	Provided	Resource
1.	Context Information: Mission, vision, or purpose statement	✓	Provided as Chapter 1, on Pages 4-6. *UNE's mission, vision, and core values are identified.*
2.	Context Information: Relevant baseline data	✓	Provided as Chapter 1, on Pages 7-22.
3.	Context Information: Baseline characteristics of the existing campus & context of UNE	✓	Provided as Chapter 1, on Pages 22-27.
4.	Context Information:	✓	Provided as Chapter 1, on Pages 27-28.

	Summary of public involvement		*The information is provided here, and supplemented by the neighborhood meeting packets included as Attachments H and I to this memo.*
5.	Assessment of future institutional growth & change	✓	Provided as Chapter 2, on Pages 29-36.
6.	Analysis and associated plans for: Transportation & Access	✓	Material provided as Chapter 3, on Pages 37-53.
7.	Analysis and associated plans for: Environment	✓	Material provided as Chapter 4, on Pages 54-70.
8.	Analysis and associated plans for: Infrastructure	✓	Material provided as Chapter 5, on Pages 71-74.
9.	Analysis and associated plans for: Design	✓	Material provided as Chapter 6, on Pages 75-84.
10.	Analysis and associated plans for: Neighborhood Engagement	✓	Material provided as Chapter 7, on Pages 85-93.

Attached to this report, are both the first and second round of review comments generated by the City (*see* Attachments 1 & 2), providing a summary matrix which demonstrates the status of the requirements, and sub-requirements, of the IDP. As further evidenced in the table above, the Applicant has provided all of the necessary requirements within each document. The section below provides an overview of how the IDP complies with each review standard:

Institutional Development Plan: Standards of Review

Based on LUC Section 8.3.4.D, staff has found:

1. Address all content requirements, unless explicitly modified by the Planning Authority or Planning Board.

   Staff Findings: As demonstrated in Table 1 above and Attachments 1 & 2 (included), the Applicant has addressed all content requirements. No content requirements have been modified by the Planning Authority or the Planning Board.

2. Reflect the issues/topics identified in the required public process.

   Staff Findings: Through the course of the multiple neighborhood meetings and Planning Board workshops, three predominant topics emerged: parking, environmental sensitivity, and proposed height. In response to these identified issues, the applicant provided additional documentation in the Transportation & Access section of the IDP, by the inclusion of designated OS-P zones on campus, and by modifying the proposed Height Map based on Planning Board, City staff, and public comment.

   With respect to concerns around on-street parking in adjacent neighborhoods, the applicant has provided documentation demonstrating that the University has adequate parking supply to serve faculty, staff, students and visitors. Certain users elect to park on-street, primarily along Steven's Avenue, which is a public facility. As discussed in prior Planning Board workshops, the authority to establish and enforce on-street parking restrictions lies with the City, and the City. In evaluating current on-street parking demand in the vicinity of UNE, the City would note that this demand can be accommodated on Stevens Avenue, and

that the City's preference would be to maintain free on-street parking on Stevens Avenue, in order to provide additional traffic calming along this street.

3. Demonstrate consistency with the City's Comprehensive Plan and the purpose of this ordinance.

   Staff Findings: *Portland's Plan 2030* establishes a goal of having the City support sustainable growth in our community's educational institutions, noting the fact that such institutions are central to workforce development, employment, and the health of the local and regional economy. *Portland's Plan 2030* also establishes a goal of having the City's educational institutions incorporated into Portland's urban fabric through the use of high-quality design, through the management of impacts, through community partnerships, and innovative planning. Each of these adopted land-use goals are discussed at length within the IDP, and would be further facilitated through the proposed regulatory framework, and rezoning of the property to B-2 and OS-P.

4. Demonstrate how the property ownership, proposed growth, and requested regulatory framework relate to the institution's mission.

   Staff Findings: Within the IDP, UNE documents their campus master planning process, wherein they have worked to evaluate their existing and future programming needs and facility capacity to deliver educational programs to their students, including: a current facility assessment, current and future program requirements, and key institutional needs. Further, this is enumerated visually into the provided Figure 2.1: Campus Master Plan, on Page 33 of the IDP. UNE's mission statement states: "UNE prepares students to thrive in a rapidly changing world and, in so doing, to improve the health of people, communities, and our planet."

   In assessing future institutional needs, the University prepared a list of short- mid- and long-term priority projects, which includes student housing, a new athletic facility, and potential future academic buildings. The University also prioritizes being a good steward of the land and a good neighbor within the community. In order to achieve these aims, the University proposes rezoning the property to B-2 and OS-P, in order to accommodate the above-listed uses, and preserve critical natural areas on campus. The regulatory framework supplements this work by increasing allowable heights in key locations, to allow for taller buildings with a smaller building footprint, in order to minimize impacts to natural resource areas. Further, the regulatory framework establishes transition zones to minimize the impact of new development on abutting property.

5. Demonstrate that traffic and parking impacts have been anticipated and that the proposed parking provision is justified as based on an assessment of options for reducing traffic and parking demands.

   Staff Findings: As documented in the IDP, UNE's Portland campus is serviced by a variety of transportation infrastructure, which includes several arterial highways in close proximity, with convenient access to the Maine Turnpike (via Riverside Street, Warren Avenue and Bishop Street) and access to I-295 via Forest Avenue; it is further served by metro transit bus service, pedestrian infrastructure, EV charging stations, and a bicycle network. The IDP details available off-street parking supply and the anticipated demand for off-street parking as future planned development occurs. This information supports the University's position that there is an adequate supply of off-street parking available at present, and that this supply will be sufficient to serve future demand. Additionally, the University outlines numerous transportation demand management (TDM) strategies that are currently being utilized, such as subsidized transit passes, support

of carpooling and ridesharing, provision of extensive bicycle infrastructure on-campus, and the use of a variety of other incentives for users who do not commute using a single occupancy vehicle. These strategies are anticipated to continue reducing parking demand for the campus.

6. Outline an approach to open space, natural, and historic resources that supports preservation and enhancement.

   Staff Findings: The UNE Portland campus occupies approximately 72 acres of land in Deering Center, however much of the campus is undeveloped or minimally developed, with the campus containing large tracts of undeveloped woodland and wetlands, which lie within the Capisic Brook Watershed, along with an active use recreational field, Gulliver's Field. The most intensively developed area is located at the southeast corner of the University's contiguous campus, and is centered around the historic core of the campus, the Westbrook College Historic District, a locally designated historic district with buildings dating back to the early 19th century, which are organized around the main campus quad. Preservation of the University's historic resources remains a prominent goal of the University, and is spoken to in detail within IDP. Furthermore, as a locally designated historic district, the review of any construction activity or exterior building modifications within the district, is subject to historic preservation review by the City. With respect to the University's critical natural resources and existing open spaces, the University details numerous strategies for minimizing impacts or even enhancing these resources, as was demonstrated under the University's Intermodal Transportation Facility project, which revegetated former impervious areas. The University is also proposing to rezone certain areas of the campus to OS-P, which would prevent future development in these locations particularly along the Capisic Brook. Rezoning natural areas of the campus to OS-P provides clarity on where future growth will be directed on the campus, ensuring predictability while minimizing potential impact on natural resources in the future.

7. Demonstrate that potential cumulative environmental impacts have been anticipated and can be minimized or satisfactorily mitigated.

   Staff Findings: The IDP explicitly states that future development will not impact existing environmentally sensitive areas, such as streams on campus, and that minimum setbacks will be maintained for all future projects. *Table 4.1: Open Space Area Calculations* on Page 61, documents the commitment to preserve approximately 14% of UNE's total campus area as OS-P Open Space Preservation, or roughly 10.3 acres of the 72-acre campus. Furthermore, any future development projects subject to Site Plan review would still need to comply with all local standards, including those related to environmental and stormwater impacts.

8. Demonstrate that utility impacts have been anticipated and can be minimized or satisfactorily mitigated.

   Staff Findings: The draft IDP includes a detailed infrastructure plan for the University which documents current utility demands related to water, wastewater, electricity, telephone & data, and natural gas and heating fuels, with listed strategies for ensuring adequate capacity for future development, for limiting or reducing demand for these services to the extent possible. This includes for example commitments to use low-flow fixtures, to design future buildings using high-efficiency building envelopes and mechanical systems to reduce energy demand, and to site development to maximize passive solar exposure and limit disturbance to on-site natural features to protect water quality.

9. Reflect a comprehensive design approach that ensures appropriate transitions with the existing or future scale and character of the neighboring urban fabric.

Staff Findings: Within the Open Space and Height Map, a transition zone buffer (shown in aqua), has been included and is noted along the campus edges, where the campus is located adjacent to residential and open space zones. The transition zone is generally 25 feet deep, however the zone increases in depth adjacent to the proposed residential building, which under the proposed height map, could be as tall as 85 feet from the average post-development grade. Within the transition zone, buildings would be required to step down to no more than 50 feet from the average post-development grade. By designating over 10 acres of the campus as OS-P Open Space Preservation and reducing building heights near existing residential neighborhoods, UNE creates a gradual transition from lower-scale structures to larger institutional and residential buildings appropriate for the campus. The proposed increased height in strategic locations enables vertical growth rather than horizonal expansion, promoting a more compact development footprint within the constrained urban campus while minimizing impacts on natural resources or abutting neighborhoods.

10. Promote compatibility with existing or future uses in adjacent neighborhoods, maintain housing, and support local amenities.

    Staff Findings: Within the IDP, the University prioritizes minimizing impacts to abutting properties, and providing opportunities for the surrounding community to come on campus and enjoy campus amenities and open space. The proposed regulatory framework establishes a transition zone around much of the exterior of the campus, which limits building heights to 50 feet. Additionally, the University contemplates the construction of student housing on-campus, which would relieve some of the housing pressure on the surrounding neighborhood. Lastly, significant open space on-campus would be preserved under this proposal, and the University continues to work with Portland Trails to extend the local trail network across the University's campus.

11. Anticipate future off-site improvements that would support the integration of the institution into the community and citywide infrastructure.

    Staff Findings: As detailed in their IDP, UNE has established strategies for assuring the acquisition or disposition of any property by the University is clearly communicated to abutters.

12. Conform with the standards of Article 16 for designated landmarks or for properties within designated historic districts or designated historic landscapes, if applicable. When proposed adjacent to or within 100 feet of designated landmarks, historic districts, or historic landscapes, the IDP shall be generally compatible with the major character-defining elements of the landmark or portion of the district in the immediate vicinity.

    Staff Findings: As noted prior, the UNE Portland campus contains the Westbrook College Historic District. As detailed in the IDP, the character defining components of the buildings located within the historic district are identified within the IDP, and are used to inform the proposed design standards for new development on campus, to ensure a cohesive campus identity, while simultaneously ensuring that new development is a product of its time.

13. Incorporate strategies to support clear communication and ongoing public engagement between institutions and nearby neighbors.

Staff Findings: According to the IDP, the University prioritizes being a good neighbor and having meaningful engagement, which UNE states is critical to its success. The IDP details ongoing community engagement strategies, which include providing: monthly project updates for all current and active projects published in a publicly accessible format to their web page, and the creation of a dedicated email address that allows neighbors to direct questions, concerns, and feedback directly to UNE's Planning Department and its project team members.

VIII. REVIEW OF REGULATORY FRAMEWORK

Stemming from the IDP, the proposed regulatory framework (zoning) works to codify the institutional use(s) and related activities in line with UNE's stated mission to: *prepare students to thrive in a rapidly changing world and, in so doing, to improve the health of people, communities, and our planet*. UNE provided initial regulatory framework text (Attachment E), which the City amended and inserted into the draft updated Article 8 within the City's Land Use Code (Attachment 3). Table 2 below was created to provide an overview of each content category, listing whether or not the required information has been provided, and an overview of content details. Further, Figure 4 below depicts the Maximum Building Heights map proposed with the UNE IOZ.

TABLE 2: Section 8.3.5.D, Required Content of the Regulatory Framework

	Content Category	Provided	Resource
1.	Zoning boundary of the IOZ	✓	Figure 6, shown below, identifies the zoning boundary clearly in the form of a map displaying the overlay zone, and a table, included within the IDP, lists all properties, identified by both CBL and address.
2.	Phasing and schedules	✓	UNE shall file monitoring reports every five (5) years with the Planning Authority, and at the time of submission of future site plan applications, UNE shall identify any required updates to the IDP, to allow the document to remain current.
3.	Uses	✓	In addition to those uses permitted within the B-2 and OS-P zones, the IOZ would also permit the following uses by right: • Laboratory and research facilities • Off-street parking
4.	Dimensional requirements	✓	The proposed IOZ would supplement the dimensional restrictions of the underlying zones as follows: • Transition zones to extend twenty-five feet (25') from the lot boundary and, within transition zones, the maximum building height shall be fifty feet (50'), as depicted by the UNE IOZ Height Map, Figure 3 provided above in the memo. • Maximum building heights for new principal buildings in the IOZ shall be governed by the UNE IOZ Height Map, Figure 3 provided above in the memo.
5.	Transportation	✓	TDM and parking requirements are highlighted in this section.
6.	Environment	✓	UNE's approach to the inclusion of open space and preservation of environmentally-sensitive areas.
7.	Mitigation measures	✓	A broad approach to identified mitigation measures are included here.

8.	Design	✓	The Regulatory Framework provides five (5) standard of design for the IOZ.
9.	Neighborhood integration	✓	Thresholds and requirements for neighborhood engagement are summarized here.
10.	Monitoring	✓	As noted above under 2., the applicant will prepare and file monitoring reports with the City every five (5) years.

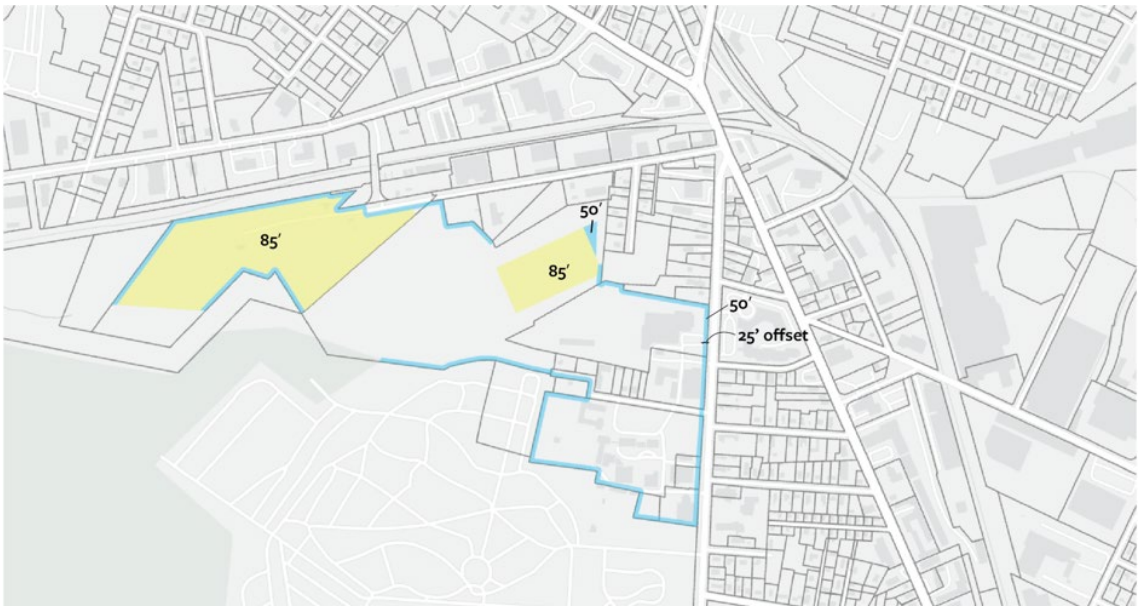


Figure 4: The proposed Maximum Building Heights map, created by PUD, and included in the drafted Regulatory Framework.

Attached to this report, in the first round of review comments generated by the City (*see* Attachments 1), provided is a summary matrix which demonstrates the status of the requirements, and sub-requirements, of the Regulatory Framework. In the creation of finalizing this text (Attachment #3), City staff lead the drafting. As further evidenced in the table above, all of the necessary requirements within the document have been provided. Below delves into the Regulatory Framework standards of review:

Regulatory Framework: Standards of Review

Based on LUC Section 8.3.5.E, staff has found:

1. Be consistent with the Comprehensive Plan and the Institutional Development Plan.

   Staff Finding: The drafted Regulatory Framework is consistent with both *Portland's Plan 2030* and the drafted Institutional Development Plan. Throughout the formation of the proposed IOZ, City staff has worked with the Applicant to revise the documents to not only include all required content, but also to strengthen the connection between the proposed land use regulations, and both Portland's Plan 2030 and the drafted IDP.

   Specifically, Portland's Plan 2030 emphasizes the importance of prioritizing sustainable land use and transportation policies that enhance connectivity, walkable neighborhoods, and multimodal transportation while protecting the city's critical natural resources (pg. 19). It also emphasizes the need to balance continuity and change as Portland grows (pg. 27), and supporting sustainable growth in educational,

medical, and cultural institutions, while fostering a strong workforce by attracting and retaining human capital (pg. 43). Additionally, the plan encourages contextually appropriate housing density near neighborhood centers, service hubs, and transit corridors to support complete neighborhoods (pg. 50). Specifically, the Comprehensive Plan acknowledges the need for the City to support the orderly expansion of institutional uses—including educational, cultural, and medical campuses—recognizing their essential role in workforce development, employment, and the broader regional economy. Based on the goals and objectives of the Comprehensive Plan, the Regulatory Framework aligns with the plan's vision and will guide UNE's future growth in a manner that reflects the shared priorities outlined in the plan.

2. Provide a clear zoning framework, using graphics and tables as appropriate, to apply to future site plan reviews.

   Staff Finding: The submitted Regulatory Framework is a concise yet functional set of supplemental development regulations that were drafted to help facilitate build-out of UNE's Portland campus in alignment with the draft IDP, while ensuring that impacts associated with such development is satisfactorily mitigated. The applicant has delineated the IOZ boundary and provided supplemental use and dimensional standards to complement and expand upon the underlying zoning regulations.

3. Provide specific regulatory statements as appropriate that respond to concerns raised during the required public involvement.

   Staff Finding: The University has amended their IDP and the regulatory framework in response to feedback from both City staff and the Planning Board. Notably, this includes the mapping of more than 10 acres of OS-P across the UNE Portland Campus, to preserve critical natural resources, and the extension of the transition zone adjacent to the proposed residential development, proximate to the residential neighborhood along Mayfield Street.

4. Outline measurable goals and thresholds for improvements or other actions identified in the IDP to be advanced in subsequent site plan applications

   Staff Finding: The drafted Regulatory Framework has outlined specific design-related language that expands upon the IDP and that would apply to future site plan and TDM Plan reviews, working to create a cohesive campus and integrate with baseline characteristics.

IX. NEIGHBORHOOD MEETINGS & PUBLIC COMMENT

The applicant has held two neighborhood meetings to-date, the first was held on June 13, 2024 at 6:00 PM at UNE in the Hannaford Lecture Hall, with the meeting documentation included under Attachment H. The total recorded attendance at the meeting was thirteen (13) members of the public, and the feedback centered on questions and/or concerns about property acquisitions, traffic/parking, and environmental impacts. The second meeting was held on October 30, 2024 at 6:00 PM at UNE in the Hannaford Lecture Hall, with the meeting documentation included under Attachment I. The total recorded attendance at the meeting was twelve (12) members of the public, and the feedback centered on questions and/or concerns about parking, building height, and the future student housing building.

The Planning and Urban Development Department has received zero written public comment at the time of publication of this memo.

X. REQUISITE CITY COUNCIL ACTION

Any proposed rezoning, regardless of whether it is favorably or negatively recommended by the Planning Board, must be approved by City Council vote in order to take effect.

XI. PROPOSED MOTIONS

1. On the basis of materials submitted by the applicant, the City of Portland Land Use Code, Portland's Comprehensive Plan, public comment, and the information provided in the public hearing on February 25, 2025 for the application ZN-003059-2024, and/or other findings, the Planning Board finds that the proposed B-2 and OS-P zoning map amendment [is/is not] consistent with the Comprehensive Plan for the City of Portland; and therefore, the Planning Board [recommends/does not recommend] to the City Council adoption of the zoning map amendment for the area of land as shown:

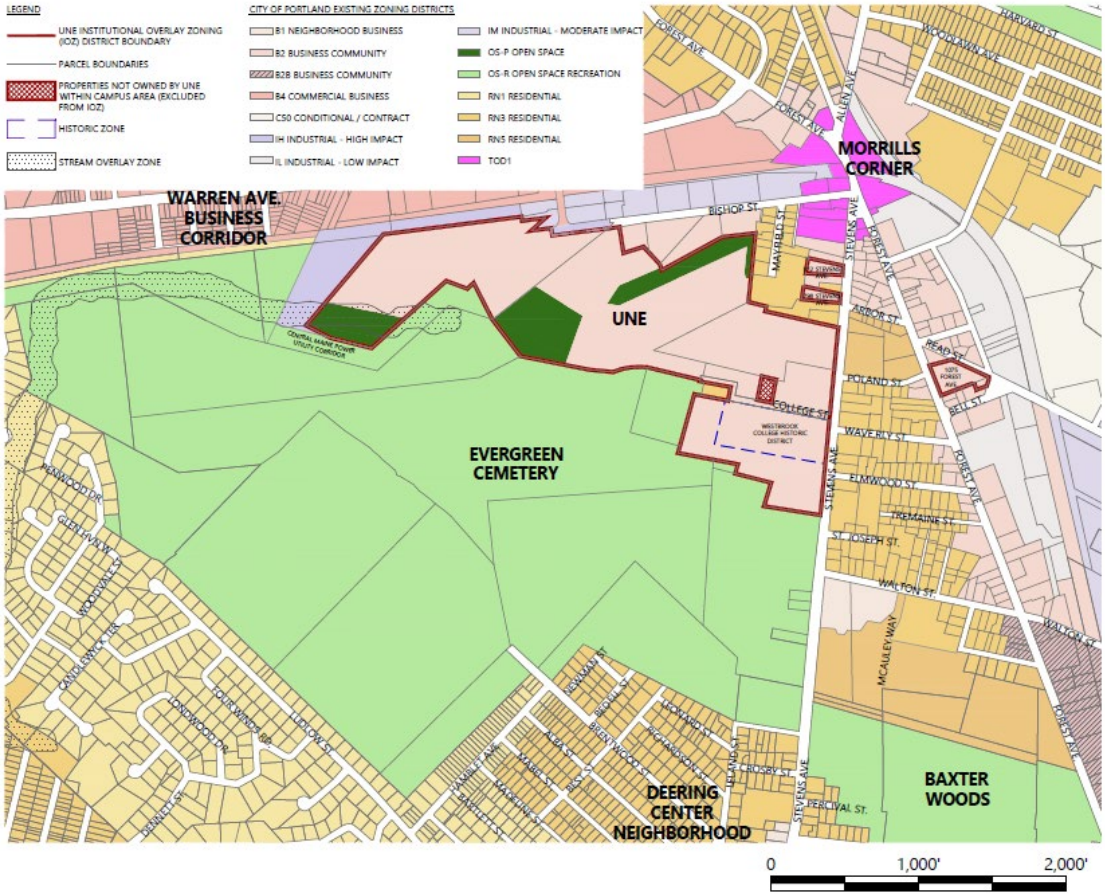


Figure 5: Proposed zoning map, provided by the applicant.

2. On the basis of materials submitted by the applicant, the City of Portland Land Use Code, Portland's Comprehensive Plan, public comment, and the information provided in the public hearing on February 25, 2025 for the application ZN-003059-2024, and/or other findings, the Planning Board [finds/does not find] that the proposed Institutional Development Plan (IDP), as included in Attachment D, is consistent with the Institutional Development Plan standards of Section 8.3.4 of the Land Use Code.

3. On the basis of materials submitted by the applicant, the City of Portland Land Use Code, Portland's Comprehensive Plan, public comment, and the information provided in the public hearing on February 25, 2025 for the application ZN-003059-2024, and/or other findings, the Planning Board finds that the proposed IOZ zoning map amendment **[is/is not]** consistent with the Comprehensive Plan for the City of Portland; and therefore, the Planning Board **[recommends/does not recommend]** to the City Council adoption of the zoning map amendment for the area of land identified as UNE's Portland Campus as shown:

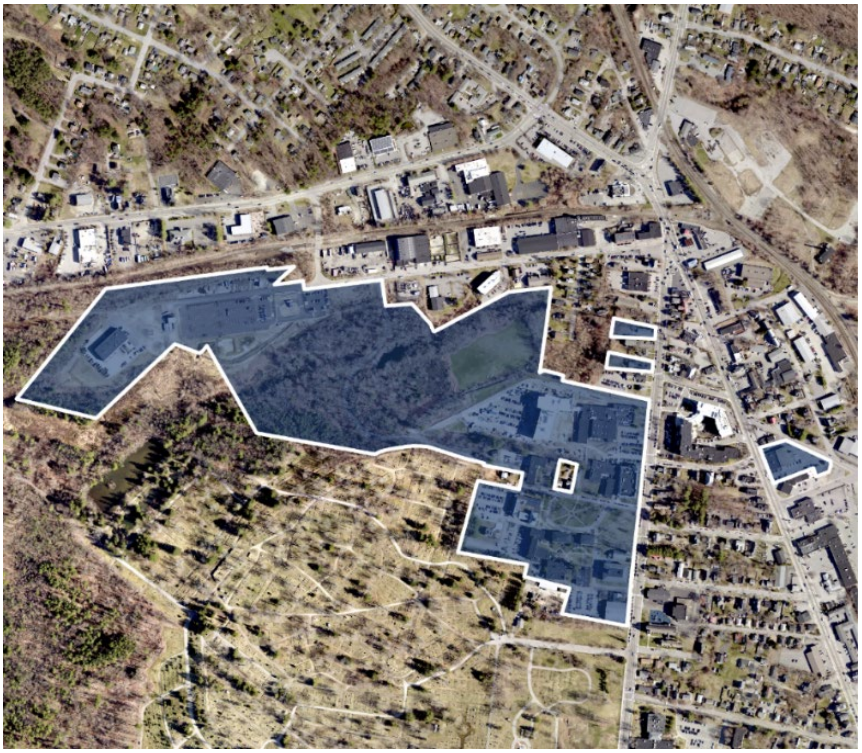


Figure 6: Proposed IOZ boundary map, created by Planning and Urban Development.

4. On the basis of materials submitted by the applicant, the City of Portland Land Use Code, Portland's Comprehensive Plan, public comment, and the information provided in the public hearing on February 25, 2025 for the application ZN-003059-2024, and/or other findings, the Planning Board finds that the proposed regulatory framework **[is/is not]** consistent with the standards of Section 8.3.5 of the Land Use Code; and therefore, the Planning Board **[recommends/does not recommend]** to the City Council adoption of the Regulatory Framework as included in Attachment 3.

XII. ATTACHMENTS

Staff Attachments

1. City Review Comments Round 1, October 17, 2024
2. City Review Comments Round 2, January 17, 2025
3. Proposed Regulatory Framework Text: Chapter 14 Section 8 "Overlay Zones", Red-lined

Applicants Submittal

A. Cover Letter

B. Checklist – Map and Text Amendment
C. Right, Title, & Interest
D. Institutional Development Plan
E. Regulatory Framework (*as originally drafted by the applicant*)
F. Proposed Map Amendment
G. Vicinity Map
H. Neighborhood Meeting #1 Certification Packet, June 13, 2024
I. Neighborhood Meeting #2 Certification Packet, October 30, 2024
J. Response to City Comments Round 1, December 20, 2024
K. Response to City Comments Round 2, February 7, 2025

Project Review Comments: Round 1
Comments Distributed on: October 17, 2024

Project Title: University of New England Institutional Overlay Zone (UNE IOZ)
Project File No.: ZN-003059-2024
Project Address: 716 Stevens Avenue
Project Planner: Natasha Kypfer, Senior Planner

Att. 1

Dear Caitlin Suhr, Alan Thibeault, and Mary Costigan:

We have completed our initial review of your application (ZN-003059-2024), a Map and Text Amendment, proposing a new Institutional Overlay Zone (IOZ) for the University of New England (UNE) at approximately 684 Stevens Avenue, proposed to be zoned: B-2 Community Business. This development triggers review by the Planning Board and City Council, and is subject to the following regulations: Amendments – Article 1.10 and Institutional Overlay (IOZ) – Article 8.5.

An overview of the City's review can be viewed in the below worksheet(s) and review comments.

Next Steps
Please review all feedback and reach out to me, as the lead project review manager, if you have any questions. We will look forward to our upcoming meeting, scheduled for Tuesday, October 22nd at 11AM. Further, we have preliminarily scheduled your item for a workshop before the Planning Board for Tuesday, November 12th.

Sincerely,

Natasha M. Kypfer

Natasha Kypfer
Senior Planner

Worksheet(s) Table Legend:
Provided on Page # = *Requirement Met*
Partially Provided on Page # = *Requirement Not Fully Satisfied*
Not Provided = *Requirement Not Satisfied*

Institutional Development Plan (IDP): Content Land Use Code, Section 8.5.4.C					
Category	**Sub-category**	**Requirement**	**Sub-requirement**	**Location, IDP Page #**	**Review Comments: Overview & Updates Requested**
1. Context information	*a. The institution's adopted mission, vision, or purpose statement*			Pages 4-5	As stated and provided for on pages 4-5, UNE is guided by its Mission, Vision, and Core Values, as well as its own strategic plan ("Our World, Our Future").
	b. A summary of relevant baseline data on the institution, including:	*i. A neighborhood context plan.*		Pages 11-12, Figure 1.1	The UNE's approximately 72-acre campus is bounded by Warren Ave., Bishop St. Extension, and Bishop St. to the north; Stevens Ave. to the east; and, Evergreen Cemetery and CMP's Utility Corridor to the south, as depicted in provided Figure 1.1.
		ii. An inventory of current programs and services.		Page 7-9	The UNE Portland campus houses three academic colleges: the Westbrook College of Health Professions (WCHP), the College of Dental Medicine, and the College of Graduate and Professional Studies. In addition, UNE operates two health clinics on campus: the Oral Health Center and the Dental Hygiene Center, as well as UNE North, the Center for Global Humanities, and cultural institutions that include the Maine Women Writers Collection and the UNE Art Gallery.
		iii. A current census of the number of people using the institution (e.g., employees, enrollment, patients), with an indication of maximums and minimums over time.		Page 18, Table 1.3	Table 1.3 titled "FTE Student, Faculty, and Professional Staff Data", includes population data from 2016-2023 for student, faculty and professional staff, and campus population. Please also add an additional column to Table 1.3 that includes patient figures visiting the campus (for example, dental patients to the Oral

				Health Center), further, consider incorporating part-time data, as the provided table only documents FTE.
		iv. An inventory and/or plan of all existing property holdings within the main campus and within the City of Portland, including an indication of functional land use links between off-campus properties and the main campus (e.g. remote parking).	Page 17, Table 1.2	Table 1.2 titled "UNE Owned Properties in the City of Portland", documents UNE's total of 17 parcels, the majority of which are contiguous in the campus core, while several are outparcels. Please speak to the functional land use links between off-campus properties and the main campus (e.g. remote parking and the Bishop Street shuttle service).
		v. An inventory and/or plan of existing facilities, including data on use, floor area, and any existing functional connections between facilities.	Page 16, Figure 1.5 Pages 21-22	The UNE campus map is provided on page 16 as Figure 1.5, depicting the 25 distinct facilities and 11 parking areas, with an inset map centered around the Campus Quad. Please supplement Figure 1.5 Campus Map with a table listing the 25 facilities and 11 parking areas identified in Figure 1.5, organized chronologically by facility number. Please also incorporate the parking spaces data from Table 3.5 here as well. The table should include columns for facility name, total floor area, and use. For parking areas, organize chronologically by parking area # and include columns for total square footage, total number of existing spaces, and a breakdown of ADA and EV spaces.
	c. A summary of the baseline characteristics of the existing campus and	*i. A summary of existing resources, such as historic, open space, and natural resources.*	Page 19-20	UNE's campus is the site of the Westbrook College Historic District, which includes six buildings built between 1834 and 1952. Further, existing open space and natural

	context of the institution, based on identified study areas, including:			resources are summarized, and include notation of the Portland Trails Forest City Trail connection and the Capisic Brook watershed area.
		ii. A summary of the existing transportation system, including vehicular, pedestrian, transit, bicycle, and parking supply, demand, and utilization.	Page 41-44, Table 3.5	Table 3.5 titled "UNE Portland Campus - Parking Spaces" details the currently 11 parking lots located on campus, plus the on-street parking along two principle campus roadways, which amounts to 882 spaces total, plus the 182 permitted spaces presently at the COM building. Please include a quick summary of the existing transportation system within the Context chapter, to incorporate what is detailed on pages 41-44.
		iii. A summary of existing public infrastructure supporting the institution, including demand, utilization and any capacity issues.	Page 20	Existing stormwater management systems utilize on-site infiltration systems, with secondary use of conveyance to the Stevens Ave. and Bishop St. CSO. Existing wastewater infrastructure for the campus is discharged to a CSO in College St. and Stevens Ave. Other public utilities include: PWD, CMP, and Unitil.
		iv. Relevant municipal plans, projects, and studies that may influence the IDP study area and opportunities for integrating institutional growth.	Page 21	A breakdown of the City's Comprehensive Plan, with tie in to the eight policy guide topics as they relate to UNE's work is provided with excerpts from Portland's Plan that UNE works to promote and advance are underscored and include the: environment, economy, historic resources, and housing. Please include additional studies that should be referenced in this section, such as the: Portland-South Portland Smart Corridor Plan (final report dated June 2018), the One Climate Future

				Plan, and the Forest Avenue Redesign Project. For example, within the Smart Corridor Plan on Page 143 it states: "[The] University of New England (UNE) office at 1075 Forest Avenue, shown in Figure 142 is a parcel that addresses the street well, and would be enhanced by the recommended planting palette and materials design guidelines found later in this section."
	d. A summary of public involvement in the development of the IDP, including major areas of public concern.		Page 22	UNE has worked to involve the public in the creation of the IDP during the IOZ submission process, this includes holding one of two required neighborhood meetings, which took place on June 13, 2024. Please be sure to update this section with the 10/30 neighborhood meeting date. Additionally, it may be beneficial to include a few sentences on the required review by both the Planning Board and City Council, as these will also be opportunities for public involvement.
2. Assessment of future institutional growth and change, including:	*a. A description of institutional needs and areas of future institutional growth and change, with:*	*i. A projected census of users (e.g., enrollment /employment/patient/ visitor figures and anticipated variations over time).*	Page 25, Table 2.2	Table 2.2 titled "Projected Growth of FTE Student, Faculty, and Professional Staff" provides a snapshot of data for the years of 2025, 2028, and 2033. Please include data on campus visitors, i.e. visiting faculty, prospective students, guests, etc.; to incorporate as a column in Table 2.2. Please also add patients seen for on-campus health visits.
		ii. Institutional objectives for property both within and outside the IOZ boundary (e.g. acquisition and/or disposition), including an indication of any functional land use connection for sites outside the IOZ boundary to the main campus.	Pages 26-28	UNE identifies five categories for key current and future institutional needs: campus reorganization, new building and renovation, educational/pedagogy

					improvements, campus infrastructure, and housing.
		iii. A development plan addressing anticipated or potential institutional needs and physical improvements, including the proposed boundary of the IOZ and any phasing of the development.		Pages 28-30, Table 2.3	A development plan is shown in Table 2.3, titled "10 +- Year Development Program", which identifies three core priority timelines: the short-term (0-5 years), medium-term (5-10 years), and long-term (10+ years).
	b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:	*i. Transportation and access, with:*	*a) An analysis of the projected changes in parking demand, supply, and impacts to the off-street and on-street parking capacity, including an explanation of the proposed parking plan.*		Please provide an analysis of the projected changes in parking demand, supply, and impacts, and a review of current parking conditions. The previous TDM plan could be utilized to assist in completing this section. Further, a discussion on how to mitigate neighborhood impact by reducing on-street parking usage by UNE students and personnel should be included here.
			b) An analysis of the projected changes in vehicular, pedestrian, transit, and bicycle access routes and facilities, their capacity, and safety.	Page 36-37, Tables 3.2 & 3.3	Table 3.2 titled "Trip Generation Analysis" provides a snap shot of vehicular usage projections for the student population in the years 2025, 2028, and 2033. Please provide more details, as it relates to pedestrian and bicycle usage in this section, which largely focuses on vehicular travel.
			c) A transportation, access, and circulation plan, representing the synthesis of the analysis, and including a program of potential improvements or set of guidelines to address access deficiencies to and within the IOZ. The plan should outline proposed mechanisms and potential strategies to meet transportation objectives, including transportation	Pages 38-44	UNE's original TDM plan was created in 2010, and is routinely updated, most recently in April 2022. Strategies that emerged from the plan include: education and promotion, carpooling & ridesharing, transit service, incentives, EV charging infrastructure, bicycle infrastructure, and pedestrian & bicycle access. Please provide a more detailed transportation, access, and circulation

			demand management, phasing, and when a Traffic Movement Permit (TMP) may be required.		plan, that expands beyond the strategies identified in the TDM. As an example, perhaps providing a circulation plan of the core campus as a visual could then highlight potential opportunities for connections to the existing and future trail network. Please also speak to the existing Traffic Movement Permit (TMP) in this section, whether UNE envisions surpassing the threshold for a new TEMP under your build-out plans, i.e. indicate when a revised TMP may be required, or triggered, in the future.
		ii. Environment, with:	*a) An analysis of potential cumulative impacts on natural resources and open spaces.*	Page 52	Please provide an expanded analysis under the 'Proposed Future Development and the Environment' paragraph, which should detail potential cumulative impacts to the existing natural resources and open spaces on campus. For example, perhaps some good data to capture here could be existing vs. proposed impervious lot coverage, the existing open space on campus vs. proposed loss or gain of open space over time, and the existing square footage of wetlands vs. potential impacts or gains in the future.
			b) An analysis of projected energy consumption, hazardous materials generation, noise generation, and similar issues as relevant.	Pages 57-60	UNE's operational sustainability is detailed within the categories of energy conservation, waste management practices, biomedical waster best practices, sustainable landscaping, and noise generation.
			c) An environmental plan, representing the synthesis of the analysis and including a proposed program or set of guidelines for future	Page 56, Figure 4.8	Figure 4.8 titled "Natural Resources and Campus Master Plan" shows proposed campus improvements in locations aimed to mitigate impact to natural resources.

			preservation, enhancement, conservation, and/or mitigation.		
		iii. Infrastructure, with:	*a) An analysis of projected public utility demand and the capacity of associated infrastructure.*	Pages 62-63	Utility demand and capacity are detailed through the lens of the various providers: water services supplied by PWD, electricity supplied by CMP, telephone & data services by Consolidated Communications and Spectrum, natural gas and heating fuels supplied by Unitil, and existing wastewater infrastructure.
			b) An analysis of projected public safety needs and projected impacts to the capacity of these services.	Page 64	UNE has security officers who provide 24/7 patrol and dispatch coverage of the campus, in addition, an emergency notification service (Rave Mobile Safety), provides faculty, staff, and students with timely updates during emergencies, speaking to the capacity of public safety as the campus grows.
			c) An infrastructure plan, representing the synthesis of the analysis and including a proposed program or set of guidelines to support sustainable growth.	Page 61-62, Figure 5.1	Figure 5.1 titled "Existing Stormwater Infrastructure and Campus Master Plan" illustrates existing City sanitary sewer and stormwater infrastructure surrounding and within the campus, as well, future stormwater run-off flows are detailed. Please include a set of guidelines to support sustainable growth at the conclusion of this chapter.
		iv. Design, with:	*a) An analysis of projected impacts to neighboring properties and public spaces, including potential shadow, wind, and lighting impacts, impacts of height and massing, and impacts to historic resources.*	Pages 65-72 Figures 6.1, 6.2, 6.3, & 6.4	The City wants to ensure UNE is adequately addressing potential impacts to the surrounding parcels, including: Evergreen Cemetery, the isolated parcels within the Campus, and properties on Mayfield Street. Please provide spot elevations on the buildings shown in Figure 6.2 to better dedicate heights. Provide rendering of

					proposed development looking from Mayfield Street towards proposed student housing building (west). Additionally, as UNE considered alternative building layouts and parking configurations for the conceptual student housing on the Gulliver's Field site?
			b) An analysis of transition areas between the institution and adjoining neighborhoods, including identification of key character defining components of the surrounding context.	Page 71-72, Figure 6.4	Figure 6.4 titled "Proposed Maximum Heights" has identified transition zones along the edges of the IOZ boundary. Please provide the design rationale for the proposed 50 ft height within the 25 ft-wide transition zone—was there any consideration of varying the maximum height to better align with the surrounding context? Did UNE consider mapping lower maximum heights along Capisic Brook, and what is the rationale for mapping 65 ft on the two outparcels fronting Stevens Avenue? Additionally, the parcel on Forest Avenue, under ReCode, would allow a height of up to 75 ft. We recommend removing the height limitation for that parcel should ReCode pass as proposed.
			c) An analysis of existing Crime Prevention Through Environmental Design issues and identification of how these principles would be addressed as part of the proposed campus development.	Page 72	UNE's Campus Safety and Security Department monitors through in-person patrols and CCTV cameras and provides response 24/7, which contribute to low crime statistics on campus.
			d) A conceptual built environment/public realm plan, representing the synthesis of the analysis and including a set of guidelines for urban design,	Pages 71-75	Figure 6.4 titled "Proposed Maximum Heights" could be expanded on as a conceptual built environment/public realm plan for this section. Has there been consideration for a more

			landscape, open space, and streetscape treatments, with particular attention to the treatment of edges (both within and abutting the IOZ boundary) to achieve compatible transitions.		targeted contextual set of heights throughout the campus to address varying building typologies in adjacent neighborhoods?
		v. Neighborhood engagement, with:	*a) A plan for ongoing community engagement that represents best practices, promotes collaborative problem solving around community concerns, fosters transparency, and identifies mechanisms for neighborhood feedback and institutional accountability.*	Pages 76-77	UNE outlines four steps in their effort to provide ongoing community engagement, which include: -Developing a comprehensive CMP -Providing monthly project updates for all current/active projects -Creating a dedicated email address to allow neighbors to forward questions, concerns, and feedback -Attendance as local community neighborhood association meetings
			b) A property management framework that identifies the institution's process for handling operational property issues with neighbors.	Page 76	UNE directly oversees the maintenance and care of its facilities; it does not inspect or approve any off-campus housing.
			c) Strategies for assuring communication pertaining to property acquisition and disposition in surrounding neighborhoods.	Page 77	UNE has established strategies for assuring communication pertaining to property acquisition and disposition in surrounding neighborhoods, including alerting abutting properties of the transition of ownership and providing the appropriate contact information.
			d) A set of construction management principles to apply to all institutional construction, that represent best practice, aim to minimize short- and long-term construction impacts on surrounding residents and businesses, and ensure a clear communication strategy is in place in advance of construction.	Pages 82-84, + Attachment A	UNE has identified construction management principles that will be implemented to minimize impacts to its surrounding neighborhoods from noise, vibrations, ground movement, truck traffic, dust control and other construction related factors.

Regulatory Framework: Content Land Use Code, Section 8.5.5.D			
Category	**Requirement**	**Location, R.F. – PDF Page # & Document Section**	**Review Comments**
1. Zoning boundary of the IOZ	*The area to which the regulations apply, as shown on the zoning map, subject to other provisions of this ordinance (i.e. the map amendment to the City's zoning map)*	Page 144, Figure 8-H	General comment: Please add page numbers to the Regulatory Framework document itself.
2. Phasing and schedules	*Requirements that relate to particular proposed phases*	N/A - No phasing or scheduling proposed (imminent site plan) at this time.	
	A chart showing the schedule or thresholds for submitting an amended IDP (or elements of an IDP, such as a Transportation Demand Management (TDM) Plan)		
3. Uses	*Clarification, as necessary, on permitted uses*	Page 146, Section C., Table 8-H	
4. Dimensional requirements	*Graphics, sketches, or standards, including details for transition zones within the IOZ boundary*	Pages 146-147, Section D., Figure 8-I	Staff requests further discussion regarding the proposed height map and how to consider the surrounding context. See attached comments.
5. Transportation	*Elements such as Transportation Demand Management Plan (TDM) trip reduction targets or contribution to area-wide TDM measures*	Page 148, Section E.	
	Broad parameters for ensuring pedestrian, vehicular, bicycle and transit access and safety		*City Staff is working with the applicant to draft language for this requirement section.*
	Parking ratios and management strategies		
	Thresholds for access improvements		
6. Environment	*The approach to the inclusion of open space and preservation of environmentally-sensitive areas*	Page 148, Section F.	
7. Mitigation measures	*The broad approach to identified mitigation measures, which would be addressed in greater detail in the site plan review process*	Page 148, Section G.	

	Thresholds for addressing deficiencies		*City Staff is working with the applicant to draft language for this requirement section.*
	Goals for preservation/protection		*City Staff is working with the applicant to draft language for this requirement section.*
8. Design	*Graphics and standards to clarify building placement and envelope (height and massing)*		*City Staff is working with the applicant to draft language for this requirement section.*
	Guidelines for integration of site features		
	Required treatments for transition zones and treatment for all edges (both within and abutting the IOZ boundary)		
	Guidelines for establishing campus identity		
9. Neighborhood integration	*Thresholds and strategies for neighborhood engagement*	Page 150, Section I.	
	Mitigation of impacts on neighboring properties, including construction impacts		*City Staff is working with the applicant to draft language for this requirement section.*
	Buffering requirements		
	Objectives for pedestrian linkages and safety		
	Other requirements that address community concerns		
10. Monitoring	*A schedule for regular monitoring reports on IDP implementation in accordance with the IDP*		This section should simply address monitoring, stating that updates will be provided to the Planning Authority every five years.

Project Review Comments: Round 2
Comments Distributed on: January 17, 2025

Project Title: University of New England Institutional Overlay Zone (UNE IOZ)
Project File No.: ZN-003059-2024
Project Address: 716 Stevens Avenue
Project Planner: Natasha Kypfer, Senior Planner

Att. 2

Dear Caitlin Suhr, Alan Thibeault, and Mary Costigan:

We have completed our second round of review of your application (ZN-003059-2024), a Map and Text Amendment, proposing a new Institutional Overlay Zone (IOZ) for the University of New England (UNE) at approximately 716 Stevens Avenue, proposed to be zoned: B-2 Community Business. This development triggers review by the Planning Board and City Council, and is subject to the following regulations: Amendments – Article 1.10 and Institutional Overlay (IOZ) – Article 8.5.

An updated overview of the City's review can be viewed in the below worksheet and review comments. Only the IDP content table has been included for review in this second round, as the Regulatory Framework is being drafted by City staff, and will be presented at the second workshop.

Next Steps
Please review all feedback and reach out to me, as the lead project review manager, if you have any questions. We will look forward to our upcoming virtual meeting, scheduled for Thursday, January 23rd at 2:00PM. Further, we have scheduled your item for a second workshop before the Planning Board, for Tuesday, January 28th.

Sincerely,

Natasha M. Kypfer

Natasha Kypfer
Senior Planner

Worksheet(s) Table Legend:
Provided on Page # = *Requirement Met*
Partially Provided on Page # = *Requirement Not Fully Satisfied / Staff includes suggested updates.*
Not Provided = *Requirement Not Satisfied*

Review comments found in bold, in the below table's far right column, indicate new comments added following the previous review round.

Institutional Development Plan (IDP): Content Land Use Code, Section 8.5.4.C					
Category	**Sub-category**	**Requirement**	**Sub-requirement**	**Location, IDP Page #**	**Review Comments: Overview & Updates Requested**
1. Context information	*a. The institution's adopted mission, vision, or purpose statement*			Pages 4-5	As stated and provided for on pages 4-5, UNE is guided by its Mission, Vision, and Core Values, as well as its own strategic plan ("Our World, Our Future").
	b. A summary of relevant baseline data on the institution, including:	*i. A neighborhood context plan.*		Pages 11-12, Figure 1.1	The UNE's approximately 72-acre campus is bounded by Warren Ave., Bishop St. Extension, and Bishop St. to the north; Stevens Ave. to the east; and, Evergreen Cemetery and CMP's Utility Corridor to the south, as depicted in provided Figure 1.1.
		ii. An inventory of current programs and services.		Page 7-9	The UNE Portland campus houses three academic colleges: the Westbrook College of Health Professions (WCHP), the College of Dental Medicine, and the College of Graduate and Professional Studies. In addition, UNE operates two health clinics on campus: the Oral Health Center and the Dental Hygiene Center, as well as UNE North, the Center for Global Humanities, and cultural institutions that include the Maine Women Writers Collection and the UNE Art Gallery.
		iii. A current census of the number of people using the institution (e.g., employees, enrollment, patients), with an indication of maximums and minimums over time.		Page 21, Table 1.3	Table 1.3 titled "FTE Student, Faculty, and Professional Staff Data", includes population data from 2016-2023 **for student, faculty and professional staff, campus population, and patient visits. Note, UNE does not keep track of general campus visitors.**
		iv. An inventory and/or plan of all existing property holdings within the main campus and within the City of Portland, including an indication of		Page 20, Table 1.2	Table 1.2 titled "UNE Owned Properties in the City of Portland", documents UNE's total of 17 parcels,

		functional land use links between off-campus properties and the main campus (e.g. remote parking).		the majority of which are contiguous in the campus core, while several are outparcels. **An additional section speaks to the functional land use links between off-campus properties (outparcels) and the main campus.**
		v. An inventory and/or plan of existing facilities, including data on use, floor area, and any existing functional connections between facilities.	Page 16, Figure 1.5 Pp. 17-19, Table 1.1	The UNE campus map is provided on page 16 as Figure 1.5, depicting the 25 distinct facilities and 11 parking areas, with an inset map centered around the Campus Quad. **A campus facilities table has been provided detailing each facility, their location, name, total floor area, building height, and use. Further, the table includes each parking facility, a lot description, total parking area, total number of spaces including those ADA and EV charging compliant.**
	c. A summary of the baseline characteristics of the existing campus and context of the institution, based on identified study areas, including:	*i. A summary of existing resources, such as historic, open space, and natural resources.*	Pages 22-23	UNE's campus is the site of the Westbrook College Historic District, which includes six buildings built between 1834 and 1952. Further, existing open space and natural resources are summarized, and include notation of the Portland Trails Forest City Trail connection and the Capisic Brook watershed area.
		ii. A summary of the existing transportation system, including vehicular, pedestrian, transit, bicycle, and parking supply, demand, and utilization.	Pages 41-53, Table 3.5 & 3.6 Page 50, Figure 3.6	Table 3.5 titled "UNE Portland Campus - Parking Spaces" details the currently 11 parking lots located on campus, plus the on-street parking along two principle campus roadways, which amounts to 882 spaces total, plus the 182 permitted spaces presently at the COM building. **Table 3.6 details parking occupancy at the UNE Portland campus data and assumptions from 2015-2033. The chapter concludes with three main parking goals for the campus.**

		iii. A summary of existing public infrastructure supporting the institution, including demand, utilization and any capacity issues.	Page 24	Existing stormwater management systems utilize on-site infiltration systems, with secondary use of conveyance to the Stevens Ave. and Bishop St. CSO. Existing wastewater infrastructure for the campus is discharged to a CSO in College St. and Stevens Ave. Other public utilities include: PWD, CMP, and Unitil.
		iv. Relevant municipal plans, projects, and studies that may influence the IDP study area and opportunities for integrating institutional growth.	Page 24-27	A breakdown of the City's Comprehensive Plan, with tie in to the eight policy guide topics as they relate to UNE's work is provided with excerpts from Portland's Plan that UNE works to promote and advance are underscored and include the: environment, economy, historic resources, and housing. **Additional studies also referenced, are: One Climate Future, the Smart Corridor Plan, and the Forest Avenue Redesign Project.**
	d. A summary of public involvement in the development of the IDP, including major areas of public concern.		Pages 27-28	UNE has worked to involve the public in the creation of the IDP during the IOZ submission process, **this includes holding two required neighborhood meetings, which took place on June 13, 2024 and October 30, 2024, as well as the necessary Planning Board and City Council meetings during the adoption of the IOZ.**
2. Assessment of future institutional growth and change, including:	*a. A description of institutional needs and areas of future institutional growth and change, with:*	*i. A projected census of users (e.g., enrollment /employment/patient/ visitor figures and anticipated variations over time).*	Page 31, Table 2.2	Table 2.2 titled "Projected Growth of FTE Student, Faculty, and Professional Staff, **and Patient Visits" provides a snapshot of data assumptions for the years of 2025, 2028, and 2033. Note, UNE does not keep track of general campus visitors.**
		ii. Institutional objectives for property both within and outside the IOZ boundary (e.g. acquisition and/or disposition), including an indication of	Pages 32-34	UNE identifies five categories for key current and future institutional needs: campus reorganization, new building

		any functional land use connection for sites outside the IOZ boundary to the main campus.			and renovation, educational/pedagogy improvements, campus infrastructure, and housing.
		iii. A development plan addressing anticipated or potential institutional needs and physical improvements, including the proposed boundary of the IOZ and any phasing of the development.		Pages 34-35, Table 2.3	A development plan is shown in Table 2.3, titled "10 +- Year Development Program", which identifies three core priority timelines: the short-term (0-5 years), medium-term (5-10 years), and long-term (10+ years).
	b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:	*i. Transportation and access, with:*	*a) An analysis of the projected changes in parking demand, supply, and impacts to the off-street and on-street parking capacity, including an explanation of the proposed parking plan.*	Page 24, Pages 51-53	**The context section notes: "A campus parking analysis, based upon the historical count data, projects a maximum occupancy rate per university population to be at 0.39 from 2025 to 2033. This rate is similar to the Institute of Transportation Engineers (ITE) 85th percentile parking rate." Further, provided within the Transportation Plan section, UNE includes a parking analysis based upon the historical parking counts.**
			b) An analysis of the projected changes in vehicular, pedestrian, transit, and bicycle access routes and facilities, their capacity, and safety.	Pages 43-45, Tables 3.2 & 3.3	Table 3.2 titled "Trip Generation Analysis" provides a snap shot of vehicular usage projections for the student population in the years 2025, 2028, and 2033. **Based upon the most recent TDM survey UNE reports, of total trips to campus, approximately: 1% are transit trips, 1% are bicycle trips, and 3% are walking trips.**
			c) A transportation, access, and circulation plan, representing the synthesis of the analysis, and including a program of potential improvements or set of guidelines to address access deficiencies to and within the IOZ. The plan should outline proposed mechanisms and potential strategies to meet transportation objectives,	Pages 45-53, Figure 3.6	UNE's original TDM plan was created in 2010, and is routinely updated, most recently in April 2022. Strategies that emerged from the plan include: education and promotion, carpooling & ridesharing, transit service, incentives, EV charging infrastructure, bicycle infrastructure, and pedestrian & bicycle access. **Figure 3.6 titled "Core Campus Bicycle and Pedestrian Connectivity", shows the primary**

			including transportation demand management, phasing, and when a Traffic Movement Permit (TMP) may be required.		campus sidewalks, bike facilities, and off-site connections. UNE notes, opportunities to expand this network (as visualized in Fig. 3.6), and to increase these alternative commuting modes, will continue to be explored. Details regarding the Traffic Movement Permit (TMP) have also been included in this section.
		ii. Environment, with:	*a) An analysis of potential cumulative impacts on natural resources and open spaces.*	Page 61 Page 80, Figure 6.4	Provided under the 'Proposed Future Development and the Environment' section, UNE details their commitment to preserving 10± acres on campus as dedicated open space, which is also depicted in Figure 6.4 titled "Proposed Open Space and Maximum Height Map". Staff suggests an additional table be added to this section, breaking down the acreage on campus, and providing the dedicated open space calculations.
			b) An analysis of projected energy consumption, hazardous materials generation, noise generation, and similar issues as relevant.	Pages 67-70	UNE's operational sustainability is detailed within the categories of energy conservation, waste management practices, biomedical waster best practices, sustainable landscaping, and noise generation.
			c) An environmental plan, representing the synthesis of the analysis and including a proposed program or set of guidelines for future preservation, enhancement, conservation, and/or mitigation.	Page 66, Figure 4.8	Figure 4.8 titled "Natural Resources and Campus Master Plan" shows proposed campus improvements in locations aimed to mitigate impact to natural resources.
		iii. Infrastructure, with:	*a) An analysis of projected public utility demand and the capacity of associated infrastructure.*	Pages 72-73	Utility demand and capacity are detailed through the lens of the various providers: water services supplied by PWD, electricity supplied by CMP, telephone & data services by Consolidated Communications and

					Spectrum, natural gas and heating fuels supplied by Unitil, and existing wastewater infrastructure.
			b) An analysis of projected public safety needs and projected impacts to the capacity of these services.	Page 74	UNE has security officers who provide 24/7 patrol and dispatch coverage of the campus, in addition, an emergency notification service (Rave Mobile Safety), provides faculty, staff, and students with timely updates during emergencies, speaking to the capacity of public safety as the campus grows.
			c) An infrastructure plan, representing the synthesis of the analysis and including a proposed program or set of guidelines to support sustainable growth.	Pages 71-74, Figure 5.1	Figure 5.1 titled "Existing Stormwater Infrastructure and Campus Master Plan" illustrates existing City sanitary sewer and stormwater infrastructure surrounding and within the campus, as well, future stormwater run-off flows are detailed. **At the conclusion of this chapter, a set of guidelines to support sustainable growth was added.**
		iv. Design, with:	*a) An analysis of projected impacts to neighboring properties and public spaces, including potential shadow, wind, and lighting impacts, impacts of height and massing, and impacts to historic resources.*	Pages 75-84 Figures 6.1, 6.2, 6.3, & 6.4	The City wants to ensure UNE is adequately addressing potential impacts to the surrounding parcels, including: Evergreen Cemetery, the isolated parcels within the Campus, and properties on Mayfield Street. **Figure 6.1 was updated to include spot elevations on campus current and future buildings, in order to better delineate height. Further, Figure 6.3 was updated to provide a 3D view from Mayfield Street towards proposed student housing building (west). With regard to the future development of the Gulliver's Field site, UNE notes they are evaluating alternatives for building footprints and parking configurations within the general area depicted on the Campus Master Plan (Figure 2.1, P. 33). The**

					general area for development will be within the existing Gulliver's Field site, however final design will be developed in the future and reviewed as part of site plan application
			b) An analysis of transition areas between the institution and adjoining neighborhoods, including identification of key character defining components of the surrounding context.	Page 79-81, Figure 6.4	Figure 6.4 titled "Proposed Open Space and Maximum Height Map" depicts open space (i.e. "no build" areas), as well, a 25-ft-wide transition zone around the interior perimeter of the contiguous campus, with a maximum height in that transition zone of 50-ft. UNE indicates the design rationale of which is to provide a stepback of building heights from the campus edges and adjacent properties, with the intent to focus densification and greater building heights internal to the campus. Further, the open space areas added to the plan will provide added buffering of neighboring properties, and will preserve existing wetland and open space areas, including along Capisic Brook and adjacent to the Mayfield Street neighborhood.
			c) An analysis of existing Crime Prevention Through Environmental Design issues and identification of how these principles would be addressed as part of the proposed campus development.	Page 81	UNE's Campus Safety and Security Department monitors through in-person patrols and CCTV cameras and provides response 24/7, which contribute to low crime statistics on campus.
			d) A conceptual built environment/public realm plan, representing the synthesis of the analysis and including a set of guidelines for urban design, landscape, open space, and streetscape treatments, with particular attention to the treatment of edges (both within	Pages 79-84, Figure 6.4	Figure 6.4 titled "Proposed Open Space and Maximum Height Map" was revised to include open space (i.e., "no build", areas). The open space areas added to the plan provide further buffering of neighboring properties, and will preserve existing wetland and open space areas, such as along Capisic Brook and adjacent to the Mayfield

			and abutting the IOZ boundary) to achieve compatible transitions.		Street neighborhood, and Evergreen Cemetery. UNE notes, the proposed maximum height areas have been selected to facilitate future development in portions of the campus that will not impact natural resources and will enhance campus engagement and safety.
		v. Neighborhood engagement, with:	*a) A plan for ongoing community engagement that represents best practices, promotes collaborative problem solving around community concerns, fosters transparency, and identifies mechanisms for neighborhood feedback and institutional accountability.*	Pages 85-86	UNE outlines four steps in their effort to provide ongoing community engagement, which include: -Developing a comprehensive CMP -Providing monthly project updates for all current/active projects -Creating a dedicated email address to allow neighbors to forward questions, concerns, and feedback -Attendance as local community neighborhood association meetings
			b) A property management framework that identifies the institution's process for handling operational property issues with neighbors.	Page 86	UNE directly oversees the maintenance and care of its facilities; it does not inspect or approve any off-campus housing.
			c) Strategies for assuring communication pertaining to property acquisition and disposition in surrounding neighborhoods.	Page 86	UNE has established strategies for assuring communication pertaining to property acquisition and disposition in surrounding neighborhoods, including alerting abutting properties of the transition of ownership and providing the appropriate contact information.
			d) A set of construction management principles to apply to all institutional construction, that represent best practice, aim to minimize short- and long-term construction impacts on surrounding residents and businesses, and ensure a clear communication strategy is in	Pages 91-93, + Attachment A	UNE has identified construction management principles that will be implemented to minimize impacts to its surrounding neighborhoods from noise, vibrations, ground movement, truck traffic, dust control and other construction related factors.

			place in advance of construction.		



8 OVERLAY ZONES

8.1 COASTAL FLOOD RESILIENCE OVERLAY (CFROZ)

8.1.1 Purpose

The purpose of the Coastal Flood Resilience Overlay Zone (CFROZ) is to protect persons and structures from the adverse effects of sea level rise and storm surge associated with climate change by:

A. Advancing adaptation strategies for long-term resilience.

B. Complementing public realm resilience measures by guiding development on private property.

C. Mitigating flood risks in a way that is specific to Portland's unique hydrological conditions and affected uses, particularly in areas that are not currently recognized as flood zones but are vulnerable to future sea level rise.

D. Providing a balanced framework in which flood protection requirements are proportional to the vulnerability and risks of various occupancies.

8.1.2 Applicability

The provisions of the CFROZ shall apply to property or proposed projects wholly or partially within the boundaries of the Coastal Flood Resilience Overlay Zone as depicted on the City of Portland Zoning Map. However, property or proposed projects within the CFROZ boundary that are also located wholly or partially within special flood hazard areas with a BFE of 13 feet or higher as defined in Article 12 shall be exempt from the provisions of the CFROZ.

8.1.3 Relationship to underlying zoning

The CFROZ constitutes an overlay zone. The provisions of the underlying zoning, as they may be amended from time to time, continue to apply, except as expressly superseded by this Section. Where conflicts exist between this Section and the remainder of this Code, the more restrictive provision shall govern.

8.1.4 Use classifications

A. For the purposes of this Section, uses in the CFROZ shall be classified as follows:

1. *Critical uses.* Critical uses generally include residential, governmental, educational, medical, emergency, and related high-risk uses.

2. *Non-critical uses.* Non-critical uses generally include retail, restaurant, commercial, and related medium-risk uses.

3. *Exempt uses.* Exempt uses generally include low risk and low occupancy uses such as parking, construction yards, and storage.

B. Table 8-A shall determine whether a use is classified as critical, non-critical, or exempt. For uses not listed in Table 8-A, the Building Authority or the Planning Authority shall determine the classification based upon the most nearly comparable land use. Water-dependent uses shall be considered exempt.

C. All accessory uses shall be considered non-critical, with the following exceptions:

1. Accessory dwelling units.

2. Child care centers and small child care facilities greater than 1,000 square feet in floor area.

3. Clinics greater than 1,000 square feet in floor area.

TABLE 8-A: CLASSIFICATION OF USES AS CRITICAL, NON-CRITICAL, OR EXEMPT

		Critical	Non-Critical	Exempt
Residential	Single-family dwellings	●		
	Two-family dwellings	●		
	Three-family dwellings	●		
	Four-family dwellings	●		
	Townhouse dwellings	●		
	Multi-family dwellings	●		
	Live/work dwellings	●		
	Group homes	●		
	Lodging houses	●		
Institutional	Child care centers + small child care facilities	●		
	Clinics	●		
	Cultural facilities	●		
	Elementary, middle, and secondary schools	●		
	Emergency shelters	●		
	Governmental uses	●		
	Hospitals	●		
	Places of assembly	●		
	Post-secondary schools	●		
	Residential care facilities (small)	●		
	Residential care facilities (large)	●		
Commercial	Adult business establishments		●	
	Animal-related services		●	
	Auto, boat, and related dealerships		●	
	Auto service stations			●
	Bars		●	
	Bed and breakfasts	●		
	Exhibition, meeting, and convention halls		●	
	Funeral homes		●	
	General offices		●	
	General services		●	
	Greenhouse/Nursery, retail			●
	Hostels	●		
	Hotels	●		
	Marijuana retail store		●	
	Market garden			●

TABLE 8-A: CLASSIFICATION OF USES AS CRITICAL, NON-CRITICAL, OR EXEMPT

		Critical	Non-Critical	Exempt
Commercial	Neighborhood nonresidential reuse		●	
	Office park		●	
	Recreation and amusement centers		●	
	Registered marijuana dispensary		●	
	Restaurants		●	
	Retail		●	
	Small-scale marijuana caregiver		●	
	Specialty food service		●	
	Theaters and performance halls		●	
	Veterinary services		●	
Industrial	Communication studios		●	
	Construction & engineering services		●	
	Dairies			●
	Fish waste processing		●	
	Food & seafood processing, packing, and distribution		●	
	High-impact industrial uses		●	
	Impound lots			●
	Intermodal transportation facilities		●	
	Laboratory and research facilities		●	
	Low-impact industrial		●	
	Lumber yards			●
	Marijuana cultivation facility (<2,000 SF plant canopy)			●
	Marijuana cultivation facility (2,000-7,000 SF plant canopy)		●	
	Marijuana cultivation facility (>7,000 SF plant canopy)		●	
	Marijuana manufacturing facilities		●	
	Marijuana testing facilities		●	
	Printing and publishing		●	
	Recycling facilities			●
	Self-storage		●	
	Solid waste disposal facilities			●
	Studios for artists and craftspeople		●	
	Telecommunication towers (ground-mounted)			●
	Warehousing and distribution		●	

TABLE 8-A: CLASSIFICATION OF USES AS CRITICAL, NON-CRITICAL, OR EXEMPT

		Critical	Non-Critical	Exempt
Other	Agriculture			●
	Boathouses and storehouses for fishing equipment			●
	Campgrounds			●
	Cemeteries			●
	Marinas and yacht clubs			●
	Marine uses			●
	Off-street parking			●
	Parks and open spaces			●
	Social service centers	●		
	Solar energy system (minor)			●
	Solar energy system (major)			●
	Utility substations	●		
	Wharves, piers, docks, and landing ramps			●
	Wind energy system (minor)			●
	Wind energy system (major)			●

8.1.5 Projects subject to the standards of the CFROZ

A. Any development located within the established boundary of the CFROZ, and which meets the thresholds listed below, shall be subject to the standards of the CFROZ.

1. All new construction containing a critical use or uses.
2. New construction of greater than 1,000 square feet containing non-critical uses only.
3. Any addition of greater than 1,000 square feet containing critical or non-critical uses.

B. Where a change of use occurs within the CFROZ, all portions of a building containing a critical use and the critical systems supporting such use shall meet the CFROZ standards. Changes of use to non-critical uses shall not require compliance with the CFROZ standards.

C. Structures within the CFROZ that are 50,000 square feet or greater in gross floor area and undergoing substantial improvement are required to meet the CFROZ standards when they contain a critical use or uses. For the purposes of this subsection, substantial improvement shall be as defined in Article 12.

8.1.6 Use and dimensional requirements

A. Sea level rise design flood elevation (SLR-DFE). The required SLR-DFE shall be determined by use classification. For mixed-use developments that contain uses in different classifications sharing a ground floor, each use shall be addressed independently.

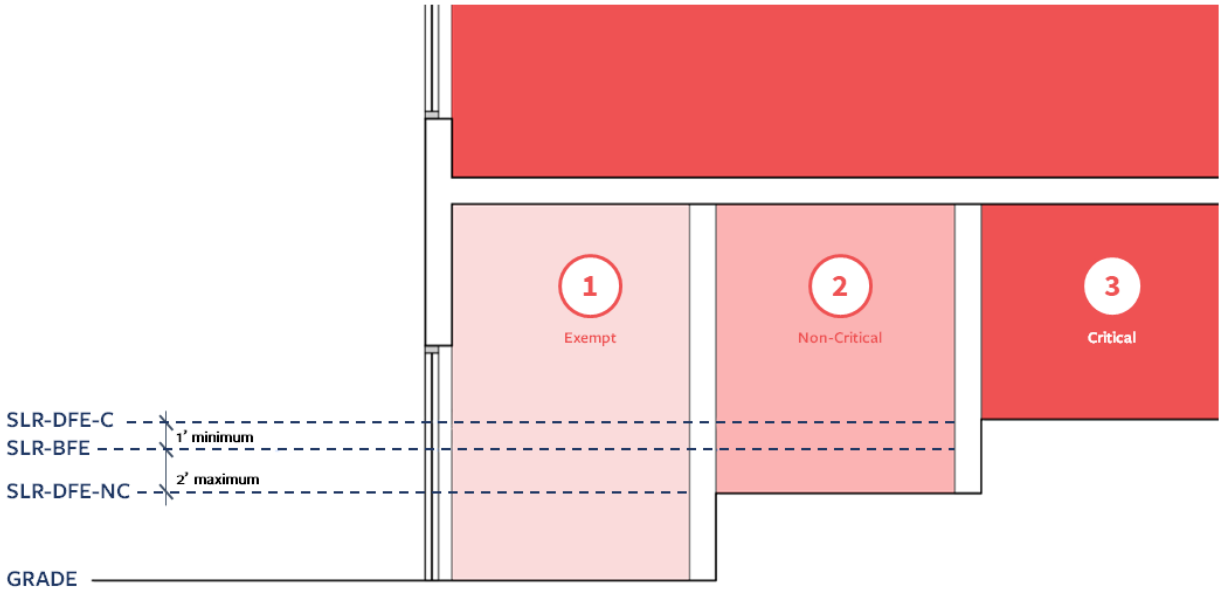


FIGURE 8-A: CFROZ USE CLASSIFICATIONS AND DESIGN FLOOD ELEVATION

1. *Critical uses.* The SLR-DFE for all critical uses (SLR-DFE-C), including the critical systems serving such uses, shall be a minimum of one foot above SLR-BFE, as defined in Article 3. In a proposed project containing critical uses, the following building and site elements are permitted to be located below the SLR-DFE:
   a. Lobbies, entries, egress stairs, and elements required for vertical circulation from the SLR-DFE to grade, such as elevators, ramps, and stairs.
   b. Parking.
   c. Storage.
   d. Flood protection equipment.
2. *Non-critical uses.* The SLR-DFE for non-critical uses (SLR-DFE-NC), including the critical systems serving those uses, shall be no lower than two feet below SLR-BFE, as defined in Article 3. The minimum elevation of the underside of the beams supporting the second floor in a multi-story building, or the roof in a one-story building, shall be no less than 13 feet above SLR-BFE. In a proposed project containing non-critical uses, the following building and site elements are permitted to be located below SLR-DFE:
   a. Lobbies, entries, egress stairs, and elements required for vertical circulation from the SLR-DFE to grade, such as elevators, ramps, and stairs.
   b. Parking.
   c. Storage.
   d. Flood protection equipment.
3. *Exempt uses.* Exempt uses shall not be subject to dimensional requirements with respect to SLR-BFE.

B. **Building height.** Within the CFROZ, if a proposed project contains principal critical or non-critical uses on the ground floor, height shall be measured from the SLR-DFE or from

average grade, whichever is higher.

C. **Exemptions for required ramping and stairs.** Ramping and stairs necessary to meet any required SLR-DFE may be included within the calculation of area required to meet landscaped open space ratio requirements, and shall not be included within the calculation of lot coverage. Ramping and stairs necessary to meet any required SLR-DFE may be located in any required front yard, interior or corner side yard, or rear yard, and in cases where build-to requirements apply, shall be considered to meet the build-to percentage.

D. **Hazardous materials.** Any hazardous materials shall be fully contained and elevated a minimum of two feet above SLR-DFE.

8.2 FORT SUMNER PARK HEIGHT OVERLAY

8.2.1 Purpose

The purpose of the Fort Sumner Park Height Overlay is to protect the public interest by limiting the impact of development on the quintessential views of natural resources and the changing Portland skyline from Fort Sumner Park.

8.2.2 Applicability

A key apex point is established in Fort Sumner Park at 43° 40' 2.3359" N. 70° 15' 4.3687" W . The Fort Sumner Park Height Overlay includes all land within 200 feet to the west of this key apex point as indicated on the City of Portland Zoning Map.

8.2.3 Standards

Notwithstanding any other section of this Land Use Code, development in the Fort Sumner Park Height Overlay shall be subject to the following additional provisions:

A. The top of structures, including rooftop appurtenances, within the overlay shall not exceed the baseline vertical height of the apex point (160.27' City of Portland Datum (Mean Tide)). For each 25' radially away from the apex point, the vertical height permitted in the overlay is reduced by 1 foot. (See Figure 8-B.)

B. The minimum building setback from the park property shall be 15 feet.

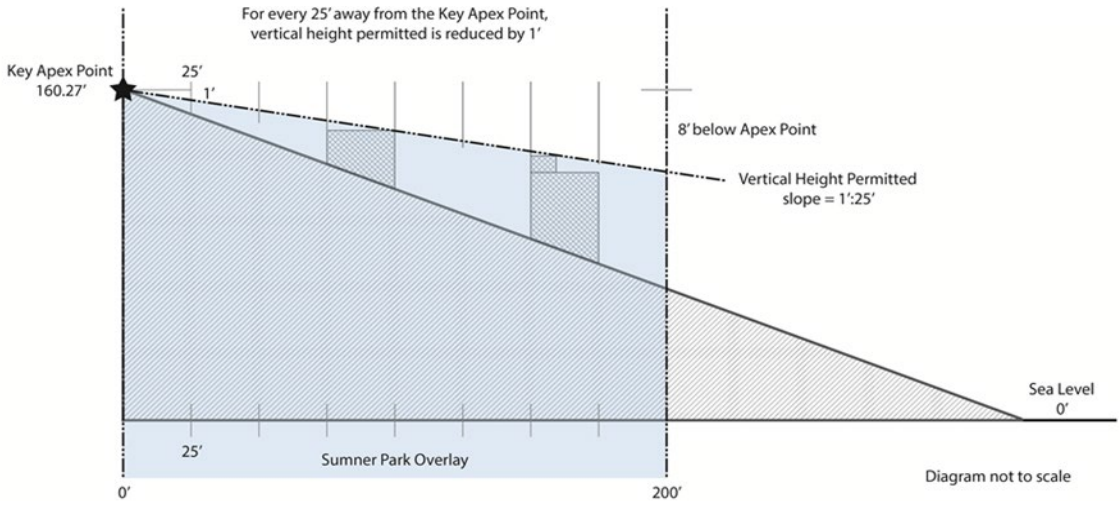


FIGURE 8-B: FORT SUMNER PARK OVERLAY PERMISSIBLE HEIGHT

8.2.4 Review process

Any project within the Fort Sumner Park Overlay shall go before the Parks Commission for a recommendation to the Planning Board regarding potential impacts on Fort Sumner Park.

8.3 INSTITUTIONAL OVERLAY (IOZ)

8.3.1 Purpose

The Institutional Overlay Zone (IOZ) provides a regulatory tool available to the city's major medical and higher education campuses where an alternative regulatory structure is needed to facilitate a consistent, predictable, and clear growth management process. The purposes of the Institutional Overlay Zone are to:

A. Acknowledge that the city's major academic and medical institutions play a prominent role in the health and well-being of the local and regional community, and to sustain that role, these institutions need flexibility to change and grow.

B. Encourage proactive planning for institutional change and growth which identifies and addresses likely long-term institutional needs and cumulative impacts while leveraging potential benefits at the neighborhood, city, and regional level.

C. Ensure that institutional change and growth both complements and, as appropriate, integrates adjacent or surrounding neighborhoods through carefully planned transitions.

D. Support the formation and continuation of mutually beneficial public-private cooperation.

E. Support an ongoing public engagement process that benefits both the institutions and nearby neighborhoods.

F. Reflect Comprehensive Plan and other policy objectives.

G. Provide a regulatory tool for Portland's major institutions that includes the flexibility required to balance the particular needs of institutions with the needs of the surrounding neighborhood and wider community.

8.3.2 Location and applicability

The city's major medical and higher education institutions are eligible to apply for designation as Institutional Overlay Zones. Use of an Institutional Overlay Zone is encouraged for these institutions, particularly where proposed future development may be inconsistent with current base zoning.

8.3.3 Establishment

A. Application for an Institutional Overlay Zone. Where an eligible institution seeks designation as an IOZ, they shall submit a zone change application consisting of two components:

1. An Institutional Development Plan (IDP) in accordance with Subsection 8.3.4.
2. A regulatory framework in accordance with Subsection 8.3.5. If adopted, this framework shall serve as the text and map amendment to the City's Land Use Code and zoning map.

B. Required public involvement. At least two neighborhood meetings shall be required to establish designation as an IOZ. The first shall be held prior to the formal submission of a zone change application, and the second shall be held during the City's review. Meetings shall identify the concerns, if any, of affected residents and property owners, and should solicit feedback to inform the Institutional Development Plan (IDP) and regulatory framework proposed. Meetings shall be held in

a convenient location proximate to the institution. The applicant shall provide written notification to property owners of record within 500 feet of the proposed IOZ boundary at least ten days prior to the meeting dates, and shall maintain written records of the meetings.

C. Required scoping meeting. The eligible institution shall meet with the Planning Authority after the first required neighborhood meeting and prior to submission of the zone change application to confirm the focus of the Institutional Development Plan (IDP) and regulatory framework, including associated study areas that may be outside of the proposed IOZ boundary. The IDP and regulatory framework will vary in detail and focus depending on the eligible institution and its context. The content requirements in Subsections 8.3.4 and 8.3.5 and the recorded comments from neighborhood meeting(s) shall provide direction for the content of the IDP. The Planning Authority or Planning Board may require additional information or modify content requirements as is relevant to the eligible institution.

D. Reviewing authority. The Planning Board shall review the zone change application, including the IDP and regulatory framework. At least one public workshop and a public hearing before the Planning Board are required. Upon recommendation of the Planning Board, the City Council shall review and consider adoption of the Institutional Overlay Zone and the accompanying regulatory framework as an amendment to the City's Code of Ordinances.

E. Future institutional development. All new development shall be compliant with the established IOZ and accompanying regulatory framework. It shall also be consistent with the IDP, consistent with the Comprehensive Plan, and shall meet applicable site plan standards, unless such standards are superseded by the regulatory framework. Any development proposed by an eligible institution outside the established IOZ boundary shall be reviewed under the standards of the applicable zone , unless such development is proposed in a residential zone and is functionally related to the operations within the IOZ, in which case it shall be addressed by the IDP and require an amendment to the IDP as applicable.

8.3.4 Institutional Development Plan (IDP)

A. Purpose. Any use conducted by an eligible institution and any construction by an eligible institution in an Institutional Overlay Zone shall be consistent with an Institutional Development Plan (IDP) approved by the Planning Board in accordance with this section. The purpose of the IDP is to establish baseline data about institutional land uses, facilities, and services, and to measure, analyze, and address the anticipated or potential impacts of planned institutional growth and change. The IDP shall serve as a background document that supports the proposed regulatory framework and informs subsequent site plan review(s).

B. Planning horizon. An IDP shall provide the City and abutting neighborhoods with a clear outline of the anticipated or potential growth and change of the eligible institution for the short- to medium-term (e.g. 1-5 and 5-10 years respectively), as well as a conceptual growth plan for the long-term (e.g. 10 years or more). However, the specific planning horizons for each institution will be determined as part of

the IDP approval process.

C. Content. The IDP submission shall address the following elements unless specifically modified by the Planning Authority or Planning Board, with the scope and level of detail to be clarified at the required scoping meeting:

1. Context information, including:

a. The institution's adopted mission, vision, or purpose statement.

b. A summary of relevant baseline data on the institution, including:

i. A neighborhood context plan.

ii. An inventory of current programs and services.

iii. A current census of the number of people using the institution (e.g., employees, enrollment, patients), with an indication of maximums and minimums over time.

iv. An inventory and/or plan of all existing property holdings within the main campus and within the City of Portland, including an indication of functional land use links between off-campus properties and the main campus (e.g. remote parking).

v. An inventory and/or plan of existing facilities, including data on use, floor area, and any existing functional connections between facilities.

c. A summary of the baseline characteristics of the existing campus and context of the institution, based on identified study areas, including:

i. A summary of existing resources, such as historic, open space, and natural resources.

ii. A summary of the existing transportation system, including vehicular, pedestrian, transit, bicycle, and parking supply, demand, and utilization.

iii. A summary of existing public infrastructure supporting the institution, including demand, utilization and any capacity issues.

iv. Relevant municipal plans, projects, and studies that may influence the IDP study area and opportunities for integrating institutional growth.

d. A summary of public involvement in the development of the IDP, including major areas of public concern.

2. Assessment of future institutional growth and change, including:

a. A description of institutional needs and areas of future institutional growth and change, with:

i. A projected census of users (e.g., enrollment /employment/patient/ visitor figures and anticipated variations over time).

ii. Institutional objectives for property both within and outside the IOZ boundary (e.g. acquisition and/or disposition), including an indication of any functional land use connection for sites outside the IOZ boundary to the main campus.

iii. A development plan addressing anticipated or potential institutional needs and physical improvements, including the proposed boundary of the IOZ and any phasing of the development.

b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:

i. Transportation and access, with:

a) An analysis of the projected changes in parking demand, supply, and impacts to the off-street and on-street parking capacity, including an explanation of the proposed parking plan.

b) An analysis of the projected changes in vehicular, pedestrian, transit, and bicycle access routes and facilities, their capacity, and safety.

c) A transportation, access, and circulation plan, representing the synthesis of the analysis, and including a program of potential improvements or set of guidelines to address access deficiencies to and within the IOZ. The plan should outline proposed mechanisms and potential strategies to meet transportation objectives, including transportation demand management, phasing, and when a Traffic Movement Permit (TMP) may be required.

ii. Environment, with:

a) An analysis of potential cumulative impacts on natural resources and open spaces.

b) An analysis of projected energy consumption, hazardous materials generation, noise generation, and similar issues as relevant.

c) An environmental plan, representing the synthesis of the analysis and including a proposed program or set of guidelines for future preservation, enhancement, conservation, and/or mitigation.

iii. Infrastructure, with:

a) An analysis of projected public utility demand and the capacity of associated infrastructure.

b) An analysis of projected public safety needs and projected impacts to the capacity of these services.

c) An infrastructure plan, representing the synthesis



of the analysis and including a proposed program or set of guidelines to support sustainable growth.

iv. Design, with:

a) An analysis of projected impacts to neighboring properties and public spaces, including potential shadow, wind, and lighting impacts, impacts of height and massing, and impacts to historic resources.

b) An analysis of transition areas between the institution and adjoining neighborhoods, including identification of key character defining components of the surrounding context.

c) An analysis of existing Crime Prevention Through Environmental Design issues and identification of how these principles would be addressed as part of the proposed campus development.

d) A conceptual built environment/public realm plan, representing the synthesis of the analysis and including a set of guidelines for urban design, landscape, open space, and streetscape treatments, with particular attention to the treatment of edges (both within and abutting the IOZ boundary) to achieve compatible transitions.

v. Neighborhood engagement, with:

a) A plan for ongoing community engagement that represents best practices, promotes collaborative problem solving around community concerns, fosters transparency, and identifies mechanisms for neighborhood feedback and institutional accountability.

b) A property management framework that identifies the institution's process for handling operational property issues with neighbors.

c) Strategies for assuring communication pertaining to property acquisition and disposition in surrounding neighborhoods.

d) A set of construction management principles to apply to all institutional construction, that represent best practice, aim to minimize short- and long-term construction impacts on surrounding residents and businesses, and ensure a clear

communication strategy is in place in advance of construction.

D. Standards of review. The IDP shall:

1. Address all content requirements, unless explicitly modified by the Planning Authority or Planning Board.
2. Reflect the issues/topics identified in the required public process.
3. Demonstrate consistency with the City's Comprehensive Plan and the purpose of this ordinance.
4. Demonstrate how the property ownership, proposed growth, and requested regulatory framework relate to the institution's mission.
5. Demonstrate that traffic and parking impacts have been anticipated and that the proposed parking provision is justified as based on an assessment of options for reducing traffic and parking demands.
6. Outline an approach to open space, natural, and historic resources that supports preservation and enhancement.
7. Demonstrate that potential cumulative environmental impacts have been anticipated and can be minimized or satisfactorily mitigated.
8. Demonstrate that utility impacts have been anticipated and can be minimized or satisfactorily mitigated.
9. Reflect a comprehensive design approach that ensures appropriate transitions with the existing or future scale and character of the neighboring urban fabric.
10. Promote compatibility with existing or future uses in adjacent neighborhoods, maintain housing, and support local amenities.
11. Anticipate future off-site improvements that would support the integration of the institution into the community and city-wide infrastructure.
12. Conform with the standards of Article 16 for designated landmarks or for properties within designated historic districts or designated historic landscapes, if applicable. ~~When proposed adjacent to or within 100 feet of designated landmarks, historic districts, or historic landscapes, the IDP shall be generally compatible with the major character-defining elements of the landmark or portion of the district in the immediate vicinity.~~
13. Incorporate strategies to support clear communication and ongoing public engagement between institutions and nearby neighbors.

E. Approval. Upon finding that an eligible institution's IDP meets the standards of review, the Planning Board shall approve, approve with conditions, or deny an IDP.

F. Monitoring. The IDP shall establish a schedule for reporting on IDP implementation at regular intervals of not more than ten years from the date of approval of the initial or amended IDP, and identify thresholds for IDP amendments.

G. Amendments. An approved IDP shall guide campus development unless and until amended. If at any time the eligible institutions request minor amendments to an approved IDP, the Planning Authority may approve such minor amendments, provided that they do not constitute a substantial alteration of the IDP and do not affect any condition or requirement of the Planning Board. The applicant shall apply

with a written statement of the proposed amendment and proposed amended IDP to the Planning Authority, whose decision as to whether the amendment is minor shall be final. Major amendments shall be reviewed by the Planning Board. When the IDP is amended, the baseline data in the IDP shall be updated as appropriate.

8.3.5 Regulatory framework

A. Purpose. The regulatory framework translates the IDP into a set of clear and specific zoning requirements for the IOZ that constitute the text and map amendments to the City's Land Use Code and zoning map. The zoning requirements are anticipated to include parameters that guide the growth and change of the institution as well as broad strategies to address potential impacts, with plans and details to be developed under site plan review.

B. Applicability. The regulatory framework shall apply only to properties that are within the IOZ boundary and to which the eligible institution holds right, title, or interest. For these properties, the Institutional Overlay Zone shall supersede the underlying zoning, and all new institutional development shall be conducted in compliance with the regulatory framework and the approved Institutional Development Plan. Properties located within the Institutional Overlay Zone not subject to right, title, or interest of the eligible institution shall continue to be governed by the regulations of the underlying zoning designation.

C. Uses. Institutional uses, including hospitals and higher education facilities, shall be permitted, as shall uses that are functionally integrated with, ancillary to, and/or substantively related to supporting the primary institutional use, consistent with the applicable approved IDP.

D. Content. The regulatory framework shall reflect the information and analysis of the IDP. The content shall be tailored to address the issues associated with the institution and its neighborhoods. The regulatory framework should be succinct and use tables and graphics to address the following, if applicable:

1. *Zoning boundary of the IOZ.* The area to which the regulations apply, as shown on the zoning map, subject to other provisions of this ordinance (i.e. the map amendment to the City's zoning map).
2. *Phasing and schedules.* Requirements that relate to proposed phases; a chart showing the schedule or thresholds for submitting an amended IDP (or elements of an IDP, such as a Transportation Demand Management (TDM) Plan).
3. *Uses*. Clarification, as necessary, on permitted uses.
4. *Dimensional requirements.* Graphics, sketches, or standards, including details for transition zones within the IOZ boundary.
5. *Transportation.* Elements such as Transportation Demand Management Plan (TDM) trip reduction targets or contribution to area-wide TDM measures; broad parameters for ensuring pedestrian, vehicular, bicycle and transit access and safety; parking ratios and management strategies; thresholds for access improvements.
6. *Environment.* The approach to the inclusion of open space and preservation of environmentally-sensitive areas.
7. *Mitigation measures.* The broad approach to identified mitigation measures, which

would be addressed in greater detail in the site plan review process; thresholds for addressing deficiencies; goals for preservation/protection.

8. *Design.* Graphics and standards to clarify building placement and envelope (height and massing); guidelines for integration of site features; required treatments for transition zones and treatment for all edges (both within and abutting the IOZ boundary); guidelines for establishing campus identity.
9. *Neighborhood integration.* Thresholds and strategies for neighborhood engagement; mitigation of impacts on neighboring properties, including construction impacts; buffering requirements; objectives for pedestrian linkages and safety; other requirements that address community concerns.
10. *Monitoring.* A schedule for regular monitoring reports on IDP implementation in accordance with the IDP.

E. Standards of review. The regulatory framework shall:

1. Be consistent with the Comprehensive Plan and the Institutional Development Plan.
2. Provide a clear zoning framework, using graphics and tables as appropriate, to apply to future site plan reviews.
3. Provide specific regulatory statements as appropriate that respond to concerns raised during the required public involvement.
4. Outline measurable goals and thresholds for improvements or other actions identified in the IDP to be advanced in subsequent site plan applications.

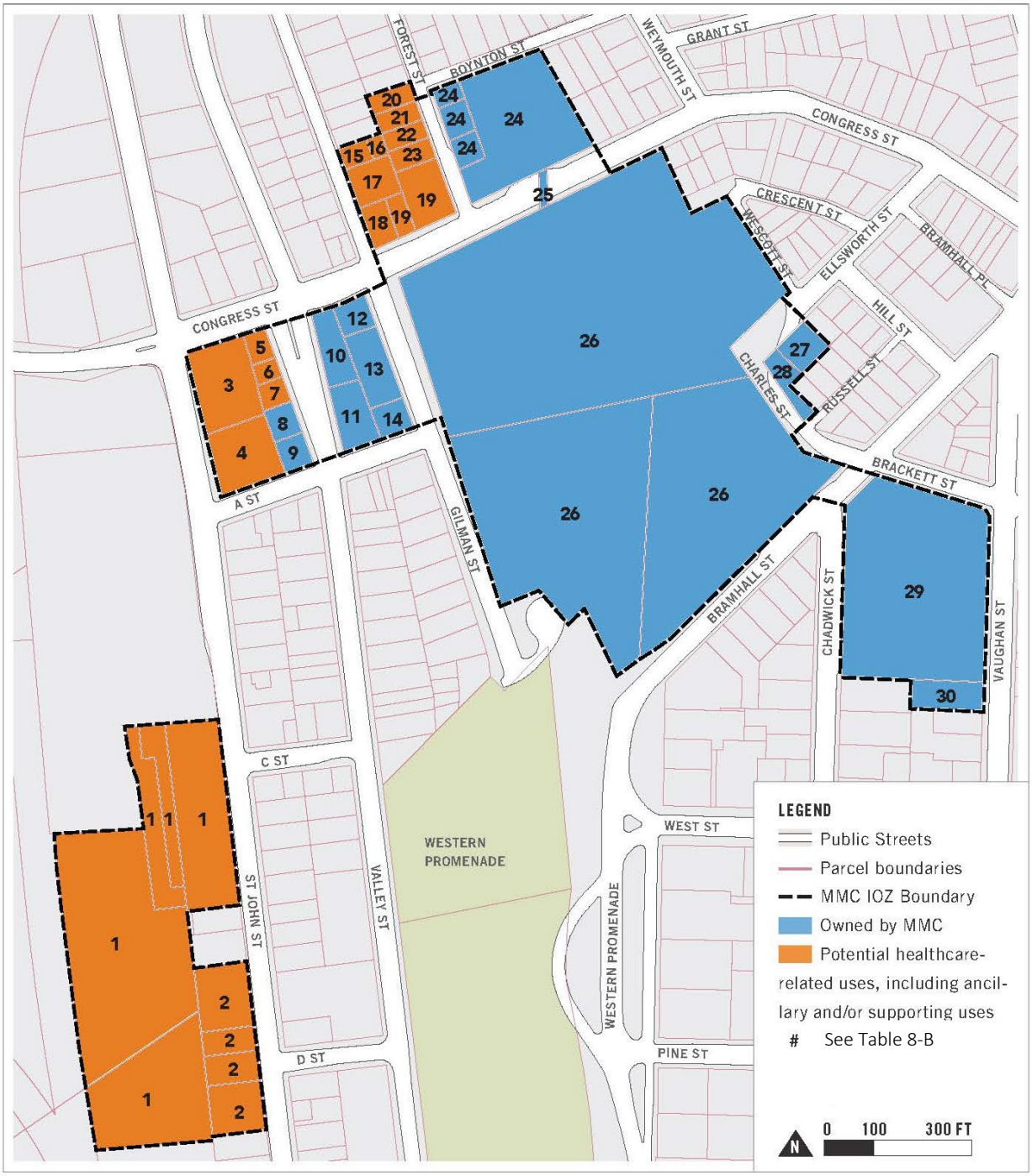
F. Approval/adoption. The Planning Board shall review the proposed regulatory framework against the standards of review and make a recommendation on the institution's IOZ designation and regulatory framework to the City Council for adoption as part of this Land Use Code.

G. Amendments. A regulatory framework and IOZ boundary as adopted by the City Council shall remain in force unless and until amended. Amendments to a regulatory framework and/or IOZ boundary may be brought forth by the City or eligible institution. Proposed amendments to the IOZ boundary or regulatory framework shall be reviewed by the Planning Board and adopted by the City Council subject to the provisions of this ordinance.

8.3.6 Maine Medical Center Institutional Overlay Zone Regulatory Framework

A. Applicability. All development proposed by Maine Medical Center (MMC) within the boundary of the MMC Institutional Overlay Zone (IOZ) shall be consistent with the approved Institutional Development Plan (IDP), consistent with the Comprehensive Plan, and meet applicable standards of the Land Use Code, unless such standards are superseded by the following regulatory framework. This regulatory framework shall govern future development by MMC within the IOZ unless amended by the Portland City Council upon formal application of MMC. The MMC Institutional Overlay Zone shall have the boundaries depicted in Figure 8-C, and shall include the properties listed in Table 8-B.

B. Updates and amendments. It is intended that the IDP will be updated on a regular basis to



Note: Refer to Table 8-C for a list of permitted uses.

FIGURE 8-C: MMC IOZ BOUNDARY

TABLE 8-B: LIST OF PROPERTIES INCLUDED IN THE MMC IOZ

Map#	Legal Description	Address	Acreage	Ownership
1	64-A-2-8-9-11/74-A-7/75-A-6	222 St John St.	4.6516	Owned by others
2	68-D-1-3-13-14-16	180 St John St.	0.9494	Owned by others
3	65-G-1	950 Congress St.	0.4628	Owned by others
4	64-B-1	275 St John St.	0.4163	Owned by others
5	65-G-2	942 Congress St.	0.0659	Owned by others
6	65-G-3	940 Congress St.	0.0482	Owned by others
7	65-G-4	274 Valley St.	0.0667	Owned by others
8	65-G-5	268-270 Valley St.	0.0978	MMC
9	64-B-2	262-266 Valley St.	0.0895	MMC
10	65-H-1	932 Congress St.	0.1864	MMC
11	65-H-9	261 Valley St.	0.2185	MMC
12	65-H-2	930 Congress St.	0.1040	MMC
13	65-H-5	52 Gilman St.	0.2384	MMC
14	65-H-8	44 Gilman St.	0.1128	MMC
15	65-E-22	85 Gilman St.	0.0565	Owned by others
16	65-E-32	85 Gilman St.	0.0282	Owned by others
17	65-E-24	81 Gilman St.	0.1653	Owned by others
18	65-E-28	919 Congress St.	0.1059	Owned by others
19	65-E-29-30	909 Congress St.	0.3233	Owned by others
20	65-E-19	22 Forest St.	0.0826	Owned by others
21	65-E-21	18 Forest St.	0.0831	Owned by others
22	65-E-23	14 Forest St.	0.0826	Owned by others
23	65-E-25	12 Forest St.	0.0883	Owned by others
24	53-I-1-2-3-12	887 Congress St.	1.3400	MMC
25	53-X-1	Congress St. Pedestrian Walkway	---	MMC
26	53-D-7/54-H-1/64-C-1	22 Bramhall St.	12.563	MMC
27	54-C-6	34 Ellsworth St.	0.1341	MMC
28	54-C-10	40 Ellsworth St.	0.1155	MMC
29	54-I-1	308 Brackett St.	2.5200	MMC
30	63-B-8	214 Vaughan St.	0.1983	MMC

Properties owned by MMC are listed under MMC or MMC Realty Corp.
MMC will not extend its functionally-related Bramhall campus hospital operations beyond the boundary of the IOZ within the City of Portland without further amendment to the IDP. This includes any expansion of functionally-related operations that displace residential uses outside of the IOZ boundary. A functional relationship is defined as uses or activities that are traditionally or customarily linked to the day-to-day operations of the MMC Bramhall Campus that would relocate a significant proportion of the total employee population or activities.

ensure that the data is current and that the document remains accurate. Accordingly, monitoring reports will be filed every three years and shall include a summary of progress on IDP implementation and of acquisitions and divestment since the date of IDP approval. At the time of the submission of the monitoring report, MMC shall identify any updates to the IDP which may result from updated master planning, changes in baseline information, or changes in the adjacent neighborhoods which affect MMC, to allow the IDP to remain current. Updates and minor amendments not described below shall be reviewed administratively by the Planning Authority.

1. Minor amendments that impact phasing of the long-term development blocks or change the approach to parking, transportation, neighborhood engagement or design shall be reviewed by the Planning Board for consistency with the objectives of the IDP. In addition to consistency with the objectives of the IDP, review of phasing and development program amendments shall focus on integration with the campus and impacts on transportation or infrastructure. This review may occur simultaneously with the site plan review of an anticipated project.
2. Major amendments shall be reviewed by the Planning Board and are required under the following circumstances:
   a. A change to the regulatory framework is required.
   b. The IDP is no longer representative of the institutional mission or approach to community as a result of redevelopment in the area or City upgrades to neighborhood planning (such as roadway changes, infrastructure upgrades, community design, lighting).
   c. Development proposed by MMC is inconsistent with the master facility plan, transportation plan intent, design plan intent, or environment and infrastructure plan intent identified in the IDP.
3. Annual monitoring reports will be

TABLE 8-C: PERMITTED USES

Healthcare facilities, including but not limited to the following ancillary and/or supporting uses:

- Hospital
- Medical office/Clinic
- Laboratory center/services
- Research and development (R&D) laboratory or facility
- Educational facility/Conference center
- Administrative/Business office
- Accessory service or trade uses
- Guest house
- Multi-family housing for healthcare staff and students
- Rehab/Skilled nursing facility
- Retail
- Restaurant/cafe
- Employee service amenities
- Day care center
- Fitness center or gymnasium
- Parking lot or garage
- Bicycle storage
- Heliport
- Antenna station
- Outdoor use areas, such as green areas, parks, gardens, art installations, and other active and passive non-commercial recreation spaces

submitted for MMC's Transportation Demand Management (TDM) Plan. TDM monitoring reports shall include a summary of progress towards targets established in the TDM Plan.

C. Uses. In addition to the uses permitted in the underlying zone, the uses in Table 8-C are permitted as a matter of right. In recognition that MMC is part of a mixed-use area of the city, with important existing services and businesses that serve the local and wider community, healthcare facility development fronting onto Congress Street and St. John Street shall activate the public realm, to the extent able, with uses such as service and retail/restaurant, landscaping, active building entrances, pocket parks, etc., on the ground or other publicly accessible level, consistent with the design intent contained in the approved IDP. In areas identified in the IDP as "Priority zone for commercially oriented/retail uses," usable ground floor retail, restaurant, or comparable community-oriented use that provides services to local residents and employees both during the day and evening hours is required. In areas labeled "Street activation through location of windows, entrances, etc.," usable ground floor retail, restaurant, or community-oriented use is encouraged to the extent practicable. Such uses, where constructed or facilitated as part of a healthcare related development, are expressly permitted whether ancillary or supporting the healthcare facility or not, and shall be open and welcoming to the general public in addition to employees or visitors of MMC.

D. Dimensional requirements. The MMC Institutional Overlay Zone shall have the dimensional requirements listed in Table 8-D and depicted in Figures 8-C and 8-D.

E. Design. New buildings within the IOZ shall adhere to the design guidelines set forth in Chapter 5: Design of the IDP and the site plan standards of Article 13.

F. Signs

1. At the time of first site plan review following IDP approval, a unified campus-wide signage plan shall be submitted for review and approval by the Planning Authority. Any update to such plan due to a change in name or logo shall not require amendment to the IDP.

2. Signs shall be designed in accordance with the campus-wide signage plan. All signs shall be designed in proportion and character with building facades and adjacent street typology. All signs shall be coordinated with the building and landscaping design and be constructed of appropriate permanent, high quality materials and finishes.

G. Transportation

1. *Transportation Demand Management* (*TDM*)

a. At the time of the first site plan review following IDP approval, MMC shall submit a campus-wide TDM Plan substantially in accordance with those TDM objectives and strategies identified in the approved Institutional Development Plan. The TDM Plan may be phased into short-, mid-, and long-term actions to allow for progressive implementation over time.

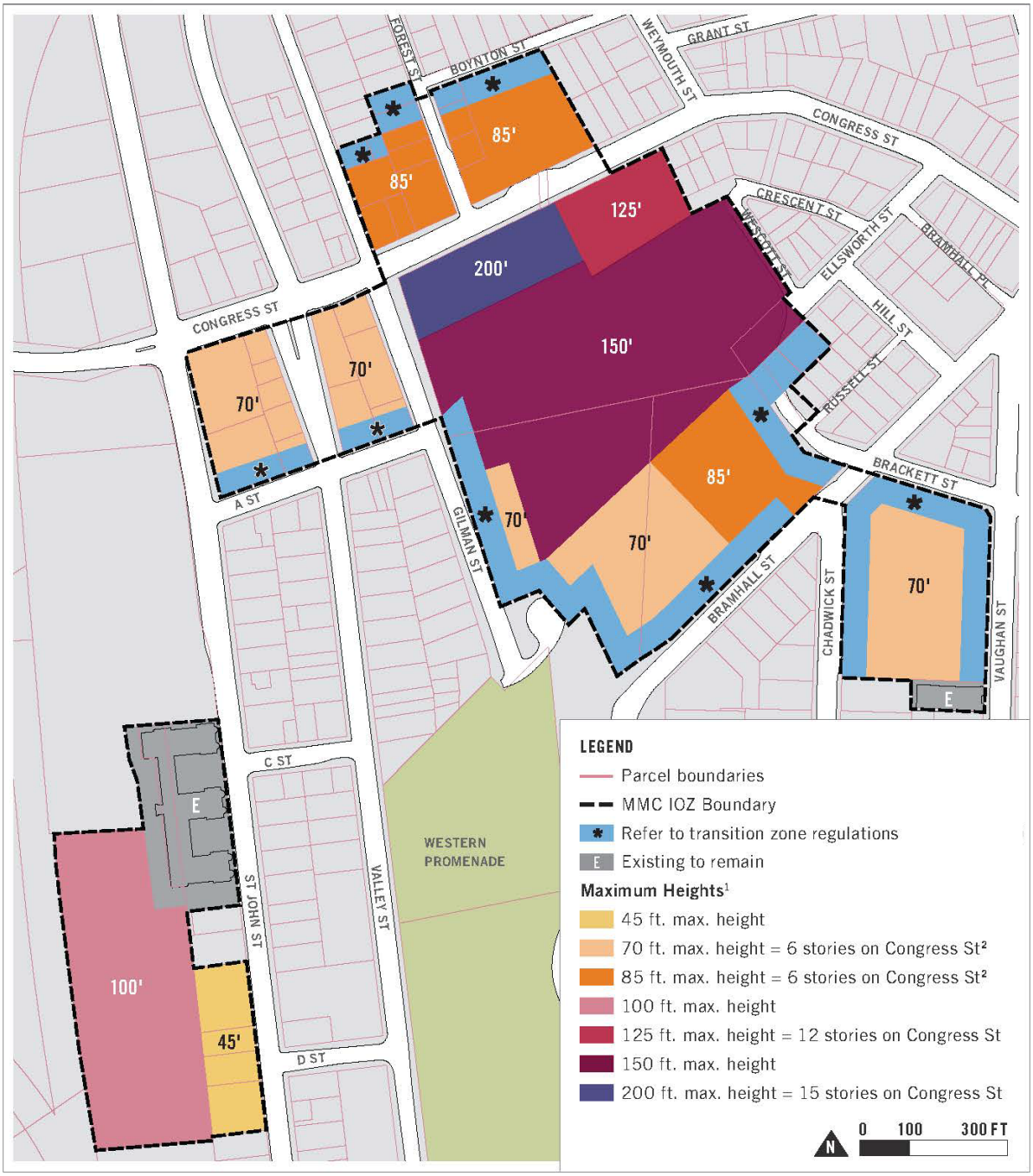
b. The TDM Plan shall be designed to provide transportation choice with the goal of reducing parking demand



TABLE 8-D: MMC IOZ DIMENSIONAL REQUIREMENTS

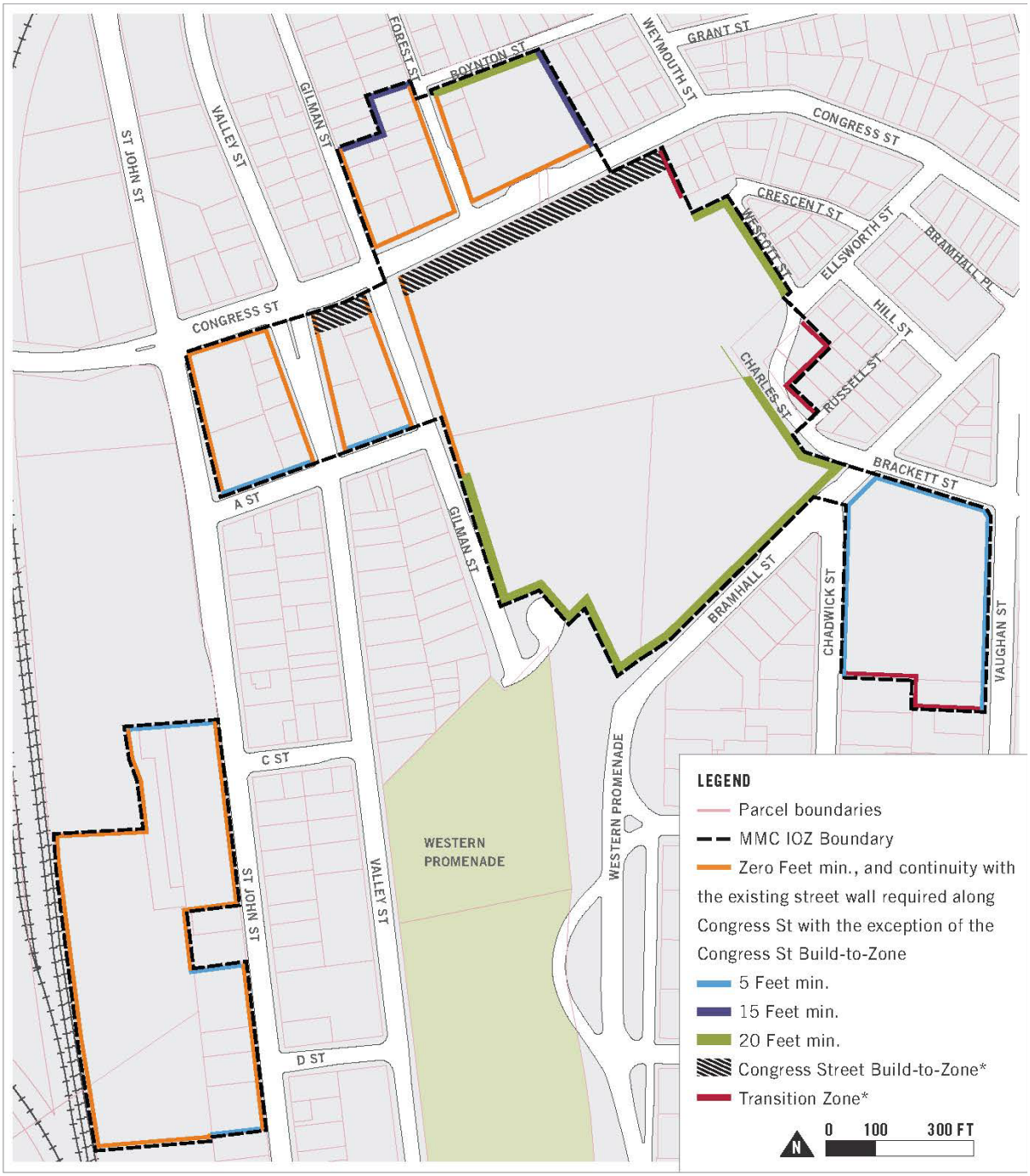
Building heights (max.)	Max. building heights for new buildings within the IOZ shall be governed by the Maximum Building Heights Map in Figure 8-D, or by the transition zones clause of this table for those buildings located in transition zones. Refer to IDP "Chapter 5. Design" for methodology on determining heights.
Building heights (min.)	Three stories, except in transition zones, where the minimum building height shall be two stories. Minimum building heights shall not apply to building awnings, associated kiosks, pavilions or similar building components.
Building length (max.)	Length of proposed parking garage at 222 St John St shall not exceed 500 feet as measured roughly parallel to St John St.
Building setbacks (min.)	Minimum building setbacks shall be governed by the Minimum Setbacks Map in Figure 8-E. Additional requirements are listed in the transition zones and Congress Street build-to zone sections of this table.
Congress Street build-to zone[1]	A build-to zone is identified for some properties that abut Congress Street. See Minimum Setbacks Map in Figure 8-E for the location of build-to zone. i. The Congress Street build-to zone extends between 0 to 40 feet from the right-of-way boundary. ii. Buildings located in these parcels must have a minimum of 70% of the façade facing Congress Street located within the build-to zone.
Transition zones	Transition zones are identified inside the IOZ boundary in areas where the IOZ abuts or is located across a public right-of-way from a residential zone or a historic-designated district. See Maximum Building Heights Map in Figure 8-D for location of transition zones. i. Transition zones shall extend 50 feet into the parcel from the parcel boundary. ii. Transition zones that abut a Residential zone with or without an intervening public right-of-way shall have a maximum height limit that matches the maximum height permitted within that Residential zone. iii. In areas where the IOZ abuts a residential zone without an intervening public right-of-way, minimum side and rear yard requirements of the abutting residential zone apply within the IOZ boundary, unless noted otherwise in Minimum Setbacks Map in Figure 8-E.

[1]A "build-to zone" is the area on the lot where all or a portion of the street-facing building facade must be located, measured as a minimum and max. yard (setback) range from the public right-of-way boundary.



Notes: 1. Minimum building heights also apply. Refer to Table 8-D.
2. For buildings with residential use above the ground floor, the following height maximums apply: 70 ft. maximum height = 7 stories, and 85 ft. maximum height = 8 stories.

FIGURE 8-D: MAXIMUM BUILDING HEIGHTS



* Refer to Table 8-D Dimensional Requirements

FIGURE 8-E: MINIMUM SETBACKS

and single-occupancy vehicle trips to and from MMC by employees and visitors.

b. The TDM Plan shall establish parking and trip reduction targets associated with the short-term (0-2 years), mid-term (2-5 years), and the long-term (5+ years), as well as a data collection plan.

2. *Parking.* Parking requirements in the IOZ shall be established at the time of site plan review based on a parking study that includes a campus-wide analysis of demand and supply. The parking demand study shall determine parking requirements and shall be sufficient to alleviate parking pressure on surrounding neighborhoods. Parking studies developed by MMC shall integrate parking and trip reduction achievements and data contained in the TDM Plan.

H. Environment. Development proposed by MMC shall be designed to integrate with the surrounding context, including open space and pedestrian networks and infrastructure.

I. Mitigation measures. MMC shall mitigate site plan impacts to off-premise infrastructure in a manner proportionate to those impacts. Mitigation may include financial or in-kind contributions to existing or planned City projects focused on mitigating the impacts of MMC development. Mitigation contribution shall be determined based on the City's standard procedure in effect at the time of site plan review.

J. Neighborhood integration and engagement

1. For the purpose of keeping surrounding residential areas appraised of its future development plans, and to address any neighborhood issues related to the operations of the MMC Bramhall campus, MMC shall adhere to the ongoing community engagement principles identified in the approved Institutional Development Plan.

2. MMC shall conduct ongoing community engagement, including the formation of a Neighborhood Advisory Committee comprised of representatives of MMC, the Parkside neighborhood, the West End neighborhood, the Western Promenade Neighborhood Association, the St. John Valley neighborhood, the Libbytown neighborhood, and the City.

K. Construction management

1. At the time of site plan review, MMC shall submit a construction management plan substantially in accordance with those construction management principles identified in the approved Institutional Development Plan for review and approval by the Planning Authority.

2. The construction management plan shall include a construction schedule, as well as strategies for managing neighborhood communication and noise, air quality, traffic, and parking impacts associated with the construction as set forth on the construction management template developed by the City and attached and incorporated to the IDP as Appendix A.

L. Other requirements

1. *Helipad.* Proposed changes to MMC's helipads, including changes to preferred flight routes, shall be reviewed and approved by the Planning Authority in



accordance with the approved Institutional Development Plan.

2. *Snow ban parking.* When the City of Portland declares a snow parking ban, MMC shall make parking available to neighbors in a designated parking area on or near its campus upon the following condition: Due to the patterns of patient flow in the hospital, the hours of snow ban parking for registered vehicles during an announced City of Portland snow parking bans are 6:00 p.m. until 6:00 a.m. Vehicles that are not moved out of these parking areas by the applicable time each morning are subject to towing at the owner's expense.
3. *Healthy communities.* Recognizing that a stable residential and commercial environment is key to the health of any neighborhood, MMC commits to supporting its existing and future neighbors in the St. John Valley, Parkside, West End, Western Prom, and Libbytown neighborhoods. Accordingly, MMC shall implement and participate in the healthy communities programs as described below.
   a. Caring Community Grants. MMC shall develop an annual grant program with available funds of up to $30,000. Goals, priorities, eligibility requirements, program guidelines, and allocation approach will be developed by the MMC Neighborhood Advisory Committee, as described in Chapter 6 of the IDP approved on September 26, 2017. Neighborhood associations or other entities located or operating in the St. John Valley, Parkside, West End, Western Promenade, and Libbytown neighborhoods may apply for grant funding relating to the following initiatives:
      i. Neighborhood investment and Infrastructure: Focused on creating strong, safe, accessible and vibrant neighborhoods.
      ii. Quality of life: Focused on improving access to recreation, arts or cultural experiences in the neighborhoods.
      iii. Diversity and inclusion: Focused on fostering the building of relationships and understanding among diverse groups, including capacity building and outreach activities.
      iv. Public Safety: Focused on supporting public safety programs through training programs, equipment or other means in the neighborhoods.
      v. Environmental sustainability: Focused on preventing waste, increasing recycling or supporting other programs that work to improve the environment.
   b. Healthy Neighborhoods Program. MMC shall initiate and adopt a memorandum of understanding (MOU) by and between MMC, the City of Portland, and other community partners establishing a Healthy Neighborhoods program. Such a program shall be designed to fund and execute housing and community

improvement and development programs in St. John Valley and the other neighborhoods surrounding MMC's Bramhall Campus.

8.3.7 The Roux Institute at Northeastern University Overlay Zone Regulatory Framework

A. Applicability. All development proposed by the Roux Institute at Northeastern University ("Roux Institute") within the boundary of the Roux Institutional Overlay Zone (IOZ) shall be consistent with the approved Institutional Development Plan (IDP), consistent with the Comprehensive Plan, and meet applicable standards of the Land Use Code, unless such standards are superseded by the following regulatory framework. This regulatory framework shall govern future development by the Roux Institute within the IOZ unless amended by the Portland City Council upon formal application of the Roux Institute. The Roux Institutional Overlay Zone shall have the boundaries depicted below and shall include the approximately thirteen-acre property located at 1 Bean Pot Circle and identified as parcels 447-A001 and A002 in the City's assessing records.

B. Phasing and monitoring

1. The Roux Institute campus will be developed in phases, as set forth in the IDP. The IDP will be updated on a regular basis to ensure that the data is current and that the document remains accurate. Accordingly, monitoring reports will be filed every three years and shall include a summary of progress on IDP implementation and of acquisitions and divestment since the date of IDP approval. At the time of the submission of the monitoring report, any updates to the IDP shall be identified which may result from updated master planning, changes in baseline information, or changes in the adjacent neighborhood which affect the campus, to allow the IDP to remain current. Updates and minor amendments not described below shall be reviewed administratively by the Planning Authority.
2. At completion of each phase, the Roux Institute campus shall have the appearance of a complete and comprehensive design. Permanent and meaningful public space shall be established in the first phase to ensure public benefit. Interim conditions shall be designed for a pleasant pedestrian experience through planting, lighting, wayfinding, graphics, artwork, or



FIGURE 8-F: ROUX INSTITUTIONAL OVERLAY ZONE BOUNDARY

ornamental fencing to provide screening, buffers, and enhancement. Interim areas of the site which are not actively used for parking or construction staging will be appropriately landscaped or accommodate gathering on lawns or other aesthetically hardened spaces.

3. Minor amendments that change the approach to parking, transportation, neighborhood engagement or design shall be reviewed by the Planning Board for consistency with the objectives of the IDP. This review may occur simultaneously with the site plan review of a proposed project.
4. Major amendments shall be reviewed by the Planning Board and are required under the following circumstances:
    a. A change to the regulatory framework is required.
    b. The IDP is no longer representative of the institutional mission or approach to community as a result of redevelopment in the area or City upgrades to neighborhood planning (such as roadway changes, infrastructure upgrades, community design, lighting).
    c. A change in approach to parking, transportation, neighborhood engagement or design is inconsistent with the objectives of the IDP, resulting in a modification to the applicable objectives.
5. Review of major amendments may occur simultaneously with the site plan review of the proposed project.

C. Uses

1. The Roux Institute campus will encompass a variety of uses to support the mission of the Institute. Campus uses will include classrooms and laboratories, housing, faculty offices, dining areas, convening spaces, fitness centers, retail facilities, entrepreneurial spaces, light manufacturing, incubator space, research and design facilities, hotel, and office space. The mixture of uses is intended to support collaboration with private industry, other institutions, and community organizations. A range of rental housing options will provide on-site opportunities for students, faculty, staff, and their families, easing some of the housing pressure and traffic that might otherwise result from new residents attracted to Portland by the institute. Housing units not occupied by residents affiliated with the Roux Institute may be made available to the public to further assist in easing the housing pressure.
2. The Roux Institute campus will be designed to include uses that will welcome neighbors to the campus, including publicly available open space, waterfront access, recreational opportunities, restaurant, dining, small neighborhood grocery, and/or other limited retail options.
3. In addition to the uses permitted in the underlying zone, laboratory and research facilities, low-impact industrial uses, and high-tech manufacturing shall also be permitted as a matter of right in all buildings that are located within the IOZ and on land owned or leased by the Roux Institute. On the pier residential uses are explicitly prohibited and any allowed use

on the pier must be a functionally water-dependent use. Ground floor retail, restaurant, or comparable community-oriented uses that provide services to local residents, students, faculty and staff shall be expressly permitted whether ancillary to or supporting the educational institution, and shall be open and welcoming to the general public.

4. Within the boundary of the IOZ, hotels shall be limited as follows:
   a. No more than one hotel shall be located in the IOZ.
   b. The hotel shall contain no more than 130 rooms.
   c. The hotel shall be no more than eight stories in height, not including structured parking. There shall be no more than two levels of above grade structured parking beneath the first floor of the hotel. Nothing herein is intended to preclude the co-location of hotel use and structured parking on one or more levels of the hotel.

D. Dimensional requirements

1. *Applicability.* All principal buildings and structures located within the IOZ and located on land owned or leased by the Roux Institute shall be subject to the dimensional requirements of the underlying zone, except where modified by the provisions of this section.
2. *Rules of measurement*
   a. Publicly accessible corridor: A corridor accessible to the general public that is open to the sky or enclosed with a minimum width of 20 feet. Enclosed portions of publicly accessible corridors shall have a minimum height of 30 feet.
   b. Street wall: Within the Roux IOZ the term "street wall" shall mean a wall or portion of a wall that includes the principal entry to a building facing a street, public right-of-way, major pedestrian access routes, or open spaces. Orientation of the principal entry to a building shall be determined by the applicant.
3. *Maximum building heights.* Maximum building heights for new principal buildings in the IOZ shall be governed by the Roux IOZ Height Map (Figure 8-G).
4. *Minimum and maximum street wall heights.* New principal buildings in the IOZ shall rise to a minimum street wall height of 45 feet and may rise to a maximum street wall height of 105 feet.
5. *Stepback requirements*. At a height not lower than the minimum street wall height or higher than the maximum street wall height, a stepback with a minimum depth of at least 10 feet shall be provided. Required stepbacks shall only apply to a building's street wall.
6. *Building length requirements*
   a. For buildings with a length greater than 250 feet, a continuous, publicly accessible corridor that connects two streets, public rights-of-way, major pedestrian or bicycle access routes, or open spaces shall be provided, with the precise location to be identified, defined, and reviewed under site plan review. Building length shall be measured at grade in a straight line



between the outer corners of the designated street wall.

b. Publicly accessible corridors need not be linear and may have necessary grade changes.

c. Any building wall situated along a publicly accessible corridor shall be designed to provide sufficient architectural and graphic amenities to provide visual interest, transparency between interior activities and pedestrian activity, or active uses and relate the building, and its use to passersby.

d. Publicly accessible corridors shall:

i. Include bicycle and pedestrian amenities such as benches and other seating;

ii. Be illuminated to levels that are adequate but not excessive for the safety, comfort, and conveniences of occupants and users of the site, and

iii. Provide access to the public during regular operating hours of the institute.

e. The Roux Institute may close off public access to a publicly accessible corridor during special events or when determined necessary by the institute for security or public safety purposes.

7. *Transitions and buffers*

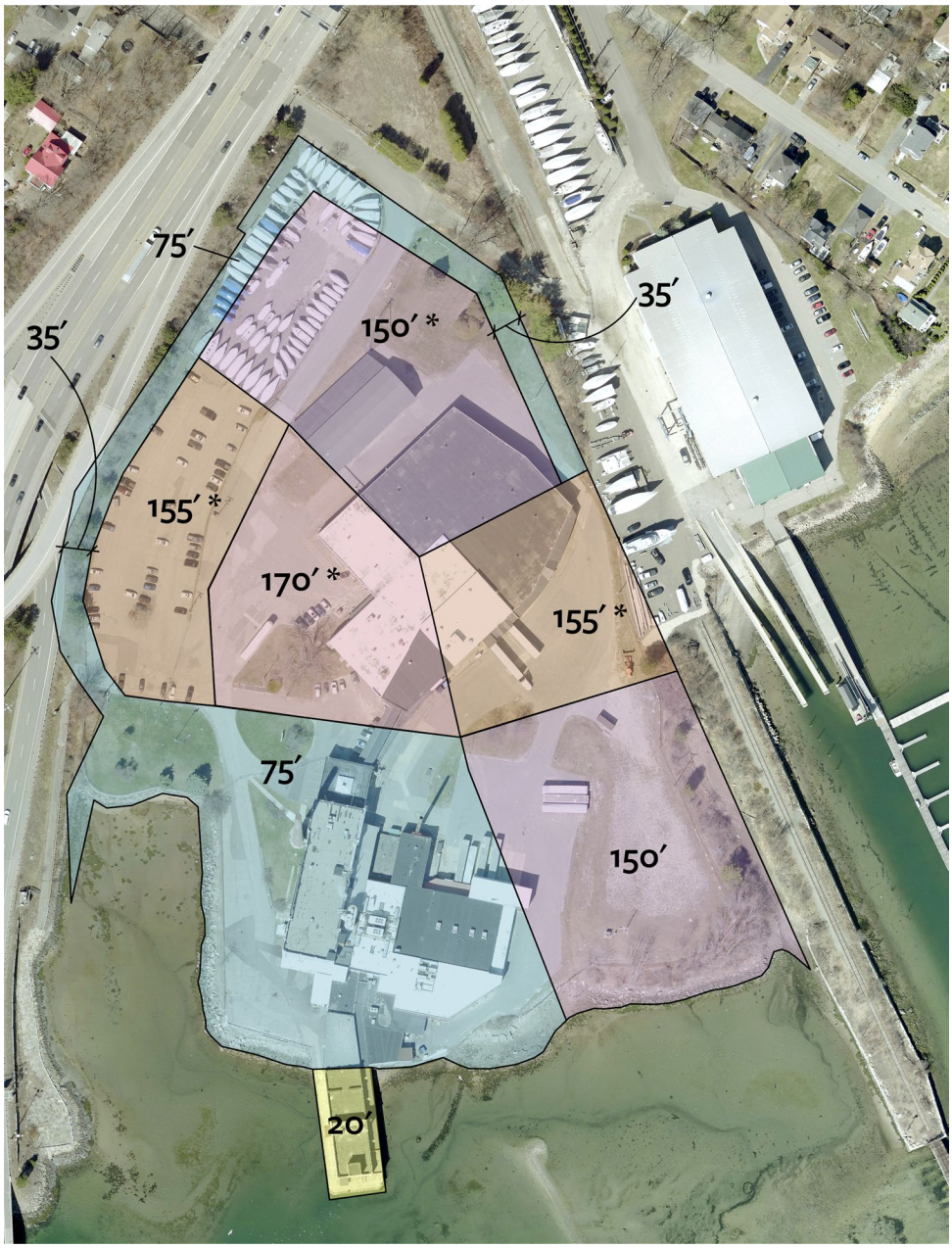
a. The campus is surrounded by existing buffers, with I-295 to the west, state-owned vacant parcels to the north, the rail corridor and marine business to the east, and Casco Bay to the south. In addition to the existing buffers, development shall further ease the transition to and from the campus.

b. Public open space will ease transition from the smaller scale of Sherwood Street. A transition onto the campus will also be accomplished through thoughtful façade design at the pedestrian level. Potential nuisance features like dumpsters, air handlers, and parking will be appropriately screened. Buildings will avoid blank walls to respect the adjacent neighborhood and facilitate a sense of permeability and welcome.

c. The shoreline transition area between the buildings and the water will serve as meaningful public open space. Building facades facing the water will be considered public-facing, with views designed for interest from the water and Eastern Promenade Trail.

d. The transition area between the campus and I-295 contains a height limitation of 75 feet along the edge and between the highway and the B&M Cannery Building, preserving the historic view of the building from the highway and easing the transition to the greater allowable building heights in the center of campus.

e. The transition area along the edge of the campus adjacent to the rail corridor also contains a height limitation of 75 feet along the edge of the property closest to the residential neighborhood, further easing the transition to the greater allowable



1. *: Above height of 75 feet, no building floorplate shall exceed 35,000 square feet.
2. Above height of 50 feet, no two buildings shall be closer than 40 feet apart.
3. Building heights for buildings that span two or more height zones shall be measured by calculating the highest point (as defined in the Land Use Code) of that portion of the building within a particular height zone. If the roof is sloped, height is measured at the midpoint of that portion of the slope located within the particular height zone.
4. Functionally water-dependent structures on the pier are limited to 20 feet in height. Light poles on the pier are limited to 35 feet in height. On the pier height is measured from the top of the pier deck to the top of the roof of a functionally water-dependent structure or to the top of a light pole.

FIGURE 8-G: HEIGHT OVERLAY MAP



building heights at the center of campus, mitigating shadow impacts to adjacent properties.

E. Transportation

1. *Transportation demand management (TDM)*

a. At the time of the first site plan review following IDP approval, the developer shall submit a campus-wide TDM Plan substantially in accordance with those TDM objectives and strategies identified in the approved IDP. The TDM Plan may be phased into short-, mid-, and long term actions to allow for progressive implementation over time.

b. The TDM Plan shall be designed to provide transportation choice with the goal of reducing parking demand and single-occupancy vehicle trips to and from the Roux Institute campus and from the Roux Institute campus by students, faculty, staff, institutional partners, and visitors.

c. The TDM Plan shall establish parking, mode share, and trip reduction targets associated with each phase of development, as well as a data collection plan.

d. Annual monitoring reports will be submitted for the TDM Plan. TDM monitoring reports shall include a summary of progress towards targets established in the TDM Plan. If deficiencies are identified, they will be resolved in accordance with the site plan approval.

2. *Traffic movement permit (TMP)*

a. Any development that will generate over 100 passenger car equivalents will trigger TMP review which will determine applicable mitigation for that development program. There are contributions anticipated to area-wide elements to support trip reduction targets, such as contribution to the development of shared use path infrastructure and support for additional transit service to the campus. The TMP review may consider an individual site plan or may cover more than one site plan. Each of the TMP submissions and review will continue to contemplate capacity for multimodal connections to continue to reduce automobile trips.

b. Mode shares and trip reduction targets have been identified in the IDP and will be updated and modified with each TMP submission as necessary.

3. *Bicycle and pedestrian access and safety*

a. A Transportation, Access, and Circulation Plan has been provided in the IDP. At the time of the first site plan review, the developer shall submit an updated Plan. Where possible, the bicycle and pedestrian access routes shall connect to established bicycle and/or pedestrian facilities. The developer shall look to establish new bicycle and pedestrian bicycle and/or pedestrian facilities where feasible.

b. The site and building design shall not prohibit the enhancement of transit service to and from the site.

c. Bicycle, pedestrian, transit, and motorized vehicular facilities proposed to and from the site shall provide sufficient capacity and allow for safe connections for modes of transportation.

d. Sherwood Street shall be improved to accommodate bicycles and pedestrians within the existing right-of-way. Separate sidewalks and bicycle lanes shall be provided where feasible.

4. *Parking*. Parking requirements in the IOZ, including but not limited to parking ratios, shall be established at the time of site plan review for each phase of development based on a parking study that includes a campus-wide analysis of demand and supply. Parking studies shall integrate parking and trip reduction achievements and data contained in the TDM Plan. Parking requirements shall be determined in accordance with the requirements in the Land Use Code in effect at the time of site plan review.

5. *Circulation*

a. The campus shall contain a bike and pedestrian circulation network which includes a perimeter access loop, an internal system of pathways and a major campus "promenade" which will link campus developments, the upland, and the waterfront.

b. The perimeter access path for bicycle and pedestrians will serve to connect the campus to primary site entry points from the community and provide a continuous recreational loop. Where appropriate, the perimeter access path will be enhanced by wayfinding, lighting, landscaping, and safe crossings at vehicular intersections. Where possible, building facades will respond to the perimeter access path for views into the building and periodic activation to building entrances.

c. Internal campus circulation pathways will connect major open spaces, buildings entrances, and outdoor plazas to create a network of multiple pathways including the perimeter access path. Pathways will be located along or oriented toward facades that have active programs, architectural articulation, appropriately scaled entrances, and windows. Pathways will avoid traveling along stretches of undifferentiated or blank facades back doors or service areas. Pathways will be generally lower-velocity systems than the access loop. Where appropriate, the internal campus circulation pathways will be enhanced by wayfinding, lighting, landscaping, and safe crossings at vehicular intersections.

d. The campus promenade will serve as a major organizing feature connecting the upland and the water and providing access to open spaces, allowing views of the principal campus of buildings, and connecting to the internal campus circulation pathways

and perimeter access path. The promenade will be enhanced by lighting, wayfinding, landscape buffers, and open spaces. Viewsheds and topography along the promenade will emphasize the Roux Institute and Burnham & Morrill (B&M) Cannery Building, pier, and other principal buildings and spaces.

F. Environment

1. The IOZ shall contain a minimum of three acres of public open space designed to enhance waterfront access and provide bicycle/pedestrian network connectivity. This open space requirement shall be met at the completion of construction of the first site plan approval and shall be maintained at all phases of development. The three acres need not be contiguous and may be provided in new and/or different locations following completion of development phases. The public open space shall be meaningful space, functioning as recreation areas, social gathering spaces, or natural buffers consisting of a diverse mix of native woody and herbaceous vegetation, including a well-distributed mix of trees. The method of assuring public access to the public open space shall be determined at site plan review.

2. A Sustainability and Resilience Charter will be created by the Roux Institute for the campus. The charter shall contain sustainability goals related to development categories such as energy, water, transportation, equity, and resilience and may be revised over time in response to evolving technology and industry standards. The charter will require all development on the campus to utilize critical components of industry standard benchmarking systems such as LEED, SITES, WELL, ILFI, and Passive House. The charter will be submitted to the Planning Authority prior to submission of the first site plan application. Proposed site plans shall be consistent with the goals outlined in the charter.

3. Development shall utilize lighting designs required for safety and comfort and that minimize impact to the night sky in accordance with light pollution reduction standards in ANSI/ASHRAE/IESNA 90.1-2007 or its most current edition.

4. Development shall be carried out in such a way as to minimize the impacts of sea level rise, protecting infrastructure and site features by designing to a minimum of 2-feet above the Base Flood Elevation (BFE) as shown on the most current FEMA Flood Insurance Rate Map.

5. The shoreline edge and immediate adjacent upland shall be protected through shoreline armoring and vegetation to prevent erosion and enhance natural resource protection. Vegetation shall consist of a diverse mix of native woody and herbaceous vegetation. Work in coastal wetlands and significant wildlife habitats (as defined by the Maine Department of Environmental Protection) will be minimized to the maximum extent practicable and shall comply with all applicable local, state and federal

permitting requirements in effect at the time.

6. Design of exterior building envelopes will be in developed in compliance with the bird-friendly building and design requirements set forth in Article VII-A of Chapter 6 of the City of Portland Code of Ordinances, except that bird safe materials must be used for the entire façade of all buildings regardless of building height.

G. Mitigation measures

1. Site plan impacts to off-premise infrastructure shall be mitigated in a manner proportionate to those impacts. Mitigation may include financial or in-kind contributions to existing or planned City projects focused on mitigating the impacts of the development. Mitigation contribution shall be determined based on the City's standard procedure in effect at the time of site plan review.

2. Impacts to natural resources shall be mitigated in accordance with local, state and federal permitting standards in effect at the time.

H. Design. All buildings within the IOZ shall adhere to the design guidelines set forth in the IDP.

I. Neighborhood integration

1. *Neighborhood engagement*

a. For the purposes of keeping surrounding residential areas apprised of its future development plans, and to address any neighborhood issues related to the operations of the Roux Institute campus, the Roux Institute shall adhere to the ongoing neighborhood engagement principles identified in the IDP.

b. Ongoing community engagement shall be conducted, including the continuation of neighborhood forums and maintenance of the Roux Institute campus website.

c. A Community Advisory Group shall be created for the purpose of sharing information on project development, planning, and seeking input. To the extent practicable, the group shall be comprised of representatives of interested groups such as the East Deering Neighborhood, East Deering Neighborhood Association, East Deering Neighborhood for Responsible Development, Front Street Area Neighborhood, a tenant representative from Portland Housing Authority's Washington Gardens and Front Street developments, recreation, parks and trails, including the Friends of Payson Park, from sustainability, rail, bicycle/pedestrian, public transit, Portland Harbor, Portland Public Schools, including a Presumpscot School parent, higher education, and the business community.

d. A designated community contact shall be engaged to be the point of contact for providing information to the neighborhood and receiving feedback.

2. *Construction management.* At the time of site plan review, Northeastern University shall submit a Construction Management Plan substantially in accordance with the construction management principles

identified in the Institutional Development Plan for review and approval by the Planning Authority.

J. Historic preservation

1. *Historic preservation review.* The B&M Cannery Building has been designated as a local historic landmark. The area of designation includes the B&M Cannery Building, as well as the area of the former Codfish Building and pier. The Historic Preservation Board's review of activity within the site of the former Codfish Building and pier is limited to review of any activity that would require a Certificate of Appropriateness that is proposed on a newly constructed pier. A Certificate of Appropriateness will not be required for the demolition of the Codfish Building or construction of a new pier and related infrastructure, including future alterations to the pier structure.

2. *Required interpretive elements.* Northeastern University shall include interpretive element(s) on top of or within the surface of the new pier that convey the history and significance of the Codfish Building. Prior to construction of said elements, the University shall submit the proposal to the Historic Preservation Board for its review and approval. The interpretive elements shall be designed in a manner that does not interfere with the use and functionality of the pier as a marine passenger facility and for water access by the Roux Institute and the public.

3. *100-foot review exemption.* The B&M Cannery Building is exempt from Subsection 13.6.4(E)(2) for review of development within 100 feet of a landmark.



FIGURE 8-H: UNE IOZ BOUNDARY

8.3.8 The University of New England Overlay Zone Regulatory Framework

A. Applicability. The regulatory framework shall apply only to development proposed by the University of New England (UNE) within the boundary of the Institutional Overlay Zone (IOZ) and to which UNE holds right, title, or interest. Properties in the UNE IOZ shall continue to be governed by the regulations applicable to the underlying zone except as specifically modified by the regulatory framework. The UNE IOZ shall have the boundaries depicted in Figure 8-H.

B. Phasing and monitoring

1. UNE shall file monitoring reports every five years with the Planning Authority. Monitoring reports shall ensure that data in the IDP is current and provide a summary of progress on IDP implementation, including details of

acquisitions and divestments since the date of IDP approval.

2. Interim conditions shall be designed for a pleasant pedestrian experience through planting, lighting, wayfinding, graphics, artwork, or ornamental fencing to provide screening, buffers, and enhancement. Interim areas of the site which are not actively used for parking or construction staging will be appropriately left in a natural state, landscaped or accommodate gathering on lawns or other aesthetically hardened spaces.

C. Uses. In addition to the uses permitted in the underlying zone, laboratory and research facilities and off-street parking shall also be permitted as a matter of right within the IOZ.

D. Dimensional requirements

1. For the purposes of this IOZ, "lot" is defined as the contiguous lots under UNE ownership, including land separated by a public or private right-of-way. The "lot" boundary is shown in Figure 8-H.
2. Side and rear setbacks shall not be required between buildings on contiguous lots owned by UNE on the condition that such contiguous lots shall be considered merged and shall not be separately conveyed unless required setbacks in the underlying zones are provided.
3. Maximum building heights for new principal buildings in the IOZ shall be governed by the maximum building heights map in Figure 8-I.

E. Transportation

1. *Transportation demand management (TDM).* At the time of the first site plan review following IDP approval, UNE shall submit a campus-wide TDM Plan substantially in accordance with those TDM objectives and strategies identified in the approved IDP. The TDM Plan may be

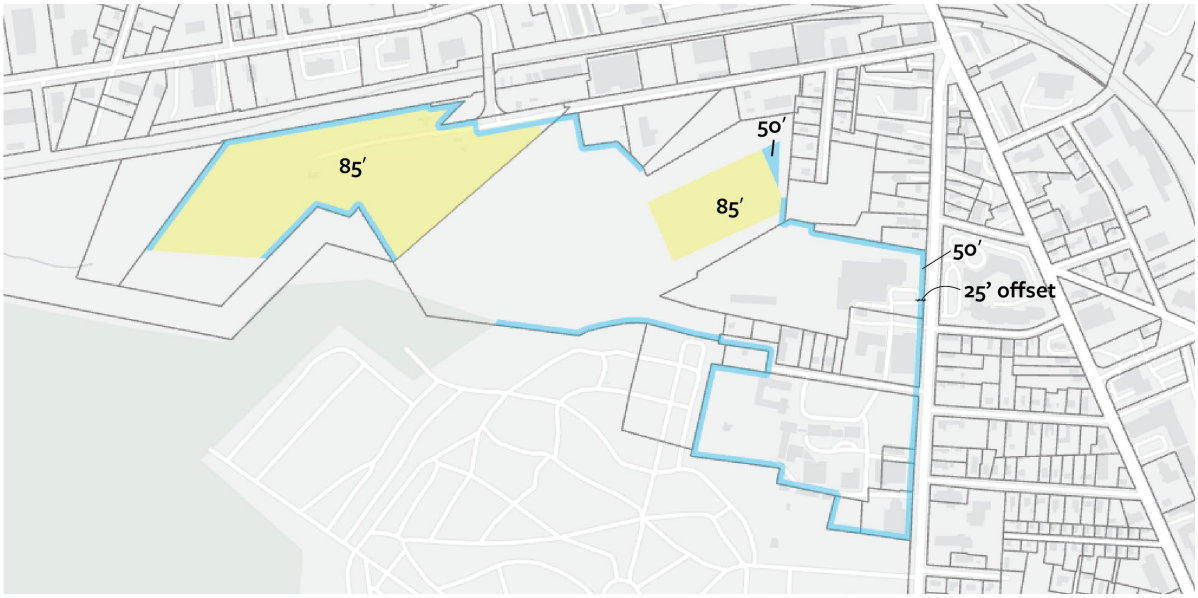


FIGURE 8-I: MAXIMUM BUILDING HEIGHTS

phased into short-, mid-, and long-term actions to allow for progressive implementation over time.

2. *Parking.* Parking requirements in the IOZ shall be established at the time of site plan review based on a parking study that includes a campus-wise analysis of demand and supply. Parking studies shall integrate parking and trip reduction achievement and data contained in the TDM Plan.

F. Environment. All new buildings and parking facilities proposed by UNE shall integrate with the surrounding context to allow connectivity amongst open space, pedestrian networks, and the Evergreen Cemetery, and to protect the critical natural resources associated with the Capisic Brook watershed. The Planning Board may approve a reduction of the setback requirement for a new building to the least amount necessary to achieve the goals of the development and minimize overall impacts, provided that the setback is not reduced to less than 40 feet.

G. Mitigation measures

1. Site plan impacts to off-premise infrastructure shall be mitigated in a manner proportionate to those impacts. Mitigation may include financial or in-kind contributions to existing or planned City projects focused on mitigating the impacts of the development. Mitigation contribution shall be determined based on the City's standard procedure in effect at the time of site plan review.
2. Impacts to natural resources shall be mitigated in accordance with local, state, and federal permitting standards in effect at the time.

H. Design

1. All new development shall be designed to create a cohesive campus character.
2. New buildings shall be designed with building entrance(s) and principle facades oriented towards existing campus buildings, open space, streets, and pedestrian pathways.
3. New buildings will minimize visual impact of service areas, loading docks, and utility structures.
4. All new development shall provide a variety of open spaces that are integrated into the existing campus.
5. All new development shall provide adequate lighting for clear visibility at streets, pedestrian pathways, building entries, and parking areas. All lighting shall be compliant with UNE's lighting plan, which is included in the IDP.
6. All signage shall be compliant with UNE's signage design standards, which are included in the IDP.

I. Neighborhood integration

1. For the purposed of keeping surrounding residential areas appraised of its future development plans, and to address any neighborhood issues related to the operations of the UNE campus, UNE shall adhere to the ongoing neighborhood engagement principles identified in the IDP.
2. Ongoing community engagement shall be conducted, including the continuation of posting project update's on UNE's Campus Planning web page and the creation of a dedicated email address for neighbor

communications with UNE's Planning Department.

3. UNE shall conduct annual neighborhood outreach through neighborhood meeting(s), to be hosted on campus, and shall provide the Planning Authority with a copy of the neighborhood notice and a record of participants, content, and feedback as described in Section 13.5.5(C).
4. A designated community contact shall be engaged to be the point of contact for providing information to the neighborhood and receiving feedback.

8.4 ISLAND TRANSFER STATION OVERLAY

8.4.1 Purpose

The purpose of the Island Transfer Station Overlay Zone is to establish a location for a transfer station for municipal solid waste and municipal public works activities. This zone shall be established through a conditional rezoning process in order to ensure the imposition of appropriate conditions for the protection of neighboring properties.

8.4.2 Permitted uses

A. Municipal solid waste facilities, including compactors and storage bins, provided that the compactor shall be located within a fully enclosed structure.

B. Recycling facilities, provided that all recycling areas shall be buffered and screened from neighboring properties.

C. Municipal garages, material storage, and parking for vehicles.

D. Maintenance of municipal vehicles and equipment.

E. Minor wind energy systems co-located with public industrial or utility facilities, subject to the applicable standards within Article 6.

8.4.3 Conditions

Requirements for setbacks and any operational limitations shall be established as part of the conditional rezoning process.

8.5 PEDESTRIAN ACTIVITIES DISTRICT (PAD) OVERLAY

8.5.1 Purpose and applicability

The purpose of the Pedestrian Activities District (PAD) Overlay is to ensure that key areas within the City, as identified on the PAD Overlay Zone map (Figure 8-~~H~~J), are maintained as active, walkable, pedestrian-oriented activity centers. As such, the overlay requires that street-level frontages within those areas identified on the PAD Overlay Zone map should be occupied with active uses as identified in this section.

8.5.2 Use restrictions

A. Within the PAD Overlay Zone, a minimum of 75% of the street level frontage, measured as a percentage of total building length excluding areas of vehicular and pedestrian egress, and any mechanical or electrical equipment rooms servicing the building, shall consist of the uses specified below. Such uses shall occupy a minimum of 40 feet in depth, measured from the street facing façade of the building.

1. Bars
2. Cultural facilities
3. General services
4. Governmental uses
5. Hotels
6. Low-impact industrial, provided that only retail sales of products produced on site, or eating and drinking areas shall be

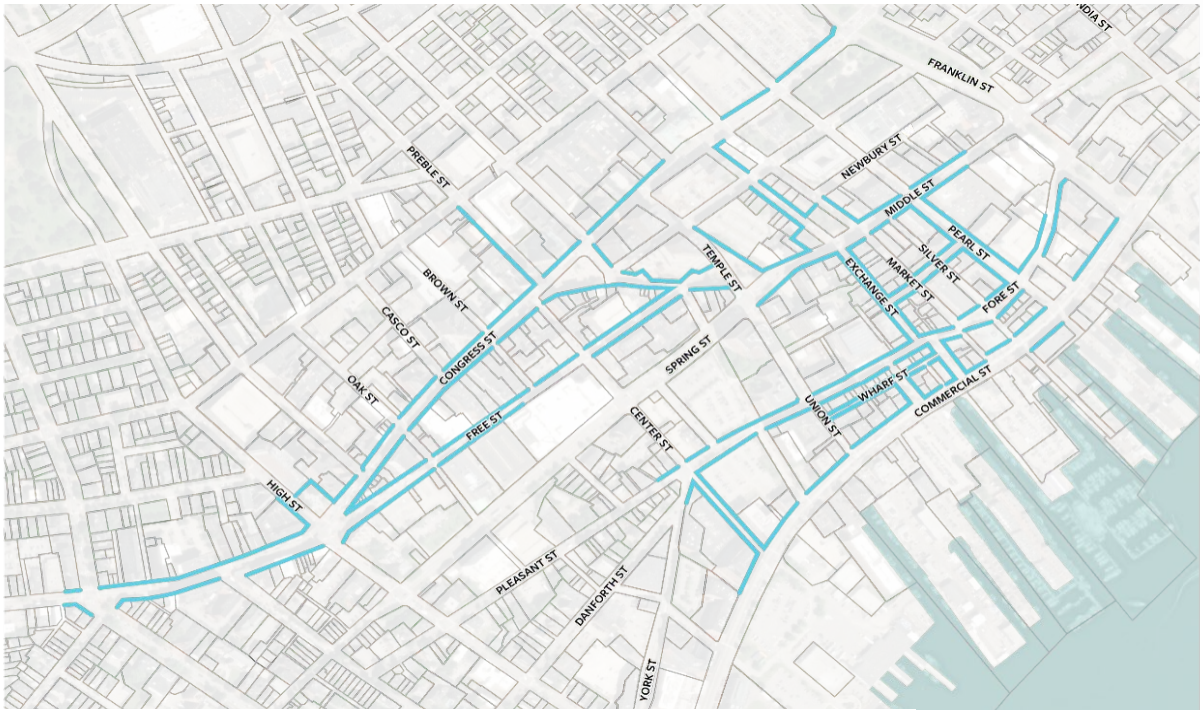


FIGURE 8-~~J~~H: PEDESTRIAN ACTIVITIES DISTRICT (PAD) OVERLAY

located within the required active use area.

7. Restaurants, including food preparation areas visually oriented toward the street.
8. Retail
9. Specialty food services, provided that only retail sales of products produced on site, or eating and drinking areas shall be located within the required active use area.
10. Studios for artists and craftspeople.
11. Theaters and performance halls, provided that only ticket and refreshment sales, lobbies, lounges and entrances shall be located within the required active use area.
12. Other uses may be allowed, provided the applicant can demonstrate to the Building Authority that the proposed use is substantially similar to a use listed above and will generate pedestrian interest and activity.

B. First floor windows shall be transparent with uses visible from the public right-of-way.

C. For buildings that have frontage on more than one street located within the PAD overlay zone, the above requirements apply to each frontage. In no event shall any required active use area be used for storage or service entrances, including loading docks, dumpsters and compactors, except as provided in Subsection 8.5.4.

8.5.3 Conditional uses

Any use permitted in the B-3 zone may be authorized as a conditional use subject to the floor area and transparency requirements of Subsection 8.5.2, provided that the Planning Authority shall be substituted for the Board of Appeals as the reviewing authority. Such uses shall meet the general conditional use standards of Section 6.5.2, and the following conditions and standards:

A. The applicant shall prove by competent evidence (including but not limited to reliable documentation of advertising, real estate brokerage efforts, and other sales mechanisms) that the space has been actively marketed, and, in the case of new construction, available for permitted uses in the PAD Overlay Zone for a period of six months and that it has been unable to market the space for a permitted use in accordance with Subsection 8.5.2.

B. The Planning Authority may impose reasonable conditions concerning the design, appearance, use, and extent of use of the space along the street frontage to ensure maximum pedestrian compatibility and interest.

C. Notwithstanding the above, the Planning Authority may authorize a reduction in the percentage of required ground floor pedestrian-oriented uses where the physical limitations of an existing building so require. Any such reduction shall be the least necessary to provide relief and shall include mitigating design factors.

8.5.4 Exceptions

For buildings that have 40 feet or less of frontage on a street within the PAD Overlay Zone, the ground floor area requirements for permitted uses under Subsection 8.5.2 shall be reduced to 50% of the frontage where required to accommodate a service entrance. For buildings that have frontage on more than one street located within a PAD Overlay Zone, only one such frontage shall be permitted to reduce the required active use area to 50% of the frontage.

8.6 UNIVERSITY OF SOUTHERN MAINE OVERLAY

8.6.1 Purpose

The intention of the University of Southern Maine Overlay Zone is to establish an overlay zone in which an existing university campus can be continued and reasonably expanded within defined boundaries, in addition to those uses permitted in the underlying zone or zones. The purpose of this section is to recognize the unique qualities of a university campus while at the same time protecting the value and integrity of established neighborhoods.

8.6.2 Location and applicability

The University of Southern Maine Overlay Zone is intended to encompass and define the University of Southern Maine campus west of Forest Avenue. Properties in the University of Southern Maine Overlay Zone shall continue to be governed by the regulations applicable to the underlying zone except as specifically modified by this section.

8.6.3 Permitted uses

A. In addition to the permitted uses allowed in the underlying zones and notwithstanding anything to the contrary in the use regulations for the underlying zones, post-secondary schools and university uses are permitted in the University of Southern Maine Overlay Zone, including, but not limited to:

1. Classrooms.
2. Laboratory and research facilities.
3. Student unions.
4. Dining halls.
5. Bookstores.
6. Auditoriums.
7. Concert and lecture halls.

8. Gymnasiums.
9. Libraries.
10. Outdoor use areas, such as "quads", greens, parks, gardens, art installations, and other active and passive noncommercial recreation spaces.
11. Faculty and student housing.
12. Parking lots and garages.
13. Community meeting spaces.
14. Administrative and faculty offices.
15. Transportation facilities.
16. Maintenance facilities.
17. Utility buildings.
18. Student health services.
19. Daycare facilities, nursery schools, and kindergartens.
20. Other buildings, structures and uses customarily incidental to a university.

B. On lots fronting on Chamberlain Avenue and Exeter Street, university uses shall be limited to faculty housing, graduate student housing, faculty offices, and administrative offices.

8.6.4 Conditional uses

The following uses are permitted as provided in Section 6.5:

A. Minor wind energy systems, subject to the standards of subsection 6.4.41.

8.6.5 Dimensional requirements

University buildings and structures shall be subject to the dimensional requirements of the underlying zone, except as follows:

A. **Minimum setbacks.** Minimum setbacks shall be the same as in the underlying zone, except as shown on the University Campus Overlay Setback Map, incorporated herein by reference. Side and rear setbacks shall not be required between buildings on contiguous lots owned by the university on the condition that such contiguous lots shall be considered merged and shall not be separately conveyed unless required setbacks in the underlying zones are provided.

B. **Maximum building height.** Maximum building height shall be the same as in the underlying zone, except as shown on the University Campus Overlay Height Map, incorporated herein by reference.

C. **Minimum building height.** All new freestanding buildings in height zone B and height zone C must be built to a height of at least 35 feet or designed and constructed so that they can be expanded to 35 feet or higher. As used in this paragraph, the term "new freestanding building" means any building which is not an addition to or expansion of a building which existed on the date of enactment of the University of Southern Maine Overlay Zone. Minimum building height provisions shall not apply to maintenance facilities, utility buildings, information kiosks, additions to and/or relocations of designated historic structures, and transportation facilities, including bus shelters, parking attendant booths, and other similar structures.

D. **Maximum impervious surface ratio.** A maximum of 66% of the total land area within the University of Southern Maine Overlay Zone, exclusive of public streets, shall be impervious.

E. **Maximum coverage by buildings.** 40% of the total land area within the University of Southern Maine Overlay Zone, exclusive of public streets, shall be covered by building footprint.

8.6.6 Parking

The amount of parking required for any university building or building addition shall be determined by the Planning Board during site plan review, based on an analysis of campus-wide parking demand and supply, pursuant to a comprehensive university parking management plan, and treating all contiguous land (including land on opposite sides of the street) owned by the university as one lot. In determining the amount of parking required for any university building, the Planning Board may take into account factors such as:

A. The availability of off-campus parking and shuttle transportation to and from such off-campus facilities.

B. The ratio of commuter students to resident students.

C. The use of centrally located on-campus parking facilities so situated that students, faculty, staff and visitors arriving on campus can reasonably be expected to park in the central facilities and walk to their various on-campus destinations during the course of a school day.

D. Shared use of a single parking facility by two or more buildings when the peak parking demand period for such buildings do not overlap.

E. Development and implementation of a parking management plan which discourages on-street parking. On-street parking shall not be used to satisfy the university's parking demand.

F. Development and implementation of programs designed to reduce the number of automobiles parking on campus, such as ride share programs and incentives for use of bicycles and public transportation.

8.6.7 Loading

The amount of loading area required for any university building shall be determined by the Planning Board during site plan review, based on a campus-wide analysis, treating all contiguous lots owned by the university as one lot. In determining the amount of loading space required for any university building, the Planning Board may take into account factors such as:

A. The use of centrally located on-campus loading facilities so situated that vehicles making deliveries can load and unload in the central facilities, provided no single location is overburdened with loading facilities.

B. Shared use of a single loading facility by two or more buildings.

C. Impacts of the loading area on adjacent uses outside the University of Southern Maine Overlay Zone.

8.6.8 Signage

Signs shall comply with the requirements of Article 19, except as those regulations are modified or augmented below:

A. Signs shall be designed in accordance with signage standards promulgated by the university, providing for a unified and ADA-compliant campus-wide system for identification, orientation, and regulatory signage.

B. Banners are allowed as follows:

1. Generic banners containing the logo and colors of the university, used for decorative purposes.

2. Banners used for advertising university events, which can be displayed for a maximum of four weeks prior to and one week following the event.

8.6.9 Design principles and standards

All development in the University of Southern Maine Overlay Zone is subject to the requirements contained within the City of Portland *Design Manual*.

8.7 WAYNFLETE SCHOOL OVERLAY

8.7.1 Purpose

The intent of this section is to establish a Waynflete School Overlay Zone which protects the value and integrity of established residential neighborhoods, establishes clearly defined boundaries beyond which residential conversions cannot occur and results in no net loss of dwelling units, while allowing Waynflete School, an existing private day school, to continue and reasonably augment its existing uses and programs, thereby maintaining compatible development at medium densities appropriate to the existing neighborhood patterns. As used in this section, the term "Waynflete School" includes any successor institution that operates as a private day school.

8.7.2 Location and applicability

The Waynflete School Overlay Zone, as shown on the zoning map, is intended to encompass and define Waynflete School's principal campus on the Portland peninsula. Properties in the Waynflete School Overlay Zone shall continue to be governed by the regulations applicable to the underlying zone except as specifically modified by this section.

8.7.3 Subdistricts

The Waynflete School Overlay Zone consists of two subdistricts. Except where otherwise specified in this Section 8.7, all provisions of this Waynflete School Overlay Zone apply in both subdistricts. The subdistricts, as shown on the Waynflete School Overlay Zone subdistrict map, incorporated herein by reference, are as follows:

A. The Campus Core subdistrict defines the interior core of the campus and is intended to allow compact development of school uses, with specific space and bulk regulations designed to accommodate school uses.

B. The Campus Edge subdistrict is intended to preserve residential character along the streets bordering the campus by limiting the amount of residential space which can be converted to school uses, by maintaining a number of dwelling units within the subdistrict which equals the number of dwelling units existing in the subdistrict at the time of enactment of this Overlay Zone, and by encouraging mixed-use buildings along the street frontages. The space and bulk regulations of the RN-3 zone continue to apply within the Campus Edge subdistrict.

8.7.4 Permitted uses

In addition to the permitted uses allowed in the underlying zones and notwithstanding anything to the contrary in the use regulations for the underlying zones, the following uses are permitted in the Waynflete School Overlay Zone:

A. **School uses.** Elementary, middle and secondary school uses including, but not limited to, the following:

1. Classrooms.
2. Laboratory facilities.
3. Dining halls.
4. Auditoriums.
5. Concert and lecture halls.
6. Gymnasiums.
7. Libraries.
8. Outdoor use areas, such as "quads", greens, parks, gardens, art installations, and

other active and passive recreation spaces.

9. Parking lots and structures.
10. Community meeting spaces.
11. Administrative and faculty offices.
12. Transportation facilities.
13. Maintenance facilities.
14. Utility buildings.
15. Student health services.
16. Bookstores.
17. Accessory uses which are customarily incidental and subordinate to the location, function and operation of a private day school.

B. Residential uses. Faculty or staff housing, which shall be considered a residential use, and not a school use, for all purposes under this overlay zone.

8.7.5 Prohibited uses

A. Boarding schools.

B. Dormitories.

8.7.6 Residential conversions prohibited

A. Conversions of existing residential buildings within the Waynflete School Overlay zone shall be prohibited.

B. The existing houses at 11 Fletcher Street, 3 Storer Street, 305 Danforth Street, and 299 Danforth Street shall not be relocated from their locations existing as of January 20, 2010. This provision shall not apply to garages.

C. At no time shall the number of dwelling units within the Waynflete School Overlay Zone be reduced below four (the number existing at the time of enactment of this Overlay Zone).

8.7.7 Dimensional requirements

Buildings and structures in the Waynflete School Overlay Zone shall be subject to the applicable dimensional requirements of the underlying zones, except as follows:

A. Minimum setbacks shall be the same as in the underlying zone, except that side and rear setbacks shall not be required between buildings on contiguous lots owned or occupied by Waynflete School on the condition that such contiguous lots shall be considered merged and shall not be separately conveyed unless required yard dimensions in the underlying zones are provided.

B. Minimum street frontage shall be the same as in the underlying zone, except that all the land within the Waynflete School Overlay Zone owned or occupied by Waynflete School shall be considered a single lot for the purpose of complying with minimum street frontage.

C. Maximum coverage by buildings shall be the same as in the underlying zone, except that in the Campus Core subdistrict the maximum coverage by buildings shall be 40% and all the land within the Campus Core subdistrict owned or occupied by Waynflete School shall be considered a single lot for the purpose of calculating maximum coverage by buildings.

8.7.8 Parking

The amount of parking required for any change of use, new building, or building addition within the zone shall be determined during site plan review, based on an analysis of school-wide demand and supply, pursuant to a comprehensive school-wide Transportation Demand Management Plan (TDM), and treating all land owned by Waynflete School within the Waynflete School Overlay Zone as one

lot. Any existing parking management or TDM plan approved as part of a previous approval shall remain in effect until revised or updated pursuant to this section. In determining the amount of parking required for any building within the Waynflete School Overlay Zone, the Planning Authority or the Planning Board may take into account factors such as:

A. The use of centrally located on-campus parking facilities so situated that students, faculty, staff and visitors arriving on campus can reasonably be expected to park in the central facilities and walk to their various on-campus destinations during the course of a school day.

B. Shared use of a single parking facility by two or more buildings when the peak parking demand periods for such buildings do not overlap.

C. Development and implementation of a parking management plan which discourages on-street parking.

D. Development and implementation of a TDM plan subject to the review and approval of the Planning Authority or the Planning Board. The TDM plan shall employee elements such as public transit initiatives, parking cash-out, car sharing, car and van pooling incentives, provision of bicycle and pedestrian commuting accommodations, guaranteed ride home programs, employee surveys, newsletters, alternative transportation information sharing, and other such strategies that reduce single occupancy vehicle trips to and from Waynflete school. Waynflete School shall follow the standards and guidelines for developing a TDM plan found in the TDM section of the City of Portland *Technical Manual*.

8.7.9 Loading

The amount of loading area required for any building within the Waynflete School Overlay Zone shall be determined by the Planning Board during site plan review, based on a campus-wide analysis, treating all land owned by Waynflete School within the Waynflete School Overlay Zone as one lot. In determining the amount of loading space required for any building within the Waynflete School Overlay zone, the Planning Board may take into account factors such as:

A. The use of centrally located on-campus loading facilities so situated that vehicles making deliveries can load and unload in central facilities, provided no single location is overburdened with loading facilities.

B. Shared use of a single loading facility by two or more buildings.

C. Impacts of the loading area on adjacent uses outside the Waynflete School Overlay Zone.

8.7.10 Signage

Signs shall comply with the requirements of Article 19.

8.7.11 Restrictions

Notwithstanding the conditional use provisions for institutional uses within the RN-3 or RN-5 zones, Waynflete School cannot locate a school use listed in Subsection 8.7.4 on any lot in the RN-3 or RN-5 zones outside the boundaries of the Waynflete School Overlay Zone that was occupied by a residential use or structure on or after January 20, 2010. This restriction does not prevent Waynflete School from seeking a conditional use permit for a school use, where otherwise allowed by the zoning regulations, on lots outside the Waynflete School Overlay Zone that were not occupied by a

residential use or structure on or after January 20, 2010.

12 Mountfort Street
Portland, Maine 04101
www.woodardcurran.com

T 800.426.4262
T 207.774.2112
F 207.774.6635

Att. A

August 14, 2024

Kevin Kraft, Director of Planning and Urban Development
City of Portland
389 Congress Street
Portland, ME 04101

Re: University of New England
Application for Text and Map Amendment

Dear Kevin:

Woodard & Curran is pleased to submit this application for a text and map amendment on behalf of the University of New England (UNE). This application includes: 1) a text amendment to adopt the Regulatory Framework for the proposed UNE Institutional Overlay Zone (IOZ); and 2) a map amendment to change the underlying zoning of the UNE properties to B-2 Community Business with an IOZ overlay.

The City of Portland's Land Use Code includes a provision for the city's five major medical and higher education campuses to create an IOZ designation to facilitate a consistent, predictable, and clear growth management process. Consistent with that purpose, UNE is seeking to create a UNE IOZ to accommodate the development and growth of their campus.

UNE began pursuing the IOZ process in 2021 and has had meetings with Planning and other City staff, as well as neighborhood groups and members of the public, to develop its Institutional Development Plan (IDP). The IDP identifies and addresses anticipated long-term institutional needs to support UNE's continued ability to adapt and grow alongside changes in education and technology. The IDP and corresponding Regulatory Framework have been thoughtfully developed to balance the needs of the institution with the needs of the surrounding neighborhood and wider community.

As part of the IOZ process, UNE will simultaneously seek to change the underlying zoning of the campus to B-2 Community Business. The current underlying zoning on campus includes R-3, R-5, I-H, I-M, and B-2. Changing the underlying zoning entirely to B-2 will more accurately reflect the current uses within the campus and complement the surrounding zoning.

Thank you for your consideration. We look forward to working with you.

Sincerely,

Woodard & Curran, Inc.

Caitlin Suhr, PE
Project Manager

CITY OF PORTLAND
Planning & Urban Development Department

MAP AND TEXT AMENDMENT SUBMISSION CHECKLIST * Please submit each document and drawing as a separate PDF file * Please submit all drawings in a 24 x 36 sheet size * Please confirm each item by electronically checking the boxes to the left for each document/drawing	
GENERAL APPLICATION DOCUMENTS	
☑	**Project Description** • Cover Letter with detailed project description
☑	**Consistency with Comprehensive Plan** (Please see page 21 of IDP document) • Analysis of the consistency of the zone change request with the goals, policies and land use plan of Portland's Comprehensive Plan.
☑	**Proposed Text Amendment** (Please see Regulatory Framework) • Provide proposed language for text amendment(s) and cite the relevant sections to be revised in the Land Use code.
☑	**Completed Checklist – Map and Text Amendment Application (this document)**
☑	**Right, Title and Interest** • Deeds, leases, or purchase and sales agreements
PLANS	
☑	**Vicinity Map**
☑	**Proposed Map Amendment** (please use the Portland zoning map as a reference)
☐	**Site Plan (if applicable)** On a separate sheet, please provide a site plan of the property showing existing and proposed improvements, including such features as buildings, parking, driveways, walkways, landscape and property boundaries.

Doc#: 12544 Bk:23717 Pg: 74

WARRANTY DEED

(Maine Statutory Short Form)

KNOW ALL BY THESE PRESENTS, that I, ROSEMARY S. KIMBALL, of Yarmouth, County of Cumberland, and State of Maine, for consideration paid, GRANT to the UNIVERSITY OF NEW ENGLAND a non-profit corporation organized and existing under the laws of the State of Maine, the mailing address of which is 11 Hills Beach Road, Biddeford, Maine 04005-9599, with WARRANTY COVENANTS, certain real estate located in Portland, County of Cumberland and State of Maine, which is more particularly described in Exhibit A attached hereto and made a part hereof.

This conveyance is made SUBJECT, HOWEVER, to real estate taxes which are not yet due and payable, which, by acceptance hereof, Grantee assumes and agrees to pay.

MAINE REAL ESTATE TAX PAID

WITNESS my hand and seal this 28th day of February, 2006.

SIGNED, SEALED AND DELIVERED
IN THE PRESENCE OF:

Witness

Rosemary S. Kimball
Rosemary S. Kimball

STATE OF MAINE
County of Cumberland, SS.

February 28, 2006

Then personally appeared the above-named ROSEMARY S. KIMBALL and acknowledged the foregoing instrument to be her free act and deed.

Before me,

~~Notary Public~~/Maine Attorney-at-Law
Printed Name: Brianna Adams

Exhibit A

A certain lot of parcel of land, with the buildings and improvements thereon, situated on the northerly side of College Street, in the City of Portland, County of Cumberland, State of Maine and bounded and described as follows:

Beginning at a certain point on said College Street where the northerly line of said street is intersected by the extension southerly of a line passing through the middle division wall of a certain double house (the easterly part of which stands upon the premises hereby conveyed); thence northerly by said middle division wall and said wall extended to land now or formerly of the Portland Street Railroad Company; thence easterly by said land of said Railroad Company to land formerly of C. A. Hayden; thence southerly by said Hayden land to said College Street; thence westerly by said College Street to the point of beginning.

Being the same premises acquired by the Grantor and Paul J. Kimball (as joint tenants and not as tenants in common) by Warranty Deed dated January 29, 1987 and recorded in the Cumberland County Registry of Deeds in Book 7620 and Page 201. Paul J. Kimball died March 16, 1993, and his probate is located in the Cumberland County Probate Court, Docket # 93-399.

Received
Recorded Register of Deeds
Mar 01,2006 01:01:20P
Cumberland County
John B OBrien

QUITCLAIM DEED

THE STATE OF MAINE DEPARTMENT OF DEFENSE, VETERANS AND EMERGENCY MANAGEMENT successor in interest to the STATE OF MAINE, acting by and through the Acting Adjutant General pursuant to 37-B M.R.S.A. § 264, (the "Grantor"), FOR CONSIDERATION PAID, grants to the **UNIVERSITY OF NEW ENGLAND**, a Maine non-profit corporation, whose mailing address is 716 Stevens Avenue Portland, ME 04103 (the "Grantee"), certain real property, together with any improvements thereon, located at 760-780 Stevens Avenue, in the City of Portland, County of Cumberland and State of Maine, more particularly describes as follows:

> A certain lot or parcel of land with the buildings thereon situated on the westerly side of Stevens Avenue in the City of Portland in said County of Cumberland and State of Maine, being the same premises conveyed by Elizur B. Forbes to Portland and Forest Avenue Rail Road Company by deed dated March 22, 1864, and recorded in Cumberland County Registry of Deeds in Book 326, Page 212, in which deed said premises were bounded as follows:
>
> "A certain parcel of land fronting on the principal street at Stevens's Plains in Westbrook aforesaid, bounded as follows; beginning on said street at the southeast corner of land formerly of Jeremiah Beedle, now of Woodbury Polleys; thence running North sixty-four and a half degrees West five hundred seven and a half feet; thence North twenty-five and a half degrees East, thirty three feet; thence North sixty-three degrees West one hundred twenty-five feet; thence South seventy-five degrees forty-five minutes West seven hundred twenty feet; thence South sixty-four degrees east nine hundred ten and a half feet; thence North twenty and a quarter degrees east one hundred forty and a half feet; thence South sixty-six and a half degrees east, three hundred twenty four feet to the street or Stevens's Plains road before mentioned; thence North (by the line of the Street) nineteen degrees and three quarters east, two hundred ninety feet to the place of beginning - estimated to contain about nine and one quarter acres."

Meaning and intending to convey the same premises delineated on the Plan of Property in Portland, Maine made for the Adjutant General, Augusta, Maine prepared by H.I. & E.C. Jordan dated August 22, 1958.

For Grantor's source of title see: Warranty Deed from Portland Rail Road Company to the State of Maine dated October 14, 1940 and recorded at the York County Registry of Deeds in Book 1619, Page 299.

MAINE REAL ESTATE TAX PAID

By his signature hereon, the Acting Adjutant General certifies that the premises being conveyed in compliance with 37-B MRSA § 264, Section 6, Subsection 5 constitutes the Portland Armory, that he has designated an officer to inspect the premises, that he has determined the property to be unfit for military use, and has condemned the premises and furthermore that the premises are not being sold for less than appraised value as determined by a person licensed as a real estate appraiser under Title 32, chapter 123 and that the State of Maine Department of Defense, Veterans and Emergency Management is the successor in interest to the State Military Defense Commission of the State of Maine.

IN WITNESS WHEREOF, the State of Maine has caused this instrument to be executed in its name by Brigadier General Gerard F. Bolduc in his capacity as the Acting Adjutant General of the Maine National Guard, pursuant to 37-B M.R.S.A. § 264, this 11 day of June, 2015.

JA.
Witness

STATE OF MAINE

By: Gerard I. Bolduc

Gerard F. Bolduc
Brigadier General, The Acting Adjutant General

State of Maine
County of Kennebec, ss

June 11, 2015

The personally appeared the above-named Brigadier General Gerard F. Bolduc, The Acting Adjutant General of the Maine National Guard, and acknowledged the foregoing instrument to be his free act and deed and, pursuant to authorization of the Maine Legislature as found in 37-B M.R.S.A. § 264, the free act and deed of the State of Maine.

Before me,

under authority of 37-B MRSA 390-C.
ATTORNEY AT LAW

Notary Public/Attorney-at-Law
Commission Expires:
Print Name: STACY M. BRADBURY

Received
Recorded Register of Deeds
Jun 17,2015 08:54:11A
Cumberland County
Nancy A. Lane

MAINE REAL ESTATE TAX-Paid

WARRANTY DEED
Statutory Short Form

DLN: 1002440278302

KNOW ALL BY THESE PRESENTS, That **WJN Property Management, LLC,** a Maine Limited Liability Company, whose mailing address is 381 Falmouth Road, Falmouth, ME 04105, for consideration paid, grant to the **University of New England**, a Maine non-profit corporation with an address of 11 Hills Beach Road, Biddeford, ME 04005, with Warranty Covenants, the real property in the City of Portland, County of Cumberland and State of Maine, more particularly described as follows:

A certain lot or parcel of land, with the buildings thereon, situated on Stevens Avenue, in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning at a point on the westerly side line of Stevens Avenue at the northeasterly corner of land of the Stevens Avenue Congregational Church; thence North 68° West by said Church property and property formerly of the Portland Street Railway Company, two hundred sixty and four tenths (260.4) feet to a post; thence North 23° 36' East by said Portland Street Railway Company land ninety-two (92) feet to a post; thence South 59° 19' East by the fence one hundred twelve and forty-seven hundredths (112.47) feet to a post; thence South 61° 35' East one hundred forty-six and twenty-four hundredths (146.24) feet to the westerly side of Stevens Avenue; thence South 20° 45' West fifty-eight and fifty-five hundredths (58.55) feet to said westerly side line of Stevens Avenue to the point of beginning.

Including herewith,
a. Any and all appurtenant rights, easements, rights of way, permits and approvals; and
b. Any and all improvements located on, under or above the above -described Real Property.

Meaning and intending to convey and conveying the real property described in a deed to WJN Property Management, LLC dated August 24, 2020 and recorded in the Cumberland County Registry of Deeds in Book 37103, Page 32.

Witness my duly authorized hand and seal this 27th day of June, 2024.

Witness:

WJN Property Management, LLC

Weston Nolan, Manager

DOC :21924 BK:40834 PG:211
RECEIVED - RECORDED, CUMBERLAND COUNTY REGISTER OF DEEDS
06/27/2024, 02:36:12P
Register of Deeds Jessica M. Spaulding E-RECORDED

STATE OF **MAINE**
COUNTY OF **CUMBERLAND**, ss.

June 27, 2024
~~April 26, 2022~~

Personally appeared on the above date, the above-named Weston Nolan, Manager of WJN Property Management, LLC and acknowledged the foregoing instrument to be his free act and deed in his said capacity.

Before me,

~~Notary Public~~ Attorney at Law
Print name: Cary McCullen
~~Exp:~~ Bar No. 005969

Doc#: 61909 Bk:31071 Pg: 274

SHORT FORM WARRANTY DEED

Saltz Associates, LLC, a Maine limited liability company of Portland, Maine ("Grantor"), for consideration paid, grants to **University of New England,** a Maine nonprofit corporation with a mailing address of 716 Stevens Avenue, Portland, ME 04103 ("Grantee") WITH WARRANTY COVENANTS, certain real property, together with any improvements thereon, located in the City of Portland, County of Cumberland, and State of Maine and more particularly described on Exhibit A attached hereto and made a part hereof.

MAINE REAL ESTATE TAX PAID

Being the same premises conveyed to the Grantor by Warranty Deed from Barry C. Saltz and Jeffrey I. Saltz dated October 20, 2001and recorded in the Cumberland County Registry of Deeds in Book 16999, Page 56.

IN WITNESS WHEREOF Saltz Associates, LLC has caused this instrument to be executed by Barry C. Saltz its Manager, thereunto duly authorized, this 25 day of September, 2013.

WITNESS:

John Norton
Print Name:

SATLZ ASSOCIATES, LLC

By: _____
Name: BARRY SALTZ
Its Manager

State of Maine
County of Cumberland, ss.

Date: September 25, 2013

PERSONALLY APPEARED the above-named Barry Saltz, Manager of Saltz Associates, LLC, as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity.

Before me,

_____
Notary Public
Print Name: Cathy Morrison
Commission Expires: 10/18/18

SEAL

EXHIBIT A

A certain lot or parcel of land with the buildings thereon situated in said Portland, in that part formerly Deering, on the Westerly side of Stevens Avenue, formerly called Stevens Plains Avenue, near Morrill's Corner, and bounded and described as follows:

Beginning at a stake on said Westerly side of Stevens Avenue, at the Northeasterly corner of the lot of land conveyed by The City of Portland to Ralph F. Goodhue by deed dated March 30, 1906, and recorded in the Cumberland County Registry of Deeds in Book 843, Page 431, formerly known as the School House Lot, said stake being distant Southerly along said Westerly side of Stevens Avenue Forty-One and Eight Hundredths (41.08) feet from a stone monument marking an angle in said Westerly line of Stevens Avenue; thence by said land now or formerly of said Goodhue on a course of N 69° 07' W One Hundred Eighty-Three and Forty-Five Hundredths (183.45) feet, more or less, to the lot of land conveyed by George H. Bangs to Elizabeth Hodgdon by deed dated September 20, 1900, and recorded by said Registry of Deeds, in Book 699, Page 24; thence by said land now or formerly of said Hodgdon on a course of N 26° 41' E Ninety-Five and Eighty-Five Hundredths (95.85) feet, more or less, to the lot of land conveyed by Nancy Kimball Roberts to Alice M. Winslow by deed dated December 19, 1913, and recorded in said Registry of Deeds in Book 922, Page 419, formerly belonging to Storer Libby; and thence by said land now or formerly of said Winslow on a course of S 60° 01' E One Hundred Seventy-Seven (177) feet, more or less, to the Westerly side of Stevens Avenue; thence by said Westerly side of Stevens Avenue, on a course of S 21° 10" W Twenty-Six and Twenty-Four Hundredths (26.24) feet to said stone monument marking an angle in said Avenue; and thence by said Westerly side of said Stevens Avenue on a course of S 22° 00' W Forty-One and Eight Hundredths (41.08) feet to the point of beginning. Said above mentioned courses being magnetic and of the date of 1942.

ALSO ANOTHER certain lot or parcel of land situated in said Portland, in that part formerly Deering, and bounded and described as follows:

Beginning at a stake in the rear of Stevens Avenue, on the line of land now or formerly of George C. Roberts, at the Northwesterly corner of the lot of land conveyed by the City of Portland to Ralph F. Goodhue by the deed above mentioned recorded in Book 843, Page 431, which lot of land was formerly known as the Morrills School House Lot; thence running Northerly by the line of said land now or formerly of said Roberts One Hundred Seven (107) feet, more or less, to a stake in the line of said Roberts land; thence running Easterly by the line of said Roberts land Sixty-Five (65) feet to a stake at the Northwesterly corner of the lot of land conveyed by Cora B. Roberts to one Christy E. Chandler by deed dated October 12, 1942, and recorded in said Registry of Deeds in Book 1693, Page 352; thence running Southerly by the Westerly line of said land conveyed by said Cora B. Roberts to said Christy E. Chandler, Ninety-Five and One-half (95 ½) feet, more or less, to the Northerly line of said land conveyed to said Goodhue, formerly said School House Lot, at a point distant Sixty-Five (65) feet Easterly from the point begun there; and thence running Westerly by the line of said Goodhue land, formerly of said School House Lot 65 feet to the point of beginning.

Received
Recorded Register of Deeds
Oct 03,2013 02:29:19P
Cumberland County
Pamela E. Lovley

MAINE REAL ESTATE TAX PAID

QUITCLAIM DEED WITH COVENANT

KNOW ALL BY THESE PRESENTS, that **DELTA REALTY LLC**, a Maine limited liability company ("Grantor"), having a mailing address of 380 Warren Avenue, Portland, Maine 04103, for consideration paid, hereby grants to the **UNIVERSITY OF NEW ENGLAND**, a Maine non-profit corporation ("Grantee"), having a mailing address of 11 Hills Beach Road, Biddeford, Maine 04005, with Quitclaim Covenant, that certain real property located in the City of Portland, Cumberland County, Maine, all more particularly bounded and described as follows:

See **Exhibit A** attached hereto and made a part hereof.

Meaning and intending to convey the real property described in a Quitclaim Deed to the Grantor herein from Northern Utilities, Inc., dated September 19, 2014 and recorded in the Cumberland County Registry of Deeds in Book 31788, Page 197, subject to the easements and rights granted Northern Utilities, Inc. pursuant to that certain Amended and Restated Gas Easement Deed dated November 9, 2015 and recorded in said Registry of Deeds in Book 32746, Page 142 (amended and restating that certain Gas Easement Deed dated September 19, 2014 and recorded in said Registry of Deeds in Book 31788, Page 200). Subject to current real estate taxes and stormwater fees to the City of Portland, Maine not yet due and payable.

IN WITNESS WHEREOF, DELTA REALTY LLC has caused this instrument to be signed and sealed on June 30, 2016.

DELTA REALTY LLC

Witness

By: Andrea Girard
Andrea Girard
Its Manager

State of Maine
County of Cumberland, ss. June 30, 2016

Personally appeared the above-named Andrea Girard in his/her said capacity and acknowledged the foregoing instrument to be his/her free act and deed in his/her said capacity and the free act and deed of said limited liability company.

Before me,

R. Clough

~~Notary Public~~/Maine Attorney at Law
Print Name: Lawrence R/Clough
My Commission Expires:

EXHIBIT A

A certain lot or parcel of land with the buildings thereon situated on the easterly side of Forest Avenue, in the City of Portland, County of Cumberland and State of Maine, being more particularly bounded and described as follows:

Beginning on the easterly sideline of Forest Avenue, said point being one hundred forty and two tenths (140.2) feet southerly from the intersection of Read Street and Forest Avenue;

Thence running in an easterly direction one hundred fifty-one and twenty-five hundredths (151.25) feet to Read Street;

Thence running in a southeasterly direction two hundred seventy-eight and thirty-nine hundredths (278.39) feet to a point, said point being the intersection of Read Street and Bell Street;

Thence running in a southerly direction, along the westerly sideline of Bell Street, twenty-one and five tenths (21.5) feet to a point;

Thence in a southwesterly direction and continuing along the westerly sideline of Bell Street, forty and twenty-five hundredths (40.25) feet to a point;

Thence running in a westerly direction seventy-six (76) feet to a point;

Thence, at an interior angle of ninety degrees (90°) from the last mentioned course, running in a northerly direction fifty (50) feet to a point;

Thence, at an exterior angle of ninety degrees (90°) from the last mentioned course, running in a westerly direction two hundred forty-four (244) feet to the easterly sideline of Forest Avenue;

Thence running in a northerly direction, along the easterly sideline of Forest Avenue, two hundred fourteen and fifteen hundredths (214.15) feet to the point begun at.

The Premises are conveyed subject to the rights and easements set forth in that certain Amended and Restated Gas Easement Deed from the Grantor herein dated November 9, 2015 and recorded in said Registry of Deeds in Book 32746, Page 142 (amended and restating that certain Gas Easement Deed dated September 19, 2014 and recorded in said Registry of Deeds in Book 31788, Page 200), pursuant to which, among other things, Northern Utilities, Inc. retained ownership and other rights with respect to certain underground gas pipe lines and related appurtenances located at the Premises.

Received
Recorded Register of Deeds
Jul 01,2016 09:56:04A
Cumberland County
Nancy A. Lane

WARRANTY DEED
(Maine Statutory Short Form)

KNOW ALL MEN BY THESE PRESENTS, that **PIKE INDUSTRIES, INC.**, a Delaware corporation with a place of business and mailing address at 58 Main Street, Westbrook, Maine 04092 ("Grantor"), for consideration paid, hereby grants to **UNIVERSITY OF NEW ENGLAND**, a Maine non-profit corporation with a mailing address of 11 Hills Beach Road, Biddeford, Maine 04005 ("Grantee"), with **WARRANTY COVENANTS**, those certain lots or parcels of land, together with any buildings and improvements thereon, situated in Portland, Cumberland County, Maine, being more particularly described on **Exhibit A** attached hereto and incorporated herein by reference (the "Premises").

MAINE REAL ESTATE TAX PAID

The following restrictions shall run with the land, shall inure to the benefit of the Grantor, and its successors and assigns, and shall be binding upon the Grantee, and its successors and assigns:

1. The Grantee covenants and agrees that the Premises shall not be used for excavation of earth materials, crushing of rock and other materials, production of hot-mix asphalt or other similar products (e.g., cement, ready mix concrete, etc.), storage of earth materials and/or hot-mix, cement or ready-mix products or the sale (retail or wholesale) and distribution of such materials from the Premises or the use of such material or existing processed material unless such excavation and/or use of such materials is for the benefit of the Grantee on the Premises or on contiguous land in common ownership of the Grantee.

2. In the event of a violation of any or all of this restrictive covenant, the Grantor, in addition to all other remedies available to it, may obtain an injunction against the Grantee issued by a court of competent jurisdiction enjoining such breach and shall be entitled to recover its costs and expenses, including, but not limited to, reasonable attorney's fees in the enforcement or defense of the restrictions or any of them.

Being parcels 2 and 3 in the deed of Oldcastle Materials, Inc. to Pike Industries, Inc. dated March 20, 2002, and recorded in the Cumberland County Registry of Deeds in Book 17835, Page 301.

IN WITNESS WHEREOF, the Grantor has caused this instrument to be signed and sealed this 28th day of February, 2012.

WITNESS:

PIKE INDUSTRIES, INC.

By: Brian J Donovan
Print/type name: Brian J. Donovan
Its: Authorized Agent

STATE OF MAINE
CUMBERLAND, ss.

February 28, 2012

Then personally appeared the above named Brian J. Donovan, its Authorized Agent, of Pike Industries, Inc. who acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Pike Industries, Inc.

Before me,

P. J. Van Hemel

~~Notary Public~~ / Maine Attorney-at-Law
Name Printed: Peter J. Van Hemel
My Commission Expires: _____

H:\DOCS\RATTEY\PIKE\UNE 39662\MSFWDEED3.DOC

EXHIBIT A

TRACT 1

A certain lot or parcel of land in the Morrill's Corner region of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Commencing at a point or stake standing on the old southerly line of the Portland & Rochester Railroad, now the Portland Terminal Company, and at a point where the same intersects with land formerly of Franklin M. Purington,

THENCE South 65 3/4° West 108 Rods 15 Links, more or less, to land now owned by the City of Portland;

THENCE North 24 1/4° West 5 Rods 16 Links, more or less, to a stake;

THENCE South 65 3/4° West 34 Rods 9 Links, more or less, to a stake standing on land owned by said City;

THENCE North 11° West 11 Rods 7 Links, more or less, to a stake, standing on land formerly owned by Hiram Sawyer;

THENCE North 61 1/2° East 107 Rods, more or less, to line of said location of Portland & Rochester Railroad;

THENCE by the line of said Railroad on its southerly side as aforesaid 83 1/4° East 38 1/2 Rods, more or less, to the place of beginning.

EXCEPTING from the above described premises, the premises conveyed by Adam W. Wilson to City of Portland by deed dated March 25, 1889, and recorded in the Cumberland County Registry of Deeds in Book 556, Page 132; and the premises conveyed by Adam W. Wilson to Boston & Maine Railroad by deed dated April 4, 1907, and recorded in said Registry in Book 803, Page 232, and by deed dated August 5, 1910, and recorded in said Registry in Book 863, Page 137.

TRACT II

Another certain lot or parcel of land situated near Morrill's Corner in that part of Portland that was formerly Deering, in the County of Cumberland and State of Maine, lying adjacent to and lying northwesterly of the above described premises, being bounded and described as follows:

Beginning at the northwesterly corner of land formerly of one Smith, on the southerly side of land formerly of Portland & Rochester Railroad, now the Portland Terminal Company, and running South 62° West 106 Rods to land of Portland Cemetery;

THENCE northwesterly by said Cemetery lot 30 Rods to the Old Kenney lot;

THENCE North 52 1/2° East by said Kenney's lot 49 Rods 2 Links to the Portland Terminal Company railroad land, formerly of the Portland & Rochester Railroad;

THENCE southeasterly by said Portland Terminal Company location 70 Rods to the first mentioned bounds or place of beginning.

EXCEPTING, however, from the above described premises two certain pieces or parcels of land, that first being 200 feet in length by 28 feet in width and lying parallel with the above-mentioned railroad, said parcel being conveyed by F.O.J. Bodge to Boston & Maine Railroad by warranty deed November 20, 1907, and recorded in the Cumberland County Registry of Deeds in Book 817, Page 29; and the second being a strip along a portion of the southeasterly and southwesterly side thereof, being conveyed by Lewis Lumber Co. to Central Maine Power Company by deed dated November 23, 1951, and recorded in said Registry in Book 2067, Page 107.

Both tracts are conveyed subject to the rights acquired for a sewer by the City of Portland by taking dated May 26, 1944, and recorded in the office of the City Clerk of the City of Portland, Maine, in Vol. 66, Page 263.

Also excepting the land described in the deed from Tilcon Minerals, Inc. to the City of Portland dated November 22, 1996, recorded in the Cumberland County Registry of Deeds in Book 12886, Page 212.

The premises are conveyed subject to the following rights and easements:

1. Rights and easements granted by Warren Bros. Roads Co. to Central Maine Power Company by instrument dated June 19, 1952, and recorded in the Cumberland County Registry of Deeds in Book 2097, Page 221.

2. Rights and easements granted by Warren Brothers Roads Company to Central Maine Power Company and New England Telephone and Telegraph Company by instrument dated January 27, 1967, and recorded in the Cumberland County Registry of Deeds in Book 2996, Page 102.

3. Rights and easements granted by Warren Brothers Co. to Portland Water District by instrument dated December 15, 1977, and recorded in the Cumberland County Registry of Deeds in Book 4150, Page 72.

4. Rights and easements granted by Warren Bros., a Div. of Ashland-Warren Inc. to Central Maine Power Company and New England Telephone and Telegraph Company by instrument dated January 31, 1978, and recorded in the Cumberland County Registry of Deeds in Book 4239, Page 326.

5. Rights and easements granted by Tilcon Minerals, Inc. to the City of Portland by deed dated November 22, 1996, and recorded in the Cumberland County Registry of Deeds in Book 12886, Page 214.

6. Rights and easements granted by Lewis Lumber Company to Central Maine Power Company by instrument dated November 23, 1951, and recorded in the Cumberland County Registry of Deeds in Book 2067, Page 106.

7. Rights, easements, and exceptions set forth in deed from Rosa Lewis to Warren Brothers Roads Company dated May 26, 1962, recorded in said Registry of Deeds in Book 2676, Page 74.

H:\DOCS\RATTEY\Pike\UNE 39662\EXHIBIT A.docx

Received
Recorded Register of Deeds
Mar 02,2012 11:36:47A
Cumberland County
Pamela E. Lovley

KNOW ALL MEN by these Presents, That

I Oliver Buckley of Westbrook in the County of Cumberland & State of Maine Esquire

in consideration of the sum of two hundred dollars paid by Francis O. J. Smith Esq (Treasurer of the Westbrook Seminary) of Westbrook in the County of Cumberland & State of Maine the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said Treasurer and his Successors in Office

~~heirs and assigns~~ forever a certain lot of land situate in said Westbrook and bounded as follows. Viz beginning at a stake running North twenty six degrees East (on a ridge the same being the dividing line between land owned by Zachariah B. Stevens, and on the Western side of the County road twenty one rods eleven links thence South sixty five degrees East nine rods thence North fifteen degrees East four rods and five links thence North sixty nine degrees West thirty three rods thirteen links thence South twenty six degrees West twenty five rods thence South sixty nine degrees East twenty five rods to the first mentioned bounds containing four acres and twenty rods the conditions of this conveyance is such if the contemplated Westbrook Seminary should not go into operation this deed is void, by my refunding the money I shall have received. The Trustees of the Seminary are to build and maintain a good and lawful fence between their lot and any land adjoining to longes the Seminary exists.

TO HAVE AND TO HOLD the aforegranted and bargained premises, with all the privileges and appertenances thereof, to the said Treasurer and his Successors in Office ~~heirs and assigns~~, to their use and behoof forever. And I do covenant with the said Treasurer & his Successors in office ~~heirs and assigns~~, that I am lawfully seized in fee of the premises; that they are free of all incumbrances; that I have good right to sell and convey the same to the said Treasurer & his Successors in Office to hold as aforesaid; and that I and my heirs shall and will warrant and defend the same to the said Treasurer & his Successors in Office ~~heirs and assigns~~ forever, against the lawful claims and demands of all persons.

IN WITNESS WHEREOF, I the said Oliver Buckley have hereunto set my hand and seal this twelfth day of January in the year of our Lord one thousand eight hundred and thirty two

SIGNED, SEALED AND DELIVERED, IN PRESENCE OF
Geo Bishop
Samuel Brimblecom

Oliver Buckley LL

CUMBERLAND, SS. January 12th 1832 Personally appeared Oliver Buckley and acknowledged the above instrument to be his free act and deed.—Before me,

Geo Bishop *Justice of the Peace.*

RECEIVED, January 17 1832, and recorded from the original, by
Samuel Small *Register.*

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KNOW ALL MEN by these Presents, That

I James Hicks of Westbrook in the County of Cumberland and State of Maine Gentleman

in consideration of the sum of one hundred and twenty dollars paid by Francis O. J. Smith Esqr Treasurer of the Westbrook Seminary) of Westbrook in the County of Cumberland & State of Maine the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said Treasurer and his Successors in Office

~~heirs and assigns~~ forever a certain lot of land situate in said Westbrook and bounded as follows viz beginning at the North Easterly corner of land owned by J. B. Stevens and on the Western side of the County road running North fifteen degrees East six rods and two links thence North sixty nine degrees East twenty rods thence South fifteen degrees West six rods and two links thence South sixty nine degrees East twenty rods to the first mentioned bounds containing one hundred and twenty one rods the conditions of this conveyance is such if the contemplated Westbrook Seminary should not go into operation this deed is void by my refunding the money I shall have received. The Trustees of the Seminary are to build and maintain a good and lawful fence between their lot and my land adjoining so long as the Seminary exists

TO HAVE AND TO HOLD the aforegranted and bargained premises, with all the privileges and appertenances thereof, to the said Treasurer and his Successors in Office ~~heirs and assigns~~, to their use and behoof forever. And I do covenant with the said Treasurer his Successors in Office ~~heirs and assigns~~, that I am lawfully seized in fee of the premises; that they are free of all incumbrances; that I have good right to sell and convey the same to the said Treasurer his Successors in Office to hold as aforesaid; and that I and my heirs shall and will warrant and defend the same to the said Treasurer and his Successors in Office ~~heirs and assigns~~ forever, against the lawful claims and demands of all persons.

IN WITNESS WHEREOF, I the said James Hicks with Sophia my wife who hereby relinquishes her right to dower in the above premises have hereunto set our hand and seal this 12th day of January in the year of our Lord one thousand eight hundred and thirty two

SIGNED, SEALED AND DELIVERED, IN PRESENCE OF
Geo Bishop
Samuel Brimblecom

James Hicks L.S.
Sophia Hicks L.S.

CUMBERLAND, SS. January 12th 1832. Personally appeared James Hicks and acknowledged the above instrument to be his free act and deed.—Before me,

Geo Bishop *Justice of the Peace.*

RECEIVED, January 17 1832, and recorded from the original, by

Samuel Small *Register.*

KNOW ALL MEN by these Presents, That

We Zachariah B. Stevens, ~~Abiah Brackley Levi Hartley Gilbert Hoole all~~ of Westbrook in the County of Cumberland and State of Maine Esqrs

in consideration of the sum of One hundred and thirteen dollars paid by Francis O. J. Smith Esq Treasurer of the Westbrook Seminary of Westbrook in the County of Cumberland State of Maine the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said Treasurer and his Successors in Office

~~heirs and assigns~~ forever a certain lot of land situate in said Westbrook and bounded as follows viz beginning at a post near the North Easterly corner of my now dwelling house and on the Western side of the County road running North fifteen degrees East ten rods and three links thence North sixty nine degrees West twenty rods thence North fifteen degrees East one rod and fourteen links thence North sixty five degrees West twelve rods and nineteen links thence South twenty six degrees West fourteen rods and four links thence South seventy two degrees East thirty five rods to the first mentioned bounds containing two acres and seventy three rods the conditions of this conveyance is such if the contemplated Westbrook Seminary should not go into operation this deed is void by my refunding the money I shall have received. The Trustees of the Seminary are to build and maintain a lawful good fence between their lot and my land adjoining so long as the Seminary exists

TO HAVE AND TO HOLD the aforegranted and bargained premises, with all the privileges and appertenances thereof, to the said Treasurer & his Successors in Office ~~heirs and assigns~~, to their use and behoof forever. And I do covenant with the said Treasurer & his Successors in Office ~~heirs and assigns~~, that I am lawfully seized in fee of the premises; that they are free of all incumbrances; that I have good right to sell and convey the same to the said Treasurer to hold as aforesaid; and that I and my heirs shall and will warrant and defend the same to the said Treasurer & his Successors in Office ~~heirs and assigns~~ forever, against the lawful claims and demands of all persons.

IN WITNESS WHEREOF, I the said Zachariah B. Stevens with my wife Miriam who hereby relinquishes her right to dower in and to said premises have hereunto set our hands and seals this twelfth day of January in the year of our Lord one thousand eight hundred and thirty two

SIGNED, SEALED AND DELIVERED, IN PRESENCE OF
Geo Bishop
Samuel Brimblecom

Z. B Stevens LS
Miriam Stevens LS

CUMBERLAND, SS. January 12th 1832 Personally appeared Zachariah B. Stevens and acknowledged the above instrument to be his free act and deed.—Before me,

Geo Bishop *Justice of the Peace.*

RECEIVED, January 17 1832, and recorded from the original, by

Samuel Small *Register.*

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Know all Men by these Presents, That We Zachariah B. Stevens. Oliver Buckley Levi Hersey and Stillman S. Hersey all of Westbrook in the County of Cumberland and State of Maine Gentlemen in consideration of ten dollars paid by Francis O. J. Smith Esq Treasurer of the Westbrook Seminary of Westbrook in the County of Cumberland State of Maine the receipt whereof I do hereby acknowledge, do hereby remise, release, bargain, sell and convey, and forever quitclaim unto the said Treasurer and his successors in Office ~~heirs and assigns~~ forever, all the right, title and interest in and to a certain lot of land situate in said Westbrook, and bounded as follows viz beginning at a stake near the Northwest corner of land owned by James Hicks and on the western side of the County road and running North fifteen degrees East four rods and thirteen links, thence North sixty nine degrees West three rods twelve links thence South fifteen degrees West four rods five links thence South sixty five degrees East three rods sixteen links to the first mentioned bounds containing fifteen rods. the conditions of this conveyance is such if the contemplated Westbrook Seminary should not go into operation this deed is void. The Trustees of the Seminary are to build a good lawful fence between their lot and our land adjoining and maintain the same as long as the Seminary exists. The intention of the parties interested is to convey to the Westbrook Seminary all the land included in the plan of the site of said Seminary made by Z. B. Stevens of which the title is vested in either of said parties

TO HAVE AND TO HOLD THE SAME, together with all the privileges and appurtenances thereunto belonging, to the said Treasurer and his Successors in Office ~~heirs and assigns~~ forever. And We do covenant with the said Treasurer his successors in Office ~~heirs and assigns~~, that We will warrant and forever defend the premises to the said Treasurer and his successors in Office ~~heirs and assigns~~ forever, against the lawful claims and demands of all persons claiming by, through, or under ~~no~~ us

IN WITNESS WHEREOF, We the said Zachariah B. Stevens. Oliver Buckley Levi Hersey and Stillman S. Hersey have hereunto set our hands and seals this twelfth day of January in the year of our Lord one thousand eight hundred and thirty-two

SIGNED, SEALED AND DELIVERED IN PRESENCE OF
Geo Bishop
Samuel Brimblecom

Z. B. Stevens L.S.
Oliver Buckley L.S.
Levi Hersey L.S.
S. S. Hersey L.S.

Cumberland ss.—January 12th 1832 Personally appeared Z. B. Stevens. Oliver Buckley Levi Hersey and S. S. Hersey and acknowledged the above instrument to be their free act and deed—Before me,

Geo Bishop Justice of the Peace.

Received January 17th 1832 and recorded from the original by
Samuel Small Register.

advertisement in said public paper.

Attest: Eben Leach Register

Received January 9th 1868. at 11h. 55m. A.M. and recorded according to the original. the same being endorsed on mortgage deed recorded in Book 350 Page 344.

Attest: Eben Leach, Register

Pierce
to
Trustees of
Westbrook Seminary

U. S. I. R.
Fifty Cents
C. S. P.
Oct. 19-67

Know all men by these presents. that I. Cordelia S. Pierce. of Westbrook, in the County of Cumberland, and State of Maine. in consideration of three hundred sixty eight dollars. paid by the Trustees of Westbrook Seminary. the receipt whereof is hereby acknowledged. do hereby give. grant. bargain. sell, and convey. unto the said Trustees, their successors forever. a lot of land situated in said Westbrook. on the Westerly side of the County road leading over Stevens Plains. and bounded as follows viz: Beginning on said road, and at the South-easterly corner of the said Westbrook Seminary lot: thence Southerly on the line of said road. twenty feet to a stake: thence Westerly, on a line parallel with said Seminary lot. and holding the width of twenty feet from said Seminary lot. until it reaches the back line of said Cordelia's land, and strikes the said Seminary lot: thence Northerly on the line of said Seminary lot. twenty feet to a corner: thence on the dividing line. between said Seminary lot. and these premises. forty rods. more or less. to said County road. and first bound mentioned. Said Trustees are to make and maintain a suitable fence between the premises hereby conveyed and adjoining land. No building is to be placed on said premises. any nearer the dwelling house owned and now occupied by said Cordelia S. Pierce. than the Church now stands. which is partly on said premises. and no building is to be placed on said premises. any nearer the Plains road. than said Church now stands.

To have and to hold the above-granted premises, with all the privileges and appurtenances to the same belonging. to the said Trustees. their successors and assigns. to their use and behoof forever. And I. the said Cordelia S. Pierce. for myself. and my heirs. executors. and administrators. do covenant with the said Trustees. their successors and assigns. that I am lawfully seized in fee-simple of the afore-granted premises: that they are free from all incumbrances: that I have good right to sell and convey the same. to the said Trustees, their successors and as-

-signs forever. as aforesaid: and that I will. and my heirs. executors and administrators shall warrant and defend. the same. to the said Trustees. their successors and assigns forever. against the lawful claims and demands of all persons.

In witness whereof. I. the said Cordelia S. Pierce have hereunto set my hand and seal. this ninth day of October. in the year of our Lord. eighteen hundred and sixty six.

Signed. sealed. and delivered in presence of us Grenville M. Stevens } Cordelia S. Pierce Seal.

Cumberland ss. October 19th 1867: Then personally appeared the within-named Cordelia S. Pierce, and acknowledged the foregoing instrument to be her free act and deed.

Before me. Walter B. Goodrich. Justice of the Peace.

Received January 9th 1868 at 4h. 35m. P.M. and recorded according to the original.

Attest: Eben Leach. Register.

Bray et al to Green

This Indenture. made the 28th day of May. in the year of our Lord one thousand eight hundred and fifty nine. between Jefferson Bray and Sophia Bray his wife. of the City of Oshkosh. County of Winnebago and State of Wisconsin. of the first part. and Jary Green of Naples. County of Cumberland. State of Maine. of the second part.

Witnesseth. That the said parties of the first part. for and in consideration of the sum of fifty dollars. to them in hand paid. by the said party of the second part. the receipt whereof is hereby confessed. and acknowledged. have given. granted. bargained. sold. remised. released and quit-claimed. and by these presents do give. grant. bargain. sell. remise. release and quit-claim. unto the said party of the second part. to his heirs and assigns forever. a certain piece or parcel of land situated in said Naples. and is a part of lot numbered one hundred and thirteen (113). on the Mc Arthur Gore. so called. and is a strip of land forty rods wide. bounded Southerly by land heretofore conveyed to Harrison O. Knight. and Northerly by a line forty rods distant from said Knights Northerly line. and running parallel with said Knights Northerly line. and lies between Trickey Pond and William Berry's lands. containing twenty acres. be the same more or less.

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Know all Men by these Presents, That

I Cordelia S. Pierce of Deering, in the County of Cumberland and State of Maine, Widow,

in consideration of the sum of Three Hundred Twenty Six & 78/100 Dollars paid by the Westbrook Seminary, an Institution, duly incorporated by law and located at said Deering.

the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said Westbrook Seminary, its Successors heirs and assigns forever, A certain lot of land situated in said Deering bounded and described as follows, Commencing at the corner made by the intersection of land of Freeman Porter, land of Evergreen Cemetery and the lot hereby conveyed, being the Northerly corner of said Porters homestead lot, Thence by said Cemetery land N. 30° E. 4 rods and 3 links to a point, Thence by said Seminary land N. 28° 30' E. 5 rods and 20 links to a corner, Thence by said Seminary land S. 70° 30' E. 6 rods to a corner, Thence S. 29° W. 10 rods, and 14 links to said Porters homestead lot, Thence by said Porters land, N. 63° W. 6 rods to the point of beginning, Being the Northerly portion of my homestead lot, and containing 16.339 Square feet,

Pierce
To
Westbrook Seminary

To have and to hold the aforegranted and bargained Premises, with all the privileges and appurtenances thereof, to the said Westbrook Seminary, its Successors heirs and assigns, to their use and behoof forever. And I do covenant with the said Grantee, its Successors heirs and assigns, that I am lawfully seized in fee of the premises; that they are free of all incumbrances:

that I have good right to sell and convey the same to the said Grantee, its Successors and assigns to hold as aforesaid; and that I and my heirs shall and will warrant and defend the same to the said Grantee, its Successors, heirs and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, I the said Cordelia S. Pierce and of the said in testimony of relinquishment of right of dower in the above described premises, have hereunto set my hand and seal this Second day of October in the year of our Lord one thousand eight hundred and eighty two

Signed, Sealed and Delivered in presence of
F. G. Stevens

Cordelia S. Pierce, Seal

State of Maine, CUMBERLAND, ss. Oct. 2 1882 Personally appeared the above named Cordelia S. Pierce and acknowledged the above instrument to be her free act and deed.

Before me, Frank G. Stevens, JUSTICE OF THE PEACE.

Received Oct 4 1882, at 10 o'clock 40 m., A. M., and recorded according to the original.

ATTEST, Frank G. Stevens. REGISTER.

Received September 22, 1904, at 11 h, 10 m. A. M., and recorded according to the original
Attest Ray P. Eaton Register

Pierce
T.
Westbrook
Seminary
et
al

Devise

Abstract of the Will of
Cordelia S. Pierce
State of Maine.

Cumberland ss. Probate Office.

Portland, Sept. 20. A. D. 1904.

I, Joseph B Reed, Register of the Probate Court, in and for said County, hereby certify that the last Will and Testament and Codicils of Cordelia S. Pierce late of Portland in said County, deceased, was proved, approved and allowed by the Judge of Probate for said County, at a Court held at Portland, on the tenth day of September A. D. 1904; and that the following is a true copy of so much of said Will and Codicils as devises Real Estate in the County aforesaid:

Fourteenth. I give and devise to Westbrook Seminary, its successors and assigns, the lot of land back of my homestead place in that part of said Portland which was formerly Deering, extending from the Easterly boundary line of land of said Seminary one hundred and twenty-five (125) feet to a line parallel with the aforesaid Easterly boundary of said Seminary's land, said last named line extending Southerly from other land of said Seminary to my Southerly boundary.

Fifteenth. I give and devise my homestead place where I now reside in said Portland extending back to the lot devised to the Westbrook Seminary in the section immediately preceding this, in trust to Cyrus O. Varney and Walter F. Goodrich, both of said Portland for a parsonage for "All Souls' Church" so called, on Stevens Plains Avenue in said Portland; reserving however to Ella Louise Fernald, before named, the privilege of occupying the upper tenement of the house, rent free, until she acquires a permanent home elsewhere; and to Mrs. Sarah D. Ballard above mentioned, the privilege of remaining in the lower tenement, rent free, during her life-time, provided she is living in said house at the time of my decease. The expenses of keeping said homestead in repair and providing for insurance and taxes are to be borne equally by Mrs. Sarah D. Ballard and Ella Louise Fernald, aforesaid; the said Trustees to determine what repairs are necessary and see that the same are made.

After the decease of Mrs. Sarah D. Ballard, the said Society of all Souls' Church shall assume all the expenses of said homestead.

Twentieth. I give and devise to Harry C. Stevens, son of Clifton Stevens, aforesaid, his heirs and assigns, a lot of land in said Portland adjoining the Unity club lot, East of the Rufus Dunham estate running East seven-

Cordelia S. Pierce (Deed)

ty-five(75) feet and thence South to the line of land of Alfred Stevens heirs;
Twenty-eighth: All the rest, residue and remainder of my estate, real, personal and mixed wherever found and however situated, I give, bequeath and devise in equal shares to Mrs. Sarah B. Ballard, Minnie Ballard York, Samuel R. Stevens, and Fannie R. Stevens hereinbefore mentioned their heirs and assigns forever.

Lastly: I hereby nominate and appoint Cyprus B. Varney of said Portland Executor of this my last will and testament, and request that he be not required to give any bond for the faithful execution of his said trust; and I also hereby revoke all former wills by me made.

Codicil. Third: For the reason that Mrs. Sarah B. Ballard has deceased and Ella Louise Fernald has attained the age of more than twenty-one years since the making of my said will, I hereby revoke the fifteenth section of my said will; and instead thereof, I hereby give and devise my homestead place described in said fifteenth section to said Ella Louise Fernald during the term of her natural life on condition that she pay to the society of "All Souls" Church named in said fifteenth section, the sum of six hundred dollars and to the executor of my said will the sum of four hundred dollars to be by him added to the residue of my estate, and distributed according to the residuary clause being the twenty eighth section of my said will as altered by this codicil; and I make the further condition that should the said Ella Louise marry her husband shall have no voice and take no part in the management and control of said homestead place. At the decease of the said Ella Louise Fernald, I give and devise my said homestead place for a parsonage to said society of "All Souls" Church, its successors and assigns forever.

Fifth: The twentieth section of my said will wherein a certain lot of land is devised to Harry L. Stevens, is hereby confirmed except that said lot is hereby given and devised as running East seventy (70) feet instead of seventy five(75) feet and provided in said will.

Twenty eighth: All the rest residue and remainder of my estate, real, personal and mixed, wherever found and however situated, I give bequeath and devise to Samuel R. Stevens, Frances R. Stevens and Minnie Ballard York hereinbefore mentioned, their heirs and assigns forever.

Twelfth: In all other respects, except as altered or revoked by this codicil, I hereby ratify and confirm my said last will and testament made and executed on the second day of August A.D. 1899 aforesaid, and all the provisions thereof.

Codicil 3. Whereas I Cordelia A. Pierce of Portland in the County of Cumberland and State of Maine on the third day of June 1904 made and executed a codicil to my last will and testament dated the second day of August, 1899, now I do make this further codicil to my said

will to be taken with, and construed, as a part thereof to wit: I hereby add to the third section of said first codicil the following words, viz. But the said Ella Louise Fernald is hereby authorized and empowered at any time during her natural life to sell and convey by her own warranty deed so much of the land adjacent to my said homestead lot as lies westerly from, and in the rear of land of Mrs. Susie Whitman and of the same width of said Whitman lot taking the proceeds of such sale for her own benefit and use.

Witness my hand and the Seal of the Probate Court for said County of Cumberland, the day and year first above written.

Joseph B. Reed

Register.

Received, September 22, 1904, at 11h. 10m. A. M., and recorded according to the original

Attest Ray P. Cotton Register

Emery
To
Boyd et

Abstract of the Will of
Charlotte G. Emery
State of Maine.

Cumberland, ss Probate Office

Portland, Sept. 20, A.D. 1904.

Denise

I, Joseph B. Reed, Register of the Probate Court in and for said County, hereby certify that the last Will and Testament of Charlotte G. Emery late of Portland in said County, deceased, was proved, approved and allowed by the Judge of Probate for said County, at a Court held at Portland, on the tenth day of September, A.D. 1904; and that the following is a true copy of so much of said Will as devises Real Estate in the County aforesaid:

Second. I hereby give, devise and bequeath to my nephew, Nicholas Emery Boyd, his heirs and assigns forever, in addition to any interest which I may possibly have in the bonds and personal estate, the one third interest in Nicholas Emery Homestead and the house and lot on Taylor Street, and the furniture in the said Emery Homestead house given to said Nicholas by will of his late mother, Theresa O. Boyd, and in which a life interest was given to me; the two lots of land lying between Danforth and Taylor Streets in said Portland and numbered three (3) and fifteen (15) on a Plan of Lots recorded in Cumberland Registry of Deeds, Plan Book 3, Page or Plan 27, which Plan is hereby referred to; Also one thousand dollars in money if there be so much money remaining of my own at the time of my decease.

Third. I hereby give, bequeath and devise to my niece, Julia Webster

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Know all Men by these Presents, That

I, Will W. Johnson, called as Grantee in my title deed to the premises hereby conveyed William W. Johnson, of the City of Portland, in the County of Cumberland, State of Maine,
in consideration of one dollar and other valuable and sufficient consideration, paid by Ruth S. Johnson, of said Portland, my wife,
the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said

See Book 3520 Page 128

Ruth S. Johnson, her heirs and assigns forever, a certain lot or parcel of land with the buildings by us erected thereon situated in said City on the Northwardly side of College Street, and bounded as follows: Commencing at a granite post standing on the Northwardly side line of said College Street and located two hundred feet more or less Westwardly of a lot of land conveyed by James P. Weston to C. A. Hayden by deed dated Oct. 6, 1881, and recorded in Cumberland County Registry of Deeds, in Book 485, Page 77; and from said granite post running by a line N. 26° E. one hundred and sixty-five feet to land now or formerly of the Portland Street Railroad Company; thence by line between this land and said Railroad Company land Southeastwardly fifty-three feet to a point; thence S.26°W. one hundred sixty-three and 1/10 -163.1- feet to said side line of College Street and thence on said Street line N. 64° W. fifty-three feet to the granite post and point of commencing. Being the same lot of land with said buildings now thereon which was conveyed to me by Warranty deed from Adela S. Adams, the widow and the heir at law of John M. Adams, dated August 22d, 1906, and recorded in said Registry in Book 801, Page 367.

U.S.I.R.
$3.00
W.W.J.
28/10/15

To Have and to Hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said Ruth S. Johnson, her heirs and assigns, to her and their use and behoof forever. And I do covenant with the said grantee, her heirs and assigns, that I am lawfully seized in fee of the premises; that they are free of all incumbrances; save mortgage to Portland Savings Bank;

that I have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that I and my heirs, shall and will warrant and defend the same to the said Grantee, her heirs and assigns forever, against the lawful claims and demands of all persons, save said mortgage.

In Witness Whereof, I the said Will W. Johnson, have hereunto set my hand and seal this twenty-eighth day of October in the year of our Lord one thousand nine hundred and fifteen.

Signed, Sealed and Delivered in presence of

Henry W. Swasey, Will W. Johnson, Seal

State of Maine, CUMBERLAND, ss. October 28th, 1915. Then Personally appeared the above named Will W. Johnson, and acknowledged the above instrument to be his free act and deed.

Before me, Henry W. Swasey, *Justice of the Peace.*

Received February 19, 1916, at 10 o'clock 15 m. A. M., and recorded according to the original.

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Know all Men by these Presents, That

I, Frank B. Shepherd, of Portland, in the County of Cumberland and State of Maine,

See Book 2857 Page 332

See Book 3169 Page 813

in consideration of one dollar and other valuable consideration, paid by Charles A. Berry and Ethel N. Berry, both of said Portland, the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey, unto the said Charles A. Berry and Ethel N. Berry as joint tenants and the survivor of them their assigns, and the heirs and assigns of the survivor of them forever, a certain lot or parcel of land, with the buildings thereon, situated in said Portland, bounded and described as follows: Commencing at the westerly side of Stevens Avenue, at the southeasterly corner of land of Whitman; thence southerly by said Stevens Avenue ninety-two (92) feet, more or less, to a point forty (40) feet northerly from the northeasterly corner of land of Evergreen Cemetery; thence westerly by the northerly line of a proposed street and keeping a distance of forty (40) feet from the Evergreen Cemetery northerly line, one hundred fifty-five (155) feet to a stake; thence northerly, at right angles to said last described course, to land of said Whitman; thence easterly by said Whitman land to the point of beginning. Being a part of the premises conveyed to me by Abbie Frances Leighton, by deed dated July 19th, 1920, and recorded in Cumberland County Registry of Deeds, Book 1061, Page 75, together with the right to pass and re-pass over said proposed street.

To Have and to Hold the aforegranted and bargained premises, with all the privileges and appurtenance thereof, to the said Charles A. Berry and Ethel N. Berry as joint tenants and the survivor of them, their assigns and ~~heirs and assigns~~ the heirs and assigns of the survivor of them, to their use and behoof forever. And I do covenant with the said Grantees as joint tenants and the survivor of them, their heirs and assigns, that I am lawfully seized in fee of the premises; that they are free of all encumbrances;

that I have good right to sell and convey the same to the said Grantees, to hold as aforesaid; and that I and my heirs shall and will warrant and defend the same to the said Grantees, as joint tenants and the survivor of them, their assigns, and the heirs and assigns of the survivor of them forever against ~~the lawful claims and demands of all persons.~~ the lawful claims and demands

In Witness Whereof, I the said Frank B. Shepherd, unmarried,

have hereunto set my hand and seal this twentieth day of December in the year of our Lord one thousand nine hundred and twenty.

Signed, Sealed and Delivered in presence of

U.S.I.R. $4.50 F.B.S. 12/20/20

Harry L. Cram to F.B.S. Frank B.Shepherd Seal.

State of Maine, CUMBERLAND, ss. Portland, December 20, 1920. Personally appeared the above named Frank B. Shepherd and acknowledged the above instrument to be his free act and deed.

Before me,

Harry L. Cram, *Justice of the Peace.*

Received December 20, 1920, at 10 o'clock 26 m. A.M., and recorded according to the original.

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Know all Men by these Presents, That

We, Alice Roberts Goold of Portland in the County of Cumberland and State of Maine, and George C. Roberts of Lisbon Falls in the County of Androscoggin and State of Maine,

in consideration of One dollar and other valuable considerations, paid by Westbrook Seminary, a corporation organized and existing under the laws of Maine and located at Portland in said County of Cumberland and State of Maine,

the receipt whereof we do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said Westbrook Seminary,its successors and assigns forever, a certain lot or parcel of land with the buildings thereon,situated on the northwesterly corner of College Street and Stevens Avenue in that part of Portland formerly Deering,in said County of Cumberland and State of Maine,bounded and described as follows: Beginning at said northwesterly corner of College Street,formerly known as Seminary Street, and Stevens Avenue and running westerly on the northerly side of said College Street one hundred (100) feet; thence running northerly in a line parallel to said Stevens Avenue by land now or formerly of Lydia J. Snow ninety (90) feet;thence running easterly in a line parallel to said College Street by land now or formerly of said Lydia J. Snow to the westerly side of said Stevens Avenue one hundred (100) feet;thence running southerly on the westerly side of said Stevens Avenue ninety (90) feet to the point of beginning.Being a part of the same premises conveyed to Lydia J. Snow by Joseph C. Snow by warranty deed dated December 13, 1880,recorded in Cumberland County Registry of Deeds, Book 478, Page 428,and the same premises conveyed by said Lydia J. Snow to Arabella W. Roberts by deed dated September 6, 1901, recorded in said Registry of Deeds, Book 705,Page 312, and said premises are conveyed subject to the right of drainage and right to maintain sewer therein reserved. Our title to said premises was acquired as devisees under the last will and testament of William W. Roberts,late of said Portland, deceased,extract from whose will is recorded in said Registry of Deeds, Book 1058,Page 368. Said premises are conveyed subject to taxes for the year 1923 which the Grantee hereby assumes and agrees to pay as a part of the consideration hereof.

U.S.I.R
$8.00
A.R.G.
G.C.R.
May 28/23

To Have and to Hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said Westbrook Seminary,its successors ~~heirs~~ and assigns, to --- and their use and behoof forever. And we do covenant with the said Grantee, its successors ~~heirs~~ and assigns, that we lawfully seized in fee of the premises; that they are free of all incumbrances; except as aforesaid;

that we have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that we and our heirs, shall and will warrant and defend the same to the said Grantee,its successors ~~heirs~~ and assigns forever, against the lawful claims and demands of all persons. except as aforesaid.

In Witness Whereof, we the said Alice Roberts Goold and George C.Roberts and we, Allan O. Goold,husband of the said Alice Roberts Goold, and Nancy K. Roberts wife of the said George C. Roberts joining in this deed as Grantors, and relinquishing and conveying our right by descent and all other rights in the above described premises have hereunto set our hand sand seals this twenty-eighth day of May in the year of our Lord one thousand nine hundred and twenty-three.

Signed, Sealed and Delivered in presence of

Roscoe Phillips to A.R.G. A.O.G.

Ada S. Gilkey for both

Alice Roberts Goold Seal.
Allan O. Goold Seal.
Geo. C. Roberts Seal.
Nancy K. Roberts Seal.

State of Maine, CUMBERLAND, SS. May 28th, 1923. Personally appeared the above named Alice Roberts Goold and acknowledged the above instrument to be her free act and deed.

Before me, Roscoe Phillips, *Justice of the Peace.*

Received May 28, 1923, at 10 o'clock 45 m. A. M., and recorded according to the original.

Know all Men by these Presents, That

I, Charles A. Tracy, of Raymond, in the County of Cumberland and State of Maine,

in consideration of one dollar and other valuable consideration, paid by Westbrook Seminary and Junior College, a corporation organized and existing under the laws of the State of Maine and located at Portland, in said County and State,
the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said Westbrook Seminary and Junior College, its successors and assigns forever, a certain lot or parcel of land, together with the buildings thereon, situated in said Portland and bounded and described as follows: Beginning at a point on the westerly side line of Stevens Avenue, so-called, ninety feet (90') northerly of the northerly corner of Stevens Avenue and College Street; thence westerly by an angle to the left of eighty-four degrees and nine minutes (84° 09') one hundred and three and ninety-seven one hundredths feet (103.97') to a point at an iron fence; thence northerly by an angle to the right of eighty-six degrees and sixteen minutes (86° 16') and by said iron fence and continuation thereof, sixty-three and sixty-five one hundredths feet (63.65') to land now or formerly of Justina O'Brion;thence easterly by an angle to the right of eighty-seven degrees and forty-six minutes (87° 46') and by said land now or formerly of Justina O'Brion one hundred and one and twelve one hundredths feet (101.12') to said Stevens Avenue; thence southerly by said westerly side line of Stevens Avenue seventy-four and forty-nine one hundredths feet (74.49') to point of beginning.

Being the same premises conveyed by Thalia L. Clement to Victor Brewster by deed dated October 19, 1908 and recorded in Cumberland County Registry of Deeds in Book 831, Page 38, and devised by said Victor Brewster to Elias Brewster, an abstract of the will of Victor Brewster being recorded in said Registry of Deeds in Book 1306, Page 44. Said Elias Brewster devised said property to the grantor herein, an abstract of the will of Elias Brewster being recorded in said Registry of Deeds in Book 1570, Page 448.

U.S.I.R. $7.15 C.A.T. 2/23/43

To Have and to Hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said Westbrook Seminary and Junior College, its successors

~~heirs~~ and assigns, to its and their use and behoof forever. And I do covenant with the said Grantee, its successors
~~heirs~~ and assigns, that I am lawfully seized in fee of the premises; that they are free of all incumbrances;

that I have good right to sell and convey the same to the said Grantee
to hold as aforesaid; and that I and my heirs, shall and will warrant and defend the same to the said
Grantee, its successors
~~heirs~~ and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, I, the said Charles A. Tracy, and I, Nellie I. Tracy, wife of the said Charles A. Tracy, joining in this deed as Grantor, and relinquishing and conveying all right by descent and all other rights in the above described premises,

have hereunto set
our hands and seals this 23rd day of February in the year of our Lord
one thousand nine hundred and forty-three.

Signed, Sealed and Delivered in presence of

E. P. Perkins — Charles A. Tracy Seal

to both — Nellie I. Tracy Seal

State of Maine, CUMBERLAND, SS. February 23, 1943 Personally appeared
the above named Charles A. Tracy
and acknowledged the foregoing instrument to be his free act and deed.
Before me, Elliot P. Perkins, Justice of the Peace

Received February 23 19 43, at 12 o'clock 1 m. P. M., and recorded according to the original.

Know all Men by these Presents, That

I, Addie H. Lowd, of Portland, in the County of Cumberland and State of Maine,

in consideration of one dollar and other valuable consideration, paid by Westbrook Seminary and Junior College, a corporation organized and existing under the laws of the State of Maine and located at Portland, in said County of Cumberland, the receipt whereof I do hereby acknowledge, do hereby, give, grant, bargain, sell and convey unto the said Westbrook Seminary and Junior College, its successors and assigns forever, a certain lot or parcel of land with a dwelling house thereon, situated on the northerly side of College Street, in said Portland, numbered seventeen on said street and bounded as follows:

Beginning on the northerly side of College Street at the southwesterly corner of land formerly of J. C. Snow, now or formerly of George E. Donnelly; thence westerly by College Street eighty (80) feet to land now or formerly of Frances E. Skillin; thence northerly by land of Frances E. Skillin one hundred and thirty-nine (139) feet to land formerly of Captain Sargent, now or formerly of Justina B. O'Brien; thence easterly by land of Justina B. O'Brien eighty (80) feet to the northwesterly corner of said land now or formerly of George E. Donnelly; thence southerly by said land of George E. Donnelly one hundred forty-eight (148) feet to the place of beginning, containing 11,480 square feet, more or less.

Being the same premises conveyed to Fred Lowd and Roger W. Flint by deed dated June 30, 1927, recorded in Cumberland County Registry of Deeds, Book 1269, Page 183. Fred Lowd died August 22, 1940 leaving as his only heirs-at-law and next-of-kin, Addie H. Lowd, widow, Dorothy J. Flint, daughter, and Russell H. Lowd, son. Said Roger W. Flint, Dorothy J. Flint and Russell H. Lowd conveyed their interest in said premises to said Addie H. Lowd by deed dated September 3, 1940, recorded in said Registry, Book 1623, Page 395.

This conveyance is made subject to a certain mortgage given by Addie H. Lowd to Marguerite G. Davis, dated July 1, 1941, recorded in said Registry of Deeds in Book 1641, Page 250, on which there is due the principal sum of thirty-five hundred dollars ($3,500.00) and which the Grantee, as part of the consideration for this conveyance, assumes and agrees to pay.

Subject also to the 1944 taxes.

To Have and to Hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said Westbrook Seminary and Junior College, its successors and assigns, to its and their use and behoof forever. And I do covenant with the said Grantee, its successors and ~~heirs and~~ assigns, that I am lawfully seized in fee of the premises; that they are free of all incumbrances; except as aforesaid; that I have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that I and my heirs, shall and will warrant and defend the same to the said Grantee, its successors and ~~heirs~~ assigns forever, against the lawful claims and demands of all persons. except as aforesaid.

U.S.I.R. $1.65 A.H.L. 7/8/44

In Witness Whereof, I, the said Addie H. Lowd, widow, have hereunto set my hand and seal this 8th day of July in the year of our Lord one thousand nine hundred and forty-four.

Signed, Sealed and Delivered in presence of

Roger W. Flint — Addie H. Lowd Seal

State of Maine, CUMBERLAND, SS. July 8, 1944 Personally appeared the above named Addie H. Lowd and acknowledged the foregoing instrument to be her free act and deed.

Before me, Roger W. Flint, Notary Public Notarial Seal

Received July 11 1944, at 11 o'clock 45 m. A. M., and recorded according to the original.

All Souls Church Parish to Messiah-All Souls Universalist Church War.

KNOW ALL MEN BY THESE PRESENTS, That All Souls Church Parish, a corporation incorporated under the laws of Maine and located at Portland in the County of Cumberland, in consideration of one dollar and other considerations, paid by Messiah-All Souls Universalist Church, a corporation incorporated under the laws of Maine and located at said Portland, the receipt whereof it does hereby acknowledge, do hereby give, grant, bargain, sell and convey, unto the said Messiah-All Souls Universalish Church, its successors and assigns forever, a certain lot or parcel of land with the buildings thereon, located at No. 706 Stevens Avenue in said Portland, and bounded northerly by land now or formerly of Westbrook Junior College, formerly called Westbrook Seminary, and by land of the grantee westerly by land now or formerly of Westbrook Seminary now Westbrook Junior College; southerly by land now or formerly of Rev. Harrison S. Whitman, and easterly by said Stevens Avenue, being the parsonage premises conveyed to the grantor by the following deeds:
Casco Realty Improvement Company to All Souls Church Parish, dated October 10, 1924, recorded Cumberland County Registry of Deeds, Book 1168, Page 366;
Theodore Kerr to All Souls Church Parish, deed dated October 17, 1924, recorded Book 1168, Page 367;
Ella Louise Perry to All Souls Church Parish, deed dated October 17, 1924, recorded Book 1168, Page 368;
City of Portland to All Souls Church Parish, deed dated October 10, 1928, recorded Book 1300, Page 58.
The premises hereby conveyed are subject to a lease given by All Souls Parish to Ella Louise Perry, dated October 17, 1924, recorded Book 1204, Page 65, and the property is conveyed subject to the following conditions,- viz: that the property herein conveyed shall be and continue to be occupied and used as a parsonage or for other religious purposes, by a society or religious organization of the Universalist denomination; to-wit,-a religious society in direct fellowship with and acknowledging the ecclesiastical authority of the Maine Universalist Convention and of the Universalist Church of America; and it is an express condition of this deed that in case the use or occupation of the aforesaid property should be diverted from the aforesaid purpose for a period of one year, then in such case the Maine Universalist Convention may enter in and upon the premises, take possession thereof and thereafter shall own, hold, use and dispose of the same for general Universalist purposes in accordance with the powers of that corporation.

TO HAVE AND TO HOLD the aforegranted and bargained premises with all the privileges and appurtenances thereof, to the said Messiah-All Souls Universalist Church, its successors and assigns, to its and their use and behoof forever, subject, however, to the conditions hereinbefore set forth.

AND it does covenant with the said Grantee, its successors and assigns, that it is lawfully seized in fee of the premises, that they are free of all incumbrances; except as aforesaid; that it has good right to sell and convey the same to the said Grantee to hold as aforesaid; and that it and its successors shall and will warrant

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and defend the same to the said Grantee, its successors and assigns forever, against the lawful claims and demands of all persons.

IN WITNESS WHEREOF, the said Grantor herein has caused these premises to be signed and its seal hereto affixed by the Trustees of the All Souls Church Parish, thereunto duly authorized, this 22d day of August, in the year of our Lord one thousand nine hundred and forty-four.

Signed, Sealed and Delivered in Presence of

ALL SOULS CHURCH PARISH, By the Seal
Trustees of All Souls Parish

Albert N. Whitney Seal
Clyde R. Chase Seal
Andrew G. Spinney Seal
Dora S. Wish Seal
Laura E. Sampson Seal
Emily C. McLaughlin Seal
Inez D. Blaisdell Seal
Florence M. French Seal
Trustees

Inez D. Blaisdell to
Albert N. Whitney
Clyde R. Chase
Andrew G. Spinney
Dora S. Wish
Laura E. Sampson
Emily C. McLaughlin
Florence M. French
Florence Vest
to Inez D. Blaisdell

State of Maine. Cumberland,ss. October 3, 1944.

Personally appeared the above named Inez D. Blaisdell and acknowledged the foregoing instrument to be her free act and deed as trustee of All Souls Church Parish and the free act and deed of All Souls Church Parish.

Before me, Florence Vest Notary Public Notarial Seal

Received October 4, 1944, at 11h 30m A. M., and recorded according to the original =

Reynolds to Welch War.

KNOW ALL MEN BY THESE PRESENTS, That I, Bessie V. Reynolds, of Gray in the County of Cumberland and State of Maine, in consideration of One Dollar and other valuable consideration, paid by Lauretta P. Welch, of Westbrook in said County and State, the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey, unto the said Lauretta P. Welch, her heirs and assigns forever, the following described property:

a certain lot or parcel of land situated in said Gray, lying on the Westerly shore of the most Northerly part of Little Sebago Lake, and bounded and described as follows:

Beginning at an iron post on the shore of said Lake at a point five (5) feet Northerly of the most Northeasterly corner of land of said Bessie V. Reynolds, formerly of Harry A. Weeman; thence Westerly one hundred (100) feet more or less to an iron post at the Northwesterly corner of said land of Bessie V. Reynolds; thence Northerly on the line of the road seventy-five (75) feet to an iron post; thence Easterly one hundred (100) feet more or less to an iron post on the shore of the Lake; thence Southerly on the shore of the Lake seventy (70) feet to the point of beginning.

Said premises being a portion of the first parcel of land conveyed by Ralph J. Trumbull to Adelbert R. Reynolds by deed dated June 25, 1937, recorded in Cumberland Registry of Deeds in Book 1526, Page 151. Together with the right to cross and recross land now or formerly of Matthew C. Morrill in the road formerly used to reach said lot as conveyed to said Adelbert R. Reynolds by said deed of Ralph J.Trumbull.

All Souls Church Parish to Messiah-All Souls Universalist Church War.

KNOW ALL MEN BY THESE PRESENTS, That All Souls Church Parish, a corporation incorporated under the laws of Maine and located at Portland in the County of Cumberland, in consideration of one dollar and other considerations, paid by Messiah-All Souls Universalist Church, a corporation incorporated under the laws of Maine and located at said Portland, the receipt whereof it does hereby acknowledge, do hereby give, grant, bargain, sell and convey, unto the said Messiah-All Souls Universalish Church, its successors and assigns forever, a certain lot or parcel of land with the buildings thereon, located at No. 706 Stevens Avenue in said Portland, and bounded northerly by land now or formerly of Westbrook Junior College, formerly called Westbrook Seminary, and by land of the grantee westerly by land now or formerly of Westbrook Seminary now Westbrook Junior College; southerly by land now or formerly of Rev. Harrison S. Whitman, and easterly by said Stevens Avenue, being the parsonage premises conveyed to the grantor by the following deeds:
Casco Realty Improvement Company to All Souls Church Parish, dated October 10, 1924, recorded Cumberland County Registry of Deeds, Book 1168, Page 366;
Theodore Kerr to All Souls Church Parish, deed dated October 17, 1924, recorded Book 1168, Page 367;
Ella Louise Perry to All Souls Church Parish, deed dated October 17, 1924, recorded Book 1168, Page 368;
City of Portland to All Souls Church Parish, deed dated October 10, 1928, recorded Book 1300, Page 58.
The premises hereby conveyed are subject to a lease given by All Souls Parish to Ella Louise Perry, dated October 17, 1924, recorded Book 1204, Page 65, and the property is conveyed subject to the following conditions,- viz: that the property herein conveyed shall be and continue to be occupied and used as a parsonage or for other religious purposes, by a society or religious organization of the Universalist denomination; to-wit,-a religious society in direct fellowship with and acknowledging the ecclesiastical authority of the Maine Universalist Convention and of the Universalist Church of America; and it is an express condition of this deed that in case the use or occupation of the aforesaid property should be diverted from the aforesaid purpose for a period of one year, then in such case the Maine Universalist Convention may enter in and upon the premises, take possession thereof and thereafter shall own, hold, use and dispose of the same for general Universalist purposes in accordance with the powers of that corporation.

TO HAVE AND TO HOLD the aforegranted and bargained premises with all the privileges and appurtenances thereof, to the said Messiah-All Souls Universalist Church, its successors and assigns, to its and their use and behoof forever, subject, however, to the conditions hereinbefore set forth.

AND it does covenant with the said Grantee, its successors and assigns, that it is lawfully seized in fee of the premises, that they are free of all incumbrances; except as aforesaid; that it has good right to sell and convey the same to the said Grantee to hold as aforesaid; and that it and its successors shall and will warrant

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and defend the same to the said Grantee, its successors and assigns forever, against the lawful claims and demands of all persons.

IN WITNESS WHEREOF, the said Grantor herein has caused these premises to be signed and its seal hereto affixed by the Trustees of the All Souls Church Parish, thereunto duly authorized, this 22d day of August, in the year of our Lord one thousand nine hundred and forty-four.

Signed, Sealed and Delivered in Presence of

ALL SOULS CHURCH PARISH, By the Trustees of All Souls Parish _Seal

Inez D. Blaisdell to
Albert N. Whitney
Clyde R. Chase
Andrew G. Spinney
Dora S. Wish
Laura E. Sampson
Emily C. McLaughlin
Florence M. French
Florence Vest
to Inez D. Blaisdell

Albert N. Whitney Seal
Clyde R. Chase Seal
Andrew G. Spinney Seal
Dora S. Wish Seal
Laura E. Sampson Seal
Emily C. McLaughlin Seal
Inez D. Blaisdell Seal
Florence M. French Seal
Trustees

State of Maine. Cumberland,ss. October 3, 1944.

Personally appeared the above named Inez D. Blaisdell and acknowledged the foregoing instrument to be her free act and deed as trustee of All Souls Church Parish and the free act and deed of All Souls Church Parish.

Before me, Florence Vest Notary Public Notarial Seal

Received October 4, 1944, at 11h 30m A. M., and recorded according to the original =

Reynolds to Welch War.

KNOW ALL MEN BY THESE PRESENTS, That I, Bessie V. Reynolds, of Gray in the County of Cumberland and State of Maine, in consideration of One Dollar and other valuable consideration, paid by Lauretta P. Welch, of Westbrook in said County and State, the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey, unto the said Lauretta P. Welch, her heirs and assigns forever, the following described property:

a certain lot or parcel of land situated in said Gray, lying on the Westerly shore of the most Northerly part of Little Sebago Lake, and bounded and described as follows:

Beginning at an iron post on the shore of said Lake at a point five (5) feet Northerly of the most Northeasterly corner of land of said Bessie V. Reynolds, formerly of Harry A. Weeman; thence Westerly one hundred (100) feet more or less to an iron post at the Northwesterly corner of said land of Bessie V. Reynolds; thence Northerly on the line of the road seventy-five (75) feet to an iron post; thence Easterly one hundred (100) feet more or less to an iron post on the shore of the Lake; thence Southerly on the shore of the Lake seventy (70) feet to the point of beginning.

Said premises being a portion of the first parcel of land conveyed by Ralph J. Trumbull to Adelbert R. Reynolds by deed dated June 25, 1937, recorded in Cumberland Registry of Deeds in Book 1526, Page 151. Together with the right to cross and re-cross land now or formerly of Matthew C. Morrill in the road formerly used to reach said lot as conveyed to said Adelbert R. Reynolds by said deed of Ralph J.Trumbull.

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Know all Men by these Presents, That

I, Martha Babcock Webber, of Portland in the County of Cumberland and State of Maine, in consideration of One Dollar ($1.00) and other valuable considerations, paid by Westbrook Seminary and Junior College, a corporation organized and existing under the laws of the State of Maine and located at Portland in the County of Cumberland and State of Maine, the receipt whereof I do hereby acknowledge, do hereby, give, grant, bargain, sell and convey unto the said Westbrook Seminary and Junior College, its Successors and Assigns forever, the following described property:

A certain lot or parcel of land, with the buildings thereon, situated on Stevens Avenue in the City of Portland, formerly called the "Stevens Plains Road" in the City of Deering, bounded and described as follows:- Beginning on the westerly side of said road at the southerly corner of land formerly of Albert Jones; thence northwesterly on said Jones line twenty (20) rods, more or less, to land formerly of William Kenney; thence southerly by said Kenney's land four (4) rods, more or less, to land formerly of N. K. Sawyer; thence easterly by said Sawyer's land twenty (20) rods, more or less, to said road; thence northerly by said road four (4) rods, more or less, to the place of beginning; being the same premises conveyed to me by Justina B. O'Brien by deed dated July 13, 1932, recorded in Cumberland County Registry of Deeds in Book 1403, Page 305.

This conveyance is made subject to taxes for 1947 which the Grantee assumes and agrees to pay.

U.S.I.R.
$13.20
M.B.W.
8/12/47

To Have and to Hold the aforegranted and bargained premises, with all ~~the~~ privileges and appurtenances thereof, to the said Westbrook Seminary and Junior College, its Successors and Assigns, to it and their use and behoof forever. And I do covenant with the said Grantee, its Successors ~~heirs~~ and assigns, that I am lawfully seized in fee of the premises; that they are free of all incumbrances; except as aforesaid; that I have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that I and my heirs, shall and will warrant and defend the same to the said Grantee, its Successors ~~heirs~~ and assigns forever, against the lawful claims and demands of all persons; except as aforesaid.

In Witness Whereof, I, the said Martha Babcock Webber, and I, M. Carroll Webber, husband of the said Martha Babcock Webber, joining in this deed as Grantor, and relinquishing and conveying my rights by descent and all other rights in the above described premises, have hereunto set our hands and seals this 12th day of August in the year of our Lord one thousand nine hundred and forty-seven.

Signed, Sealed and Delivered in presence of

Edward F. Dana — Martha Babcock Webber — Seal

Jayne E. Harrington — M. Carroll Webber M.D. — Seal

State of Maine, CUMBERLAND, ss. August 12, 1947 Personally appeared the above named Martha Babcock Webber and acknowledged the above instrument to be her free act and deed.

Before me, Edward F. Dana Justice of the Peace

Received August 12, 1947, at 2 o'clock 40m. P.M., and recorded according to the original.

Know all Men by these Presents, That

We, Clifford J. Knight and Alice M. Knight, both of Portland in the County of Cumberland and State of Maine

in consideration of One Dollar and other Considerations paid by George O.Chase and Ruth B. Chase, both of Newington in the County of Hartford and State of Connecticut

the receipt whereof we do hereby acknowledge, do hereby, give, grant, bargain, sell and convey unto the said George O. Chase and Ruth B. Chase, as joint tenants and not as tenants in common and their heirs and assigns and the survivor of them and the heirs and assigns of the survivor of them forever, a certain lot or parcel of land with the buildings thereon, situated in Deering in said Portland in the County of Cumberland and State of Maine, bounded and described as follows:

Beginning on the Northerly side of College Street at a stone monument at the intersection of land now or formerly owned by said Clifford J. Knight and land now owned by Westbrook Junior College; thence in a Westerly direction One Hundred Twenty-six and twenty-two hundredths (126.22) feet along said College Street to a stake; thence at a ninety degree (90°) angle Eighty-five and eight tenths (85.8) feet in a Northerly direction to a stake and land now or formerly of the State of Maine; thence One Hundred Twenty-Six and forty-five hundredths (126.45) feet in an easterly direction along land of the State of Maine to a stake; thence Seventy-eight and fifty-two hundredths (78.52) feet in a Southerly direction to the point of beginning.

Being the same premises conveyed to us by Elizabeth Milliken by deed dated December 19, 1956, recorded in Cumberland County Registry of Deeds, Book 2331,Page 248 to which deed and deeds referred to therein reference is made.

Real estate tax for 1957 to be pro-rated as of date of transfer.

U.S.I.R. $15.95 C.J.K. 6/12/57

To Have and to Hold the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said George O.Chase and Ruth B.Chase as joint tenants and not as tenants in common and their heirs and assigns and the survivor of them and the heirs and assigns of the survivor of them forever, to them and their use and behoof forever. And we do covenant with the said Grantees, their heirs and assigns, that we are lawfully seized in fee of the premises; that they are free of all incumbrances; except as aforesaid that we have good right to sell and convey the same to the said Grantees to hold as aforesaid; and that we and our heirs, shall and will warrant and defend the same to the said Grantees, their heirs and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, We, the said Clifford J. Knight and Alice M. Knight, husband and wife, each joining in this deed as Grantor, and relinquishing and conveying all right by descent and all other rights in the above described premises,

---- hand s and seals this twelfth day of June have hereunto set in the year of our Lord one thousand nine hundred and fifty-seven.

Signed, Sealed and Delivered in presence of

Ralph M. Snyder, to both

Clifford J. Knight Seal

Alice M. Knight Seal

State of Maine, CUMBERLAND, ss. June 12, 1957. Personally appeared the above named Clifford J. Knight and acknowledged the foregoing instrument to be his free act and deed.

Before me, Ralph M. Snyder Justice of the Peace

Received June 12, 1957, at 3 o'clock 40 m. P. M., and recorded according to the original.

303

No. 106

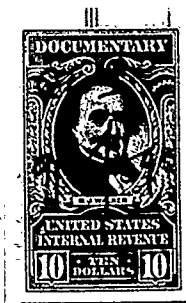
Know All Men by these Presents,

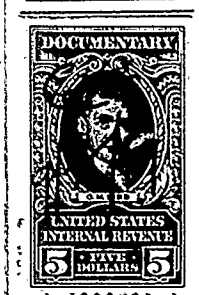
That I, GORDON L. SKILLIN of Waterville in the County of Kennebec and State of Maine

Skillin to Westbrook Seminary & Junior College -- War

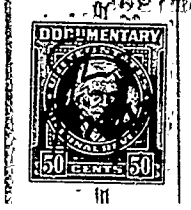
in consideration of One Dollar ($1.00) and other valuable considerations

paid by WESTBROOK SEMINARY AND JUNIOR COLLEGE, a corporation organized and existing under the laws of Maine and located at Portland in the County of Cumberland and State of Maine









the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey, unto the said Westbrook Seminary and Junior College, its successors

and Assigns forever,

the following described property:

A certain lot or parcel of land with the buildings thereon situated in said Portland, in that part formerly Deering, on the northerly side of College Street, and bounded and described as follows:

Beginning at a stone monument in the northerly side line of said College Street at the southwest corner of land of L. Laberton Moore; thence running westerly on said College Street one hundred one (101) feet, more or less, to the "Kenney" line; thence northerly on a line parallel with westerly line of said Moore's land one hundred thirty-one (131) feet, more or less, to the fence between the lot hereby conveyed and land, now or formerly, of the heirs of Capt. Sargent; thence easterly by said Sargent land and the fence one hundred (100) feet, more or less, to said Moore's land; thence southerly by said Moore's land one hundred thirty-nine (139) feet, more or less, to the point of beginning.

Also a certain other lot of land adjoining above described lot on the westerly side thereof, and bounded and described as follows:

Beginning on the northerly side line of said College Street, at the southwest corner of above described lot; thence running westerly on said College Street ten (10) feet, more or less, to a stone monument; thence northerly on a line parallel with the westerly side line of above described lot one hundred fifty-eight (158) feet, more or less, to the fence and land, now or formerly, of the Portland Railroad Company; thence easterly by the fence and said Portland Railroad Company's land seven (7) feet, more or less, to the corner of the fence and land, now or formerly, of the heirs of Capt. Sargent; thence southerly by the fence and said Sargent land twenty-eight (28) feet, more or less, to a post at the southwest corner of said Sargent land; thence easterly by said Sargent land and the fence three (3) feet, more or less, to the northwest corner of above described lot; thence southerly by above described lot one hundred thirty-one (131) feet, more or less, to the point of beginning.

304
304

304

Said premises were conveyed to William H. and Frances E. Skillin by William T. Jordan et als by deed dated October 21, 1904, recorded in Cumberland County Registry of Deeds in Book 758, Page 242. William H. Skillin conveyed his interest to Frances E. Skillin by deed dated April 8, 1908, recorded in said Registry of Deeds in Book 820, Page 377. Frances E. Skillin died intestate on April 29, 1929, leaving no widower and as her sole heirs-at-law, Harlon L. Skillin and Maude E. Clement. Harlon L. Skillin conveyed his interest to Maude E. Clement by deed dated August 22, 1929, recorded in said Registry of Deeds in Book 1328, Page 44. Maude E. Clement devised said premises to the Grantor by Will, abstract of which is recorded in said Registry of Deeds.

To have and to hold the aforegranted and bargained premises, with all privileges and appurtenances thereof to the said Westbrook Seminary and Junior College, its successors

~~x~~ and Assigns, to its and their use and behoof forever.

And I do **covenant** with the said Grantee, its successors ~~x~~ and Assigns, that I am lawfully seized in fee of the premises; that they are free of all incumbrances;

that I have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that I and my Heirs, shall and will ~~Warrant and Defend~~ the same to the said Grantee, its successors ~~x~~ and Assigns forever, against the lawful claims and demands

305

305

of all persons.

In Witness Whereof, I the said Gordon L. Skillin

and I, Norma Skillin wife of the said Gordon L. Skillin

joining in this deed as Grantor , and relinquishing and conveying my rights by descent and all other rights in the above described premises, have hereunto set our hands and seals this 25th day of September in the year of our Lord one thousand nine hundred and fifty-nine.

Signed, Sealed and Delivered in presence of

H. Paul Lancaster
Martha M. Rozzyk

Gordon L. Skillin
Norma L. Skillin

State of Maine,
Kennebec } ss.

25 September 19 59

Personally appeared the above named

Gordon L. Skillin

and acknowledged the above instrument to be his free act and deed.

Before me,

H. Paul Lancaster
Justice of the Peace

OCT 22 1959

REGISTRY OF DEEDS, CUMBERLAND COUNTY, MAINE
Received at 8 H 21 M A M, and recorded in
BOOK 2507 PAGE 303

Leonard P. Tyson Register

425

Know All Men by These Presents, 425

That I, NELLIE A. DONNELLY, of Portland in the County of Cumberland and State of Maine,

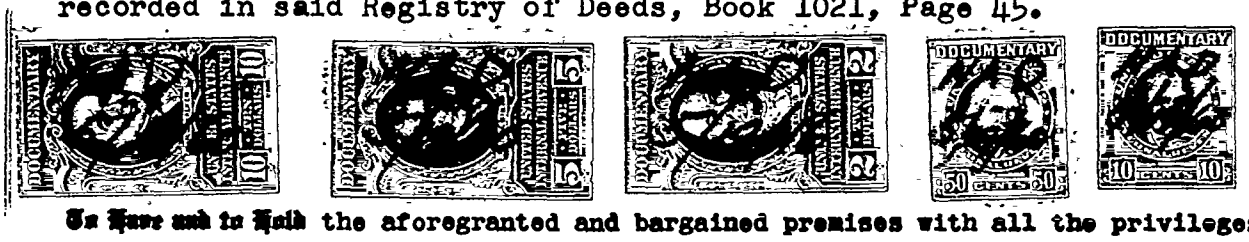
in consideration of One Dollar ($1.00) and other valuable consideration,

paid by WESTBROOK SEMINARY AND JUNIOR COLLEGE, a corporation existing under the laws of Maine and located at said Portland,

the receipt whereof I do hereby acknowledge, do hereby give, grant, bargain, sell and convey, unto the said WESTBROOK SEMINARY AND JUNIOR COLLEGE, its successors and assigns forever, a certain lot or parcel of land, situated on the northerly side of College Street, so-called, in said Portland, and bounded and described as follows:

Beginning at a point on the northerly side of said College Street at the southeasterly corner of land conveyed to the Grantee herein by Addie H. Lowd by deed dated July 8, 1944, and recorded in the Cumberland County Registry of Deeds, Book 1752, Page 321; thence northerly by other land of the Grantee herein one hundred fifty (150) feet, more or less, to land formerly of Capt. Sargent, now of the Grantee herein; thence easterly by said Sargent land forty (40) feet, more or less, to land formerly of Brewster, now of the Grantee herein; thence southerly by said Brewster land and land formerly of Arabella W. Roberts, now of the Grantee herein, one hundred fifty-three (153) feet, more or less, to said College Street; thence westerly by said College Street fifty-eight (58) feet, more or less, to the point of beginning.

Being a portion of the premises conveyed to the Grantor herein by Thalia L. Clement by Warranty Deed dated April 5, 1919, and recorded in said Registry of Deeds, Book 1021, Page 45.



To Have and to Hold the aforegranted and bargained premises with all the privileges and appurtenances thereof, to the said WESTBROOK SEMINARY AND JUNIOR COLLEGE, its successors and assigns, to its use and behoof forever.

And I do covenant with the said Grantee, its successors and assigns, that I am lawfully seized in fee of the premises, that they are free of all incumbrances;

that I have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that I and my heirs shall and will Warrant and Defend the same to the said Grantee, its successors and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, I, the said NELLIE A. DONNELLY, being a widow,

have hereunto set my hand and seal this nineteenth day of May in the year of our Lord one thousand nine hundred and sixty.

Signed, Sealed and Delivered
in presence of

Richard C. Blanchard — Nellie A Donnelly

STATE OF MAINE

CUMBERLAND, ss. May 19, 1960.

Personally appeared the above named NELLIE A. DONNELLY and acknowledged the foregoing instrument to be her free act and deed.

Before me,

Kathryn Butterfield
Notary Public

STATE OF MAINE

CUMBERLAND, ss. REGISTRY OF DEEDS

Received at 11 H 35 M A M on MAY 23 1960 and recorded in Book 2539 Page 425 ATTEST

Margaret L Weber, Deputy Register

Donnelly to Westbrook Seminary & Junior College -- War

Know All Men by These Presents,

337

That we, GEORGE O. CHASE and RUTH B. CHASE of Portland, in the County of Cumberland and State of Maine,

Chase & to Westbrook Seminary & Junior College - War

in consideration of One Dollar ($1.00) and other valuable consideration

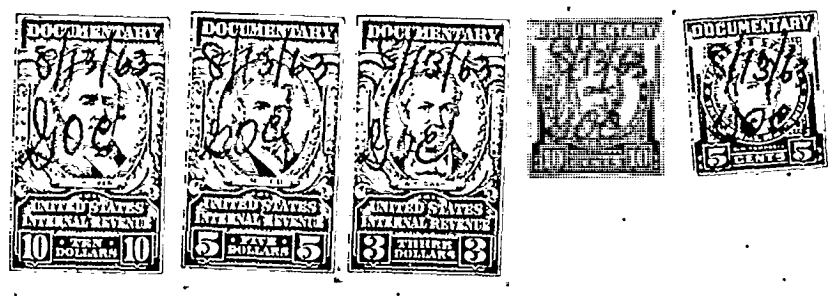
paid by WESTBROOK SEMINARY AND JUNIOR COLLEGE, a corporation incorporated and existing under the laws of the State of Maine, and located at said Portland,

the receipt whereof we do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said WESTBROOK SEMINARY AND JUNIOR COLLEGE, its successors

~~heirs~~ and assigns forever, a certain lot or parcel of land, with the buildings thereon, situated in Deering in said Portland, in the County of Cumberland and State of Maine, bounded and described as follows:

Beginning on the northerly side of College Street at a stone monument at the intersection of land now or formerly owned by Clifford J. Knight and land now owned by Westbrook Seminary and Junior College; thence in a westerly direction one hundred twenty-six and twenty-two hundredths (126.22) feet along said College Street to a stake; thence at a ninety (90) degree angle eighty-five and eight-tenths (85.8) feet in a northerly direction to a stake and land now or formerly of the State of Maine; thence one hundred twenty-six and forty-five hundredths (126.45) feet in an easterly direction along land of the State of Maine to a stake; thence seventy-eight and fifty-two hundredths (78.52) feet in a southerly direction along said land of said Westbrook Seminary and Junior College to the point of beginning.

Being the same premises conveyed to the grantors by Clifford J. Knight and Alice M. Knight by their Deed of Warranty dated June 12, 1957, and recorded in Cumberland County Registry of Deeds in Book 2320, Page 415.



398

To have and to hold the aforegranted and bargained premises with all the privileges and appurtenances thereof, to the said WESTBROOK SEMINARY AND JUNIOR COLLEGE, its successors

~~heirs~~ and assigns, to its and their use and behoof forever.

And we do covenant with the said Grantee, its successors ~~heirs~~ and assigns, that we are lawfully seized in fee of the premises, that they are free of all incumbrances;

that we have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that we and our heirs shall and will Warrant and Defend the same to the said Grantee, its successors ~~heirs~~ and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, I the said GEORGE O. CHASE

and RUTH B. CHASE

wife of the said GEORGE O. CHASE

joining in this deed as Grantors, and relinquishing and conveying our right by descent and all other rights in the above described premises, have hereunto set our hands and seals this fifth day of August in the year of our Lord one thousand nine hundred and sixty-three

Signed, Sealed and Delivered
in presence of

Norton H. Lamb
to both

George O. Chase MD
Ruth B. Chase

State of Maine. Cumberland ss. August 5, 1963.

Personally appeared the above named GEORGE O. CHASE and RUTH B. CHASE

and acknowledged the foregoing instrument to be their free act and deed.

Before me, Norton H. Lamb
~~Justice of the Peace~~
Notary Public

NORTON H. LAMB NOTARY PUBLIC MAINE

AUG 13 1963

REGISTRY OF DEEDS, CUMBERLAND COUNTY, MAINE
Received at 10 H 45 M AM, and recorded in
BOOK 2767 PAGE 397 Edward P. Nelson Register

20429

Know All Men by These Presents. 69

That I, WILLIS W. JOHNSON, of Portland, in the County of Cumberland and State of Maine,

in consideration of One Dollar and other valuable considerations,

paid by WESTBROOK COLLEGE, a Maine corporation, located at said Portland.

the receipt whereof I **do hereby acknowledge, do hereby give, grant, bargain, sell and convey unto the said** WESTBROOK COLLEGE, its successors

heirs and assigns forever, a certain lot or parcel of land with the buildings thereon situated in said City of Portland on the Northerly side of College Street, and bounded as follows:- Commencing at a granite post standing on the Northerly side of College Street and located two hundred feet more or less Westerly of a lot of land conveyed by James P. Weston to C. A. Hayden by deed dated October 6, 1881, and recorded in Cumberland County Registry of Deeds, in Book 485, Page 77; and from said granite post running by a line N. 26 degrees E. one hundred and sixty-five feet to land formerly of the Portland Street Railroad Company; thence by line between this land and said Railroad Company land Southeasterly fifty-three feet to a point; thence S. 26 degrees W. one hundred sixty-three and 1/10 (163.1) feet to said side line of College Street and thence on said street line N. 64 degrees W. fifty-three feet to the granite post and point of commencing.

Meaning and intending to convey and hereby conveying all and the same premises conveyed by Will W. Johnson to Ruth S. Johnson by deed dated October 28, 1915 and recorded in the Cumberland County Registry of Deeds in Book 963, Page 174.

My title to the above described premises is derived under the Last Will and Testament of Ruth S. Johnson who died February 19, 1973 an abstract of whose will is recorded in said Registry of Deeds in Book 3382, Page 198.

To have and to hold the aforegranted and bargained premises with all the privileges and appurtenances thereof, to the said WESTBROOK COLLEGE, its successors

heirs and assigns, to its and their use and behoof forever.

And I do covenant with the said Grantee , its successors heirs and assigns, that I am lawfully seized in fee of the premises, that they are free of all incumbrances; except taxes assessed April 1, 1973 by the City of Portland, which said taxes are prorated as of the date of this conveyance;

that I have good right to sell and convey the same to the said Grantee to hold as aforesaid; and that I and my heirs shall and will Warrant and Defend the same to the said Grantee , its successors heirs and assigns forever, against the lawful claims and demands of all persons.

In Witness Whereof, I the said Willis W. Johnson

and Phyllis B. Johnson

wife of the said Willis W. Johnson

joining in this deed as Grantor , and relinquishing and conveying all right by descent and all other rights in the above described premises, have hereunto set our hand s and seal s this 24th day of August in the year of our Lord one thousand nine hundred and seventy-three.

Signed, Sealed and Delivered
in presence of

Willis W. Johnson

Phyllis B. Johnson

State of Maine. Cumberland ss. August 24th 19 73.

Personally appeared the above named

Willis W. Johnson

and acknowledged the foregoing instrument to be his free act and deed.

Before me,

Justice of the Peace
Notary Public

AUG 28 1973

REGISTRY OF DEEDS, CUMBERLAND COUNTY, MAINE
Received at 2 H 14 M P M, and recorded in
BOOK 3450 PAGE 69 A. Curtis Haughton Register

26398

KNOW ALL MEN BY THESE PRESENTS, That the CITY OF PORTLAND, a body politic and corporate located in the County of Cumberland and State of Maine, in consideration of One Dollar ($1.00) and other good and valuable considerations, paid by Westbrook College, a corporation organized and existing under the laws of the State of Maine and located at 716 Stevens Avenue in said Portland in said County and State, the receipt whereof it does hereby acknowledge, does hereby give, grant, bargain, sell and convey, unto the said Westbrook College, its successors and assigns forever, certain real estate located in said Portland, lying Westerly of College Street and Southerly of Bishop Street, bounded and described as follows:

Beginning at a point on the Northerly line of the land of Portland Railroad Company where the same intersects with land hereby conveyed and land formerly of George H. Smardon, commonly known as the Smardon Gravel Pit, formerly Read's Gravel Pit; thence from said point North 19° 30' East 28.68 rods; thence North 60° West Seven and thirty-two hundredths (7.32) rods to a point; thence South 74° 45' West Thirty-six and sixty-four hundredths (36.64) rods to a point; thence North 5° West Two and fifty-six hundredths (2.56) rods; thence North 30° West Twenty-four and four tenths (24.4) rods; thence South 65° West Forty-seven and twelve hundredths (47.12) rods to center of ditch; thence up the center of said ditch towards what is known as pasture Two Hundred Ninety-eight (298) feet; thence in a straight line to a point in line of Evergreen Cemetery indicated by a spruce stump, said stump being on the intersection between land of said Cemetery and land conveyed by Luther B. Roberts to the said City of Portland; thence from said stump North 80° 21' East Three Hundred Seventy-one and two tenths (372.2) feet to an angle; thence from said angle North 76° 8' East, Five Hundred Ninety-six and twenty-two hundredths (596.22) feet to an angle; thence from said last named angle at a right angle South 12° 52' East Seventy-five (75) feet to land of said Portland Railroad Company; thence about North 76° 8' East by said Portland Railroad Company's land to the point of beginning.

Also a certain other parcel of land, abutting the above described premises and bounded and described as follows: Beginning at the center of the ditch between the hereinabove described premises and the land hereby conveyed and in line of land now or formerly owned by Adam Wilson and running Southerly by land of said Wilson to the Westerly corner of land of Evergreen Cemetery; thence South Twenty-four (24°) degrees East by land of said Cemetery One hundred and seventy-five (175) feet to a point; thence by land formerly of Dennis F. Gulliver, and being the premises hereinabove described, in a straight line to a point in the center of said ditch; said point being Two Hundred Ninety-eight (298) feet from the point of beginning; thence down the center of said ditch to the point of beginning.

Excepting and reserving from the above described premises that portion thereof conveyed by the Grantor to Central Maine Power Company by deed dated February 26, 1967, recorded in said Registry of Deeds in Book 2989, Page 13.

This conveyance is made subject to the right-of-way or easement granted by the Grantor to Central Maine Power Company by deed dated December 13, 1951, recorded in said Registry of Deeds in Book 2055, Page 463.

Reserving to the Grantor, its successors and assigns, the right perpetually to enter at any and all times upon a strip of land fifty (50) feet in width lying equally on either side of the storm drain and upon a strip of land fifty (50) feet in width lying equally on either side of the brook presently located on the premises herein conveyed and the right perpetually to maintain, repair, rebuild, relocate, or remove said storm drain and brook with all necessary fixtures and appurtenances within said strips of land, granting to the Grantee, its successors and assigns, the use and enjoyment of said strips of land for such purposes only as will in no way interfere with the perpetual use thereof by the Grantor, its successors and assigns, for the purposes above mentioned, except that no buildings or structures may be erected within said strips of land. Also reserving to the Grantor, its successors and assigns, the right perpetually to enter at any and all times upon the premises herein conveyed for the purpose of access and egress by itself, its servants and/or agents to and from said strips of land.

Being the same premises conveyed to the Grantor by deed of James Gulliver, Administrator, d.b.n.c.t.a., of the Estate of Stephen Gulliver by deed dated August 23, 1935, recorded in said Registry of Deeds in Book 1476, Page 441.

Also a certain lot of land lying in the rear of College Street, in the City of Portland, bounded and described as follows, to wit:

Beginning at a point on the Northerly side line of College Street and at the Westerly corner of land belonging to Francis L. Stone; thence North 25° 22' east by land of said Stone eighty-seven and nineteen one hundredths (87.19) feet to land of the Portland Railroad Company; thence North 62° 26' west by land of said Portland Railroad Company four hundred and thirty-one and ninety three one hundredths (431.93) feet to a point; thence North 76° 08' east by land of said Portland Railroad Company five hundred (500) feet to a point; thence north 13° 52' west seventy-five (75) feet to a point; thence south 76° 08' west five hundred and ninety-six and twenty-two one hundredths (596.22) feet to a point; thence south 80° 21' west three hundred and seventy-one and two tenths (371.2) feet to the stump of a large spruce tree in the boundary of Evergreen Cemetery; thence easterly by land of Evergreen Cemetery and land of Pine Grove Cemetery about seven hundred and sixty (760) feet to a point on the end of College Street; thence north 24° 55' east by the end of College Street thirty and thirty-five one hundredths (30.35) feet to a stone

monument at the end of the northerly side line of College Street; thence south 65° 05' east one hundred and twelve and ninety-four one hundredths (112.94) feet by the northerly side line of College Street to the point of beginning. Said premises being a part of the several promises conveyed to Luther B. Roberts by deed of S. K. Hamilton, Admr., dated June 22, 1910, and by deed of Daniel H. Reed to Luther B. Roberts, dated July 26th, 1909, recorded in Cumberland, ss. Registry of Deeds, Book 843, Page 402, to which several deeds, and the references contained, reference is hereby made for further particulars of description.

Excepting and reserving from the above described premises that portion thereof conveyed by the Grantor to Alice M. Knight by deed dated January 17, 1947, recorded in said Registry of Deeds, in Book 1852, Page 109.

Being the same premises conveyed to the Grantor by Luther B. Roberts by deed dated June 24, 1910, recorded in said Registry of Deeds in Book 861, Page 282, and subject to the reservations contained therein.

By acceptance of this deed, Grantee covenants and agrees that it will:

1. Provide a landscape buffer zone at least twenty-five (25) feet in width along the northerly and easterly lines of the premises herein conveyed in a manner satisfactory to the Planning Board of the City of Portland.

2. Secure from said Planning Board prior site plan approval for development of all or any part of the premises herein conveyed as such development shall occur.

TO HAVE AND TO HOLD the same, together with all the privileges and appurtenances thereunto belonging, to the said Westbrook College, its successors and assigns forever.

AND the said Grantor Corporation does covenant with the said Westbrook College, its successors and assigns, that it will warrant and forever defend the premises to it the said Grantee, its successors and assigns forever, against the lawful claims and demands of all persons claiming by, through, or under it.

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IN WITNESS WHEREOF, the said City of Portland has caused this instrument to be sealed with its corporate seal and signed in its corporate name by JOHN G. DE PALMA, its Director of Finance, thereunto duly authorized, this 8th day of November in the year one thousand nine hundred and seventy-three.

SIGNED, SEALED AND DELIVERED
IN PRESENCE OF

Patricia E. Mealy

CITY OF PORTLAND

By John G. DePalma
Director of Finance

STATE OF MAINE
CUMBERLAND, ss.

Nov. 8, 1973.

Personally appeared the above named John G. DePalma, Director of Finance of said Grantor Corporation as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity, and the free act and deed of said corporation.

Before me,

Patricia E. Mealy
~~Justice of the Peace~~
Notary Public

NOV 8 1973
REGISTRY OF DEEDS, CUMBERLAND COUNTY, MAINE
Received at 2 h 27 M P M, and recorded in
BOOK 3481 PAGE 255 W. Ruth Hughes Register

UNIVERSITY OF NEW ENGLAND

INNOVATION FOR A HEALTHIER PLANET

Att. D

Institutional Development Plan

February 2025



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1. CONTEXT

Since its inception as Westbrook Seminary in 1831, the University of New England (UNE) Portland campus has been an integral part of the Portland community, providing innovative and diverse education opportunities for its students. The campus has undergone strategic growth and curriculum enhancements to effectively meet the evolving educational and workforce requirements of Portland, Maine, and beyond.

UNE is recognized as a leading educator of healthcare professionals and is one of a handful of private universities with a comprehensive health education mission including medicine, pharmacy, dental medicine, nursing, and an array of allied health professionals. UNE's interprofessional education initiatives prepare future healthcare professionals to practice comprehensive and collaborative team-based care.



Mission, Vision, and Core Values

UNE is guided by its Mission, Vision, and Core Values, as well as its strategic plan entitle, *Our World, Our Future*, which was developed in 2018 and continues to guide the University forward today.

Mission

UNE prepares students to thrive in a rapidly changing world and, in so doing, to improve the health of people, communities, and our planet.

Vision

UNE realizes this mission through their commitment to a distinctive approach to education that puts UNE among the most experientially driven institutions of higher education in the nation. UNE provides teaching and learning that conjoins problem-based and hands-on learning, liberal education, and professional training to immerse students in an educational experience that prepares them with:

- Habits of mind, such as cultural, quantitative, and information literacy, critical thinking, tolerance for ambiguity, and problem-solving skills;
- Discipline-based knowledge in their chosen programs of study; and
- Professional competencies, including emotional intelligence, the ability to collaborate in diverse teams, the skills to communicate persuasively, and the attributes to be thoughtful leaders.



UNE is an institution that challenges students to learn broadly, master their professional skills, ask probing questions, and engage in respectful discourse in the context of a robust marketplace of ideas. In this way, students prepare themselves for further study and successful careers, deeply rewarding lives, and meaningful contributions to their communities and the world.

Core Values

UNE is guided by the following values, essential to the culture of the UNE community.

Student Centeredness - We put the aspirations, needs, and success of our students at the center of all we do.

Diversity, Inclusion, Connection - We believe the benefits of a richly varied campus community arise not only from the diversity of its people but also from a sense of belonging and the context this creates to explore and celebrate differences in backgrounds, experiences, and perspectives, underpinned by a sense of cultural humility and a commitment to ethical ideals.

Relentless Inquiry - We take nothing for granted and view thoughtful — even uncomfortable — questioning and civil discourse as essential to the pursuit of knowledge, contribution to society, and a life worth living. Our commitment to university-wide academic freedom is fundamental to this value.

Boundary Crossing - Solutions to the complex and varied challenges we face in our personal and professional lives, our communities, and society will not be found in any single discipline, college, physical location, or individual. Thus, our ability to move easily across such boundaries in order to collaborate with colleagues makes us better problem solvers and more likely to succeed in whatever ventures we undertake.

Learning Everywhere - We believe that teaching and learning should occur beyond traditional classrooms and laboratories — in any place ripe for inquiry and experimentation, including clinics, environmental and field-study sites, online forums, libraries, museums, theaters, and places of civic engagement, among many others.

Progressive Change - We are not afraid to take thoughtful risks in the pursuit of our shared goals. Our mindset is to strategically forecast and plan for possibilities in an unknown future.

Stewardship of Our Planet - We are committed to promoting environmental, social, and economic well-being to improve the health of individuals, communities, and ecosystems.

UNE's strategic plan, *Our World, Our Vision*, further outlines six strategic priorities that the University will focus on over the next five years.

- Provide Exceptional, Innovative Teaching and Experiential, Collaborative Learning Experiences
- Optimize Enrollment, Progress to Graduation, and Lifelong Learning
- Produce Focused Research and Scholarship
- Ensure a Welcoming, Inclusive, and Vibrant Community
- Expand Engagement with Local, Regional, and Global Partners
- Foster a Strong and Sustainable Resource Base

Current Campus Programming

The UNE Portland campus is primarily a graduate campus, focused on educating health professionals, and is currently home to three of the University's premier Colleges: the Westbrook College of Health Professions, the College of Dental Medicine, and the College of Graduate and Professional Studies. The **Westbrook College of Health Professions (WCHP)** includes more than 1,000 students, faculty, and staff working in graduate programs in Social Work, Physician Assistant, Occupational Therapy, Physical Therapy, and Nurse Anesthesia, and undergraduate programs in Nursing and Dental Hygiene. The WCHP is also home to the Interprofessional Simulation and Innovation Center, which provides training opportunities for both students and healthcare professionals from the region through the use of high-tech patient simulators. In the fall of 2013, the UNE **College of Dental Medicine** unveiled a state-of-the-art Oral Health Center, built on Stevens Avenue, as it welcomed its inaugural class of dental students on campus. The **College of Graduate and Professional Studies** is the University's online college (e.g., UNE Online), whose faculty and staff are also located on campus. UNE Online serves adult learners seeking promising careers in healthcare, education, and management, offering a range of professional graduate degrees and certificates. UNE Online oversees the University's Continuing Education efforts. These are professional certificate programs designed to meet the needs of the regional and national workforce. The **School of Pharmacy** welcomed its inaugural class of 100 students in fall 2009 within a newly erected building on Stevens Avenue; distinguished for its emphasis on research and development, the UNE School of Pharmacy offers a Pharm.D. Degree.

Campus Programming

Currently, the following programs are offered in person on the University's Portland campus:

- Dental Medicine
- Dental Hygiene
- Nursing
- Nurse Anesthesia
- Occupational Therapy
- Pharmacy
- Physical Therapy
- Physician Assistant
- Health, Wellness, and Occupational Studies
- Osteopathic Medicine (anticipated July 2025)

In addition to the academic offerings on campus, the University operates two clinics on campus which are open to the public: the Oral Health Center and the Dental Hygiene Center. The Oral Health Center serves as the clinical education hub for UNE's College of Dental Medicine, offering a wide range of oral health services to the community supervised by licensed faculty dentists. Services include cleanings, checkups, fillings, root canals, crowns, veneers, extractions, x-rays, partial dentures, dentures, bridges, and implants. In 2023, it provided low-cost care for 16,701 patient visits (over 139,000 visits in the last 10 years). The Dental Hygiene Clinic, serving as the clinical education center for the University's Dental Hygiene program, provides services such as oral inspections, nutritional counseling, scaling and plaque removal, sealant placement, oral hygiene instruction, blood pressure screenings, x-rays, fluoride treatments, and mouth guard fabrication. In 2023, it provided low-cost care for 2,540 patient visits (over 11,400 in the last 4 years).

UNE North



In addition to the University's academic programs and clinics, the campus includes UNE North, the Institute for North Atlantic Studies of the University of New England, located at 1075 Forest Avenue. UNE North is a signature interdisciplinary center that convenes faculty, professional staff, and students to partner with stakeholders from across the global North to address critical social, environmental, healthcare, and economic challenges in the North Atlantic and Arctic regions.

UNE North connects UNE's expertise with a robust network of academic, business, government, and non-governmental organizations to foster productive partnerships and solve common problems. UNE North supports students from across the University's colleges and disciplines to engage with this work, through their studies, and in their future careers.

Grounded in the United Nations Sustainable Development Goals, UNE North is a leader in promoting sustainable development in Maine, New England, and throughout the North Atlantic and Arctic region. UNE North is also focused on exploring innovative and scalable approaches to expand access to quality healthcare, particularly in underserved rural communities, through tools such as telehealth and digital medicine and by using pedagogical models such as collaborative interprofessional education. UNE North collaborates with the University's colleges to envision new academic programs, cultivate new research partnerships, and advance new study abroad opportunities for students.

Center for Global Humanities

The campus is also home to UNE's Center for Global Humanities (CGH), where prominent thinkers convene to interact with UNE students and the local community. The CGH hosts free, open to the public lectures and films dedicated to exploring the human condition in the 21st century.

Cultural Institutions

The campus also hosts two important Portland cultural institutions – the Maine Women Writers Collection, and the UNE Art Gallery.



Maine Women Writers Collection

The Maine Women Writers Collection was founded in 1959 by Grace Dow and Dorothy Healy to preserve and make available the writings of Maine women who had achieved literary recognition. Designated as a national Literary Landmark, the Maine Women Writers Collection hosts local women's studies programs and national conferences.



UNE Art Gallery

The UNE Art Gallery on campus was established in 1977 as the Joan Whitney Payson Gallery of Art. The gallery has a rich history of exhibitions, houses the University's permanent collection, and continues to bring imaginative and thought-provoking shows to UNE and to the public.

Campus History

The UNE Portland campus has a long history, dating back to 1830, with the founding of a co-educational boarding school called Westbrook Seminary. Established by the Kennebec Association of Universalists, the charter for Westbrook Seminary was signed by then Governor Daniel Smith on March 4, 1831. The campus's original eight acres were a gift to the Association from Zachariah Stevens, after whom Stevens Avenue is named. The first class was held on June 9, 1834, in the newly constructed Seminary Building, which is now called Alumni Hall.



Westbrook Seminary Building, circa 1834

By the 1890's, the Seminary offered four courses of study: a three-year English course and four-year programs titled scientific, ladies' classical, and preparatory. In the last part of the 19th century, the Seminary added chemistry and physics labs to Alumni Hall and promoted a serious interest in athletics that led to the construction of McArthur Gymnasium in 1900. Other notable buildings constructed during this time to support the expanding curriculum include Goddard Hall (1857), Ludcke Auditorium (1867), and Hersey Hall (1869).

Westbrook Junior College

Westbrook Seminary existed for 91 years until 1925 when the name was changed to Westbrook Junior College. As Westbrook Junior College, the school became a career-oriented women's two-year college, which prepared students to transfer as juniors to four-year colleges or universities. Under the guidance of president Dr. Milton D. Proctor, enrollment increased steadily through the 1930's, 40's, and 50's. During this period, new buildings were added on College Street and Stevens Avenue. In 1952 a new large multi-purpose building was erected and dedicated to Milton D. Proctor, Proctor Hall.

In 1958, Dr. Edward Y. Blewett became president of Westbrook Junior College. During his tenure, with generous assistance of the W.K. Kellogg Foundation, a Department of Dental Hygiene was established. Westbrook Junior College became the first residential junior college in the United States to offer a dental hygiene degree. In the 1960's, with the sustained growth and financial support from major grants and federal money, construction of six new buildings occurred: Coleman Hall (1961), Alexander Hall (1962), Linnell Hall (1962), McDougall Hall (1962), Ginn Hall (1962), and Blewett Hall (1967).

Westbrook College

On July 1st, 1970, Westbrook Seminary and Junior College entered a new stage of educational service with a new name, Westbrook College. Looking toward the future and prompted by federal legislation that prohibited the granting of federal funds to colleges that practiced gender discrimination, the College returned to co-educational.

The first Westbrook College male students enrolled in the 1973 fall semester. In 1975, the Art Gallery was constructed and opened. In the 1980's and early 1990's, the College continued to build upon the 1970's decisions and made a firm commitment to four-year programs that combined liberal arts with professional education. The new Abplanalp Library was constructed at the rear of the existing McArthur Gymnasium and opened in 1986, contributing to the College's academic strength, while the new Finley Recreation Center was completed in 1989, providing sports and leisure opportunities.

University of New England – Portland Campus

Through his tenure from 1987-1996, President William D. Andrews guided the College's transition from associate degree programs to baccalaureate degree programs. During this period, the College found itself caught in national trends of enrollment that especially hit small colleges hard. Seeking to bring Westbrook College into the 21st century, the Trustees voted to merge with the University of New England in Biddeford. On July 31st, 1996, the merger took place under the original 1831 Westbrook College charter.

Under the leadership of President Sandra Featherman, the Westbrook College campus of the University of New England has become a center of national excellence in health professions education. The current focus on interprofessional and experiential education, and recent and ongoing campus renovations, ensure a proud future for an institution that has enriched the lives of students, alumni, neighbors, and friends for the last 189 years.

Site & Neighborhood Context

The UNE campus occupies a 72-acre site in the Deering Center area of Portland and is bounded by Warren Avenue, Bishop Street Extension, and Bishop Street to the north; Stevens Avenue to the east; and the Evergreen Cemetery and Central Maine Power Utility Corridor to the south (see **Figure 1.1**). Within the campus there are several residential properties not owned by UNE along College Street. Also within the campus is the Westbrook College Historic District. UNE owns parcels located outside of campus proper at 812 Stevens Avenue, 798 Stevens Avenue, 32 Bell Street, and 1075 Forest Avenue (also known as UNE North).

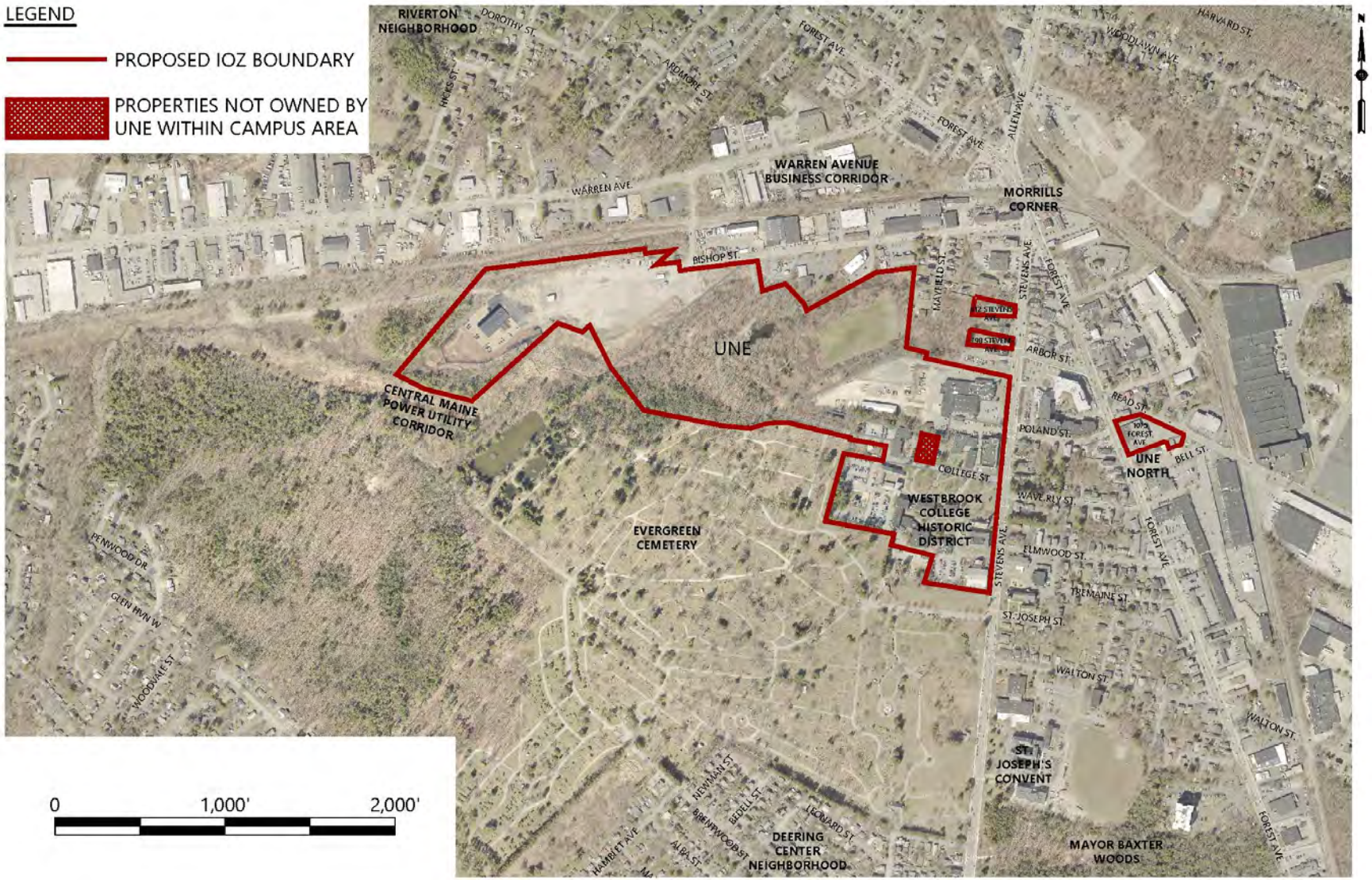


Figure 1.1 UNE Campus Site & Neighborhood Context Map

To the north of the campus, the area includes the Riverton Neighborhood, the Warren Avenue Business Corridor, and Morrill's Corner. To the south of the campus, the area includes St. Joseph's Convent, Mayor Baxter Woods, and the Deering Center Neighborhood. As stated above, the campus is adjacent to the Evergreen Cemetery, which is a 239-acre cemetery and National Historic Landmark established by the City in 1854. The Evergreen Cemetery is also utilized by the community for recreation and offers important community greenspace and recreational amenities including a network of forested trails for walking, cross-country skiing, and bird watching. Ponds located on the cemetery property also offer valuable habitat for wildlife.

Land Use

Land uses on campus and in the surrounding neighborhood include post-secondary facilities, institutional, business, residential, open space, transportation and utility uses (see **Figure 1.2**). Beyond the campus boundaries, the area includes the Stevens Avenue Congregational Church, Stevens Square Community Center, St. Joseph's Catholic Church, a catholic elementary school, St. Brigid, the Samuel Wilde Memorial Chapel, and the Portland Recovery Community Center. Business uses generally run along Warren Avenue, Bishop Street, Stevens Avenue and Forest Avenue and range from industrial to neighborhood food establishments and retail. Residential uses, the majority being detached single family homes, can be found in the area north of Warren and Woodlawn Avenues, between Stevens and Forest Avenue as well as south of Evergreen Cemetery. There are also a few multi-unit residential uses including The Park Danforth, a retirement community across from campus, and the Deering Pavilion, which provides senior living apartments. The open space uses in the area include Evergreen Cemetery, which has trails that connect to campus greenspace, and Mayor Baxter Woods.

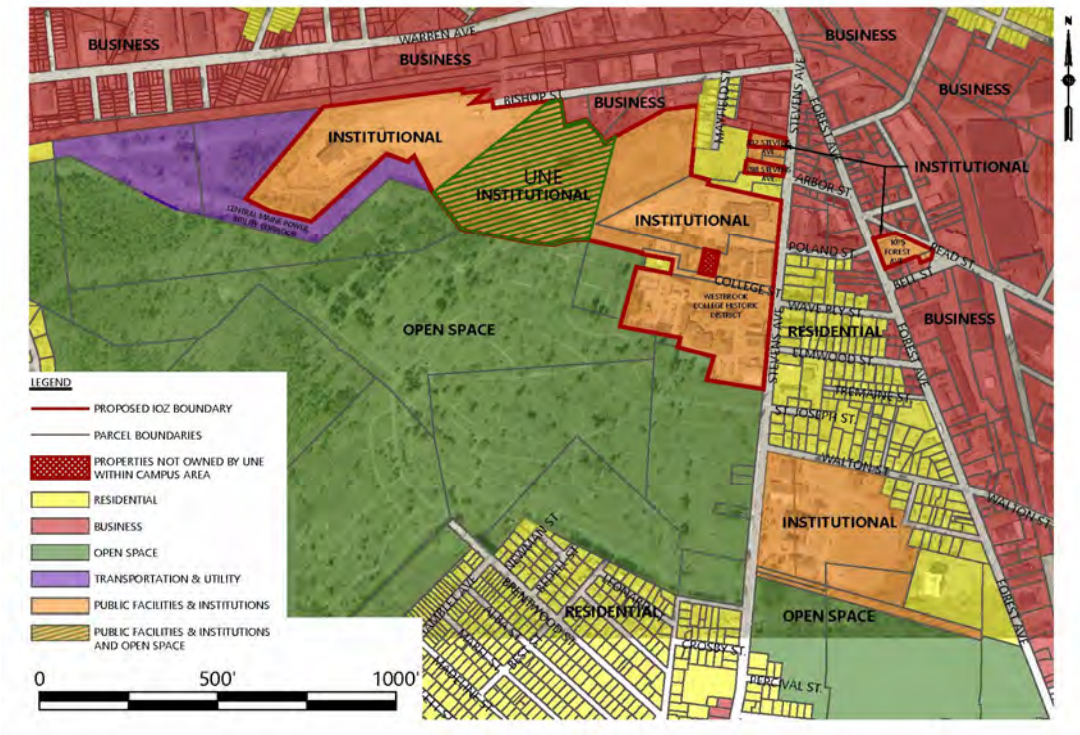


Figure 1.2 UNE Campus Site & Neighborhood Context: Existing Land Use

Zoning

The UNE campus is currently located within several zoning districts, including RN1 and RN3 Residential, IH Industrial – High Impact, IM Industrial – Moderate Impact, and B2 Business Community. Although the campus has remained in its original physical location since its establishment, the existing underlying zoning regulations do not effectively facilitate institutional development, as they primarily cater to residential and industrial uses. The campus core is located within the R5 Residential district, in which institutional uses are only conditionally allowed. Due to the inadequacy of the base regulatory framework of these zoning districts, development on the campus has historically been governed by these zones through conditional use. UNE has developed this Institutional Development Plan (IDP) and new Institutional Overlay Zone (IOZ) to better support the institutional needs of the campus. See **Figure 1.3** for a map of UNE's IOZ in its zoning context. As part of the IOZ process, UNE will simultaneously seek to change the underlying zones within the campus to B2 Business Community and OS-P Open Space Preservation. See **Figure 1.4** for the proposed zoning map. This change will allow for simplification of the IOZ Regulatory Framework, will more accurately reflect the current uses within the campus, and will complement the surrounding zoning.

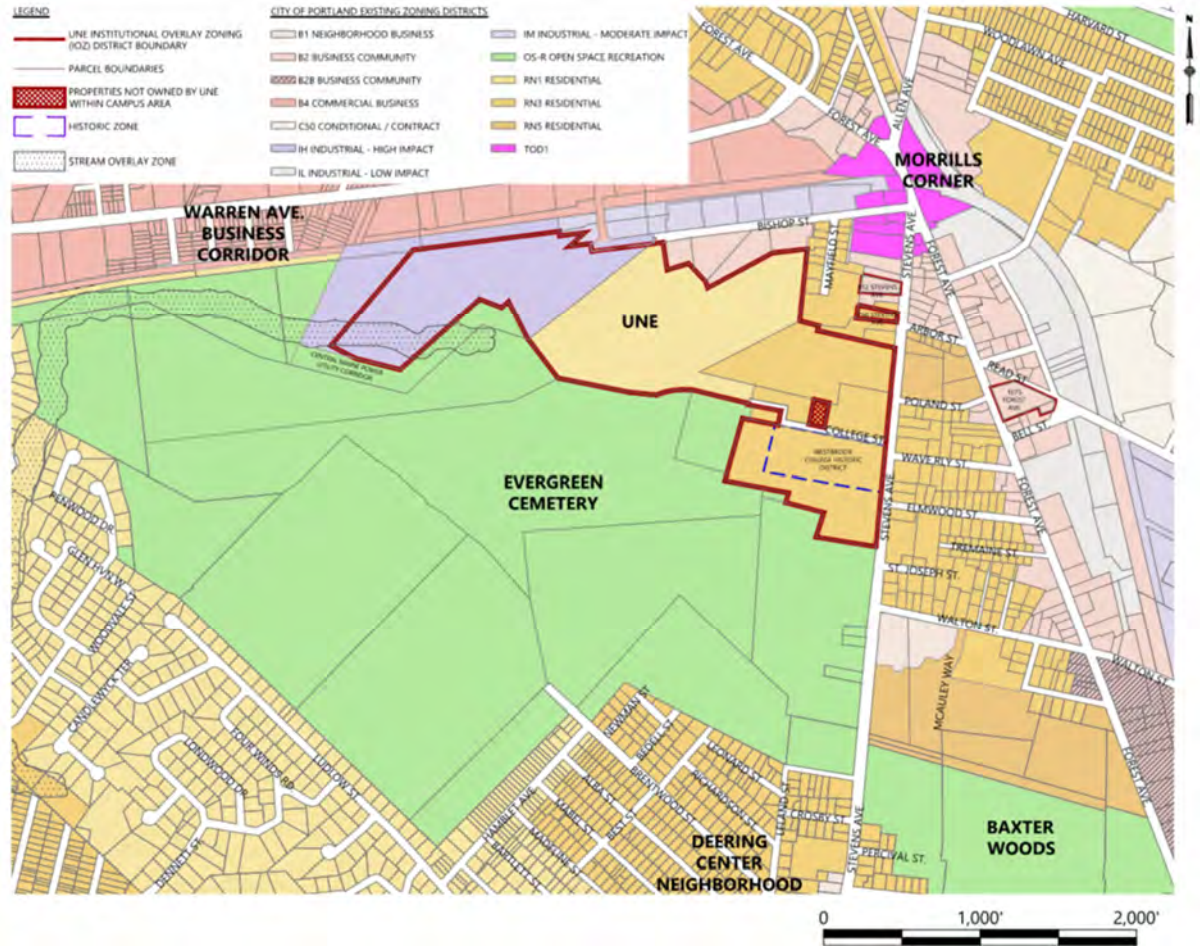


Figure 1.3 UNE Campus Site & Neighborhood Context: Existing Zoning

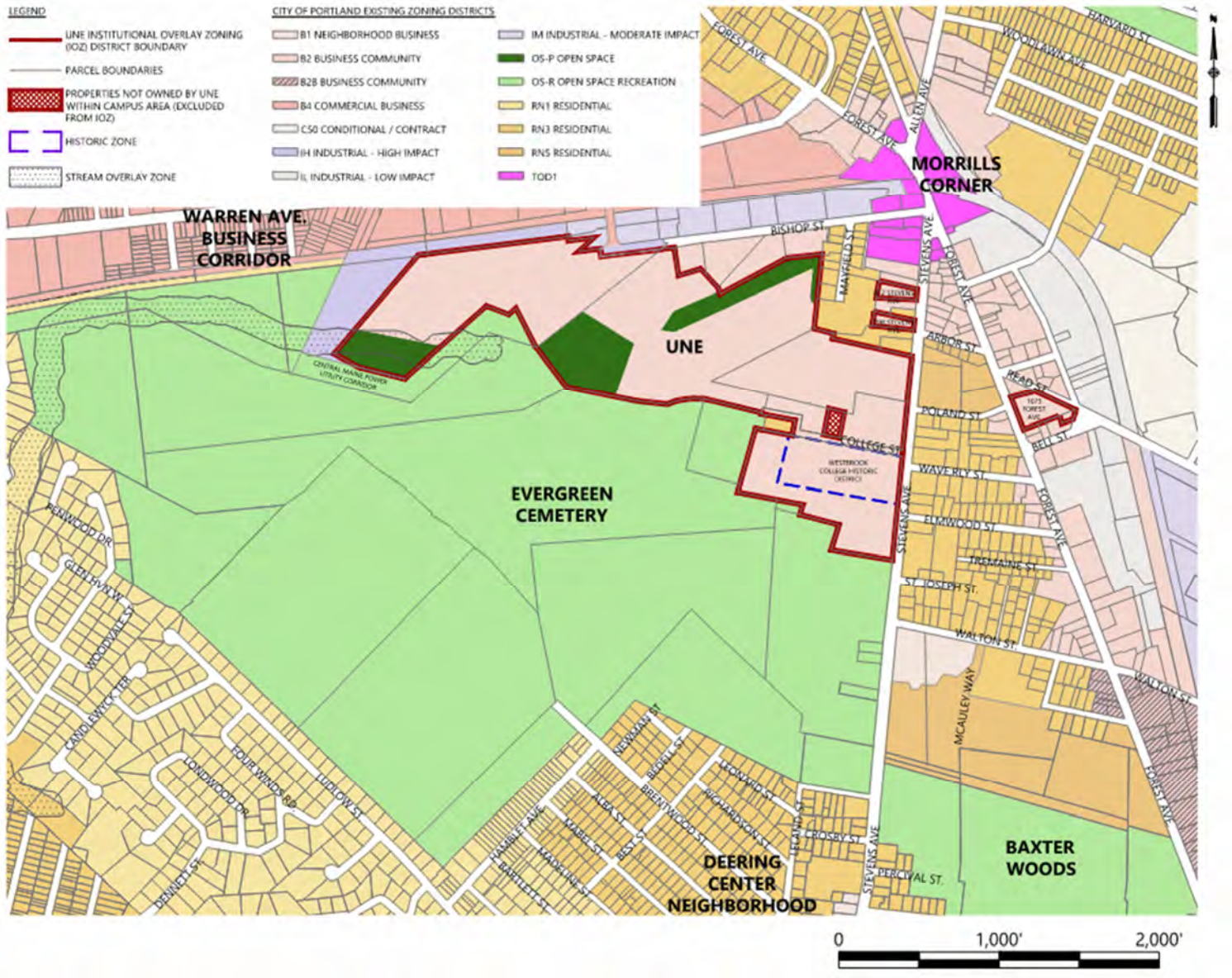


Figure 1.4 UNE Campus Site & Neighborhood Context: Proposed Zoning

Current Campus Buildings

The UNE campus includes 25 separate facilities and 11 parking areas, with a historic campus core located in the southeastern quadrant of the campus, centered around a Campus Quad (see **Figure 1.5**).

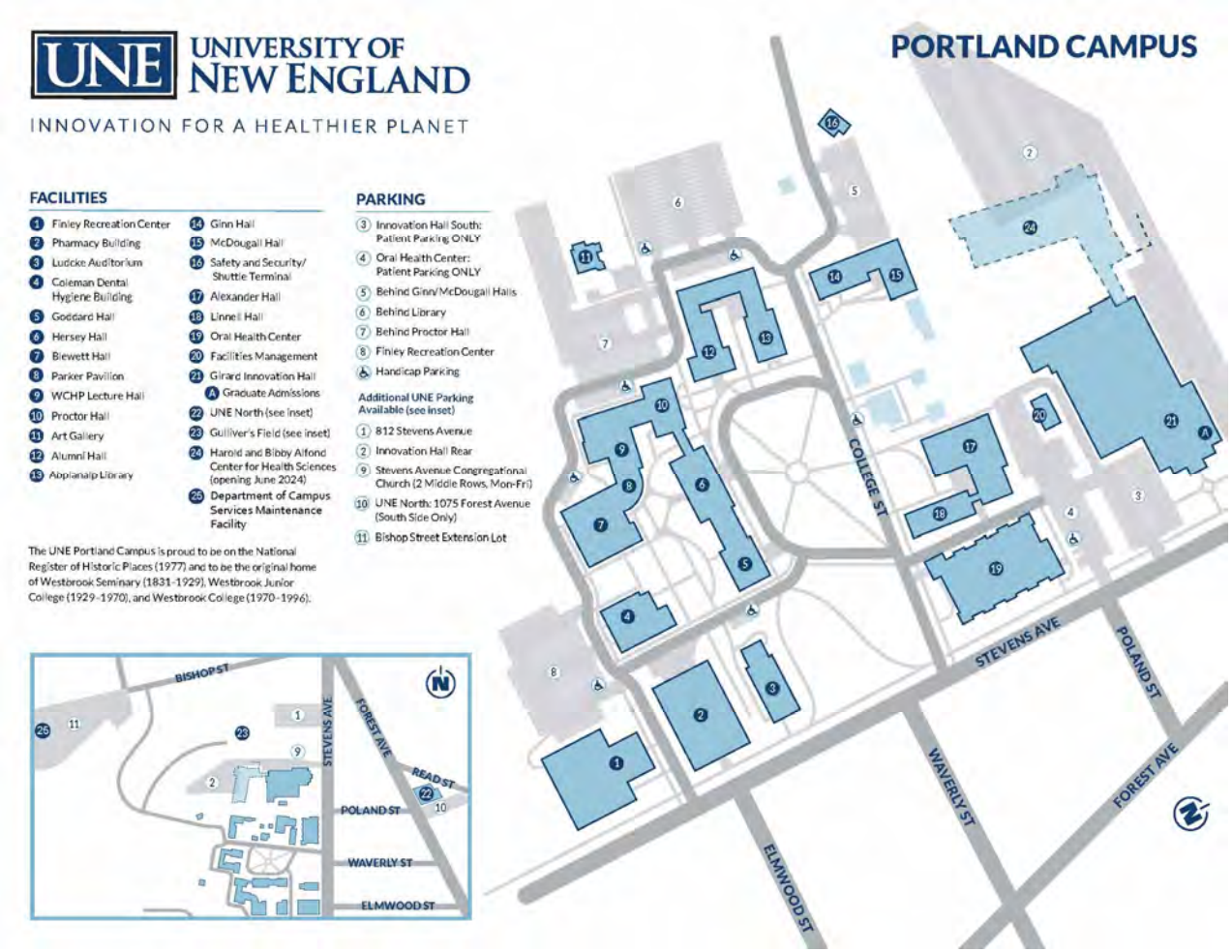


Figure 1.5 Campus Map

Table 1.1

Campus Facilities

Facility Number on Campus Map	*Facility Name*	*Total Floor Area (SF)*	*Building Height (FT)*	*Use*
1	Finley Recreation Center	20,000	36	Recreation
2	School of Pharmacy Building	46,380	55	Academic and research facility
3	Ludcke Auditorium	9,676	42	Auditorium
4	Coleman Hall	10,718	22	Dental Hygiene Program and Clinic
5	Goddard Hall	12,696	48	Academic support with classrooms and faculty offices
6	Hersey Hall	22,170	55	Academic offices
7	Blewett Hall	31,650	32	Classrooms and laboratories
8	Parker Pavilion	6,600	22	Academic support
9	WCHP Lecture Hall	(Parker Pavilion)	22	Lecture hall
10	Proctor Hall	31,074	56	Classrooms and lecture halls
11	Art Gallery	2,890	30	Artwork exhibitions
12	Alumni Hall	9,809	40	Administrative offices, meeting rooms, student study lounge
13	Abplanalp Library	26,636	38	Library
14 + 15	Ginn and McDougall Halls	34,091	40	Support offices
16	Safety and Security / Bus Terminal Building	720	20	Office space

Table 1.1 (continued)

Campus Facilities

Facility Number on Campus Map	*Facility Name*	*Total Floor Area (SF)*	*Building Height (FT)*	*Use*
17	Alexander Hall	13,912	22	Student Union complex; dining hall; campus bookstore
18	Linnell Hall	12,762	26	Support offices; Student Health Clinic
19	Oral Health Center	40,300	42	Dental clinic and simulation lab for College of Dental Medicine
20	Facilities Management Building	2,300	30	Offices and maintenance shop
21	Innovation Hall	66,794	34	Academic support offices, classrooms, student study spaces, multi-function meeting space
22	UNE North (1075 Forest Avenue)	18,000	20	UNE North program; storage
23	Gulliver's Field	2.5-acres	N/A	Soccer and athletic field
24	Harold and Bibby Alfond Center for Health Sciences	112,000	54	College of Osteopathic Medicine (COM)
25	Department of Campus Services Maintenance Facility	14,500	28	Maintenance Facility

Table 1.1 (continued)

Campus Facilities

Parking Facility Number on Campus Map	*Lot Description*	*Total Parking Area (SF)*	*Total Number of Parking Spaces*	*Number of ADA Spaces*	*Number of EV Charging Spaces*
1	812 Stevens Avenue	8,300	30	0	0
2	COM	72,000	182	6	36
3	Innovation South	14,600	33	0	0
4	Oral Health Center	14,600	24	2	1
5	Ginn/McDougall Halls	12,400	28	0	2
6	Behind Library	37,800	103	4	0
7	Behind Proctor Hall	48,700	121	5	0
8	Finley Recreation Center	30,800	89	2	0
9	Stevens Avenue Congregational Church	14,000	31	2	0
10	UNE North: 1075 Forest Ave	31,200	72	0	0
11	Bishop Street Extension Lot	130,000	334	10	70
N/A	Ludcke	1,500	3	2	0
N/A	Hersey Circle	4,500	4	0	0

Property Ownership

UNE owns a number of properties that make up the Portland campus, listed in **Table 1.2** below.

Table 1.2

UNE Owned Properties in the City of Portland

Parcel Address	*Current Land Use*	*Parcel Address*	*Current Land Use*
Contiguous Campus Core			
684 Stevens Avenue	Post Secondary School	63 College Street	Post Secondary School
706 Stevens Avenue	Post Secondary School	79 College Street	Post Secondary School
710 Stevens Avenue	Post Secondary School	83 College Street	Post Secondary School
714 Stevens Avenue	Post Secondary School	0 Bishop Street	Post Secondary School / Parking
772 Stevens Avenue	Post Secondary School	**Outparcels**	
1 College Avenue	Post Secondary School	812 Stevens Avenue	Post Secondary School
31 College Street	Post Secondary School	1075 Forest Avenue	Post Secondary School
41 College Street	Post Secondary School	32 Bell Street	Post Secondary School
51 College Street	Post Secondary School	798 Stevens Avenue	Post Secondary School

Functional Land Use Links

There are four outparcels associated with UNE's Portland campus, as shown in **Table 1.2**. While not immediately connected to UNE's contiguous campus, the outparcels have distinct uses and contribute to UNE's operations. 1075 Forest Avenue houses the UNE North program within an existing 18,000 SF, 20-foot-tall building. Parking for this facility is provided on the site, and on the adjacent 32 Bell Avenue. 812 Stevens Avenue contains a 3,500 SF, 24-foot-tall facility that was formerly a dental office, but was damaged in a fire and subsequently donated to UNE. The building is currently vacant, but the associated parking lot is utilized by UNE for parking. 798 Stevens Avenue was recently acquired by UNE and contains a residential building; UNE does not currently have specific plans for that building and anticipates it may be used as housing for UNE faculty in the future. Connectivity between the outparcels and the contiguous campus is provided by a well-established network of public sidewalks, roadways, and bike routes, which are further described in Chapter 3, Transportation, of this IDP.

The Bishop Street Intermodal Transportation Facility, while one UNE's contiguous campus, is located at the end of Bishop Street away from the core campus. There is a shuttle bus provided between the more remote Bishop Street lot and the campus core to increase the lot's usage. There is a heated shelter with Wi-Fi at each end of the shuttle route to encourage ridership. The Bishop Street lot does not require a parking permit, providing free parking to further encourage its use. The shuttle runs continuously from 7 AM to 7 PM. With these incentives, parking in this remote lot has increased significantly.

Current Campus Populations

The UNE campus focuses mainly on graduate health professions programs and operates as a commuter (non-residential) campus. Clinical experience is integral to all academic programs, with varying criteria for timing and duration. As students rotate into clinical settings, the campus population fluctuates throughout the academic year. UNE boasts around 100 clinical affiliations, spanning 65 sites in Portland and over 450 statewide.

In recent years, the total number of students and staff present on campus has been declining, in part due to the COVID-19 pandemic, and the shift towards offering a hybrid model of study where students can attend classes online. Flexible work arrangements are also available for faculty, with UNE encouraging non-student facing personnel to work remotely when feasible. **Table 1.4** summarizes the full-time equivalent (FTE) student, faculty, and professional staff present on campus since 2016.

Table 1.3

FTE Student, Faculty, Professional Staff, and Patient Visits Data

Year (Fall Matriculation)	FTE Student Population	Full-time Faculty and Professional Staff	Total Full-time Campus Population	Patient Visits (Dental Hygiene & Medicine)
2016	1,362	470	1,832	20,745
2017	1,304	472	1,776	21,465
2018	1,282	467	1,749	21,295
2019	1,247	456	1,703	25,035
2020	1,162	442	1,604	20,580
2021	1,198	578	1,776	20,403
2022	1,098	541	1,639	20,009
2023	979	568	1,547	19,241

Typically, students complete their degree programs on either the Portland or Biddeford campus, with faculty and staff primarily assigned to one campus. While some commuting between campuses does occur, the trend towards remote work and the use of virtual meeting platforms like Zoom has led to fewer faculty and staff traveling between campuses for meetings, resulting in reduced traffic in the surrounding areas.

In addition to accommodating students, faculty, and professional staff, the campus regularly hosts special events and functions utilizing its larger venues, including the function halls in Innovation Hall, Ludke Hall, and Parker Pavilion, as well as occasionally outdoors on the main campus green. These events typically occur outside of regular university operational hours, often on Saturdays, Sundays, and after 5 pm on weekdays, to minimize disruption to core educational activities.

Baseline Characteristics of the Institution

Existing Resources

Historic

UNE's campus includes one of the twelve locally designated historic districts in the City of Portland, the Westbrook College Historic District, which is also nationally registered. The Westbrook College Historic District is composed of a cohesive, homogeneous group of nineteenth and twentieth century buildings that initially formed the rural campus of Westbrook Seminary. The district includes six buildings on the campus that were built between 1834 and 1952:

Westbrook Seminary Building (now Alumni Hall) built in 1833, this building was the first erected in the district, and was originally built with a tower relocated from the Market House in Portland.

Goddard Hall and Hersey Hall were the next buildings erected, in 1857 and 1869, respectively. They were sited at a right angle to Alumni Hall, beginning the idea of a campus quadrangle.

The Universalist Church (now Ludcke Hall) was designed by Francis H. Fassett in 1867 to front on Stevens Avenue, with its axis parallelling that of Goddard and Hersey halls and is Gothic Revival in style.

McArthur Gymnasium (now part of Abplanalp Library) was built in 1900 and designed by Francis H. and Edward F. Fassett. Its location beside Alumni Hall reinforced the campus plan of an L-shared grouping of buildings facing a quadrangle.

Proctor Hall was erected in 1952 between Hersey Hall and Alumni Hall, effectively closing the L-shaped campus group that compliments the massing and style of Goddard and Hersey Halls.

To date, Goddard, Hersey, and Alumni Halls have undergone historical interior renovations and have maintained and/or restored the exteriors to their original grandeur and color. Similarly, modifications to Ludcke and Proctor Hall, and the Abplanalp Library have been completed in conformance with all applicable historic preservation regulations and considerations. The renovation of Alumni Hall was awarded the 2016 Honor Award by Maine Preservation. As UNE expands its campus, it remains mindful of its historical character, aiming to design new facilities that harmonize with the existing historic district.

Existing Open Space and Natural Resources

UNE's campus boasts significant open space with its large campus green located at the main entrance on College Street, and through its preservation of existing freshwater wetland areas. The campus consists of natural area, open space, and ample opportunity for both passive and active recreation for students and the surrounding community offering amenities such as biking and walking trails, a central campus quad in the Westbrook College Historic District, tree-lined streets and pedestrian pathways, and forested area that offers wildlife and bird watching. The Portland Trails Forest City Trail crosses campus along College Street and provides a connection between on- and off-site recreational opportunities. UNE is committed to partnering with Portland Trails to extend their nearly 70-mile network of trails onto the Campus, with the goal of safely linking the Evergreen Cemetery section of walking paths to those in North Deering and providing more opportunities for the community to access Portland's open space and natural areas. The forested areas of campus are host to hardwood and coniferous tree species and emergent wetland species. These vegetative species comprise the riparian forest and scrub-shrub wetland complex surrounding the Capisic Brook headwaters. The City of Portland has identified Capisic Brook as its highest priority watershed and has outlined implementation measures to address water quality in the watershed, as summarized in the Capisic Brook Watershed Management Plan. UNE recognizes the ecological role the campus natural resources provide and is committed to implementing measures that promote groundwater recharge, increase flood capacity, reduce downstream erosion and pollution, and benefit wildlife habitat. A review of existing natural resources including open space and recreation, ecological communities, aquatic resources, and the Capisic Brook Watershed; an assessment of potential impact and impact avoidance of proposed future development; natural resource protection measures; and a review of the campus's operational sustainability is provided in Chapter 4, Environmental Plan, of this IDP.

Existing Transportation System

The campus is serviced by a variety of transportation infrastructure, including several arterial highways in close proximity with convenient access to Maine Turnpike (via Riverside Street, Warren Avenue and Bishop Street) and access to I-295 via Forest Avenue; metro transit bus service; pedestrian infrastructure; EV charging stations; and a bicycle network. The new connector drive allows direct access for UNE community members between the core campus and Bishop Street, allowing users to bypass Morrill's Corner. Based upon the last traffic impact study, performed for the recent permitting process for the relocation of the College of Osteopathic Medicine (COM) to the Portland campus, all campus drives operate at good levels of service ("A" or "B") with no capacity constraints. Stevens Avenue has dedicated marked bike lanes from Pleasant Avenue to south of Bishop Street, providing direct access to the campus. Similarly, there are dedicated bike lanes on Forest Avenue within the campus vicinity, excluding Morrill's Corner where there are shared motor vehicle – bike lanes. UNE provides bicycle racks at a ratio of 1 bicycle rack space per every 20 UNE community members. There is access to showers and lockers facilitating bicycle commuting. Transit service is provided via Greater Portland Metro Route 9, which connects downtown Portland to North Deering via Stevens Avenue and also by Metro Route 2, which connects downtown Portland to Riverton via Forest Avenue. There are two Route 9 Metro stops located on campus.

UNE has had a Transportation Demand Management (TDM) plan since 2010, which is routinely updated. The primary goal of the plan is to reduce vehicle trips to campus and, thus, reduce demand for on-site parking. Reducing trips, both on-campus and off-site, improves traffic flow in the surrounding area, and reduces UNE's carbon emissions. UNE routinely performs student and staff surveys to determine arrival and departure times, transportation modality and parking usage. The results have guided UNE in adjusting its TDM plan, including infrastructure upgrades and bus

schedule changes. Hot mapping of faculty, staff, and student home addresses was utilized to identify additional measures for enhanced promotional activities towards fostering alternative transportation modes.

UNE has a number of parking facilities on its campus and performs annual parking counts to evaluate occupancy rates. Based upon the most recent counts, parking demand peaks between 10:00 AM and 2:00 PM and varies by day. There are currently eleven parking lots located on campus plus on-street parking along two campus roadways. These facilities currently provide a total of 1,064 parking spaces. In 2022, there were 1,241 spaces. The university has been decreasing spaces over time as new projects are completed and parking needs are re-evaluated. A campus parking analysis, based upon the historical count data, projects a maximum occupancy rate per university population to be at 0.39 from 2025 to 2033. This rate is similar to the Institute of Transportation Engineers (ITE) 85th percentile parking rate. UNE has purposefully maintained a surplus of spaces on campus to assure adequate on-site parking, to be sensitive to the neighborhood concerns about on-street parking on Stevens Avenue and in the neighborhood.

Existing Utility Infrastructure

Existing stormwater management systems utilize on-site infiltration systems, with secondary use of conveyance to the Stevens Avenue and Bishop Street combined sewer system. Existing wastewater infrastructure for the campus is discharged to a combined sewer system in College Street and Stevens Avenue. Additionally, UNE participates in the City of Portland's Fats, Oils, and Grease (FOG) Program to responsibly dispose of these biproducts. Maintenance of these systems is performed regularly to ensure that they are operating effectively. For water supply the campus is serviced by the Portland Water District. For electricity, the campus is serviced by Central Maine Power. Unitil currently provides natural gas service to the campus.

Compliance with the City of Portland Plans and Studies

City of Portland Plan 2030

UNE views itself as a partner to the City of Portland and this partnership is integral to their shared sustainable future. The campus was used to host two of the four Community Forums in 2016 that included presentations and engagement activities to shape Portland's Plan 2030. UNE is an important stakeholder and, as a major employer and educator of healthcare professionals, helped provide information and input for developing Portland's Plan 2030. Portland's Plan 2030 focuses primarily on eight aspects of Portland's identity and performance: environment, waterfront, transportation, housing, recreation and open spaces, facilities, historic resources, and economy. Excerpts from the plan that UNE works to promote and advance are provided here:

Environment

- "Develop climate resilience through specific carbon reduction goals, comprehensive climate adaptation strategies, and protections for the city's most vulnerable infrastructure."
- "Adopt sustainable land use and transportation policies that support connectivity, walkable neighborhoods, and multi-modal transportation."

Economy

- "Support job creation and business growth through public initiatives and private, institutional, and regional partnerships."

- "Develop programs that support industries with high-growth/high value potential such as life sciences, food production, information technology, and marine-related industries."
- "Modify ordinances and make strategic investments to better promote business development and job creation in priority areas."
- "Ensure that the growth of Portland's educational, medical, and cultural institutions is integrated into Portland's urban fabric through the use of high-quality design, management of impacts, community partnerships, and innovative planning."

Historic Resources

- "Stabilize and enhance historic areas of the city by ensuring quality investment in existing structures and compatible infill development."
- "Ensure an appropriate balance of continuity and change as Portland grows and evolves."

Housing

- "Encourage additional contextually appropriate housing density in and proximate to neighborhood centers, concentrations of services, and transit nodes and corridors as a means of supporting complete neighborhoods."
- "Identify priority growth areas."
- "Allow for a range of housing models in City codes, whether small units, co-housing, or others that may suit changing needs and demographics."

Recreation & Open Space

- "Sustain and build our system of parks, trails, and open spaces to enhance our quality of life, protect our environment, and promote the economic well-being of our remarkable city by the sea."
- "Provide high-quality, well-designed, well-maintained, safe, and integrated parks, trails, public open spaces, and recreational opportunities accessible to all residents."
- "Strengthen connections between open spaces."

Facilities & Services

- "Continue to work in partnership with regional and State agencies, neighboring communities, nonprofit organizations, and private property owners in support of efficient, sustainable City services."

Transportation

- "Promote multi-modal accessibility, enabling residents and visitors of all ages and abilities to participate fully in the social and economic life of the community."
- "Enhance regional trail connections."

One Climate Future

UNE is committed to considering the One Climate Future Plan in its future campus development. The One Climate Future Plan is a joint plan developed by the cities of Portland and South Portland with the goal of working together to be inclusive, vibrant communities that provide opportunities for residents and businesses to thrive in a changing climate. The plan has four elements, which UNE considers and incorporates into their campus planning:

Buildings & Energy Use

- Use of water-efficient/low flow fixtures to reduce water consumption
- Strive for LEED silver building design as standard for energy efficiency goals

Transportation & Land Use

- Providing bike routes, parking, and storage to encourage bike accessibility and use
- Implementation of electrical vehicle charging infrastructure
- Providing safe and accessible pedestrian routes
- Connectivity to public transit stops

Waste Reduction

- Encourage and provide recycling of materials throughout campus
- Use of recycled building materials during construction where feasible

Climate Resilience

- Preserve and protect natural resources through thoughtful land planning
- Incorporate resilient infrastructure systems for stormwater management

Smart Corridor Plan

UNE is committed to considering the recommendations of the Smart Corridor Plan (SCP) in its future campus development. The plan emphasizes the importance of completing the Smart Corridor, a seven-mile route from Morrill's Corner and UNE in Portland to Bug Light Park and Southern Maine Community College (SMCC) in South Portland. This corridor, which includes Forest Ave, High Street/State Street, the Casco Bay Bridge, and Broadway, is used by vehicles, buses, pedestrians, and bicyclists. The goals of the plan include balancing the needs and priorities of all roadway users and corridor stakeholders by encouraging high-quality development, improving safety in all travel models, managing traffic access and congestion, and improving travel options and multimodal access in the corridor. Consistent with this plan, UNE has constructed an internal access roadway that has reduced traffic through Morrill's Corner, encourages use of multi-modal transportation such as bicycling and public transport, and includes in its campus planning the goals to improve accessibility and safety for all street users, supporting a more connected and efficient transportation network.

The SCP highlights the existing Starbucks store at 1080 Forest Avenue as an example of how incorporating Complete Streets green stormwater infrastructure can serve as a template for future development in the corridor. The UNE office at 1075 Forest Avenue is noted as a street frontage that addresses the street well and would be enhanced by the recommended planting palette and materials design guidelines found in the SCP. The SCP also identifies the need for the City to install improved lighting on Poland Street, which is frequently used by UNE students to access campus. UNE supports these recommendations and will consider them in its future campus development.

Forest Avenue Redesign Project

The City of Portland is in the process of evaluating design alternatives for the Forest Avenue Redesign Project, the goal of which is to increase safety and accessibility for all street users, including pedestrians, motorists, bicyclists, and transit users. While the project is not immediately adjacent to UNE's campus, when implemented, it will improve and modernize Forest Avenue between Woodfords Corner to USM/Exit 6, which is a corridor providing access between UNE's campus and downtown Portland and I-295. The project's goals are consistent with UNE's goals for their campus, which include providing a positive pedestrian experience, encouraging the use of bicycling and established bike lanes, and connections to public transit. Improvements in traffic flow and safety on Forest Ave can benefit the broader community, including UNE students and staff who travel through this corridor. By enhancing accessibility and safety, the project supports a more connected and efficient transportation network. UNE will consider the Forest Ave Redesign Project in future development to ensure that the potential benefits to its students, staff, and the surrounding community are fully realized.

Public Involvement in the IDP

Prior to submission of UNE's Institutional Overlay Zone (IOZ) application to the City, UNE held a neighborhood meeting on June 13, 2024, at 6pm at the UNE campus at 716 Stevens Avenue, Hannaford Lecture Hall, Room 109, in the Pharmacy Building. This meeting was appropriately noticed in accordance with the Land Use Code. In an effort to be more inclusive, UNE noticed abutters within 1,000 feet of the campus, rather than the required 500 feet. Thirteen members of the community were in attendance. The purpose of this meeting was to provide a general overview of the IOZ process to the community and solicit community input on what should be considered in this Institutional Development Plan (IDP).

After the submission of UNE's IOZ Application to the City, UNE held a second neighborhood meeting on October 30, 2024, at 6pm at the UNE campus, in the same location as the first meeting. In addition to the notice to abutters within 1,000 feet of the campus, community members that provided their email addresses at previous meetings were notified electronically. Twelve members of the community were in attendance. The purpose of the meeting was to provide an update of the IOZ process, including sharing information from the first draft of the IDP and Regulatory Framework documents, and to provide an opportunity for public engagement and feedback. Certifications for both meetings were submitted to the City for record, which included a copy of the notices sent, sign-in sheets, presentation materials, and record of public feedback.

In addition to the two required neighborhood meetings, UNE has hosted two other meetings with the Deering Center Neighborhood Association (DCNA) to foster public engagement and feedback on the IOZ application and process. The first meeting was held on July 2, 2024, at 6pm in the same location as the neighborhood meetings, and seven members of the public were in attendance. Similarly, the purpose of the meeting was to provide a general overview of the IOZ process and solicit feedback for the IDP. The second meeting with DCNA was held on September 16, 2024, from 6-6;35pm at the Deering Center Community Church. Nine members of the DCNA were in attendance. The purpose of the meeting was to share an update on the IOZ process, and to share IOZ materials including the Campus Master Plan, Regulatory Framework, and Height Map. The meeting provided an opportunity for DCNA engagement in the IOZ process and provided a forum to obtain feedback from the public and these important neighbors to UNE. Technically, these meetings did not qualify as neighborhood meetings, as abutter notices were not provided, though UNE did reach out to and invite this neighborhood group prior to the meeting. These community meetings, along with the two neighborhood meetings,

sought community input and helped inform the development of this IDP. All meeting attendees who provided email contact information were emailed a copy of the Campus Master Plan as well as the notification of the Planning Board Workshop.

In addition to the neighborhood and community meetings, there are several opportunities for public engagement as part of the City review process. This includes opportunities for written or spoken comment at the Planning Board Workshops and Hearing, and at the City Council Hearing.

2. CAMPUS MASTER PLAN

Campus Master Planning Process

UNE has undergone a campus master planning process to evaluate its existing and future facilities' capacity to deliver state-of-the-art educational programs to its students. Through this evaluation, the University has identified development opportunities to support the future growth requirements of UNE and its educational programs on campus.

Over the past decade, UNE has expanded its educational programs and delivery methods, particularly in healthcare. This growth necessitated infrastructure changes to support its mission of providing high-level healthcare education in Maine, especially in the local Portland area. The Campus Master Plan has been developed to accommodate a dynamic campus that continues to evolve alongside changes in education and technology. This IDP identifies potential development and expansion projects aligned with this goal that may be developed at the campus to accommodate growth long-term.

Current Facility Assessment

The first step in the master planning process included evaluation of the current campus and its facilities to establish a baseline for UNE's Campus Master Plan. This evaluation included review of the age and condition of existing buildings, the current interior building layouts, departmental allocation of various educational programs, as well as the overall campus infrastructure including utilities, roadways, parking lots, open space areas, and pedestrian facilities. Establishing this baseline allowed UNE to identify areas to be evaluated and considered as part of future campus development.

Current and Future Program Requirements

As a leading educator of healthcare professionals, UNE is committed to providing a transformational learning experience to its students. To achieve this goal, and the priorities outlined in its Strategic Plan, UNE has identified current and future program requirements that will enable the campus to adapt and thrive in a rapidly changing world.[1] Anticipating these changes and establishing a framework that will provide maximum flexibility to support future adaptation were a key component of identifying future program requirements and developing the Campus Master Plan. Consideration of the projected trends of campus users and anticipated daily populations were also an integral part of identifying future needs and are discussed in Section 2.2.

Planning factors that were considered in establishing the Campus Master Plan and this IDP are outlined in **Table 2.1**.

[1] University of New England (2018). *Charting Our Future: Strategic Plan 2018-2023*. https://www.une.edu/sites/default/files/3_charting_our_future-strategic_plan_2018-2023_draft.pdf

Table 2.1

Campus Planning Factors

Factor	Consideration
INNOVATION & TECHNOLOGY	Ability to support future programs such as telemedicine, virtual technologies, artificial intelligence, and related technologies to enhance innovative and dynamic classroom and experiential learning opportunities
INTER-PROFESSIONAL EDUCATION	Strengthen the inter-professional educational model which brings all of the healthcare related programs together, on one campus, in an environment where there are co-educational opportunities to allow for real life interactions
HOUSING	Provision of on-campus housing to help offset a high-cost and high-demand housing atmosphere in the City of Portland; to foster community; afford more time to study and learn; and reduce traffic in and around the campus
OPEN SPACE & NATURAL RESOURCES	Emphasis on preserving natural resource areas and siting new development to have minimal impacts to existing wetlands and streams, and prioritizing open space for recreational use by students, faculty, staff, and the public
NEIGHBORHOOD CONTEXT	Siting and design of development projects such that they complement the surrounding neighborhood, including considerations for traffic and pedestrian access

Adjacencies

UNE has identified program adjacencies as a significant challenge, particularly as it relates to its interprofessional educational model. Maximizing key programmatic adjacencies was a large driver of the Campus Master Plan.

Currently, the College of Osteopathic Medicine (COM) is located on UNE's Biddeford campus, and the majority of the Westbrook College of Health Professions (WCHP) programs and College of Dental Medicine (CDM) are based on the Portland campus. All three colleges currently utilize space on both campuses, which causes large inefficiencies in the educational model and requires students and faculty to travel long distances. One of the major aspects of this Campus Master Plan addresses these inefficiencies by bringing all of these colleges together onto the Portland campus and providing more appropriate building spaces to support educational programming for the COM, CDM and WCHP colleges. The new COM building,

the Harold and Bibby Alfond Center for Health Sciences, is currently under construction, and expected to be completed in 2025. The COM building is represented as facility number 24 on **Figure 1.4**, UNE Portland Campus Map.

Projected Campus Populations

UNE is projecting an increase in full-time equivalent student, faculty, and professional staff populations over the next 10+ years, as noted in **Table 2.2**. The relocation of the COM from UNE's Biddeford to Portland campus will result in an increase of approximately 400 students and 160 faculty and professional staff on the Portland campus.

Looking forward to the next 10+ years, UNE anticipates a moderate increase in student enrollment year over year. These estimates have been calculated based on historical growth data, considering predictable swings in programmatic capacities and enrollments, limits to programs, and additional offerings. The Fall 2025 student population was determined using the current student population and the projected student population for the Harold and Bibby Alfond Center for Health Science, once complete.

Table 2.2

Projected Growth of FTE Student, Faculty, Professional Staff, and Patient Visits

Year (Fall Matriculation)	FTE Student Population	Full-time Faculty and Professional Staff	Total Full-time Campus Population	Patient Visits (Dental Hygiene & Medicine)
2025	1,400	750	2,150	20,000±
2028	1,600	760	2,360	20,000±
2033	1,750	760	2,510	20,000±

UNE anticipates projected patient visits to remain consistent with historical values, as reflected in **Table 1.4** and **Table 2.2**. UNE does not track other types of visitors, such as visiting faculty, prospective students, or guests.

At the beginning of the 2023-2024 Academic year, 108, or 26% of the Faculty and Staff on the Portland campus, were participating in Flex Work scheduling, which affords them the ability to work remotely at least one day per week. This program is expected to continue. This has reduced parking and traffic demands. The vast majority of the academic programs on campus have face to face programming, with little or no online options. Most majors have clinical requirements to be on campus, which place students in local, statewide, or regional clinical settings. UNE does have a strong online academic program; however, none of those students come to the campus, and thus are not considered in the parking or other areas of impact analysis.

The UNE Portland campus does not currently provide on-campus housing as most of its students are enrolled in graduate degree programs. Currently, most of UNE's Portland students commute from areas in and around Portland. The student population enrolled at UNE's Portland campus generally consists of students aged 22 years and above, who may already have established off-campus housing accommodation. Roughly 72% of UNE students, faculty, and staff live within a 20-mile commuting distance of campus.

UNE is aware of the current housing challenges in the City of Portland, including a limited supply of affordable housing options, and intends to develop on-campus housing to help alleviate some of the housing challenges for its students. Incorporating on-campus housing will help to reduce the number of vehicle trips to and from campus, as well as foster a sense of community amongst students. As described in **Table 2.3**, UNE is considering construction of a new residence hall that would provide 350 beds for students and their families.

Key Institutional Needs

UNE's current and future facility needs can be summarized into 5 main categories:

1. Campus Reorganization
2. New Building and Renovation Need
3. Educational/Pedagogy Improvements Need
4. Campus Infrastructure Needs
5. Housing

Campus Reorganization

For decades, UNE's Portland campus has been the home of many of the University's health profession programs. In 2025, when the COM moves from the Biddeford campus to Portland, the campus will solidify its place as the center of health care education in Northern New England. To recognize that transformation, UNE renamed the campus as the Portland Campus for Health Sciences. The establishment of a unique, nationally recognized Institute for Professional Education and Practice in Portland can only be achieved with the relocation of COM. This reorganization is UNE's highest priority and will allow it to establish a world-class academic healthcare campus in Portland, oriented around inter-professional education with the goal of empowering the next generation of world class health care providers at a single location. The relocation of COM to the Portland campus will allow UNE to strengthen its collaboration with clinical partners throughout the state. Relocation of COM to the Portland campus will also afford the opportunity to repurpose spaces on the Biddeford campus and expand existing undergraduate programs to address critical workforce needs for the State.

New Building and Renovation Need

To achieve the goals of UNE's Strategic Plan, which include providing exceptional, innovative teaching and experiential, collaborative learning experiences, UNE will need to both renovate its existing facilities, and build new academic and support spaces. The age of existing campus buildings and their suitability as structures to meet the needs of a dynamic and evolving educational model are important considerations for identifying anticipated future renovations. Through its evaluation of existing facilities, UNE has identified several buildings that will need renovations and expansions to house relocated educational programs and to improve its support departments, such as Information Technology Services, Campus Services, and Facilities Management. Additionally, lack of housing in and around Portland has deterred students from pursuing a degree at UNE.

Anticipated renovation, expansion, and new building projects are summarized in **Table 2.3**, and reflected on the Campus Master Plan included as **Figure 2.1**.

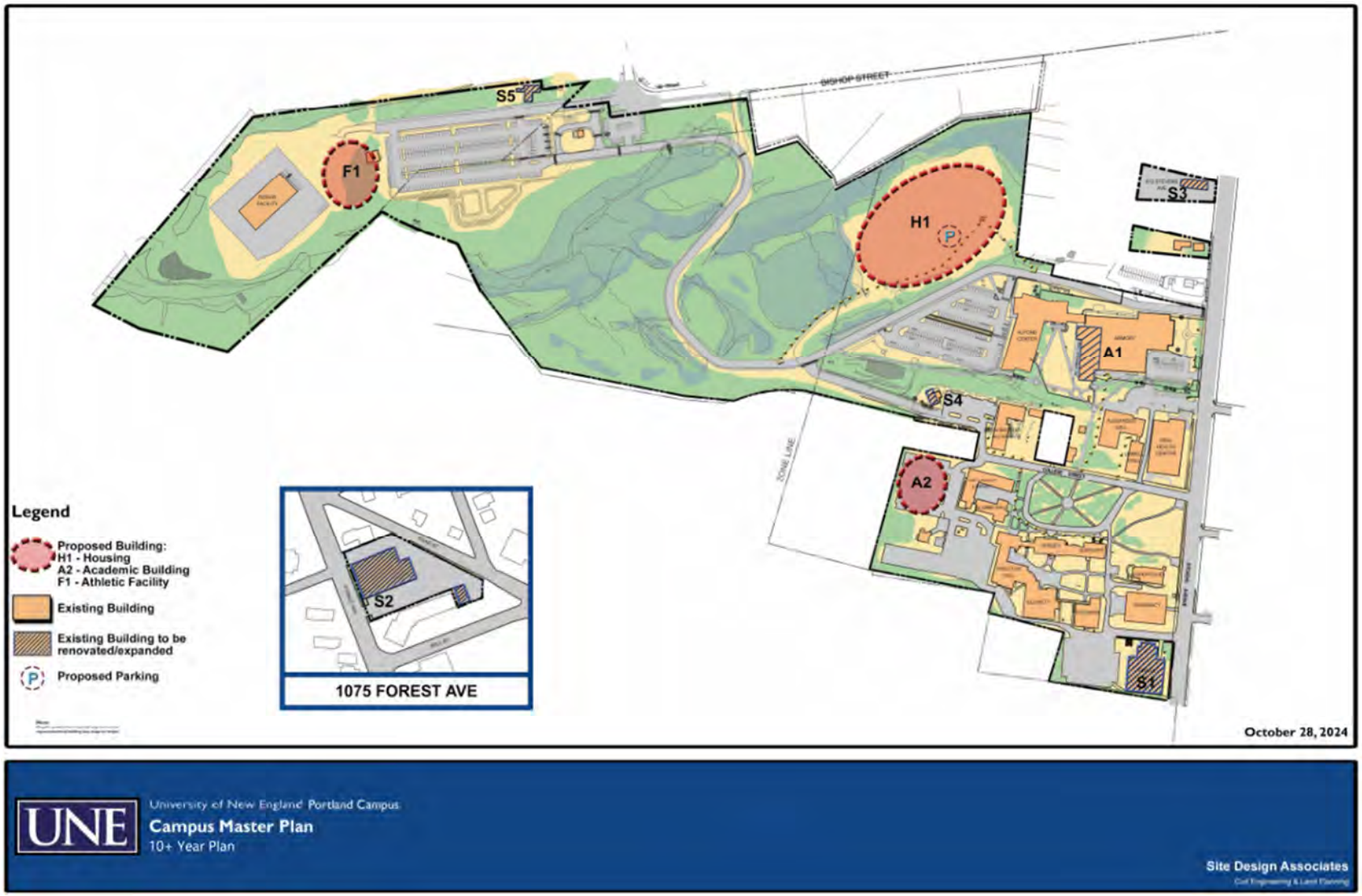


Figure 2.1 Campus Master Plan

Educational/Pedagogy Improvements Need

UNE continually endeavors to improve the way its faculty provides educational programs to its students. Ever-changing technology has also presented challenges for the University as it attempts to stay on the cutting edge in its efforts to provide world-class curriculums. Through its assessment of the current facilities on the Portland campus, it has become evident that UNE will need to undertake future facility projects to upgrade its existing classroom, lecture, laboratory, and study spaces. Mainly, larger academic spaces that facilitate hands on learning as opposed to lecture halls. Additionally, new spaces will be needed to incorporate an emphasis on higher technology, such as virtual reality, high-definition simulation and media that supports telemedicine and digital health. Projects identified within this IDP reflect and support this need.

Campus Infrastructure Needs

Through its extensive evaluation of the existing campus and facilities, UNE has identified infrastructure needs to support the campus reorganization and pedagogy improvements. Existing infrastructure evaluated as part of the master planning process included utilities such as electrical, water, and gas; stormwater systems; access roadways and sidewalks; and parking lots. Parking will be enhanced and expanded to support the additional faculty, staff, and students anticipated. During the construction of the Harold and Bibby Alfond Center for Health Sciences and the Maintenance Facility, UNE, with approval of the utility companies, installed the supporting water, sewer, electrical, communications and natural gas infrastructure to support the future adjacent projects.

Housing

UNE understands there is an increased need for student housing options as programs continue to grow and expand at the UNE Portland campus. Currently, UNE's Portland campus is comprised of commuter students. Existing housing resources are provided to students for off-campus housing options within the area. New housing on campus to support student growth is a vital component that UNE has incorporated within the UNE Campus Master Plan to limit housing pressures on adjacent neighborhoods.

10+ Year Development Plan

UNE's Campus Master Plan identifies anticipated projects which may be developed in the coming years, and identifies short- (0-5 year), medium- (5-10 year), and long-term (10+ year) priorities. These projects and priorities are summarized in **Table 2.3** below, and are represented graphically on the Campus Master Plan, included as **Figure 2.1**. The projects represent the possible future development on the campus, but the realization of these projects and priorities will only occur if the financial and philanthropic plans can support them.

Table 2.3

10±Year Development Program

Priority 1: Short-Term Development Plan (0-5 years)					
Campus Master Plan Identifier	**Project**	**Use Category**	**Total Square Footage**	**Approx. Height**	**Estimated Occupancy**
H1	Residence Hall	Housing	175,000	85 feet	350 beds
A1	Innovation Hall Renovation/Expansion	Academic	24,000	50 feet	2 offices
S3	812 Stevens Ave. Renovation/Expansion	Support	10,000	35 feet	6 offices
Priority 2: Medium-Term Development Plan (5-10 years)					
Campus Master Plan Identifier	**Project**	**Use Category**	**Total Square Footage**	**Approx. Height**	**Estimated Occupancy**
S2	UNE North/1075 Forest Ave. Renovation/Expansion	Support	60,000	65 feet	10 offices
S4	79 College Street Renovation/Expansion	Support	2,500	35 feet	2 offices
S5	Bishop Street Renovation/Expansion	Support	2,000	35 feet	N/A
Priority 3: Long-Term Development Plan (10+ years)					
Campus Master Plan Identifier	**Project**	**Use Category**	**Total Square Footage**	**Approx. Height**	**Estimated Occupancy**
A2	Academic Building	Academic	60,000	65 feet	20 offices
F1	Athletic Facility	Athletic	65,000	50 feet	12 offices

IOZ Boundary and Anticipated Property Acquisition

IOZ Boundary

The proposed IOZ boundary includes the extent of properties currently owned by UNE, as identified in **Table 1.2**, and as shown on **Figure 1.3**, UNE Zoning Context Map. The IOZ boundary includes the contiguous campus core area, as well as the four outparcels located at 812 Stevens Avenue, 798 Stevens Avenue, 32 Bell Street, and 1075 Forest Avenue.

Anticipated Property Acquisition

There is no additional property acquisition anticipated with this Institutional Development Plan.

3. TRANSPORTATION PLAN

Overview

UNE's Portland campus is in a great location, served by several arterial highways in close proximity. It provides connectivity to both pedestrian infrastructure and bicycle networks. Metro transit service is also provided by two (2) bus routes. UNE has had a Transportation Demand Management (TDM) plan in place since 2010, encouraging and promoting alternative modes of transportation to reduce trips and decrease on-site parking needs. It is regularly updated to respond to changing conditions and campus modifications. This reduces traffic impact both on campus and off-site, improving traffic flow in the surrounding area. Lowering the number of vehicular trips through TDM actions also reduces environmental impacts and impacts on the area's neighborhoods.

Campus Location and Access

The Portland campus is located off of Stevens Avenue, as shown below in **Figure 3.1**. Stevens Avenue is classified as a minor arterial. Nearby Forest Avenue is a major arterial while Warren Avenue, to the north, is a minor arterial. Allen Avenue towards the northeast is also a minor arterial. This location, within close proximity of four arterials, provides convenient access to the Maine Turnpike (via Riverside Street), Warren Avenue and Bishop Street. Access to I-295 is provided by Forest Avenue.

Vehicular Access

Vehicular access is provided by multiple unsignalized drives to Stevens Avenue as well as by a drive to Bishop Street. The new connector drive, currently under construction, will allow

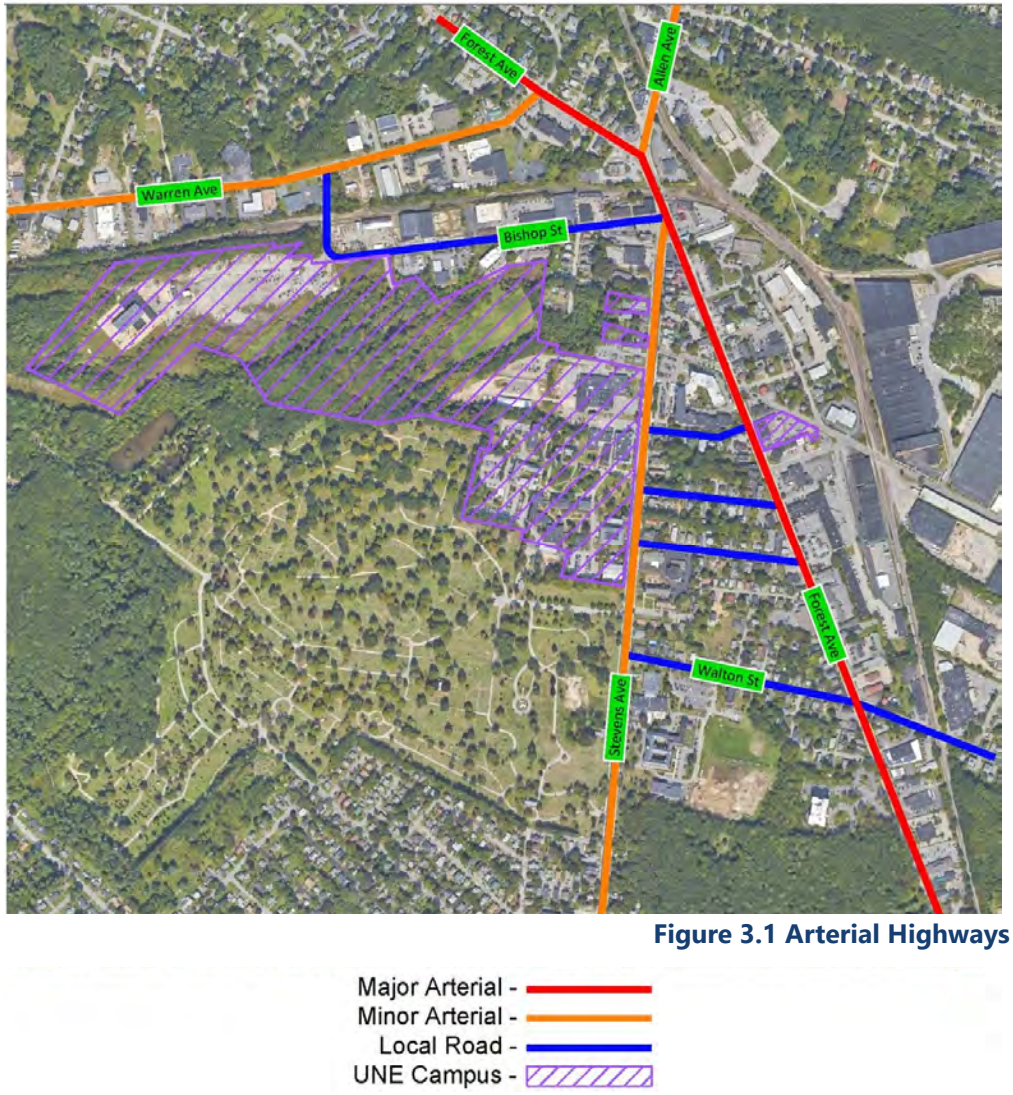


Figure 3.1 Arterial Highways

direct access for UNE community members between the core campus and Bishop Street, allowing users to bypass Morrill's Corner. Based upon the last traffic impact study, performed for the recent permitting process for the relocation of the COM to the Portland campus, all campus drives operate at good levels of service ("A" or "B") with no capacity constraints. Because the Portland campus currently has no on-campus housing, it is a commuter campus. Students and staff arrive from Portland and surrounding communities, as well as from the Biddeford campus. Short-term plans include the addition of student housing, identified on the Campus Master Plan as H1, which will reduce off-site trips. Based upon the most recent student and staff survey, 57 % utilize private vehicles to drive alone to campus while the remaining 43 % utilize alternative modes or a combination of modes.

Pedestrian Access

Pedestrian access is provided by numerous sidewalks both on campus and off campus. Sidewalks are provided on both sides of Stevens Avenue and on both sides of Forest Avenue, which are shown in **Figure 3.2**. This figure also shows a one-mile radius of the campus, which is considered the low end of a reasonable walk commute. There are crosswalks across Stevens Avenue and Forest Avenue in the vicinity of the campus at both signalized and unsignalized locations. These area pedestrian facilities also provide pedestrian access to other educational facilities, namely Longfellow Elementary School, Lincoln Middle School, and Deering High School as well as the local businesses frequented by UNE community members.

A sidewalk will be provided along the length of the new connector road. The Portland Trails network of trails abuts the campus and could be utilized by some local community members to access the campus. UNE is actively working with Portland Trails to extend this network across the UNE campus along, which could provide additional alternative pedestrian access to the campus, as well as rerouting the Portland Trails route away from Morrill's Corner. The extensive area sidewalk system is shown in **Figure 3.2**.

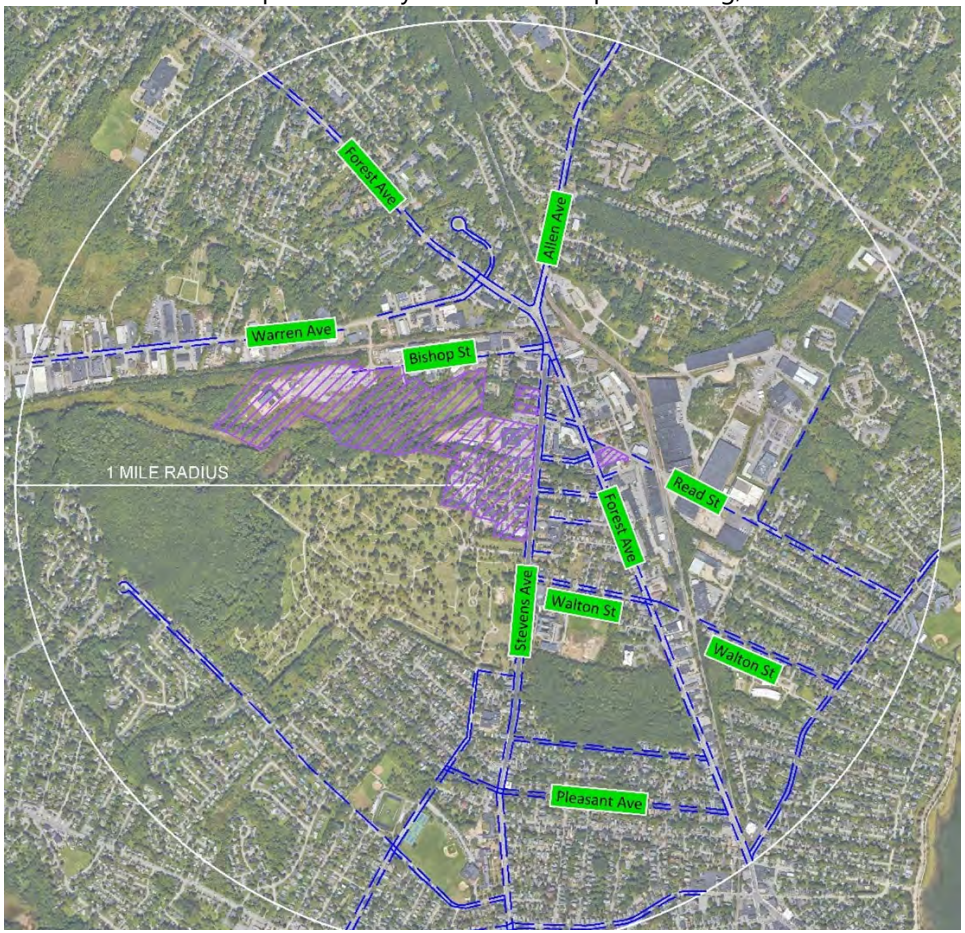


Figure 3.2 Area Sidewalk Network

Main Pedestrian Travelways - – – – – –
UNE Campus -

Note: This figure does not show sidewalks for all residential side streets

Bicycle Access

Stevens Avenue has dedicated marked bike lanes from Pleasant Avenue to south of Bishop Street, providing direct access to the campus (see **Figure 3.3**). Similarly, there are dedicated bike lanes on Forest Avenue within the campus vicinity, excluding Morrill's Corner where there are shared motor vehicle – bike lanes. UNE will be providing shared bike lanes on their new connector road, which will allow bikers destined to and from the west to bypass Morrill's corner.

UNE provides bicycle racks at a ratio of 1 bicycle rack space per every 20 UNE community members. There is access to showers and lockers in the Finley Recreation Center facilitating bicycle commuting. Additional shower and locker facilities are being added at the Harold and Bibby Alfond Center for Health Sciences building.

Transit Service

Transit service is provided via Greater Portland Metro Route 9, which connects downtown Portland to North Deering via Stevens Avenue and also by Metro Route 2 which connects downtown Portland to Riverton via Forest Avenue. The transit routes are stops shown in **Figure 3.4.** There are two Route 9 Metro stops located on the Portland campus, both of which are equipped with shelters. Several Route 2 stops on Forest Avenue are within 1,000 feet of the core campus, with one stop at UNE North, located at 1075 Forest Avenue, and Route 2 connects directly to the Metro Pulse (the downtown hub).

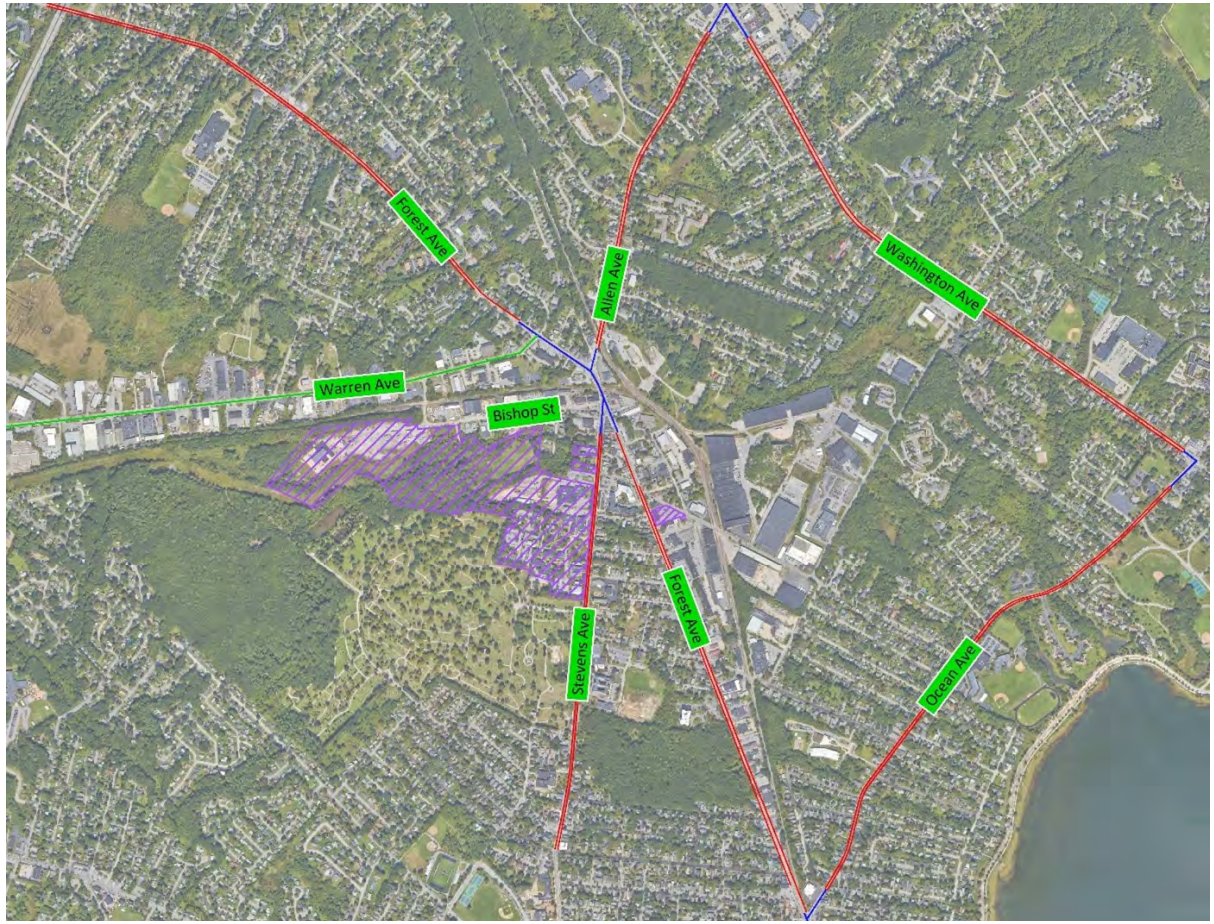


Figure 3.3 Current Bicycle Facilities

UNE provides free bus passes to all students and staff to encourage Metro use. Ridership averaged approximately 1,000 rides per month prior to the COVID-19 pandemic and then declined steeply. Ridership has increased slowly since 2022 to approximately 300 rides per month in 2023. Based upon the most recent 2024 data, monthly Metro ridership currently exceeds 350. The UNE bus pass program also allows free use of the Biddeford Saco Old Orchard Beach Transit, including the Express to Biddeford, as well as the South Portland Bus Service.

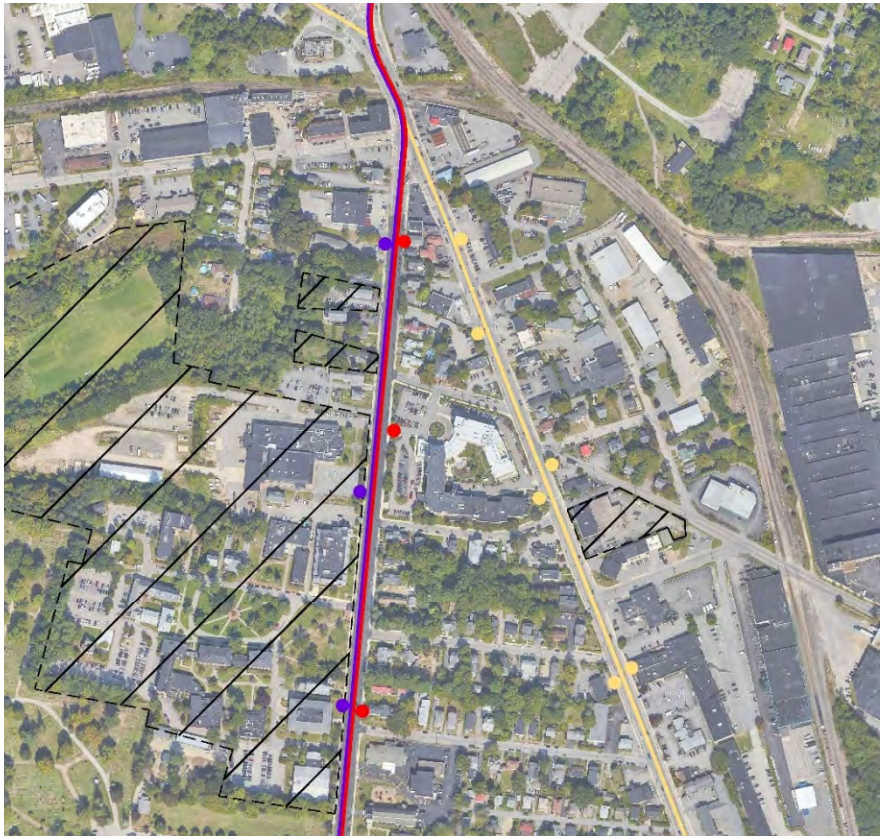


Figure 3.4 Transit Route Stops

Existing Conditions

Traffic Volumes

Existing average annual daily traffic (AADT) data for the vicinity of the campus was obtained from "Traffic Volume Counts, 2014 and 2012 Annual Reports", published by MaineDOT and their Interactive Traffic Map. This data is summarized below:

Table 3.1

Average Annual Daily Traffic

Location	2008	2010	2013	2016	2019	2022
Bishop Street, west of Forest Avenue	--	--	1650	--	--	--
Walton Street, west of Forest Avenue	--	2800	3120	2580	--	--
Forest Avenue, NW of Warren Avenue	20020	19010	19820	18140	--	17370
Forest Avenue, no. of Arbor Street	--	--	24500	22140	22570	18730
Forest Avenue, no. Walton Steet	--	--	21830	--	--	16610
Forest Avenue, so. of Walton Avenue	--	--	21710	--	--	17030
Stevens Avenue, so. of Walton Avenue	--	12510	11680	11620	--	--
Stevens Avenue, no. of Walton Avenue	--	11170	10980	11180	--	--
Stevens Avenue, so. of Forest Avenue	--	10360	10050	11230	--	8320
Warrens Avenue, SW of Forest Avenue	13370	11560	13130	11390	12380	13300
Allen Avenue, no. of Goodridge Ave	--	18210	--	16040	16220	17340

Traffic volumes in the vicinity of the campus have generally declined over the long term 2008 to 2022 period. This includes both Forest Avenue and Stevens Avenue volumes. Warren Avenue volumes are currently similar to previous 2008 levels, but they have grown in the more recent 2016 to 2022 period. Allen Avenue similarly declined long-term but has shown recent growth from 2016 to 2022.

Based upon this data, a 0.50 % growth rate was used to project previous turning movement counts, conducted during the COM study, and at Morrill's Corner in 2022, to existing 2024 conditions. This 0.5 % growth is currently being applied in most Maine locations. These existing 2024 peak hour volumes for the campus vicinity and access drives are shown in **Figure 3.5.**

Trip Generation Analysis

The Portland UNE campus currently has a student population of 979. The campus was recently permitted in 2022 for a student population of 1,598 during Site Plan Review for the relocation of the COM from Biddeford to the Portland campus (1,198 students at that time with the addition of 400 COM students). Projected short-, mid- and long-term student populations are as follows:

Table 3.2

Trip Generation Analysis

Year	Student Population
Fall 2025	1,400
Fall 2028	1,600
Fall 2033	1,750

Given the current student population, the campus is expected to serve 1,400 students in Fall of 2025 when the COM program is relocated. The expected mid-term growth in student population is expected to reach the previously permitted student population of 1,600 in Fall of 2028. Longer term growth projections show the campus reaching a total student population of 1,750 in 2033. This is an increase of approximately 150 students over the 2022 permitted enrollment of 1,598 students.

Trip generation analysis was performed for this projected student growth utilizing the Institute of Transportation Engineer (ITE) Trip Generation manual, the most recent 11th Edition. Land use code 550 – University/College was utilized for the analysis. The calculations were performed on the on the basis of students, which is the best fitting independent variable for the prediction of university trips. The calculations were performed for the

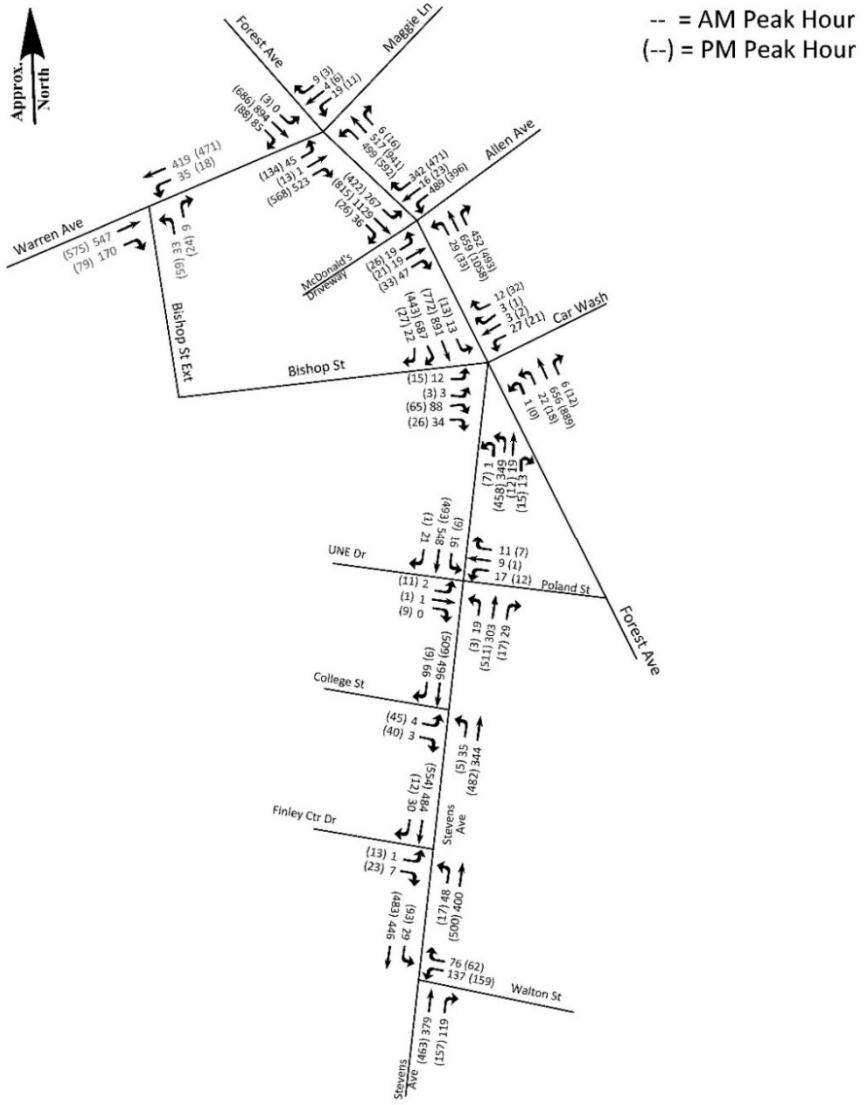


Figure 3.5 Estimated 2024 Traffic Volumes

approximate 150-student increase over previously permitted student population, to a future student population of 1,750. The results are summarized in the following table:

Table 3.3

ITE Trip Generation

Time Period	New One-way Trips	Time Period	New One-way Trips
Daily	234	PM Peak Hour	23
Entering	117	Entering	7
Exiting	117	Exiting	16
AM Peak Hour	23		
Entering	18		
Exiting	5		

The projected long-term growth in student population through 2033 is expected to result in a small increase in vehicular trips accessing the campus, 23 one-way trips in both the AM and PM Peak hours. This level of new traffic wouldn't be expected to have any significant impact off-site on either existing or future traffic operations. Typically, a development won't have any significant impact unless it generates in excess of 25 new lane hour trips in a left-turn lane or 50 new lane hour trips in a through or right turn lane. The maximum of 18 new trips, entering the campus during the AM peak hour, would be split between several arrival directions (north, south and west) and between multiple drives. As a result, the lane hour increases will be fewer than 10, due to the expected growth in student population. The 234 new daily trips represent less than a 2 % increase on Stevens Avenue volumes. Hence, the expected increase in trips due to projected student population growth should have no measurable impact either on campus or off-site.

Currently, based upon the most recent TDM survey, approximately 1 % of the trips to the campus are transit trips, 1 % are bicycle trips and 3 % are walking trips. ITE data also projects peak hour Walk and Walk+Bike+Transit trips. For the projected 150-student increase, there would be 5 additional AM Walk trips and 18 combined Walk+Bike+Transit trips. During the PM peak hour, 6 additional Walk trips are projected with 17 combined Walk+Bike+Transit trips.

In terms of traffic permitting requirements, the state Traffic Movement Permit (TMP) rules were modified in 2022. The rules only apply to a ten-year permitting window. Projects properly permitted over 10 years ago do not need to be considered. The history of recent UNE projects and TMPs is as follows:

- A TMP was obtained in 2008 for the College of Pharmacy for 300 new pharmacy students.
- In 2012, the College of Dentistry was approved by the City for 138 students. The 138-student increase did not require a TMP.
- The College of Osteopathic Medicine (COM) was approved by the City in 2022 with 400 students. The additional trips generated by the COM relocation project, when combined with the College of Dentistry, did not require a TMP.
- Given the above timeline, going forward only the COM project will count towards future TMP requirements since the other projects are beyond the 10-year permitting window. The COM project generated 61 AM and PM peak hour trips. Given the 23 AM and PM peak hour trips projected for the 150-student increase it is unlikely a TMP will be required since peak hour trips will not reach the 100-trip threshold by 2033.

Capacity Constraints

Numerous traffic impact studies have been performed for UNE building projects. The most recent study was "Traffic Impact Study, COM, UNE, Portland, Maine," which was performed by Sewall in 2022. The only capacity constraint identified in the study area for the planned and approved 400-student increase was Morrill's Corner, which includes the signalized intersections of Stevens Avenue, Forest Avenue and Bishop Street, and Forest Avenue/Allen Avenue. The level of service (LOS) at these Forest Avenue intersections was found to be an unacceptable LOS "E" or "F" for several movements and/or approaches. The projected increases in volumes due to the COM relocation were not found to have any significant impact on Morrill's Corner levels of service or delays. Similarly, the minor increase in peak hour trips, 23 one-way trips during the AM and PM peak hour, for the projected long-term growth of the university would have no significant impact on Morrill's Corner operations since these trips are split between several drives, northbound, southbound and westbound directions and between entering/exiting trips. The resulting new lane hour trips would be fewer than ten (10) having no measurable impact off-site on Morrill's Corner operations. Additionally, as previously noted, the new connector drive will reduce existing trips at Morrill's Corner.

Opportunities for Improvement

As previously noted, the only capacity constraint identified in previous studies is Morrill's Corner, including the intersection of Stevens Avenue/Forest Avenue/Bishop Street and the intersection of Forest Avenue/Allen Avenue. It is important to note that area traffic volumes have not changed significantly since these studies were performed and that UNE's student population is currently well below the permitted/previous study level. Morrill's Corner intersections have had known capacity constraints and associated queuing issues for over a decade. The "Portland – South Portland Smart Corridor Plan," completed in 2019, outlined improvements for Morrill's Corner. These improvements include removing Bishop Street from the signal system and limiting exits there to right turns out, and access management improvements/restrictions to other Forest Avenue parcels. Under the preferred plan, the level of service for Morrill's Corner are improved as follows:

Table 3.4

Portland-South Portland Smart Corridor Plan - Potential Morrill's Corner Improvements

Peak Hour/ Intersection	Existing/ No Build	Preferred Alternative
AM Forest Avenue/ Allen Avenue	F	D
AM Forest Avenue/ Stevens Avenue/ Bishop Street	E	C
PM Forest Avenue/ Allen Avenue	E	C
PM Forest Avenue/ Stevens Avenue/ Bishop Street	D	C

While this study was completed in 2019, the improvements have not yet been funded for implementation as the City of Portland has been focusing attention on other transportation priorities.

UNE has previously paid impact fees to the City of Portland for Morrill's Corner improvements. UNE contributed a $29,000 impact fee to the city as part of the 2008 approval for the School of Pharmacy.

The Morrill's Corner improvements would also be expected to address and reduce crash potential at these high crash intersections and along the adjacent links. As previously noted, the new connector drive, currently under construction, will reduce existing trips through Morrill's Corner by allowing UNE community members to directly travel to/from the campus core to/from Warren Avenue, bypassing Morrill's Corner. This reduction in volumes should also improve operations and reduce crash potential.

UNE will continue to update their Transportation Demand Management Plan and strive to reduce off-site trips as described in the following section. The planned addition of on-campus housing is also expected to reduce daily commuting trips to the campus.

Transportation Demand Management Plan

UNE has had a Transportation Demand Management (TDM) plan since 2010, which is routinely updated. The most recent update was completed in April of 2022. The primary goal of the plan is to reduce vehicle trips to campus and, thus, reduce demand for on-site parking. The plan further aims to reduce traffic impacts, both on-campus and off-site, improve traffic flow in the surrounding area, and reduce UNE's Scope 3 carbon emissions.

UNE hopes to achieve these goals by implementing TDM strategies that promote and encourage alternative modes of transportation. In 2019, a "Transportation Think Tank" (TTT) committee formed, with representation from Campus Planning, Student Affairs, Safety and Security, Undergraduate and COM Student Governments, Sustainability Office, and the Environmental Council. With oversight from the TTT committee, the TDM strategies

are regularly reviewed and updated to respond to changing conditions and needs. The TTT committee actively engages in implementing and promoting the TDM strategies outlined below.

TDM Strategies

Education and Promotion

UNE provides both educational and promotional material regarding the advantages of alternative transportation modes. The TDM Coordinator regularly publishes the "*Movements*" newsletter, which is hung in all bathroom stalls throughout the campus, ensuring visibility and contemplation. The newsletter informs the UNE community about ongoing, new, or revised transportation programs, events and resources, like bus maps and schedules, GoMaine carpool/rideshare information, parking updates, bike infrastructure updates, incentive program information and safety practices for pedestrians, among other topics. Additionally, the university regularly provides specific TDM-related information to the campus community through various methods and media formats, including bulletin boards, strategically placed bus schedule brochure holders, weekly community-wide emails, digital screens, and website.

Carpooling & Ridesharing

UNE utilizes the GoMaine service to encourage "greener commuting" to each campus as well as between campuses when required. UNE has its own landing page on the GoMaine website, which helps users find carpool partners, map out alternative transportation methods with transit, walking and biking routes, incentivizes users with rewards, and offers emergency "ride home guarantee" for regular users. Additionally, UNE takes advantage of the expertise of GoMaine staff for educational and promotional events.

The university provides free parking to carpoolers and dedicates some of the most convenient parking spaces as incentives. The university offers GoMaine tutorials every year. The TTT committee has identified the need to streamline carpool permitting procedures, which would make the incentive more desirable while making administration of the program less cumbersome. This is a continued goal for the committee for the upcoming year.

Transit Service

As previously noted, UNE provides free GP Metro, South Portland City Bus Services, and Biddeford, Saco Old Orchard Beach Bus Transit (BSOOB) passes for all students, faculty, and staff to encourage transit usage. Each of these services provides GPS trackers with mobile apps for cell phones, which aid riders in knowing exactly where the bus is located and how close it is to their stop. The TTT committee actively engages with administration from these transit providers to update materials and promote ridership.

Incentives

Since 2008, UNE has continually promoted the use of alternative modes of transportation through incentives and promotions, including:

- Raffling of new bicycles and iPads for transportation competitions
- Providing free coffee and doughnuts to users of the Bishop Street parking lot

- Free use of electric vehicle charging stations
- Free public transit passes.

The university is currently considering dedicating additional prime campus parking spaces as carpool spaces to encourage greater carpooling.

UNE has considered disincentives but given the distance that many students and staff commute, whom have no alternative since they are located too far to walk, bike or utilize transit, disincentives would unfairly punish students and staff whom have no other reasonable alternative, especially in light of the current affordable housing crisis in Southern Maine. Additionally, the UNE Portland Campus is a graduate campus with nontraditional students. Many of which have families, jobs and most must participate in clinical experiences. All of which limit opportunities for alternative transportation usage.

EV Charging Infrastructure

UNE provides free charging for electric vehicles. UNE has eight (8) Level 2 chargers at the Bishop Street parking lot, two of which are reserved for handicapped parking. There are also (62) 100v charging outlets in that lot. There will be additional charging capacity at the Harold and Bibby Alfond Center for Health Sciences parking lot with (10) Level 2 chargers and (26) spaces with 100v outlets. At this time, there are only 17 electric vehicles registered with the University on the campus. The TTT Committee will continue to monitor the growth of EV adoption in the campus community and will advise administration regarding further expansion of charging infrastructure as needed.

Bicycle Infrastructure

UNE promotes bicycling as a convenient means to access campus for those students and employees that reside within the appropriate range, and for exercise and wellness benefits. The university has several bikes on campus that the UNE community members can borrow to utilize during the day. Bike racks are conveniently located across campus for community members to store their personal bikes as well. UNE has previously discussed, and would consider, being a site for a city-wide bike share program.

There is access to showers and lockers in the Finley Recreation Center further facilitating bicycle. The Harold and Bibby Alfond Center for Health Sciences building will include men's, women's and gender-neutral locker room facilities, with showers. These additional facilities will encourage and support greater commuting by active transportation means. The new shared connector drive will provide better access for bicyclists destined to and from the west.

Pedestrian & Bicycle Access

As previously presented, there is an extensive sidewalk system surrounding the campus as well as bike facilities. The shared bike lanes that will be provided on the new connector drive will provide additional opportunities for UNE community members to bike to campus, without having to bike through Morrill's Corner, with its intimidating shared vehicle bicycle lanes.

UNE is committed to partnering with Portland to extend their trail system through UNE property in an effort to safely link the Evergreen Cemetery section of walking paths to those in North Deering. Currently, several large sections of the Portland Trail system are adjacent to UNE's Portland campus in Baxter Woods Park and Evergreen Cemetery. Hikers and walkers wishing to move from the Evergreen Cemetery area to the North Deering

section of Portland must traverse busy streets like Stevens and Allen Avenues, through Morrill's Corner, in order to reach the next trailhead. As part of UNE's initiative to construct the Institute for Interprofessional Education and Practice on its Portland Campus, the access road that links College Street to UNE's Bishop Street parking lot will be improved, with additional lighting and features to improve safety.

UNE Community Member Surveys

UNE routinely performs student and staff surveys to determine arrival and departure times, transportation modality and parking usage, as well as to gauge interest in various alternative transportation and incentive programs. The results have guided UNE in making adjustments to its TDM plan, including infrastructure upgrades, and bus schedule changes. Hot mapping of faculty, staff, and student home addresses was utilized to identify additional measures for enhanced promotional activities towards fostering alternative transportation modes and associated programs.

Based upon the most recent 2023 survey, students and staff on campus are currently utilizing the following mode choices:

- Combination of Modes 34 %
- Carpool/Van 3 %
- Transit 1 %
- Bicycle 1 %
- Walk 3 %
- Remote 1 %
- Drive Alone 57 %

While the majority drive alone to campus, a large percentage of the community uses a combination of modes to reach campus.

The Director of Safety and Security monitors the effectiveness of the TDM plan through biannual parking utilization studies. The TDM Coordinator and TTT Committee use the data collected from these parking studies to continually review and anticipate parking demand on campus and guide ongoing revisions to the TDM plan.

Data analysis conducted during development of the 2022 plan found that 13% of the campus community live within a walkable 1.5 miles radius and a bikeable 1.5 - 5-mile radius of the campus. It was also found in the survey that 11.5% of the survey respondents walk to campus 1-9% of the time.

Figure 3.6 shows the primary campus sidewalks, bike facilities and off-site connections. Opportunities to expand this network and increase these alternative commuting modes will continue to be explored.

Comments indicate that 31% of the survey respondents desire to use an alternative mode of transportation, but are unable due to external commitments, such as work, daycare pickups and clinical requirements. Opportunities to increase the alternative modes of transportation percentage exist, and efforts will continue to be made to identify incentives that would increase these modes of commuting, including the extension of the Portland Trails network through the campus, which would allow Deering Center and Riverton residents to more easily walk to campus.

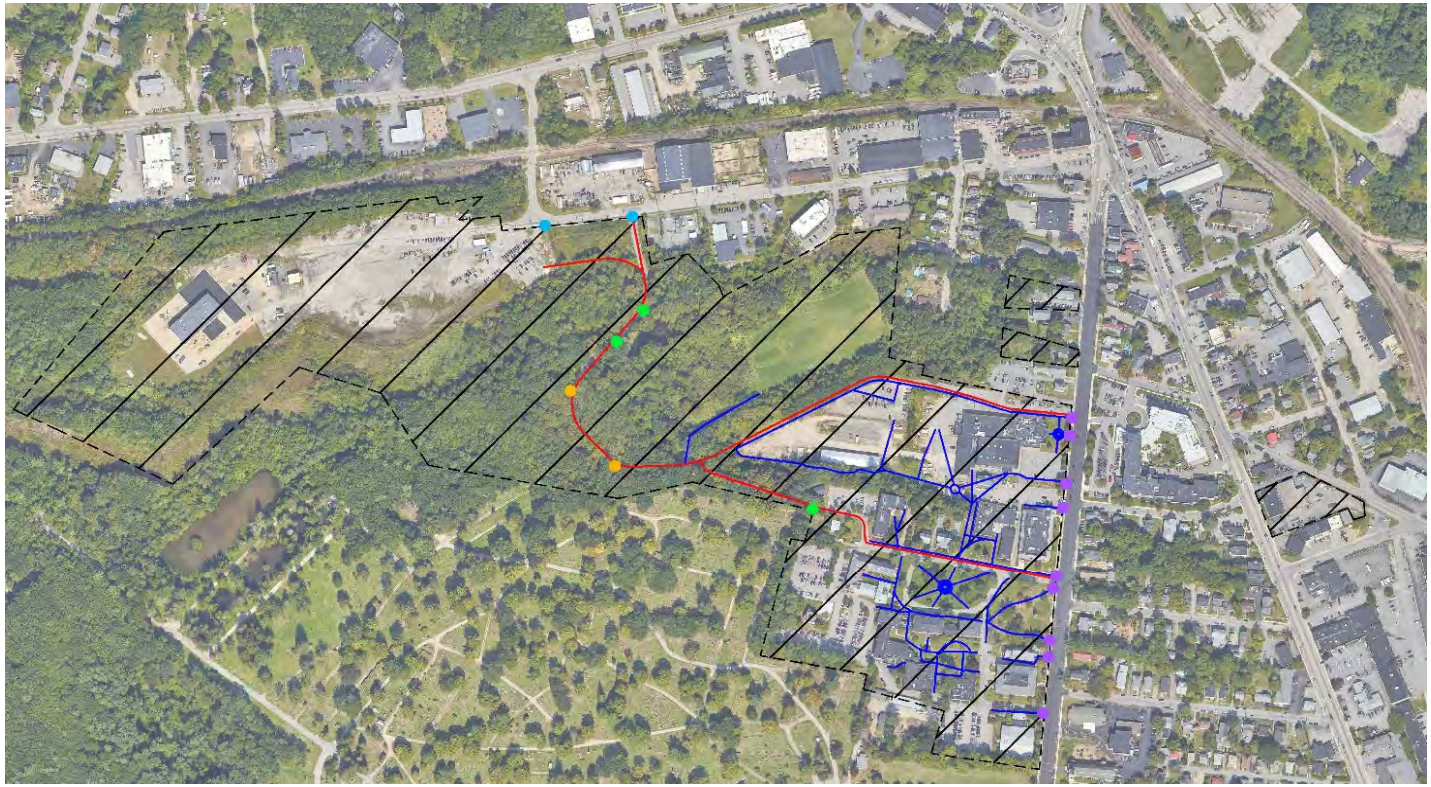


Figure 3.6 Core Campus Bicycle and Pedestrian Connectivity

Parking

While there are several alternative transportation modes available to access the campus and many use a combination of modes, the majority of students and staff arrive by private vehicle. Based upon the most recent parking counts, conducted in fall of 2023, parking demand peaks between 10:00 AM and 2:00 PM and varies by day. There are currently eleven parking lots located on campus plus on-street parking along two campus roadways. The lot locations are shown on the campus map in **Figure 1.4**. The number of spaces located in these lots is detailed below:

Table 3.5

UNE Portland Campus – Parking Spaces

Lot Description	Number of Spaces
Lot 1 – 812 Stevens Avenue	30
Lot 2 – COM	182 (permitted)
Lot 3 – Innovation South	33
Lot 4 – Oral Health Center	24
Lot 5 – Ginn/ MCD	28
Lot 6 – Library	103
Lot 7 – Proctor	121
Lot 8 – Finley	89
Hersey Circle	4
Ludke	3
Bishop	344
UNE North	72
Church	31
Total Spaces	**882 plus 182 (permitted)**

There will be 1,064 parking spaces on campus after the COM project is completed. In 2022, there were 1,241 spaces available, so the university has been decreasing spaces over time as new projects are completed and parking needs are re-evaluated.

Most campus lots require the purchase of parking permits. The largest number of vehicles recorded during the fall 2023 counts in the university lots was 796. This represents 75 % of the overall on campus capacity with the COM completion. This highest weekly demand occurred on Wednesday at 1:00 PM.

There is a shuttle bus provided between the more remote Bishop Street lot and the campus core to increase that lot's usage. There is a heated shelter with Wi-Fi at each end of the shuttle route to encourage ridership. The Bishop Street lot does not require a parking permit, providing free parking to further encourage its use. The shuttle runs continuously from 7 AM to 7 PM with minimal wait times. With these incentives, parking in this more remote lot has increased significantly from 37 vehicles in 2012 to an average of 233 during the peak period in 2019. The average peak daily use in this lot in 2023 was 245 vehicles, which occurred while half of the lot (300 spaces) was closed for construction.

There is significant historical parking data available for the campus given UNE's annual weeklong parking counts. This measured data is summarized by year, along with projections for future years, as follows:

Table 3.6

UNE Portland Campus – Parking Occupancy

Year	Students	Staff	Population	Spaces	Max. Occupancy	Spaces/ Student	Max. Occupancy/ Student	Max. Occupancy/ Population
2015	1,397	317	1,714	783	577	0.560	0.413	0.337
2018	1,257	588	1,845	1,256	765	1.000	0.609	0.415
2021	1,198	578	1,776	1,261	651	1.053	0.543	0.367
2023	979	568	1,547	863	512	0.882	0.523	0.331
2025	1,400	750	2,150	1,056	848	0.754	0.606	0.394
2028	1,600	760	2,360	1,162	931	0.726	0.582	0.394
2033	1,750	760	2,510	1,069	990	0.611	0.566	0.394

As seen in Table 3.6, the number of parking spaces on campus declined from 2021 to 2023. The space/student ratio has been declining since 2021 and is projected to continue to decline while the number of spaces will remain fairly steady long-term, from 2025 through 2033. The projected maximum occupancy rate per university population is projected to be at 0.39 from 2025 to 2033. This rate is very similar to the Institute of Transportation Engineers (ITE) 85th percentile parking for a university of 0.38 vehicles per school population. Additional review of parking rates and opportunities to decrease parking will be evaluated as future building projects go through the site plan review process. UNE has purposefully maintained a surplus of spaces on campus to assure adequate on-site parking, to be sensitive to the neighborhood concerns about on-street parking on Stevens Avenue and in the neighborhood.

In addition to on-campus parking, there is also on-street parking located on surrounding streets, which is available to UNE community members. This on-street parking includes College Avenue on campus and parking along both sides of Stevens Avenue off campus.

The City of Portland has implemented residential parking permits and one-hour parking restrictions on many side streets in the vicinity of campus, reducing the amount of on-street parking available to UNE community members. As long as there continues to be free on-street parking along Stevens Avenue without any time restrictions, in close proximity to the campus core, continued use of these spaces by staff and students is expected to occur given their convenience.

The goals for UNE in terms of parking are:

- Continue to provide an adequate parking supply on-campus
- Reduce parking needs over time through continued TDM actions
- Reduce neighborhood impact by reducing on-street parking usage by UNE students

4. ENVIRONMENTAL PLAN

Existing Natural Resources

Open Space and Recreation

The UNE Portland campus consists of natural area and open space, with opportunity for both passive and active recreation. Approximately 53 percent of the 72-acre campus is open space and offers amenities such as biking and walking trails, a central campus quad, tree-lined streets and pedestrian pathways, and forested area (see **Figure 4.1**) that offers wildlife and bird watching opportunities. There are two gardens on the campus; the Medicinal Herbal Garden, which is a demonstration of the types of medicinal herbs used in phytotherapy, and the Community Garden, which is managed by volunteer faculty and staff and produces vegetables for personal consumption and donation to local charities.

The campus is located adjacent to industrial, commercial, residential, as well as other open space uses. The adjacent 239-acre Evergreen Cemetery offers important community greenspace and recreational amenities including a network of forested trails for walking, cross-country skiing, and bird watching. The Portland Trails Forest City Trail crosses campus along College Street and provides a connection between on- and off-site recreational opportunities. UNE is committed to partnering with Portland Trails to extend their nearly 70-mile network of trails onto the campus, with the goal of safely linking the Evergreen Cemetery section of walking paths to those in North Deering and overall providing more opportunities for the community to access Portland's open space and natural areas.



Figure 4.1 Existing Open Space on Campus

Ecological Communities

The campus contains varied natural resource features and is characterized by two levels of generally flat topography with both landscaped and natural greenspace punctuated by campus facilities.

Forested areas are host to hardwood and coniferous tree species such as speckled alder (*Alnus rugosa*), red maple (*Acer rubrum*), willow (*Salix* spp.), winterberry (*Ilex verticilata*), green ash (*Fraxinus pennsylvanica*), and balsam fir (*Abies balsamea)*. Emergent wetland species on the campus include cattails (*Typha latifolia*), sensitive fern (*Onoclea sensibilis*), jewel weed (*Impatiens capensis*), and blue flag (*Iris versicolor*). These vegetative species comprise the riparian forest and scrub-shrub wetland complex surrounding the Capisic Brook headwaters. **Figure 4.2** illustrates delineated resources within the campus footprint as well as wetlands and streams identified in the United States Fish and Wildlife Service (USFWS) National Wetland Inventory and United States Geological Survey (USGS) National Hydrography Dataset. There are vernal pools, open waters, perennial and intermittent streams, and forested, scrub-shrub, and emergent wetlands delineated on campus.

Consultation with DEP in 2017 determined no records of Significant Wildlife Habitat exist onsite and there are no records of Imperiled (S2) or Critically Imperiled Natural Communities (S1) listed for the site. Additionally, no USFWS Critical Habitat is listed as occurring on campus and according to the Maine Beginning with Habitat map viewer, no Essential or Significant Habitats are recorded on campus. Lastly, no Important Bird Areas are listed by Maine Audubon as occurring on campus.



Figure 4.2 Ecological Communities and Aquatic Resources

Aquatic Resources

Aquatic natural resources can be found on campus and include the headwaters of Capisic Brook. Capisic Brook is listed on the 2022 Maine DEP Integrated Water Quality Monitoring and Assessment Report as '*impaired*' and is included in the City of Portland's Capisic Brook Watershed Management Plan. Capisic Brook, a small tributary to the Fore River, consists of several branches, with headwaters on campus located near north of Gulliver's Field.

Streams on campus are surrounded by riparian hardwood forest and wetlands as described above, as well as vernal pools. The extents and boundaries of streams, wetlands and vernal pools were delineated in 2022 and a vernal pool assessment completed in 2021. The vernal pools identified in 2021 were assessed using the Maine State Vernal Pool Assessment Forms and confirmed by Maine DEP to be Non-Significant Vernal Pools as they lacked the physical and biological characteristics necessary to meet significance criteria.

Under the Maine DEP Natural Resources Protection Act: Chapter 310, Wetlands and Waterbodies Protection Rules, wetlands located within 25-feet of a river, stream, or brook are considered Wetlands of Special Significance. As identified in a 2022 wetland delineation of the campus, many of the wetlands located on-site may be considered Wetlands of Special Significance as they are located within 25-feet of Capisic Brook. UNE recognizes the ecological role the campus natural resources provide such as groundwater recharge, increased flood capacity, downstream erosion and pollution control, and beneficial wildlife habitat.

Capisic Brook Watershed

The Capisic Brook watershed covers approximately 1,418 acres within the cities of Portland and Westbrook. The East Branch of Capisic Brook which flows through part of the UNE campus is within the East Tributary subarea of the Capisic Brook Watershed. Approximately 31% of the watershed is covered by impervious surface. Maine DEP has designated Capisic Brook as an urban impaired stream under Chapter 502 of the Maine Stormwater Management Rules. Capisic Brook is listed as Category 4a, with an approved Total Maximum Daily Load (TMDL) in place. The stream is designated a Class C water, meaning it is intended to meet the state's minimum environmental goals for water quality. The City of Portland identified Capisic Brook as its highest priority watershed and has outlined a number of provisions to address water quality in the watershed as outlined in the Capisic Brook Watershed Management Plan, developed and adopted by the City of Portland in December of 2012. The Plan outlines the status and restoration needs of the watershed and establishes provisions and goals for improving water quality in Capisic Brook.



Capisic Brook has two existing DEP Sample Locations including one near the recently constructed Connector Road (see **Figure 4.3**). Sample results from 2003 were used to develop the Watershed Management Plan and showed that the upstream station on the UNE campus had a healthy macroinvertebrate community, good water quality, low concentration of bacteria, and good instream habitat quality. The downstream station results showed a degraded macroinvertebrate community, impaired water quality, elevated concentrations of bacteria, and impaired instream habitat quality. Variation in water quality at these two stations is attributed to differences in land use and prevalence of impervious surface downstream (south) of campus. The Capisic Brook Watershed Management Plan acknowledges the need for implementation measures to improve water quality within the watershed. Maine DEP has five goals for Capisic Brook including: improvement of instream habitat quality; restoration of natural hydrology; reduction of toxics, nutrients, bacteria, and elevated water temperature in runoff; and improvement of dissolved oxygen levels. UNE remains committed to the protection of the watershed and the stream on campus.

Figure 4.3 Maine DEP Water Quality Sampling Locations

All proposed campus development projects will review potential aquatic resource and watershed impacts and avoid to the extent practicable and feasible, significant impacts to resources in project design and implementation. Proposed projects will submit project plans and designs to the City of Portland for municipal review, per the City's Land Use Code. As the campus is located within the Capisic Brook Watershed, UNE development projects are subject to comply with the Urban Impaired Stream (UIS) Standard of Chapter 500 of the Maine DEP Stormwater Management Rule. All natural resources on campus are protected by the Maine Natural Resource Protection Act (NRPA) which requires permitting/notification of all projects located in, on, or over natural resources or that are located adjacent to natural resources. All proposed projects will avoid and/or minimize impacts to natural resources to the maximum extent practicable and when impacts to areas adjacent to natural resources may not feasibly be avoided, projects will comply with NRPA permitting and mitigation requirements.

Floodplains

The FEMA National Flood Hazard Layer for Portland is currently under review and an updated flood map is approved as of June 20, 2024. One area of Minimal Flood Hazard (500-year floodplain) and one area of High Risk (100-yeard Floodplain) are identified within the proposed IOZ. The area of High Risk is mapped on the western-most portion of the proposed IOZ and continues off-site to the southwest, following the Capisic Brook (see **Figure 4.4**).

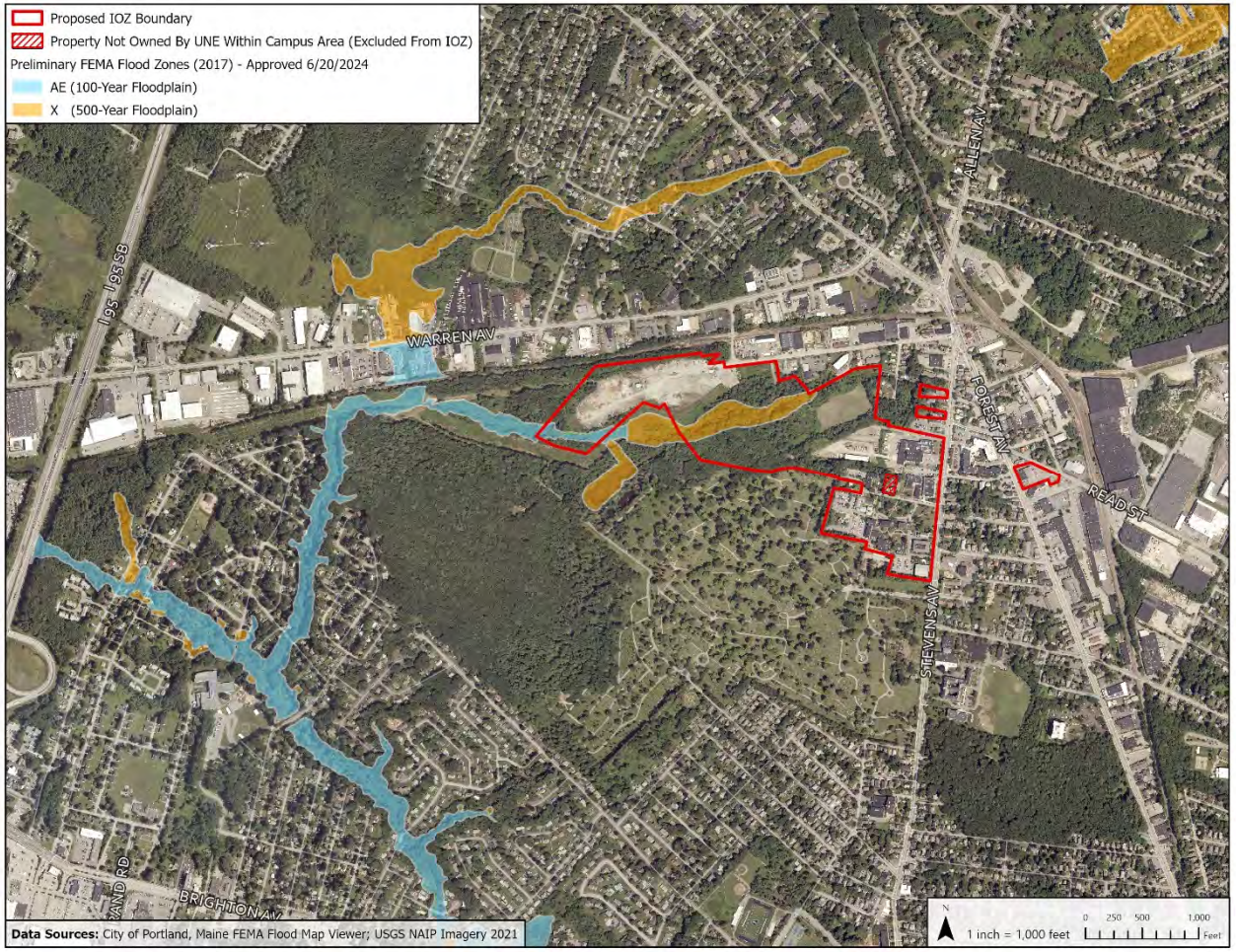


Figure 4.4 FEMA Flood Hazard Map

Proposed Future Development and the Environment

Future development will not impact existing streams on campus and minimum setbacks will be maintained for all future projects. In cases where development cannot reasonably avoid these setbacks, consultation with the City of Portland and Maine DEP will be conducted to determine potential permitting or mitigation requirements. Additionally, none of the proposed projects includes direct or indirect impacts to freshwater wetlands or potential open waters and no impacts to wetlands within the FEMA designated 100-year flood plain are included in the campus master plan. No areas of significant wildlife habitat on or directly adjacent to campus are identified in the Maine Environmental Review Tool. With each project, Best Management Practices (BMPs) will be utilized to prevent offsite impacts to natural resources: additionally, nature-based solutions such as rain gardens, bioswales, landscaping with native plants and nest boxes for birds and bats will be considered to improve post-development conditions. Resources and guidance developed by Maine Audubon, Maine DEP, and Maine Department of Inland Fisheries and Wildlife will be referenced for effective design that will benefit wildlife and support the ecosystem services of the campus open spaces.

UNE has committed to preserving a significant acreage of dedicated open space, as shown on **Figure 6.4**. These areas will be rezoned as Open Space Preservation (OS-P). The total acreage of UNE's campus is approximately 72 acres, with approximately 10 acres being dedicated as open space. The 10± Year Development Plan includes development of approximately 2± acres of impervious area in Phase 1 (0-5 years), 0 acres in Phase 2 (5-10 years), and 0.6± acres in Phase 3 (10+ years). In total, the proposed development projects are anticipated to result in an increase of approximately 3.5% impervious area across the campus over the next 10+ years. The minimization of impact to natural resources and creation of impervious areas is achieved through careful site selection, including siting the new A2 academic facility on an existing developed surface parking lot and siting the new F1 athletic facility in a previously developed portion of campus. Additionally, through the increase in allowable height, the building footprint for the new H1 housing facility is able to be minimized, preserving the adjacent natural resources. UNE has committed to preserving approximately 14% of its campus as Open Space Preservation (OS-P) area, as shown on **Figure 6.4**, with areas summarized in **Table 4.1** below.

Table 4.1

Open Space Area Calculations

Description	Area (acres)	% of Campus Area
Total campus area	72	N/A
OS-P area in westernmost part of campus	2.7	4%
OS-P area adjacent to Evergreen Cemetery	4.6	6%
OS-P area near Mayfield St neighborhood and Capisic Brook	3.0	4%
Total Open Space Preservation (OS-P) area	**10.3**	**14%**

Athletic Facility (Campus Master Plan Identifier: F1)

The development of the athletic facility will not have impacts to nearby natural resources (see **Figure 4.5**). The facility is proposed in an existing impervious surface lot near the UNE Intermodal Transportation Facility (ITF).



Figure 4.5 Proposed Athletic Facility (F1) Development and Adjacent Natural Resources

Residence Hall (Campus Master Plan Identifier: H1)

The Residence Hall and associated parking (see **Figure 4.6**) are proposed for development on the existing Gulliver's Field and have been planned to minimize natural resource impacts, however some impacts may be unavoidable. In cases where development cannot reasonably avoid these setbacks, consultation with the City of Portland and Maine DEP will be conducted to determine potential permitting or mitigation requirements.

Gulliver's Field is a mowed, turf grass soccer and athletic field currently used for informal recreation with low vegetative species diversity and low wildlife value but is adjacent to mixed hardwood forest and forested and shrub wetlands as described in the Ecological Communities section of this chapter. These adjacent forested habitats may provide habitat a variety of eastern warblers, ruffed grouse, the American woodcock, red and gray foxes, microtones, and mustelids and serve as stopover locations for spring and fall migratory passerine bird species.

No impacts or tree-clearing activities are proposed in the Campus Master Plan within the open space areas on campus; forested areas will remain unchanged and provide valuable wildlife habitat and open space.

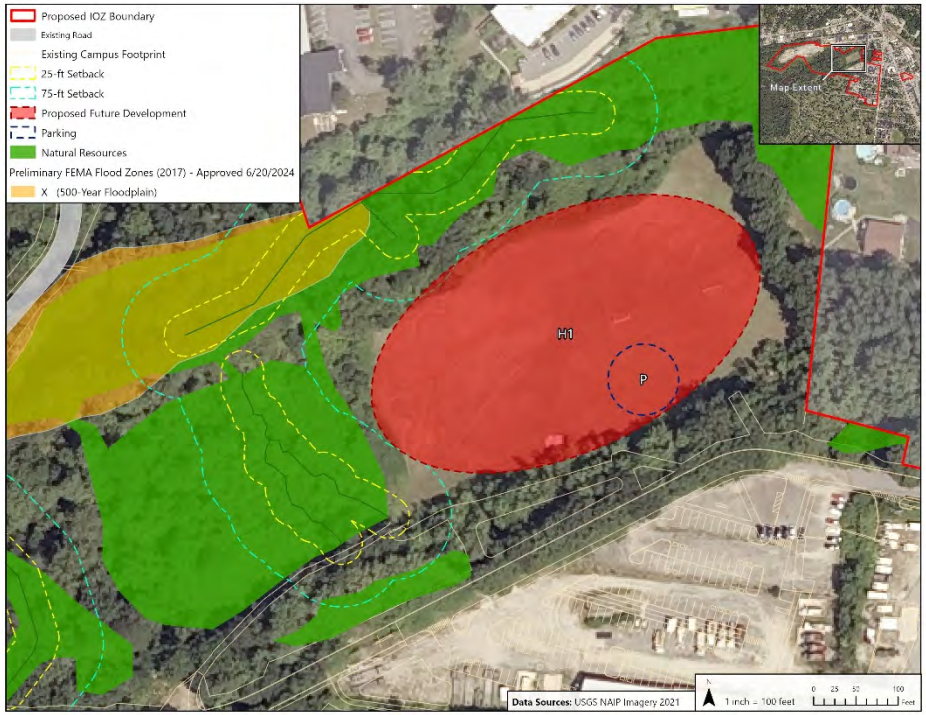


Figure 4.6 Proposed Residence Hall Development and Adjacent Natural Resources

Academic Building (Campus Master Plan Identifier: A2)

The proposed Academic Building will be built on an existing parking lot on the southwest side of campus (see **Figure 4.7**). No significant tree-clearing and no direct or indirect impacts to natural resources is proposed for this project.



Figure 4.7 Proposed Academic Building Development and Adjacent Natural Resources

Natural Resources Protection

UNE, in development of this IDP, has sited the proposed campus improvements in locations that avoid conflict with natural resources being contained to existing disturbed areas and maintaining open space (see **Figure 4.8**). Through thoughtful siting, impacts to the undeveloped and natural areas of the campus are avoided or minimized to the greatest extent practicable and overall contribute to the health of Capisic Brook by maintaining the stream's riparian zone, which provides canopy cover, flood protection, stabilizes soils, filters pollutants, and provides habitat for native wildlife. As previously stated, UNE is partnering with Portland Trails with the goal of providing more opportunities for the community to access Portland's open space and natural areas. UNE students and staff participate annually in coastal and river cleanup efforts and are part of a research team leading the effort to restore the American Chestnut tree, a keystone species of eastern U.S. forests, including Maine. In addition, UNE received funding approval to undertake a cleanup of the Campus Pond of accumulated debris, demonstrating the university's commitment to environmental stewardship.

With all campus improvements, consideration of the site's natural characteristics including soils, hydrology, slope, and vegetation as well as its proximity to wetlands, aquatic resources, and habitats will be evaluated, and impacts avoided or minimized to the greatest extent practicable and adhering to all related state and federal permitting requirements.

Specific to the Capisic Brook watershed, UNE understands its importance and will meet City and State stormwater management requirements for quality and quantity and consistent with earlier work on campus. The specific measures utilized to meet the regulatory requirements related to stormwater runoff will be determined during the site plan review process for each proposed facility. Items in the BMP toolbox include revegetation of currently impervious and de-vegetated areas, infiltration of stormwater where soil conditions permit, and under-drained soil filters. UNE will manage stormwater on-site before considering connections to the City's enclosed stormwater system. Further detail on stormwater management is provided in Chapter 5, "Infrastructure Plan."

As stated above, UNE is committed to including design elements that foster environmental stewardship and promote the health of ecosystems and the Capisic Brook Watershed. Incorporating wildlife habitat design into the project planning process will ensure that with each new project, additional greenspace and/or habitat is created. All proposed campus development projects will review potential aquatic resource and watershed impacts and avoid to the extent practicable and feasible, significant impacts to resources in project design and implementation. Proposed projects will submit project plans and designs to the City of Portland for municipal review and plans are subject to comply with the Urban Impaired Stream (UIS) Standard of Chapter 500 of the Maine DEP Stormwater Management Rule and NRPA permit requirements.

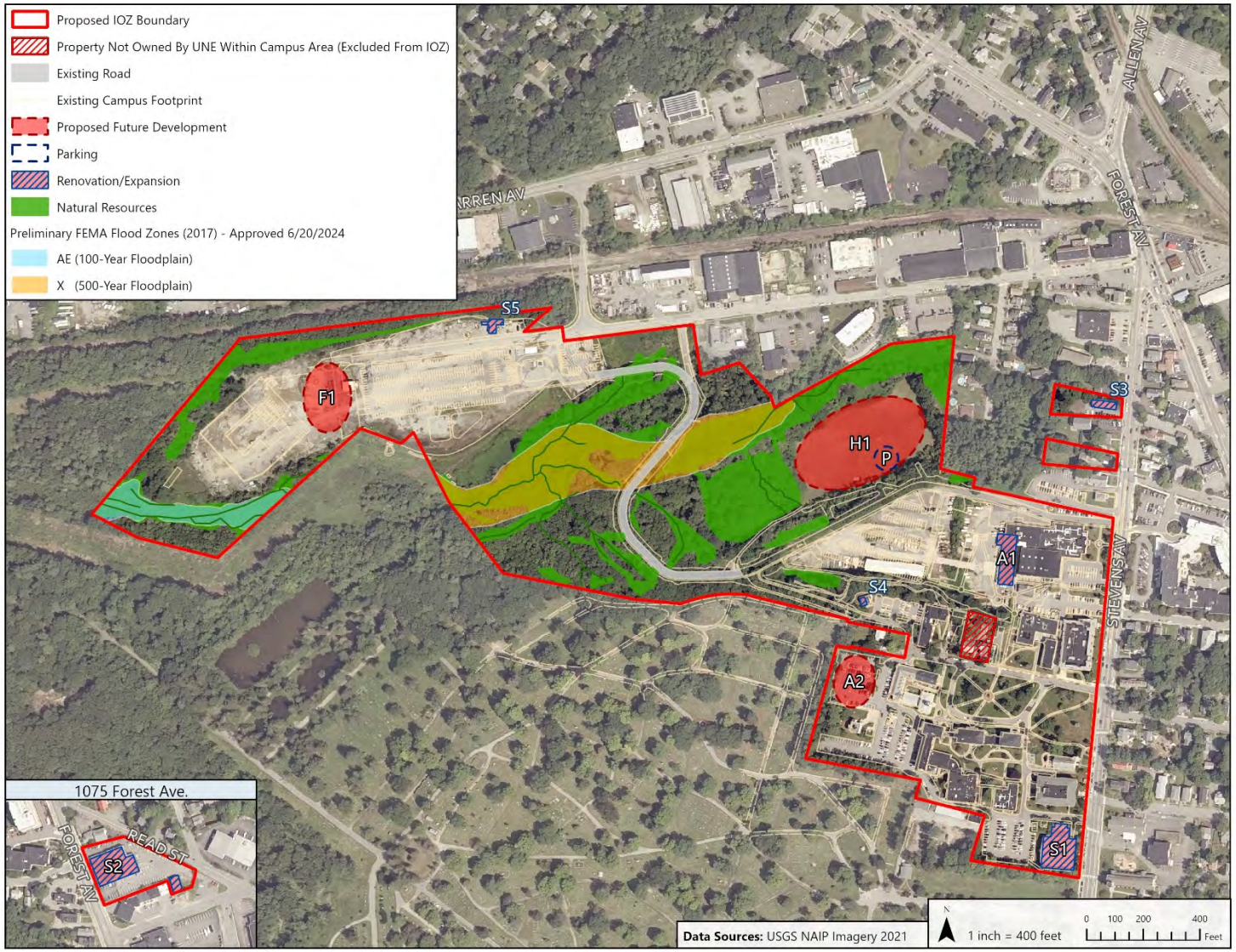


Figure 4.8 Natural Resources and Campus Master Plan

Operational Sustainability

Environmental stewardship is a core value of the University. UNE has been named one of the nation's most environmentally responsible colleges for seven consecutive years, according to the Princeton Review. In 2024, UNE was named in the Princeton Review's top 50 of the nation's most eco-friendly colleges. All new construction is conducted to the highest standards of sustainability, and all renovations are conducted with an eye toward improving environmental impacts. Each year, UNE invests in additional sustainable energy products (e.g., solar panels). As part of long-term plans for the campus, UNE expects to maintain, and where possible, broaden initiatives on its sustainable operation strategies.

Energy Conservation

UNE's Sustainability Office has been conducting greenhouse gas (GHG) emission inventories since 2008. The university's Carbon Monitoring Task Force has been charged with "making recommendations on energy demand, procurement, production, renewable technology implementation, emissions reductions and conservation." UNE voluntarily became a signatory to the Carbon Commitment in 2008 and as part of this commitment, created the university's Climate Action Plan (CAP) in 2010, which was subsequently updated in 2017. The UNE CAP has set an aggressive carbon neutral goal for 2040. The 2017 CAP update includes goals for GHG reductions and activities to help achieve those goals, including energy efficiency and renewable energy projects, building design and development standards (see Chapter 6), waste reduction strategies, alternative transportation initiatives (see Chapter 3), sustainability criteria integration into contracts, offset purchases, community-based marketing strategies aimed at sustainable behavior adoption for individuals, and integration of climate change and sustainability education across the curriculum.

The University's Energy Subcommittee regularly reviews operational efficiencies and monitors energy consumption internally through its direct digital controls and utility statements. Fiscal year 2023 usage for the campus was as follows: 4,668,514.67 kWh of electricity, 1,964.9 gallons of #2 heating oil, 2,146.6 gallons of propane, and 278,523.13 cubic feet (CCF) of natural gas burned in the campus' central steam plant and natural gas condensing boilers.

If the university realizes the full potential of development identified in the Campus Master Plan, the potential future usage of electricity and natural gas may initially be higher assuming similar operational conditions. However, with UNE's commitment to carbon neutrality, and advances in building technology, the actual consumption may be significantly less. UNE is unaware of capacity issues in these existing distribution systems and anticipates use of these systems to supply the future development. UNE will request capacity to serve letters from Central Maine Power (CMP) and Unitil for new projects during each site plan review process.

As detailed in the UNE Climate Action Plan, UNE has previously partnered with ConEdison Solutions to investigate a comprehensive energy efficiency program, and is now working with B2Q Associates to update it. The potential sustainable energy use opportunities being considered include further LED retrofits, solar thermal, solar electric, and boiler plant upgrades with potential fuel switching. Building automation controls and window replacements for the campus are currently in progress. UNE has also developed a purchasing policy for energy consuming appliances and equipment to guide future campus purchases that do more to consider life-cycle costs. UNE will also undertake a lighting audit and retrofit, considering life-cycle costs when deciding what fixtures to install or replace.

Waste Management

Appropriate disposal of waste is a priority of the Sustainability and Environmental Health and Safety (EHS) Department at UNE. The EHS Department believes that "all faculty, professional staff, administration, students, and patrons are entitled to a safe and healthy campus." To this end, UNE commits resources to remove recognized hazards, provide education and training, provide appropriate personal protective equipment, and holds everyone accountable and responsible for good health and safety practices. For all university activities, UNE implements and maintains the University's Environmental Health and Safety Manual (revised August 2019), which houses the campuses environmental health and safety policies and procedures in accordance with federal and state regulations and also maintains the campuses Chemical Hygiene Plan (revised May 2022). These policies and procedures are continuously reviewed to ensure that UNE is meeting the goal of providing a safe and healthy campus community.

Annual Waste Audit

UNE partners with its contracted waste hauler to conduct annual waste audits of all municipal solid waste (MSW) dumpsters and single-sort recycling containers on campus. The annual waste audit spans three weeks in October, is weight-based, and is reported through the annual GHG emissions inventory on a fiscal year basis. For the fiscal year 2023, the campus disposed of an estimated 60 tons of MSW, and an additional estimated 7 tons of mixed single-sort recycling and cardboard were separated for recycling.

Recycling

UNE encourages students, faculty, and staff to engage in recycling and waste reduction throughout campus operations. Single-sort recycling stations are available in all academic and business buildings and include a three-bin, color coded system: blue for returnable bottles and cans, green for single-sort recycling, and gray for trash. The green, single-sort recycling bins allow for the co-mingling of paper, plastics labeled #1-7, metal, and glass. Returnable bottles and cans are separated from the single-sort stream for the purpose of supporting the recycling program, as the funds collected help to purchase bins, labels, signs, and educational materials aimed at waste minimization. In fiscal year 2022, UNE categorized its recycled waste and found 3% cardboard, 4% returnables (or redeemables), 12% metal, and 16% single-sort materials.

Additionally, campus recycling includes batteries, fluorescent light bulbs, computers, and electronics through the universal waste program. Books and journals are either recycled through the single sort program or donated to Better World Books for literacy programs. Waste cooking oil is collected by Maine Standard Biofuels and incorporated into their Bioheat product. Ink and toner cartridges are recycled through our office supply contractor. Facilities staff recycle used motor oil, scrap metal, tires, pallets, and captured refrigerants as well. Unneeded, lightly used furniture is offered to other non-profits or municipalities.

Composting

Food waste, such as kitchen preparation food scraps, compostable utensils and dinnerware, and post-meal food scraps are collected from UNE's Nor'easter Café dining facility. Compost is collected by Garbage to Garden and brought to Benson Farm in Gorham for composting. In fiscal year 2023 over 3,222 gallons of food waste was composted from campus. The Green Office certification program also encourages individual offices to participate in the program, and the Communications Department, Library, and College of Graduate and Professional Studies have collection locations

for food waste in their kitchenette areas that are routinely collected by office staff and consolidated with the dining service waste for composting by Garbage to Garden.

Hazardous Waste

UNE is registered as a Small Quantity Generator (SQG) as defined by Chapter 851 of Maine DEP's hazardous waste regulations. The campus generates less than 220 pounds of hazardous waste a month and generates less than 1 pound of acute hazardous waste per month and does not accumulate more than 1 pound of acute hazardous waste at any one time. The hazardous waste generated on campus is gradually generated in small amounts in the research and academic laboratories. UNE does not anticipate increased hazardous waste generation and the future relocation of the Maine Army National Guard Vehicle Maintenance Facility will reduce the need to store hazardous materials on campus. All hazardous waste is appropriately labelled, stored, shipped, and managed in accordance with the Maine DEP hazardous waste regulations per Chapters 850-852, 857, and 875. The EHS Department oversees the management of hazardous waste and ensures the appropriate process documentation of all hazardous waste generated at the facility from generation to disposal.

Biomedical Waste

UNE is registered with DEP as a large quantity biomedical waste generator (a facility that generates 50 pounds or more of biomedical waste per month). Two types of biomedical waste are generated at UNE. The first is generated from academic and research labs and consists mostly of solid cultures of media, disposable culture containers and sharps. The second is generated by medical services and consists of blood-soaked material, personal protective equipment and other potentially infectious material. All biomedical waste is generated, managed, and disposed of in accordance with the regulations set forth by the DEP in Chapter 900, the Biomedical Waste Management Rules. Laboratory managers are responsible for the generation and packaging of biomedical waste while EHS oversees the program from generation, storage, transportation, and ultimate disposal. EHS maintains all paperwork associated with the transportation and disposal of biomedical waste. UNE has a biomedical waste management plan for the campus; the plan includes a description of the biomedical waste generated, packaging and handling procedures, training requirements, spill containment and clean up procedures, and contact information for persons responsible for biomedical waste management at the university.

Sustainable Landscaping

As stated above, there are two gardens on the campus of significance regarding sustainability - the Medicinal Herbal Garden and the Community Garden. UNE is committed to including design elements that foster environmental stewardship and promote the health of ecosystems and the Capisic Brook Watershed such as bird-safe window design, stabilizing construction disturbance areas with native seed mixes and revegetation utilizing native plants, in particular as buffers between development and natural areas; utilizing best management practices for stormwater retention and infiltration; limiting tree clearing; and removing existing trash and debris from aquatic resources. Incorporating wildlife habitat design into the project planning process will ensure that with each new project, additional greenspace and habitat is created.

Noise Generation

UNE's campus generates noise at low levels that are consistent with and generally not disruptive to the neighborhood. Measured sound levels are below the Noise Standards within the City's' Land Use Ordinance. Some periods of increased noise generation are anticipated during project construction and are addressed in Chapter 7 – Neighborhood Engagement.

5. INFRASTRUCTURE PLAN

Infrastructure Planning

Sustainable and resilient infrastructure is essential for the continued operation of UNE's existing campus as well as planned development. With the projected future demand realized through the Campus Master Plan, sufficient capacity to serve would be ensured. **Figure 5-1** illustrates existing City sanitary sewer and stormwater infrastructure within and surrounding the campus.

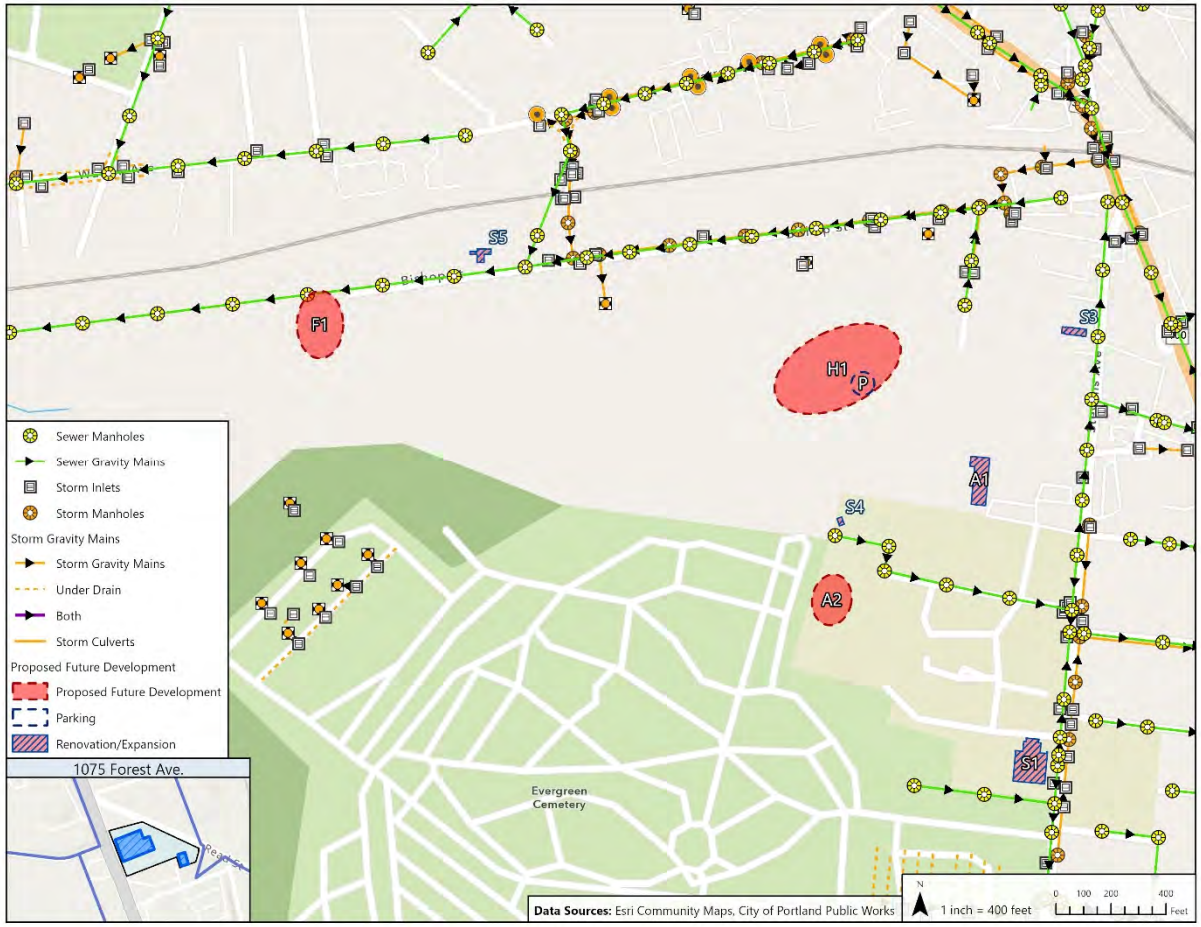


Figure 5.1 Existing Stormwater Infrastructure and Campus Master Plan

Stormwater Management

Existing Stormwater Infrastructure

Existing stormwater management systems on campus mainly utilize on-site stormwater quality and quantity BMPs including infiltration systems, with the secondary means being conveyance to the Stevens Avenue and Bishop Street combined sewer system. The value and importance of reducing stormwater runoff is reflected in UNE's recent development projects as evident in the design of the UNE Intermodal Transportation Facility, which reduced impervious surfaces by approximately 2.3 acres and utilized infiltration systems to minimize flow to the combined sewer. With the northwestern portion of the campus within the Capisic Brook Watershed, an urban impaired stream classified by Maine DEP, UNE seeks to actively contribute to the health of the watershed through the implementation of low impact development strategies.

The Bishop Street combined sewer has a Combined Sewer Overflow (CSO) located to the west of the UNE campus, which serves as a relief point during high-flow conditions. In low-flow conditions, combined sewer flows to a pump station located off of Congress Street, which sends flow to the East End Wastewater Treatment Plant. UNE understands the importance of reducing and minimizing flows to this combined system to help reduce the potential for overflows. The Stevens Avenue combined sewer is routed to Back Cove, where it is ultimately conveyed to the East End Wastewater Treatment Plant.

Future Stormwater Flows

UNE will continue to make efforts to minimize the impact of its future development stormwater runoff through the continued and expanded use of infiltration systems. All projects at UNE will be designed in compliance with the State and City standards. Wherever possible, UNE intends to manage stormwater on site to reduce flows to the City's combined system and consistent with its past, UNE will meet or exceed local and state regulatory requirements.

The University also has an active Spill Prevention Control and Countermeasure Plan and Stormwater Pollution Prevention Plans, further assisting them with regulatory compliance.

Utility Demand and Capacity

Water

Water services are supplied by Portland Water District (PWD). The two water mains that serve the campus include a 12" water main in Stevens Avenue and a 12" water main in Bishop Street. Fire protection services include hydrants that are located along Warren Avenue, Forest Avenue, Bishop Street and Stevens Avenue. UNE strives to limit water consumption through various means including low flow fixtures. Water usage in fiscal year 2023 was 13,741.4 gallons per day (GPD).

Ability to serve letters have been provided by PWD for two current projects (as of the preparation of this Plan) including the Department of Campus Services Maintenance Facility building and the COM building. Based on correspondence with PWD, UNE does not anticipate any issues with capacity

of the existing water distribution systems to support the university's Master Plan and will provide ability to serve letters from PWD as part of future Site Plan Reviews.

Wastewater

Wastewater from UNE is discharged to a combined sewer system in College Street and Stevens Avenue. With a conservative assumption that no water is exported (used for drinking water as an example) and assuming wastewater discharge is equivalent to water usage, in the fiscal year 2023 wastewater discharge was 13,741 GPD. Future planned development is expected to increase wastewater discharge. All future projects will provide an ability to serve letter from the Department of Public Works as part of Site Plan Review. UNE also participates in the City's Fats, Oils, and Grease (FOG) Program, to responsibly dispose of these biproducts; maintenance of these systems is performed regularly to ensure they are operating effectively and not discharging to the City's sewer system.

Electricity

Central Maine Power currently provides electric power to the campus. As discussed in Section 4 Environmental Plan, fiscal year 2023 usage for the campus was: 4,668,514.67 kWh of electricity. UNE will request capacity to serve letters from Central Maine Power (CMP) during each site plan review process but does not anticipate any electrical capacity issues in the future.

Telephone & Data

UNE is currently serviced for their communications services by Consolidated Communications and plans to continue to work with this provider in the future. Additionally, UNE internet is serviced by Consolidated Communications and Spectrum and plans to work with these providers in the future. UNE does not anticipate any capacity issues or disruptions in the future.

Natural Gas and Heating Fuels

Unitil currently provides natural gas service to the campus. Natural gas services are located within Bishop Street and Stevens Avenue. Natural gas services required for future buildings will be coordinated with Unitil during the site plan approval process. Fiscal year 2023 usage for the campus was 278,523.13 cubic feet (CCF) of natural gas burned in the campus' central steam plant and natural gas condensing boilers. Two new 4" service lines have been installed to supply natural gas to future projects including F1 (Athletic Facility) from Bishop Street, and H1 (Residence Hall) from Stevens Avenue. The remaining planned projects will not require upgrades to existing natural gas services. If determined to be needed, gas service for future projects will be evaluated during site plan review. With UNE's commitment to carbon neutrality, and advances in building technology, future natural gas consumption will be limited to the greatest extent possible during the development of the Campus Master Plan.

Further, as discussed in Section 4 Environmental Plan, fiscal year 2023 usage for the campus included 1,964.9 gallons of #2 heating oil, and 2,146.6 gallons of propane. UNE does not anticipate any capacity issues securing heating fuels in the future.

Public Safety

The well-being of UNE's students and faculty is the top priority of UNE. This goes hand in hand with safety and security on campus. UNE has security officers that provide 24/7 patrol and dispatch coverage of the campus. These services are essential for crime prevention and emergency response. In addition to on campus security, UNE uses Rave Mobile Safety, an emergency notification service, which provides faculty, professional staff, and students with timely information and instructions during emergencies.



Sustainable Guidelines

UNE is committed to developing and maintaining sustainable and resilient infrastructure to support its current and future campus operations. UNE's proactive approach includes effective stormwater management through on-site infiltration systems and compliance with state and City standards to minimize runoff. UNE's water and wastewater systems are supported by Portland Water District and the City's infrastructure. UNE will continue to ensure sustainable capacity and growth of water and wastewater systems. UNE prioritizes efficiency and sustainability in its use of electricity, natural gas, and heating fuels. Additionally, UNE's robust public safety measures and reliable communication services ensure a secure and well-connected environment.

UNE has, and will continue to, support infrastructure sustainable growth through several key guidelines. For water conservation, UNE will implement and maintain water-efficient or low-flow fixtures to significantly reduce water consumption. For stormwater management, UNE will continue to incorporate and uphold green infrastructure practices and promote on-site infiltration. Enhancing energy efficiency is also a priority; UNE will upgrade and sustain energy-efficient systems such as LED lighting and energy-efficient HVAC systems. Achieving LEED Silver certification will continue to be the standard for energy efficiency. UNE is also dedicated to preserving existing natural habitats, integrating them into the campus landscape, and preserving open spaces and wetland areas where practicable. Through these practices, UNE will continue its commitment to a sustainable and environmentally responsible future.

6. DESIGN

UNE recognizes that the success of future development relies on structured design guidelines, review, and accountability. UNE is committed to maintaining its existing building stock, including those within the Westbrook College Historic District. Where feasible, UNE will renovate its existing buildings to create internal efficiencies and provide for continued and cutting-edge learning excellence, while respecting the campus' historic character. Where necessary, UNE will develop new buildings in accordance with the Campus Master Plan. UNE has committed to assessing the applicability and feasibility of the construction of new buildings to State of Maine Energy Stretch Code (IECC 2021), which meets and, in some places, exceeds Leadership in Energy and Environmental Design (LEED) Silver standards. The University also aims to design and build structures that are at significantly more energy efficient than comparable building stock, verified with third-party energy modeling. Building systems will be evaluated for life-cycle costs and take into account life-cycle fuel consumption and initial capital investment. This assessment informs the decision-making process for future development. New construction will also adhere to considering sustainability and energy efficiency in the Request for Qualifications (RFQ) process and will continue to integrate best practice design into all new projects. Each individual project will work within the planning framework and goals that set out to minimize its adverse impact on the campus, the environment, and the community.

Development Design Impact Considerations

UNE's campus includes one of the twelve locally designated historic districts in the City of Portland, and a nationally registered district, which is the Westbook College District and its contributing buildings of Alumni Hall, Hersey Hall, Goddard Hall, the Abplanalp Library and the internal common or College Green. The proposed campus development looks to balance the campus' history and neighborhood context with UNE's programmatic needs. Predominant design characteristics of the historic property and resources (i.e., materiality, scale, orientation, etc..) are considered to establish a baseline for informing design principles. The design focuses on minimizing environmental impact while creating a cohesive campus with sensible and historically sensitive buildings and inviting open spaces. Within this framework, UNE aims to preserve the historic character of the existing campus and find opportunities for modernization and set the tone for the future of UNE and its commitment to the modern delivery of healthcare. The campus development will be planned to complement and enhance the community by respecting architectural character, minimizing visual and physical burdens, and creating enhanced open space accessible to all. Building siting will focus on campus optimization and minimizing impacts on neighbors through the use of buffers, landscaping, and architectural design. As much as possible the development will seek to create more compact circulation, limit new shadows and wind, and minimize the visual impacts from the surrounding neighborhood. Existing buffers will be maintained, as much as possible, to maintain the current visual character of the campus. Similarly, no new campus entrances are planned, which might adversely increase or change the existing public ways. The campus frontage is anticipated to remain the same with the Campus Master Plan.



Figure 6.1 Proposed Development in 3D - Overview

Neighborhood Integration

The neighborhood design standards establish a framework for a visually and architecturally integrated campus development and ensure that the campus is safe, environmentally sensitive, and minimizes adverse impacts on and off the campus. With respect to how the potential campus interfaces with the neighborhood, these design standards address the scale and massing of buildings, appropriate materials and colors, rooflines, locations of building entrances, building linkages, architectural detailing, adjacent open spaces, campus circulation and similar features.



Figure 6.2 Proposed Development in 3D - View from Stevens Avenue



Figure 6.3 Proposed Development in 3D - View from Mayfield Street

Historic Preservation and Impact on Future Designs

The Westbrook College Historic District encompasses the historic core of the campus and is bounded on the east by Stevens Avenue, and on the north by College Avenue. The surrounding context and history set the tone for the campus character and future development integration. UNE is committed to respecting and celebrating historic preservation and maintaining the overall legacy of the neighborhood. UNE has successfully designed, permitted, and renovated several historic facilities on campus. To date, Goddard Hall, Hersey Hall, and Alumni Hall have been revitalized through full historical renovations permitting through the Historic Preservation Commission. The exterior of these facilities has been maintained and restored to their original grandeur and color. All work done to Ludcke Hall, Proctor Hall and the Abplanalp Library has been done with an effort to preserve the historical nature of these facilities and has also been permitted through the Historic Preservation Commission. UNE's renovation of Alumni Hall was recognized with Maine Preservation's 2016 Honor Award as an outstanding example of historic preservation.

The Westbrook College Historic District building characteristics include a range of late 1800s and early 1900s architectural styles including Gothic Revival, Italianate style, and Colonial Revival. Creating an intimate scale and romanticism focus with earthy materials and sophisticated aesthetics. These styles have provided guidance on the design characteristics of recently completed buildings such as the School of Pharmacy and College of

Dental Medicine building located directly on Stevens Avenue. Brick blends, sizing of windows and doors, building proportions and roof edge details allow newer buildings to seamlessly blend with those within the historic district and surrounding community.

Sustainability and Resiliency

UNE has a commitment to its community and natural surroundings. Campus development will further improve UNE's status as a resilient campus that provides a responsiveness to the planet and inspire the next generation of environment stewards. Buildings will be situated and oriented to take advantage of passive solar energy, natural light, air, and views. New buildings will take a low impact development approach to manage stormwater runoff and emphasize conservation and use of on-site natural features to protect water quality. The use of high efficiency building envelopes and mechanical systems will reduce the energy necessary to operate the building, further increasing resilience and protecting against unanticipated events. Universities are a vital partner to the communities they serve, and UNE will ensure the campus is part of an overall community solution to sustainability and resiliency.

Maximum Heights

UNE uses a multi-pronged methodology to determine the appropriate height profile for potential future development within the IOZ boundary to ensure an appropriate scale, while maximizing the utilization of space and minimizing impacts to the environment and surrounding neighborhood. As shown in **Table 2.3**, heights and square footages have been identified that reflects UNE's campus modernization needs. The development proposed in the Campus Master Plan would be allowed in the proposed Institutional Overlay Zone, including allowances of up to 85 feet in the areas of the proposed Residence Hall (H1), Athletic Facility (F1), and Bishop Street (S5) renovation/expansion and up to 75 feet elsewhere on the campus, consistent with the maximum allowable height in the proposed underlying zone of B2. Along the campus edges, where the campus is located adjacent to residential and open space zones, a 25-foot-wide transition zone will allow for building heights of up to 50 feet (see **Figure 6.4**).

For the proposed student housing building, the additional height is necessary to efficiently accommodate approximately 350 beds, a threshold determined through financial analysis to ensure project viability. By building upward rather than outward, UNE can significantly reduce the structure's footprint, preserving adjacent natural resources and maintaining more open space on campus. The 85 feet will accommodate a 7-story building, with a 25,000 square foot footprint. This was calculated assuming 500 square feet per bed, with a lower level floor to floor height of 15' (programming may include fitness center, laundry, mechanical, community rooms, etc.), with the upper level floor height of 11' per story, for a total height of 81', plus roof parapet or pitch dimensions.

For the second location, at the rear of campus, the 85-foot height allowance will provide essential flexibility for the development of a new athletic facility. This height will allow room for parking beneath the structure, if necessary, and/or potentially a larger mixed-use building. Given the constraints of the campus footprint and UNE's commitment to responsible land use, vertical expansion is a key strategy for balancing growth with conservation. Allowing increased height in these specific areas ensures that future campus development can proceed efficiently, minimizing land disturbance while supporting UNE's evolving academic, athletic, and student life needs.



Figure 6.4 Proposed Open Space and Maximum Height Map

These heights were determined using context-sensitive best practices, similar to those used to develop height zones for UNE's Biddeford campus. The approach includes enabling larger buildings within the campus core while providing height transitions and expanded setbacks to better align with the scale of the residential and historic neighborhoods along the campus' edge. Consideration was also given to the campus' natural topography when determining maximum heights, to minimize perceived height from adjacent streets and neighborhoods. Dedicated open space areas reflected on Figure 6.4, such as along Capisic Brook, are identified as no-build areas, to preserve existing natural resource areas. Consistent with the City of Portland's recently adopted ReCode, UNE is seeking an increase in allowable maximum height from 75-feet (per the proposed underlying zone of B-2) to 85-feet in specific locations on campus to allow for densification and to minimize impacts to natural resources. The resulting height profiles are the basis of the maximum heights in the Regulatory Framework.

Transition Zones

UNE has identified transition zones along the edges of the IOZ boundary to allow for an appropriate relationship to the surrounding context and create a consistent scale of development. **Figure 6.4** depicts a 25-foot-wide transition zone around the interior perimeter of the contiguous campus with a maximum height in that transition zone of 50-feet, as well as a triangular area adjacent to the proposed housing site with a maximum height of 50-feet. In the area of campus adjacent to the Mayfield Street neighborhood, an open space area 35 feet in width provides buffering and transition from the residential neighborhood to the interior 85-foot maximum height at Gulliver's Field. The open space areas, which will be rezoned to Open Space Preservation (OS-P) will be no build areas. Activities within the OS-P will comply with the requirements of the City's Land Use Code.

Safety & Environment

UNE is committed to maintaining a safe environment for all users in and around its campus. The Campus Safety and Security Department monitors the campuses through in-person patrols and CCTV cameras and provides response to any situation that may arise, around the clock, every day of the year. UNE recognizes that environmental design can play a large role in creating a safe place. To this end, UNE has focused on providing a clean and aesthetically pleasing campus environment that is designed with vandal-resistant materials and is providing clear and properly sized signs in safe locations to ensure safe wayfinding. Paths from transit stops, bike storage areas, and parking areas to main pedestrian entrances are well-lit with clear sight lines. Street-level elevations and landscaping areas are designed to minimize potential hideouts and blind spots. Call boxes with blue lights are distributed across campus and are easily identifiable as well as the installation CCTV monitors in more remote areas provide additional safety measures. An Important element is the adequate lighting levels on walkways, parking lots and roadways as well as encouraging activating spaces to encourage many eyes and people. UNE's Campus Safety and Security Department provides a Clery Report every year that summarizes the past year's offenses and crime statistics on each of its campuses. Over the last 3 years there have been no events reported related to issues stemming from Crime Prevention Through Environmental Design (CPTED) deficiencies on the campus. The University feels that active CPTED during the planning of projects has contributed to low crime statistics.

Design Guidelines

School integrity, academic achievement, and productive student lifestyle is reflected in the institution's physical building and campuses. To ensure that this character is intentional and consistent across UNE's Portland campus, the following Architectural Design Guidelines have been established. These guidelines will preserve and enhance the image of the University's quality, beauty, durability, and history.

UNE has developed a Master Plan (see **Figure 2.1**) and guidelines to enhance its campuses and help it fulfill its greatest potential. The Master Plan identifies the future programmatic needs and generally locates future building based on connectivity, height strategies, and sustainability approaches. Where possible buildings are clustered close together to encourage dense development while reinforcing active outdoor spaces, creating functional linkages with surrounding facilities. The Architectural Design Guidelines are to be used in conjunction with the Master Plan for consistency on the Portland campus and provide an overarching framework while still allowing flexibility in individual building design. The Architectural Design Guidelines provide direction for future development in the IOZ around the visual identity, building location, mass, and consistent use of materials.

Architectural Design Guidelines

The Architectural Design Guidelines were developed to address the following requirements and needs of UNE. These guidelines are intended to provide general guidance and direction and are not intended to supersede any local, state, or federal codes. It is the architect's responsibility to comply with all applicable codes.

1. Cohesive Campus

The overall composition and experience of the campus will be considered for cohesive identity.

2. Building Design

Building façade materials will be of high quality, durable to the weather, and contribute to an attractive campus experience.

3. Building Entrances

Building entrances will include prominent facades and be oriented toward pedestrian-oriented activity areas, including parking areas, to facilitate safe and barrier free access.

4. Lighting

New or renovated buildings should have adequate exterior lighting to ensure that entrances and surrounding areas are safe. All new exterior lighting will be selected to provide lighting levels that meet the safety criteria of the Illuminating Engineers Society of North America, IESNA. Consideration will be given to limit light trespass and glare into neighboring properties through the use of cutoff fixtures at the edge of campus, resulting in less light spillover into the surrounding community. Refer to **Attachment B** for UNE's Lighting Standards.

5. Outdoor Spaces

Building designs should strive to include a variety of open spaces and activities ranging from small intimate courtyards for contemplative study to open lawn areas for informal recreation and outdoor classes. Where applicable, provision should be made during the programming and conceptual design of new facilities to provide opportunities for outdoor use of open space as part of the site and for integration within the larger open space/conservation network.

6. Mitigation of Impacts

Buildings and site development will endeavor to minimize potential negative impacts related to shadows, wind, noise, heat, glare, lighting, contaminants, and the environment.

Visual Identity

The historic nature of the buildings located within the Westbrook College Historic District provides the underlying baseline for the visual identity of new proposed buildings. In addition to creating a consistent historic language, universal design elements will be considered. Universal Design is the design and composition of an environment so that it can be accessed, understood, and utilized to the greatest extent possible by all people regardless of their age, gender, or ability. All new buildings will be in accordance with ADA requirements. The University is committed to making its spaces accessible to the public. The University employs a comprehensive and consistent interior and exterior signage system on campus to establish a unified visual identity. This aids in the cohesiveness of the campus and creates a familiar visual style for information. All signs comply with ADA guidelines.

Building Location

The Master Plan identifies potential building sites and open spaces. This framework provides guidance to ensure a cohesive campus and that the University's goals are being met. The Architectural Design Guidelines will reinforce the University's Master Plan while providing further direction on site elements. Access for emergency and maintenance vehicles, ADA issues, the relationship of new facilities with respect to existing campus elements, and the surrounding natural environment must be considered and maintained with each new building or renovation/expansion. In addition to new connections, new buildings and renovations/expansions must consider existing building relationships to ensure campus functionality and space activation are enhanced and not negatively impacted. Each new project will need to include pedestrian pathways and thoughtful, placemaking design to reinforce the Master Plan's vision.

Massing

The shape and size of each potential building is a balance of programmatic needs, site constraints, and appropriateness based on the historic context and University's goals. Human scale, pedestrian orientation and circulation, entrances and relationship to open space are key elements to consider. The perceived proportions of both individual and the collective buildings need to consider visual connections and sight lines. Deliberate efforts need

to be made to avoid adverse impacts on surrounding neighborhood context. The Architectural Design Guidelines provide human scale strategies to deploy to any new building or addition.

Building Materials and Systems

Material selection is critical for maintaining the overall aesthetic vision while ensuring performance standards are met. The American Society for Testing and Materials (ASTM) is recognized as the industry standard for establishing the performance requirements for various building materials. Adhering to ASTM standards for design criteria, material performance, and construction will provide quality control levels while eliminating untested or unproven materials, products, and systems from consideration on future projects. Materials selection will consider long-term maintenance and life cycle costs. Life Cycle Costing (LCC) is a process used to select the most appropriate and durable material based upon the owner's ability to initially purchase it, evaluate the materials' longevity, and its expected maintenance costs. LCC systems principally address mechanical, electrical, and plumbing; however, can also include materials associated with the aesthetic character of a project as well. Analysis of architectural, civil, and structural materials tends to be a balance of vendor reputation, past performance, environmental factors, and maintenance resources. The University's life cycle expectations are based on a 40-year building life. In addition, materials shall be considered on their physical make up and performance to ensure no materials that contain harmful substances or release volatile organic compounds are being used. The University considers WELL Building Design and U.S. Green Building Council (USGBC) design features in its projects. WELL, is a performance-based system for measuring, certifying, and monitoring features of the built environment. No asbestos containing materials, lead, PCBs, or mercury will be allowed in construction. UNE will strive to eliminate the release of volatile organic compounds to the extent practicable. Energy-efficient design will be incorporated into the design of each new project. The University has adopted the Maine Energy Code and whenever feasible, new, and renovated buildings will be designed with approaches targeting energy conservation and energy efficiency. UNE uses the IECC or USGBC LEED Silver rating for its energy efficiency and sustainability baseline. UNE is also a signatory of the Carbon Commitment and is striving for carbon neutrality.

Signage

UNE has established a standard for signage for their Portland campus, which is included as **Attachment A** to this IDP. The signage standards will be used for each future project to ensure consistency throughout the campus. These standards include directional signage for pedestrians and vehicles, as well as campus maps, building identification, and campus identification signs.

Exterior Lighting

Additionally, UNE has established exterior lighting standards for its Portland campus, outlined in **Attachment B** of this IDP. These standards will be applied to all future projects to ensure consistency across campus. They include lighting fixture distribution classifications, performance standards for different areas—such as roadways, parking lots, and walkways—requirements for lighting controls and equipment, and specific standards for athletic field lighting. Establishing clear lighting standards helps enhance campus safety, improve energy efficiency, and support UNE's commitment to sustainability.

7. NEIGHBORHOOD ENGAGEMENT

Being a good neighbor and having meaningful engagement with the community is critical to UNE's success. UNE makes every effort to being a respectful and understanding partner to its adjacent communities. An open exchange of information, ideas and feedback allows for vetted decision making and ensures everyone benefits from future plans and growth while minimizing adverse impacts. This engagement foundation allows the community to flourish and address concerns together. UNE ensures their partnership and communication goes above and beyond standard outreach. Informing abutters within a 1,000-foot radius, going beyond the 500-foot radius requirement, UNE is committed to including as many community members as possible in the IOZ process and Campus Planning.

Ongoing Community Engagement

UNE understands that its vision and growth is dependent on the overall success of the entire community, and this begins with open communication and collaborative engagement. UNE is committed to building and maintaining trust by clearly and consistently engaging its neighbors on both the institution's core mission and neighborhood concerns. The surrounding community is a diverse section of the city with many perspectives and goals. The campus is an important component that acts as a transition between commercial and industrial businesses in the Forest Avenue, Morrill's Corner and Warren Avenue corridors and the residential neighborhoods of Deering Center, Stevens Avenue and Mayfield Street. UNE values its role with both the local residential communities and the area businesses and strives to be fully supportive of the health and vitality of its neighbors. Over the years, UNE has established an honest and reliable communications, such as with the Deering Center Neighborhood Association, and UNE is committed to maintaining an open dialog with all of its neighbors, to resolve disputes quickly and fairly, and to ensure that its growth not only provides a robust, highly educated future workforce, but that also enhances the neighborhood's unique diversity, economy and livability. To do this, UNE proposes the following ongoing community engagement initiatives to ensure the surrounding neighbors are kept informed of UNE's future development plans and to gather any feedback from the public related to projects or operations on the UNE campus.

1. Develop a comprehensive Construction Management Plan utilizing the City of Portland's template to provide information on maintaining normal campus operations, providing continual public safety, and minimizing impacts to areas surrounding the campus during project construction. More information on the Construction Management Plan is below in this chapter.
2. Provide high level monthly project updates for all current/active projects on the Campus Planning page of UNE's web page (www.une.edu/campus/campus-planning). This web page will be accessible to the public.
3. Create a dedicated email address (uneprojects@une.edu) to allow neighbors to forward questions, concerns, or feedback directly to UNE's Planning Department and project team members. These emails will be answered in a timely fashion by the people directly involved in the construction activities. This email will also be utilized to send out specific project updates and potential impacts to its neighbors on current projects. Email updates will be sent out to neighbors who request to be included on the updates.
4. Continue to attend regularly scheduled local community neighborhood association meetings, like the Deering Center Neighborhood Association (DCNA), to present and review future development plans and receive ideas and feedback.

UNE's community reach is broad and deep in Portland, Cumberland County, across the State, and the region, with particular benefits to health care services, student and faculty volunteer initiatives for the marginalized and underserved, and educational benefits for residents. UNE is Maine's largest

private university and the state's largest health care professional educator. UNE is also one of the region's major employers and ranks in the top quartile of Maine workplaces for the size of its workforce. Given this broad impact and influence it is important for UNE to have ongoing community engagement and align with all stakeholders.

UNE partners with external community focused associations that can help coordinate outreach and amplify messaging. These groups include the Deering Center Neighborhood Association, Friends of Evergreen, Portland Trails, etc. A neighborhood meeting was held on June 13, 2024, to provide the neighborhood with background information on the IOZ process and to garner feedback on UNE's Campus Master Plan. A second neighborhood meeting was held on October 30, 2024, at 6pm in the same location as the first meeting, to provide an update on the IOZ process and share materials from this IDP and from the Regulatory Framework. In addition to the required neighborhood meetings, UNE has hosted meetings on July 2, 2024, and September 16, 2024, with the Deering Center Neighborhood Association (DCNA), to share updates on the IOZ process and solicit feedback from this important neighbor to UNE.

A Community Advisory Group will be created for the purpose of sharing information on project development, planning, and seeking input. To the extent practicable, the group will be comprised of representatives of interested groups such as the Deering Center Neighborhood, parks and trails, bicycle/pedestrian, public transit, and the business community.

Property Management Framework

UNE directly oversees the maintenance and care of its facilities. This includes Safety and Security, grounds and building maintenance. Should operational issues arise, neighbors are encouraged to reach out to inform UNE of their concerns. The UNE phone line is answered 24/7 and persons can report concerns directly at any time. UNE has an on-call roster of technicians available to respond to emergencies in the evenings, overnight or on weekends or holidays.

UNE does not inspect or approve any off-campus housing and only provides an off-campus housing list as a convenience to students and landlords/rental agencies. UNE operates under the assumption that landlords/rental agencies conduct business within the guidelines of the law and all contractual agreements are between students and the landlords or agents. Any property issues of non-university properties would be dealt with through the appropriate resources. UNE provides an Off-Campus Housing Disclaimer that outlines its general approach.

Property Acquisition and Disposition Communications

UNE has established strategies for assuring communication pertaining to property acquisition and disposition in surrounding neighborhoods. This includes alerting abutting properties of the transition of ownership and providing the appropriate contact information should it be required.

Student Service Learning and Volunteerism

Student learning and volunteerism aligns and integrates academics with the needs of the community. This learning strategy integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civil responsibility, and strengthen communities. Community engagement is a core component of all UNE health professions programs and Student Service Learning and Volunteerism is a key

commitment of the university. Through structured service learning and volunteer opportunities, UNE students play an active role in promoting health, with an emphasis on serving Portland's vulnerable citizens. More than 700 health professions students annually provide hundreds of hours to non-profits across the city, often in interdisciplinary team-based groups that maximize the impact to community members. Benefits of UNE's Student Service Learning and Volunteerism includes culture competency, professional skill development, real-world application, and an opportunity to give back to the local community.

Service to the City and Region

UNE students and staff volunteer and donate generously to the local communities. They provide thousands of hours of service annually. Some examples include:

Health Care

UNE educates approximately 2,500 health professions students annually, nearly all of whom advance their clinical knowledge and skills by completing student practicums with health care affiliates in Portland, across Maine, and throughout New England. UNE has well established, long term academic and clinical partnerships with over 65 organizations in Portland alone, including major health systems, retail pharmacies, elder care facilities, agencies supporting disadvantaged residents, physical therapy businesses, and the Portland School System, among many others.

- Hundreds of UNE health care students provide thousands of hours to nonprofits in southern Maine, including the City of Portland, annually.
- In 2023 there were nearly 20,000 visits to one of UNE's Portland-based community outpatient health clinics, offering reduced cost care:
    - Dental Hygiene Clinic 2,540 (Over 11,400 visits in last 4 years)
    - OT/PT Lab and Rehab Clinic 1,135 (Over 4,700 visits in last 4 years)
    - Oral Health Center 16,701 (Over 139,000 visits in the last 10 years)
- Allied Health Professions Students provide many hours of service at a number of Portland clinical sites.
- Dental students have annual rotations at Greater Portland Health
- Physical Therapy students provide services in 21 clinical locations in Portland.
- Applied Exercise students provide services in 6 clinical locations in Portland, including Portland High School
- Dental Hygiene students provide service in 3 clinical locations in Portland including St. Brigid's School
- Dental Hygiene students provide service at Portland Women, Infants & Children (WIC) sites, with 130 outpatient visits in 2023.
- Public Health, Social Work, and Nutrition students provide services at 13 clinical locations in Portland.
- Athletic Training students provide services for Deering and Portland High Schools
- Nurse Anesthesiologist students provide services for patients at Maine Medical Center and Mercy Hospital
- Occupational Therapy students provide services at 8 clinical sites in Portland including STRIVE, Long Creek Youth Development Center, and the Boys and Girls Club
- Physical Therapy students provide services at 11 clinical sites in Portland.
- Hundreds of UNE Nursing students provide a range of services at Portland health care providers and public health centers.
- The Cedars Portland senior living community has engaged the CDM to serve as a dental home for its residents.

- UNE COM supports many trainings for Portland-based surgeons, physicians, and EMTs.
- In 2024, 9 COM students were chosen for Maine Medical's Residency Program.
- In 2024, 60 COM students completed clinical rotations at Portland health care centers (majority Maine Medical Center and Northern Light Mercy)

Public Health

UNE's Center for Excellence in Public Health (CEPH) provides education and service to the community and administers the Maine Area Health Education Center (AHEC). Portland and the surrounding communities are partners and recipients of these services.

- CEPH implements the State of Maine's SNAP-Ed program. Since 2012, the City of Portland's Public Health Division Nutrition Educators have provided Maine SNAP-Ed programming including direct education and policy and systems and environmental change interventions for eligible participants in the Portland community.
- Between 2016 and 2022, CEPH oversaw statewide substance use prevention efforts on behalf of the Maine Center for Disease Control and Prevention (CDC). The City of Portland was one of CEPH's subcontractors and implemented substance use prevention interventions in Portland.
- Between 2018 and 2020, in collaboration with UNE COM, CEPH oversaw a federally funded Primary Care Training and Enhancement Champions grant, through which a physician from GPH participated in a 2-year fellowship to improve services for people with opioid use disorder.
- Between 2020 and 2022, in collaboration with GPH and the Portland-based Maine Access Immigrant Network, CEPH evaluated a federally funded project on behalf of the Maine CDC to address health disparities in diabetes and HIV among Black and African immigrants, refugees, and asylum-seeking individuals in Cumberland County.
- Maine AHEC Network engages University of New England health profession students in community-based learning experiences with underserved communities in Portland. Maine AHEC Network coordinates these events in collaboration with community partners and provides training for students in advance of their participation. Examples since 2018 include:
    - School-based Oral Health Care: Partner with local schools to have students participate in delivering oral health education, and in some cases apply dental varnish for school students (2018–Present)
    - Portland Needle Exchange: Partnership with Portland Public Health's Free Clinic where students provided support at the Portland Needle Exchange (2018-Present)
    - School-based Vision and Hearing Screenings: Partner with local schools for students to assist with vision and hearing screenings (2018–Present)
    - Cumberland County Jail Corrections Officer Wellness Program: Partner with Cumberland County Jail for students to provide wellness education to corrections officers (2019-2020)
    - Greater Portland Health Support Group for Refugees and Immigrants: Partner with Greater Portland Health for students to assist with a Support Group for Refugee and Immigrants (2019)
    - Preble Street Volunteering: Students volunteered to assist at the Preble Street shelter (2018-2019)

- Partnered with Portland Public Health's Screening Priority Urgent Referral (SPUR) Clinic screenings for newly arrived refugees and asylees at Portland Public Health (PPH). The program rolled out this spring, with:
    - 14 Scholar and Non-Scholar student participants, with a combined 21 student visits (some chose to visit multiple times)
    - Students worked with precepting health professionals at the SPUR clinic, participating in health history taking and physical exams, point of care testing, intake and resource referral, health promotion and education.
- Maine AHEC Network Youth Healthcare Workforce Diversity Program
    - Since 2017 Maine AHEC Network has partnered with Portland high schools and the local Ethnic Community-Based Organization Maine Access Immigrant Network to provide health career exploration learning opportunities for New Mainer students. A total of 167 Portland high school New Mainer students has participated in the program since it began in 2017.

Service Learning and Community Outreach

Community engagement is a core component of all UNE health profession programs. Through structured service learning and volunteer opportunities, UNE students play an active role in promoting health, with an emphasis on serving Portland's vulnerable citizens. More than 700 health professions students annually provide hundreds of hours to non-profits across the city.

- Meals for Maine 2023 Contributions (September 2023)
    - 23,290 nonperishable, shelf stable meals distributed to:
        - Preble Street Resource Center: 13,260 meals donated.
        - Sacred Heart Food Pantry: 2,690 meals donated.
        - Milestone Recovery: 2,040 meals donated.
        - Maine Access Immigrant Network: 1,630 meals donated.
        - City of Portland: 1,630 meals donated.
        - South Portland Library: 2,040 meals donated.
        - More than 28,000 additional meals were distributed to other areas in Cumberland County and beyond.
    - Meals for Maine 2024 will double its impact with 100,000 meals delivered across the state, with a focus on Portland and Biddeford
- Cumberland County Jail (CCJ)
    - Hundreds of harm reduction kits have been assembled by students and given to residents in need upon release from incarceration.
    - Wellness kits and programming have been delivered to correction officers (COs) at CCJ to promote healthy living for individuals in these high stress positions.
    - In fall 2024, weekly wellness programming will return to residents after a 4-year hiatus due to COVID. Jail administration and Armour Health have requested that UNE re-implement this long-standing program that earned UNE a Cumberland County Sherriff's Office Certificate of Appreciation in 2018.
- Barron Center
    - Nearly 100 UNE students have participated in the "Dinner with Friends" program which pairs students with residents to share a meal and special events together.

- Boys and Girls Clubs of Greater Portland:
  - More than 25 UNE students volunteer as mentors at the clubs each semester.
  - Even more students have delivered special event programming for club members such as health fairs and pizza parties.
  - Hundreds of pounds of granola bars, pasta and tomato sauce have been donated by the UNE community to help address food insecurity among club members.
- Milestone Recovery:
  - Hundreds of students have shadowed the HOME team, learning about the collaborative effort to address the needs of Portland's unhoused community.
  - Hundreds of sandwiches have been made by UNE students and delivered around Portland in collaboration with the HOME team.
  - Student clubs and organizations have gathered hundreds of dollars' worth of supplies to meet the needs of Milestone's "wish list," as well as collected donations to fill backpacks for delivery around Portland by the HOME team.
- Deering High School & Casco Bay High School:
  - UNE students have regularly delivered programming, mentorship, and special events for students, including a Career Exploration Day and STEM Expo exhibits.
- Maine Department of Corrections:
  - Students have assembled more than 8,000 harm reduction kits for distribution to individuals state-wide, including community correction offices in Portland. As part of the kits, UNE students write notes of encouragement and hope which have been found to be incredibly meaningful to recipients.
- UNE College of Dental Medicine (CDM) Community Service:
  - Second-year dental students visit Goodwill LifeWorks Deaf Services and Goodwill Neuro Rehab Clinic to provide oral health education and activities to their patients.
  - Third-year dental students visit the Glickman Lauder Center of Excellence in Autism and Developmental Disorders once a month to provide oral health education and desensitization activities for the children at the Center.
  - Health Fair at the Greater Portland Immigration Welcome Center.
  - CDM participates in the Juneteenth Community Health Fair.
  - CDM is one of several locations across the state participating in a program to provide care to veterans through the Maine Veterans' Dental Network (MVDN). Any veteran who is not 100% service-connected to the Veterans Administration, does not have dental insurance, and cannot afford to pay for dental care out of pocket can register for the program.
- Hundreds of UNE students have volunteered countless hours for Portland based Partners for World Health.
- Students in UNE's Reproductive Health Leadership program collected donations to assemble menstruation care kits for Sacred Heart Pantry when funding for these critically needed products ran out.
- COM provides medical services for the Maine Marathon.
- UNE is recipient of a grant to support training of Sexual Assault Nurse Examiners (SANE):
- Training Forensic Nurses, law enforcement, and EMS in Portland.
- ME Council of Elder Abuse Prevention Summit training.

- UNE's Center for Excellence in Aging and Health offers continuing education opportunities to 730 Legacy Scholars annually – 143 of those scholars live in Portland.

Economy

UNE serves over 970 students on the Portland Campus alone. UNE brings students from Maine, New England, and increasingly from across the country and the world to Portland to live, study, and work. Many students elect to stay in Maine following graduation, including in Portland. The University is a top local employer, and it spends significantly to support local businesses. UNE faculty, professional staff, and students volunteer thousands of hours annually, providing *pro bono* services in the City. UNE researchers are tackling some of the most pressing issues facing the City and region, developing solutions with tangible impacts.

Many UNE students live in Portland and surrounding communities. They spend money to support local businesses and institutions. UNE also attracts thousands of visitors every year to Portland. These visitors spend money on lodging, food, and other services in the community.

- In 2023, 979 students attended classes on the Portland campus, and 372 reported a Portland home address.
- An additional 400 students will join the Portland campus when the new UNE COM facility opens Summer 2025.
- Approximately 30% of students are from Maine (including Portland and the surrounding area), and 70% of students come from outside of Maine (bringing "new" dollars to the community and region).
- A 2024 economic impact study found that student and visitor spending accounts for $51.9 million in revenue for Maine businesses annually.

UNE is a major employer in Portland, Cumberland County, and the state of Maine, with many employees living in Portland and the surrounding areas. These residents pay property taxes and rent or mortgages. They support local businesses and services. Their children attend local schools. The following data exclude student employee numbers.

- UNE is the 15th largest employer in Cumberland County.
- UNE employs 1,890 people in Maine - over 560 employees work on the Portland campus.
- An estimated 150 additional employees will join the Portland campus when the new UNE COM facility opens Summer 2025.
- 177 UNE employees live in the City of Portland.
- UNE provides excellent employment opportunities with competitive salaries and benefit packages.
- UNE pays over $17.6 million per year in salaries and benefits to employees living in Portland.
- UNE spends over $143 million annually in operational expenses, $55.4 million of which buys goods and services from Maine businesses, the vast majority of which are located in southern Maine.

Construction Management Principles

UNE has identified the construction management principles that will be implemented to minimize impacts to its surrounding neighborhoods from noise, vibrations, ground movement, truck traffic, dust control and other construction related factors. UNE will strive to schedule and undertake

construction operations in a way that will minimize, to the extent feasible, the disturbance to the public and occupants of buildings in the adjacent area.

Communication Initiatives

UNE has established a communication method to connect with its adjacent neighbors, the City of Portland, and construction teams. To facilitate direct interaction, UNE employs a dedicated email address where neighbors can submit questions or express concerns. UNE staff responsible for future projects promptly address these emails. Additionally, UNE proactively sends monthly updates to interested neighbors, covering project status and important alerts related to activities that might impact nearby roadways, create dust, vibration, or noise, and affect traffic around the campus. These updates are also accessible on the UNE website's Campus Planning page at une.edu. Furthermore, UNE actively engages with adjacent neighborhood associations, such as the Deering Center Neighborhood Association (DCNA), by participating in regularly scheduled meetings to discuss ongoing or upcoming projects.

Construction Schedule

UNE commits to delivering estimated master project schedules at the outset of any significant construction project it undertakes in the future. Throughout the construction period, regular updates to these schedules will occur, reflecting any adjustments to dates. These updates will be tailored based on the project's assessed impact on the surrounding neighborhoods and areas. UNE will relay these updates through the communication initiatives mentioned earlier.

Construction Management Plan

As part of the planning process and before beginning any major construction project, UNE will create a comprehensive Logistics and Safety Plan. This plan will be shared with neighboring communities and the City with objectives to ensure the continuity of normal campus operations, enhance public safety, and minimize disruptions in the areas surrounding the campus. UNE will adopt the City's Construction Management Plan template to develop its own Construction Management Plan, which will accompany each future project's Site Plan application.

Project Work Hours

Construction Management Plans submitted for each future project will outline the project's work hours, carefully established to minimize the impact on surrounding areas and neighbors, while ensuring efficient completion of the project work. UNE will adhere to the City's code of ordinances, which regulates work hours.

Public Safety and Access

Safety is of utmost concern for UNE, and it will be thoroughly reviewed and integrated into its Construction Management Plans. During construction, pedestrian walkways and vehicular access routes will be clearly marked with appropriate signage and diligently maintained. Safety fencing and lockable gates will be deployed to separate construction zones from public spaces. Access to these fenced-off areas will be restricted to authorized

construction personnel, delivery staff, and members of the construction project team. UNE's campus houses a Safety and Security Department, which will oversee safety and access to these construction zones outside of work hours.

Construction Noise

UNE is dedicated to minimizing construction noise impacts on the surrounding areas. Construction projects inherently generate noise due to necessary tasks throughout their duration. UNE, along with its construction project team members, will proactively notify neighbors of any abnormal noise-creating activities, such as blasting or pile driving, through the updates process the university has established.

Construction Traffic and Parking

Construction Truck Routes and Volume – UNE and its construction project team will establish construction vehicle access routes to and from construction zones, prioritizing distance from residential and other sensitive areas. Construction vehicles will directly enter the fenced construction areas, avoiding queues on public roadways. This will be achieved by managing the frequency and volume of deliveries throughout the construction timeline. Clear markings and signage will guide construction traffic strategically to minimize noise, reduce conflicts with on and off campus users, and limit the spread of dust and dirt. Specific details for each future project will be outlined in the Construction Management Plans submitted for each project.

Construction Staging Areas – Construction staging areas for material and equipment delivered to the project sites will be located within the fenced construction zones for each project, ensuring they are positioned as far away as possible from residential and other sensitive areas.

Construction Personnel Parking – Jobsite personnel will be instructed to park either within the fenced construction zones for each project or remotely in UNE's Bishop Street parking lot. The construction project team and its subcontractors will actively promote the use of public transportation by workers to minimize the impact on the surrounding area.

Construction Air Quality

To mitigate dust issues and minimize impacts on the local environment from its project sites, UNE and its project team will implement several strictly enforced measures. These measures include using wetting agents to control airborne dust from construction access drives and construction zones, covering soil stockpiles as needed, ensuring that transport trucks use covers while moving materials that generate dust, and periodically sweeping and cleaning the construction zones.

City of Portland Construction Management Plan General Template

Attachment C to this IDP is the standardized City of Portland template that will be used for each future project to establish a clear and concise plan and open lines of communications with the City and its neighbors.

Attachment A: UNE Signage Standards

UNIVERSITY OF NEW ENGLAND

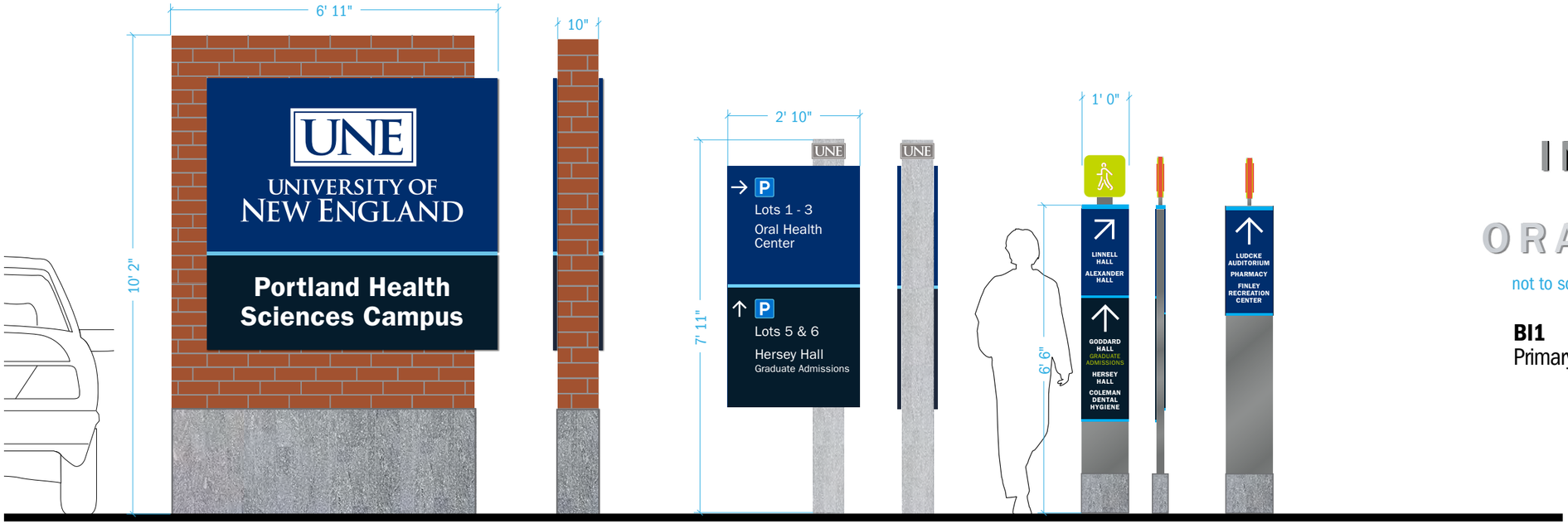
INNOVATION FOR A HEALTHIER PLANET

Portland Health Sciences Campus

Design Development

February 22, 2023

SIGN LINE-UP – PORTLAND



ID3
Secondary Campus ID

VD3
Secondary
Vehicular Directional

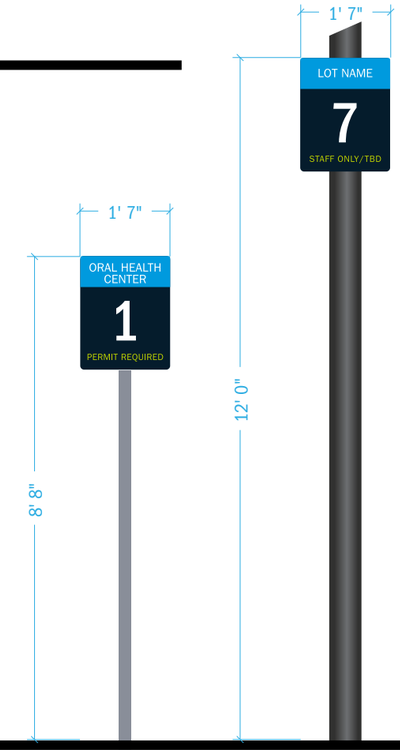
PD
Pedestrian
Directional

INNOVATION HALL

ORAL HEALTH CENTER

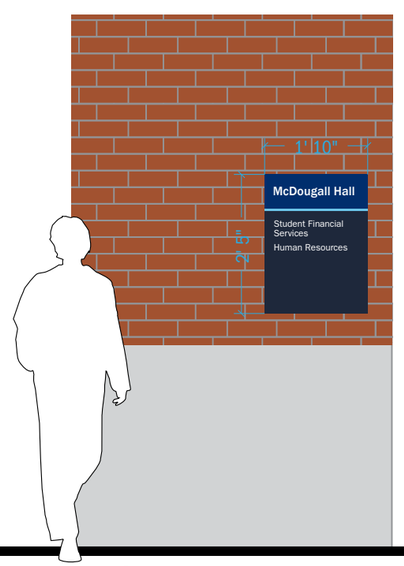
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BI1
Primary Building ID, letters

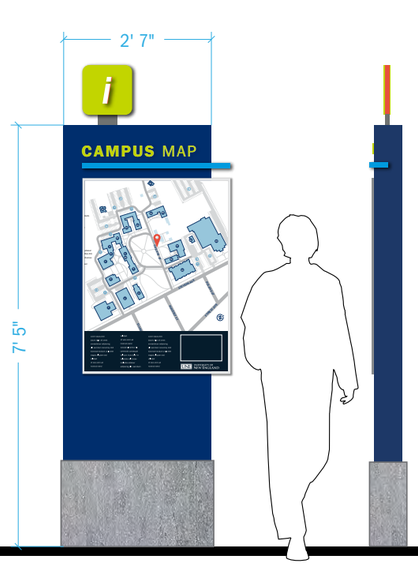




BD3
Secondary Building ID
freestanding

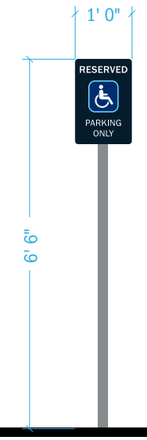


BD4
Secondary Building ID
wall mounted



CM-P
Campus Map

PL
Parking Lot ID



PK
Parking Space ID

scale: 3/8" = 1

UNE UNIVERSITY OF NEW ENGLAND
PORTLAND CAMPUS

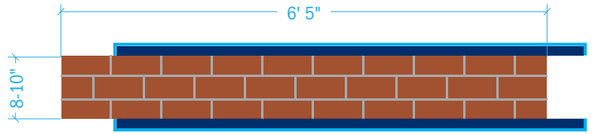
These drawings are not for construction. Designer shall review contractors shop drawings for fabrication. Contractors shall be responsible for verification of all dimensions and field conditions prior to performing work and inform Designer of any discrepancies.

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DOCUMENT SET
Design Intent
February 22, 2023

LU-P

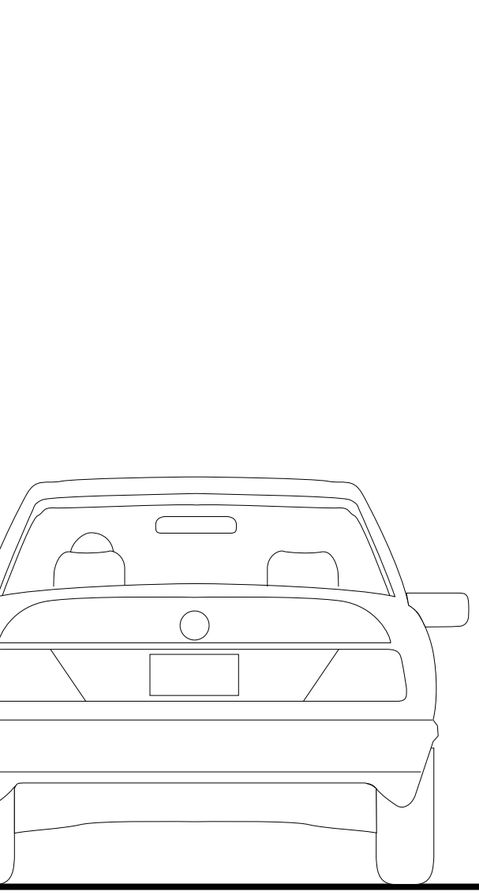
CAMPUS ID

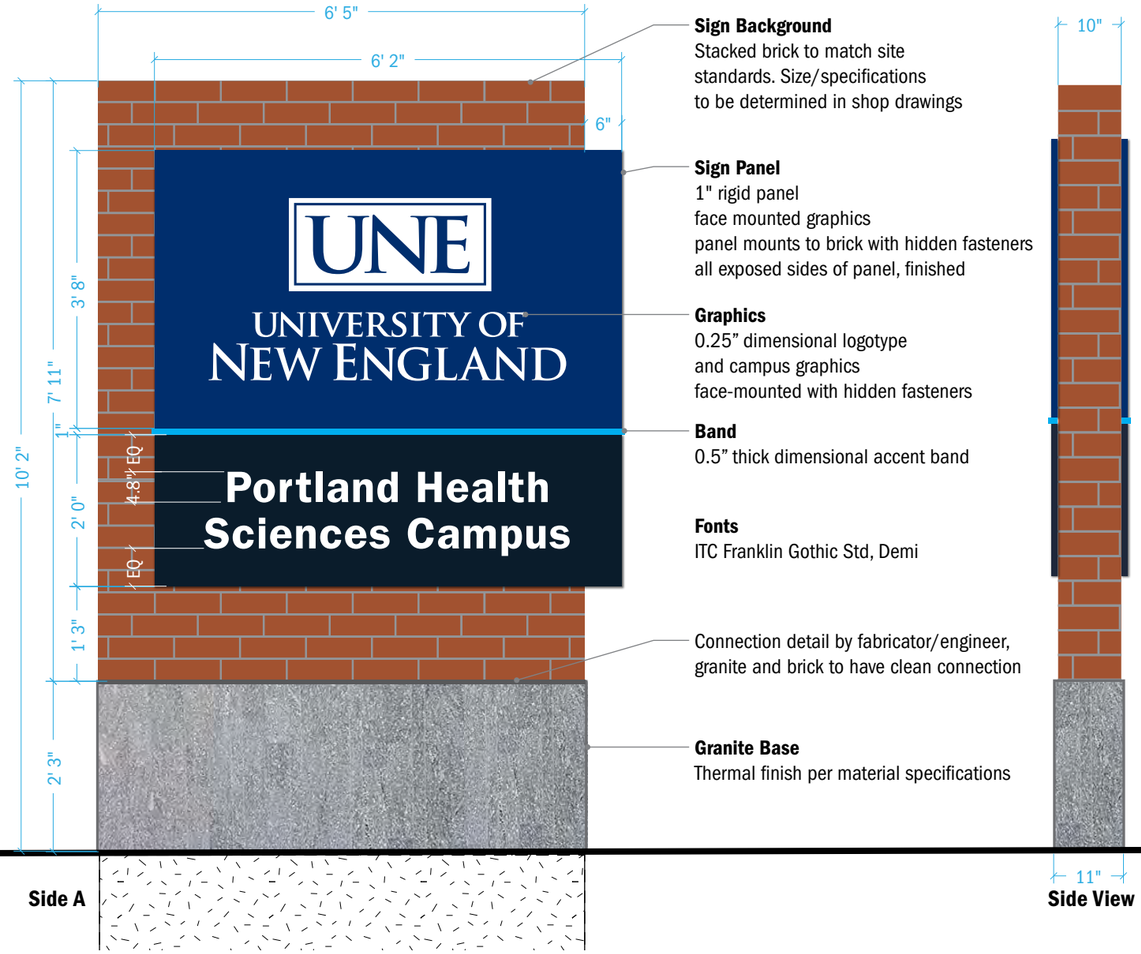


Top View



Context Image





Sign Background
Stacked brick to match site standards. Size/specifications to be determined in shop drawings

Sign Panel
1" rigid panel
face mounted graphics
panel mounts to brick with hidden fasteners
all exposed sides of panel, finished

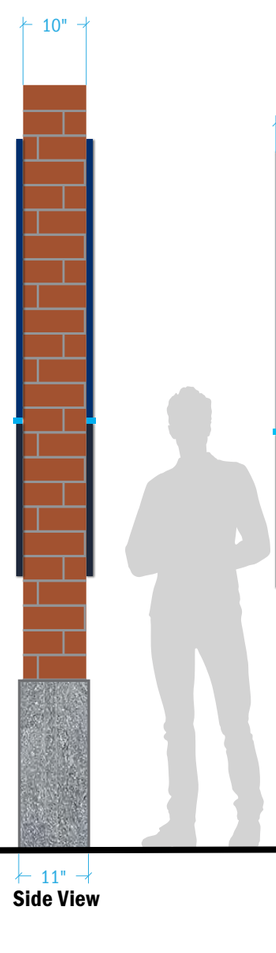
Graphics
0.25” dimensional logotype and campus graphics
face-mounted with hidden fasteners

Band
0.5” thick dimensional accent band

Fonts
ITC Franklin Gothic Std, Demi

Connection detail by fabricator/engineer, granite and brick to have clean connection

Granite Base
Thermal finish per material specifications



Side A

Side View



Side B

scale: 1/2” = 1’-0”

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PORTLAND CAMPUS

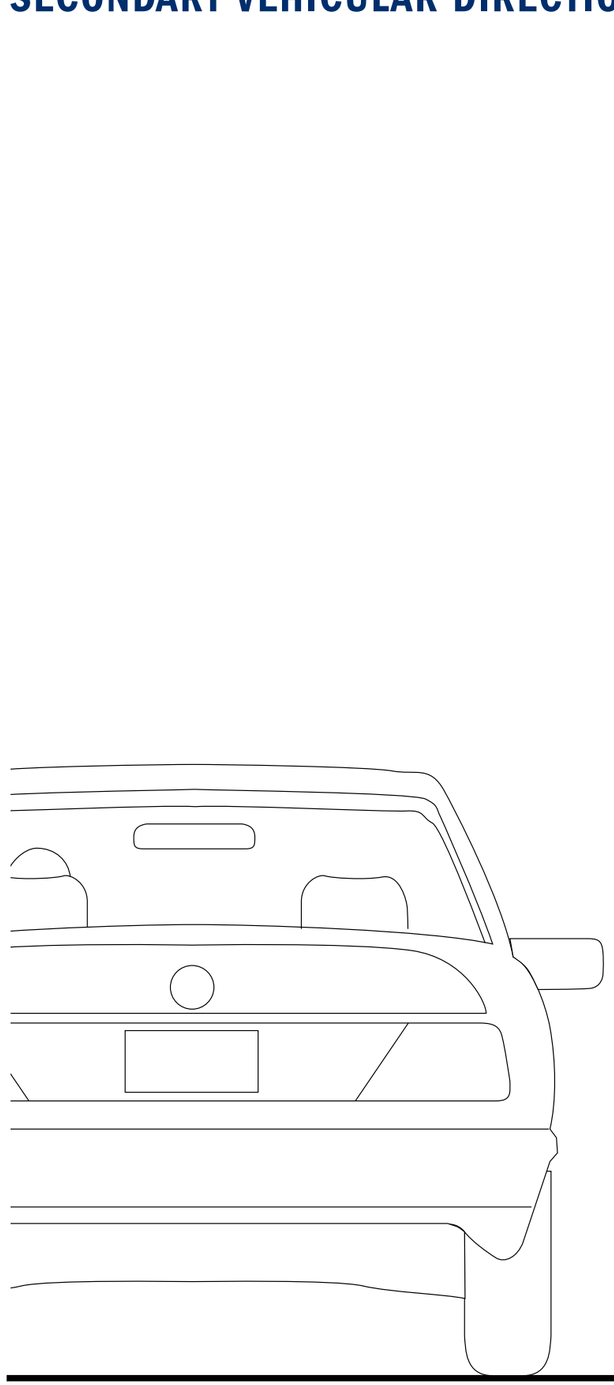
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ID3

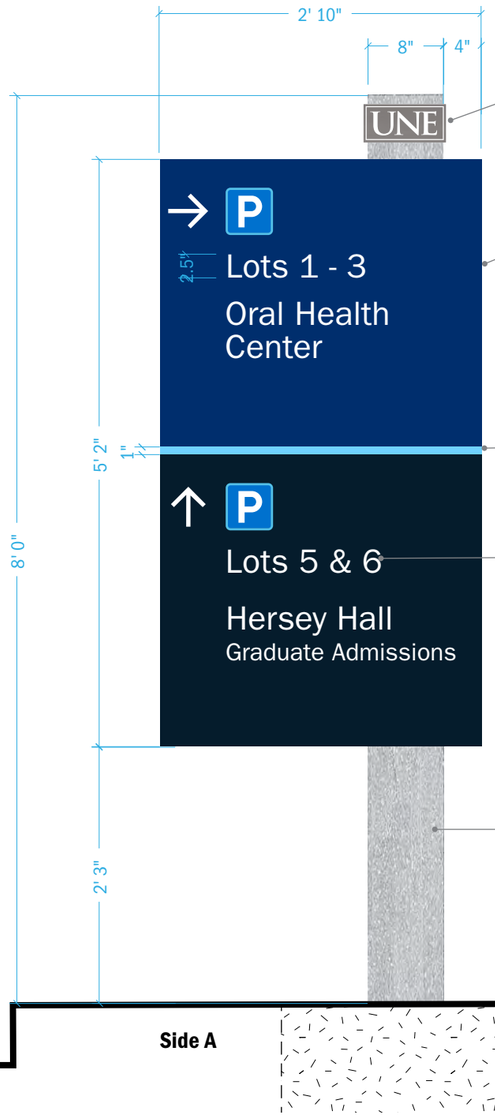
SECONDARY VEHICULAR DIRECTIONAL





single or double-sided

Plan View



Fonts
ITC Franklin Gothic Std, Book
ITC Franklin Gothic Std, Demi
Goudy Old Style, Bold

Post Wrap
rigid panels wrap granite column
continuous material, no gaps at corners
face graphics
colors to match light/dark metallic finishes

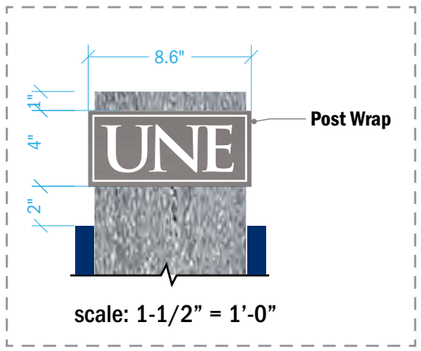
Sign Panel
1" rigid panel
painted 3 colors
panel mounts to post with hidden fasteners
all exposed sides of panel, finished

Divider band may change location based on actual messages

Graphics
Applied face graphics
colors per specifications
White = reflective

Granite Post
Thermal finish per material specifications
set in ground,
tbd by fabricator

Side A



scale: 1-1/2” = 1’-0”



Side View **Side B**

scale: 3/4” = 1’-0”

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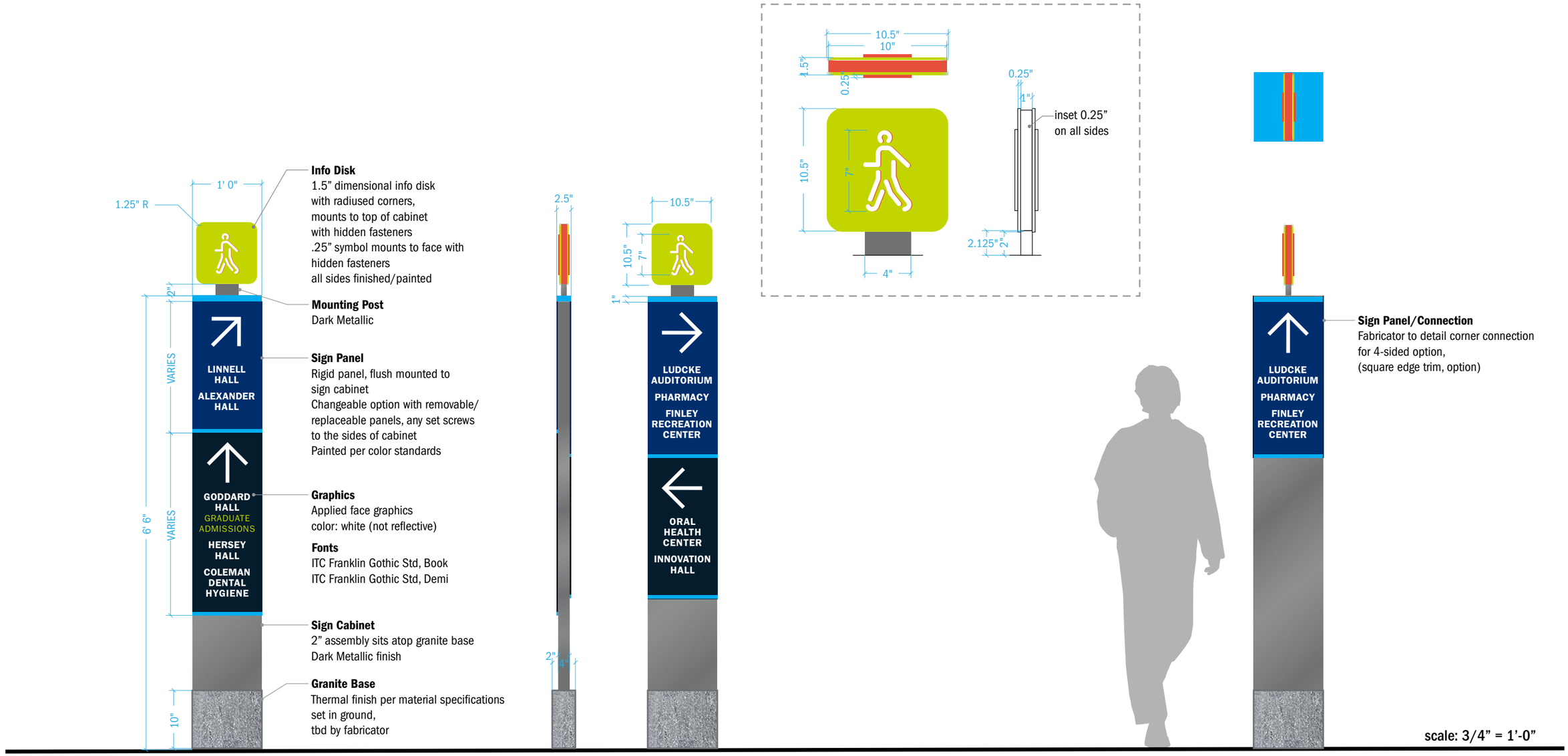
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VD3

PEDESTRIAN DIRECTIONAL



Info Disk
1.5" dimensional info disk
with radiused corners,
mounts to top of cabinet
with hidden fasteners
.25" symbol mounts to face with
hidden fasteners
all sides finished/painted

Mounting Post
Dark Metallic

Sign Panel
Rigid panel, flush mounted to
sign cabinet
Changeable option with removable/
replaceable panels, any set screws
to the sides of cabinet
Painted per color standards

Graphics
Applied face graphics
color: white (not reflective)

Fonts
ITC Franklin Gothic Std, Book
ITC Franklin Gothic Std, Demi

Sign Cabinet
2" assembly sits atop granite base
Dark Metallic finish

Granite Base
Thermal finish per material specifications
set in ground,
tbd by fabricator

Sign Panel/Connection
Fabricator to detail corner connection
for 4-sided option,
(square edge trim, option)

Side A
PD3 (single-sided)

Side View

Side B

Side B
PD4 (four-sided option)

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PD3-4

PRIMARY BUILDING IDENTIFICATION



1” dimensional letters, 5”-10“ height letters are custom sized to entrance/placement on building.
Pin mounted to existing building or overlay panel where required.

Dark Metallic
(dark on light background)

Light Metallic
(light on dark background)

ITC Franklin Gothic Std Medium, tracking 150pt

scale: 1/2” = 1’-0”







*NOTE: Images shown are for reference only; actual placement/use TBD

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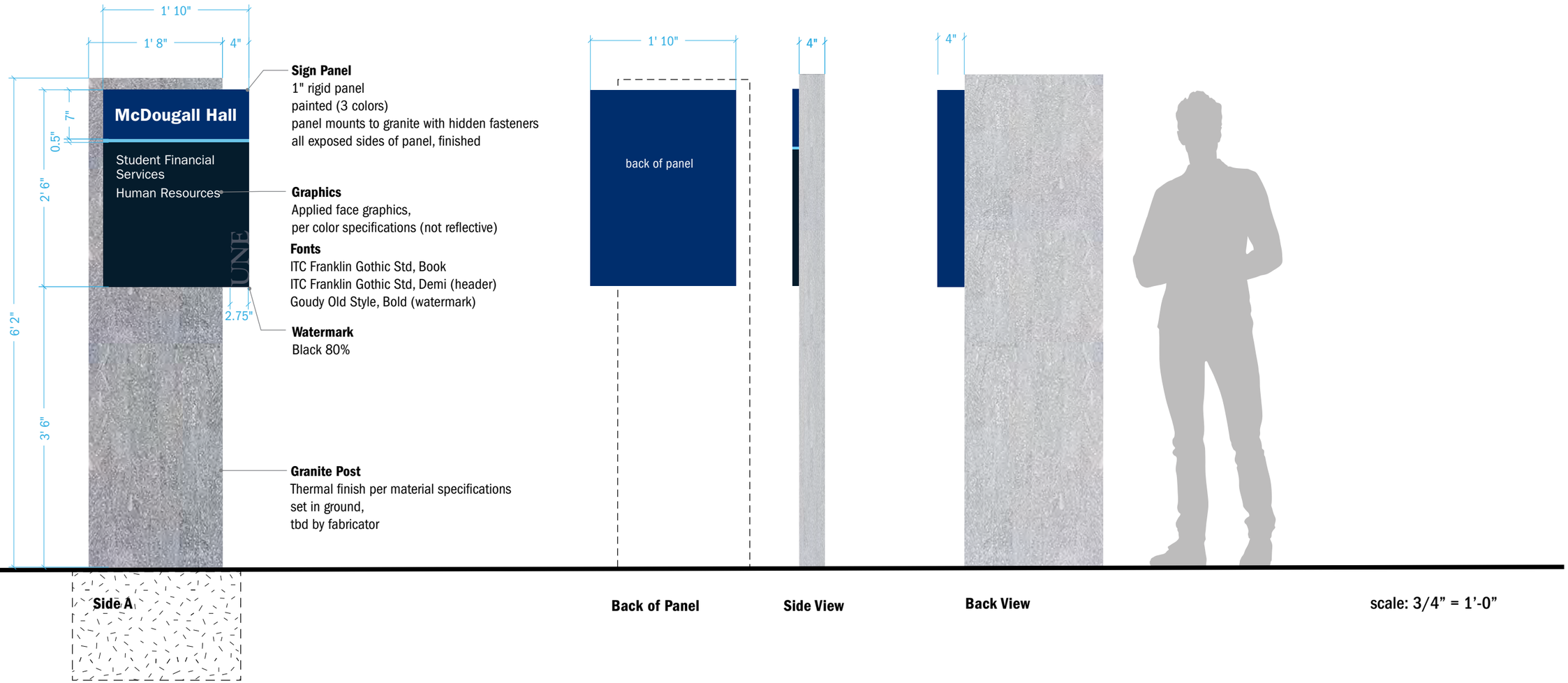
BI1

SECONDARY BUILDING ID - FREESTANDING



Landscaping
Set in ground finished footing/base
by fabricator
tbd with landscape

Plan View



Sign Panel
1" rigid panel
painted (3 colors)
panel mounts to granite with hidden fasteners
all exposed sides of panel, finished

Graphics
Applied face graphics,
per color specifications (not reflective)

Fonts
ITC Franklin Gothic Std, Book
ITC Franklin Gothic Std, Demi (header)
Goudy Old Style, Bold (watermark)

Watermark
Black 80%

Granite Post
Thermal finish per material specifications
set in ground,
tbd by fabricator

Side A

Back of Panel

Side View

Back View

scale: 3/4” = 1’-0”

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PORTLAND CAMPUS

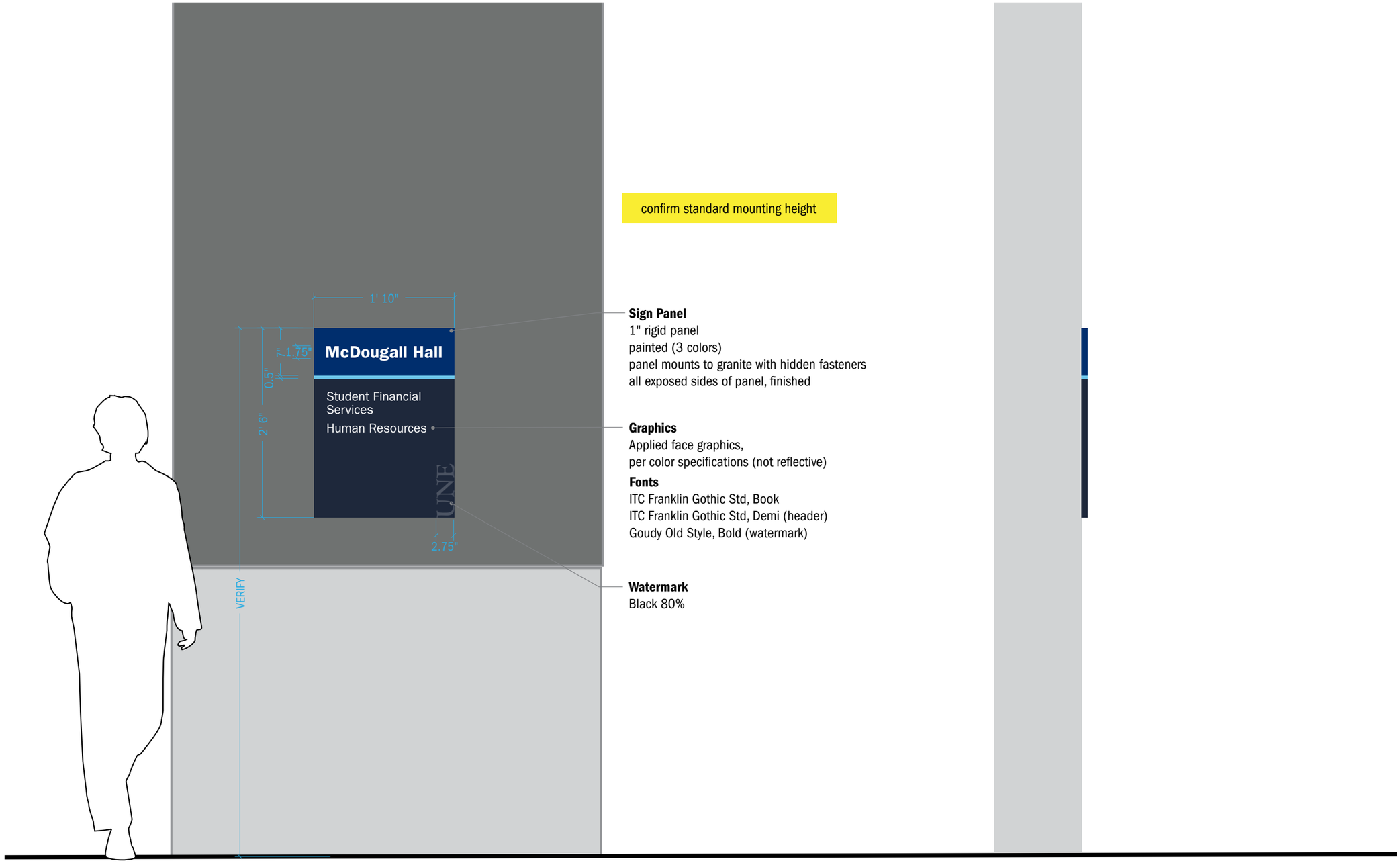
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BD3

SECONDARY BUILDING ID - WALL MOUNTED



confirm standard mounting height

Sign Panel
1" rigid panel
painted (3 colors)
panel mounts to granite with hidden fasteners
all exposed sides of panel, finished

Graphics
Applied face graphics,
per color specifications (not reflective)

Fonts
ITC Franklin Gothic Std, Book
ITC Franklin Gothic Std, Demi (header)
Goudy Old Style, Bold (watermark)

Watermark
Black 80%

Front View

Side View

UNIVERSITY OF NEW ENGLAND
PORTLAND CAMPUS

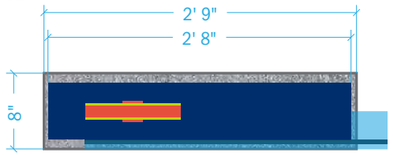
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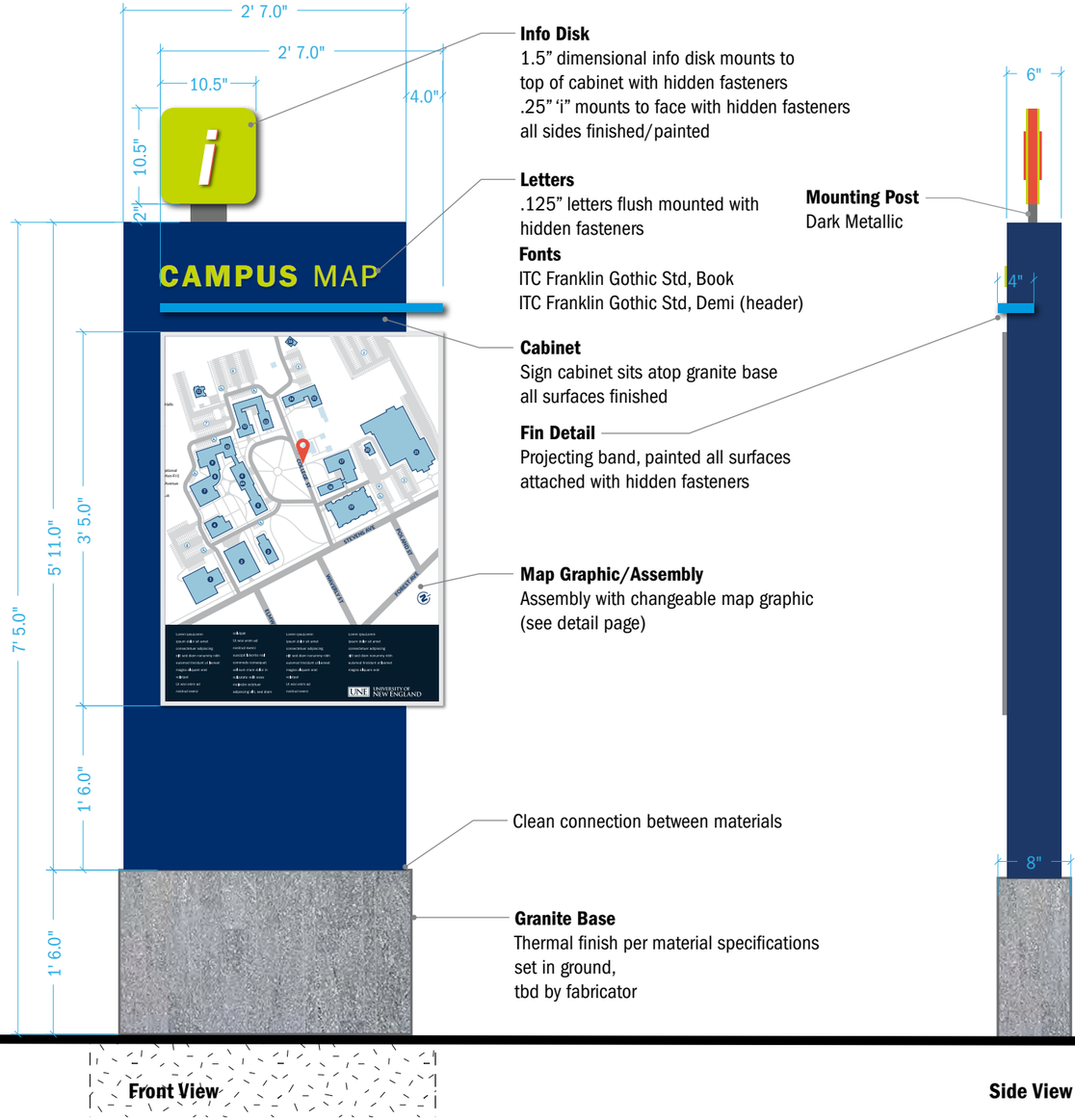
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BD4

CAMPUS MAP





Front View



Side View

Back View



scale: 3/4" = 1'-0"

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PORTLAND CAMPUS

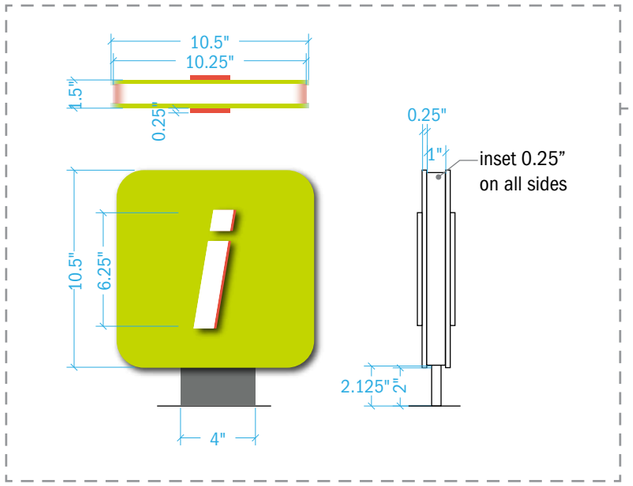
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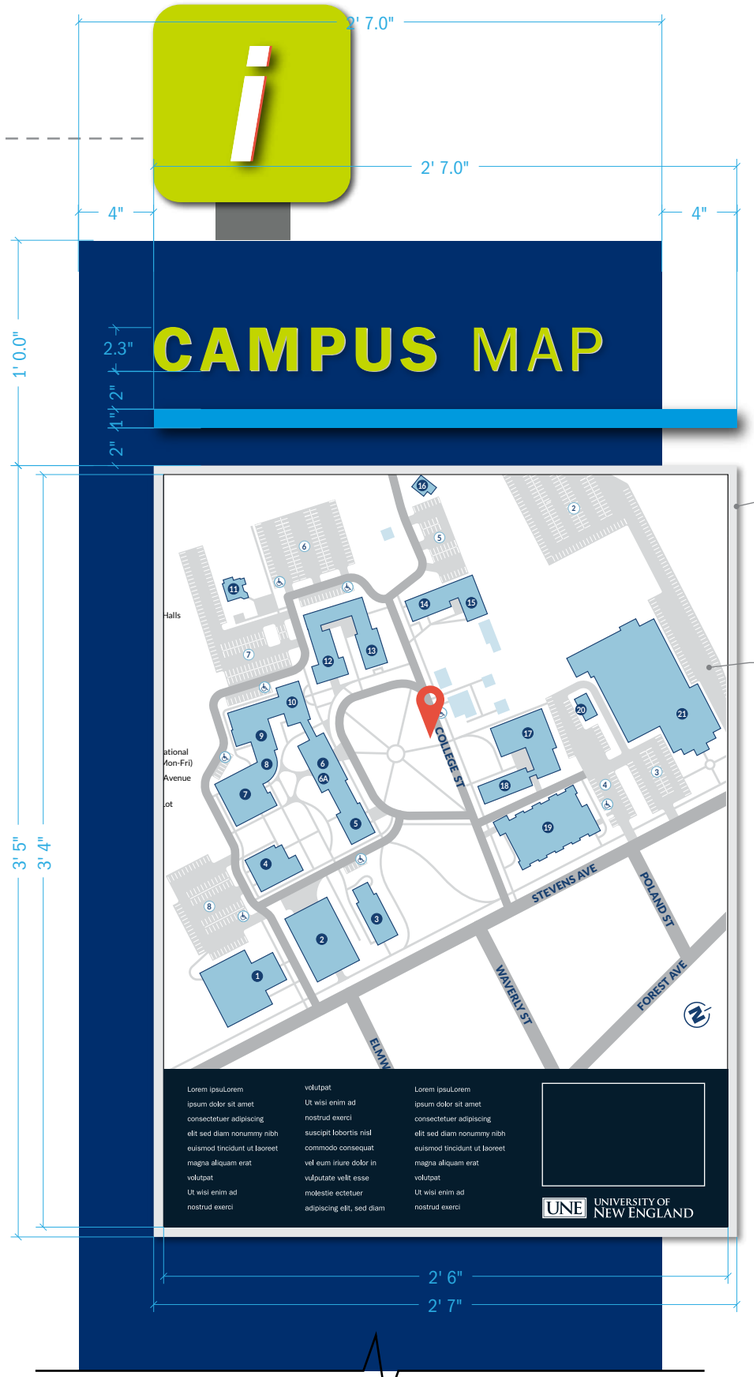
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CM-P.1

CAMPUS MAP - DETAIL





Frame
Light Metallic frame
0.5” approx overall thickness

Note: Frame and map graphic faces are flush

Map Graphic
Changeable graphic on rigid panel, Rigid panel insets in opening and is attached with concealed set screws/other, Show method in shop drawings

Map graphic design by Communications Department

scale: 1 1/2” = 1’-0”

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PORTLAND CAMPUS

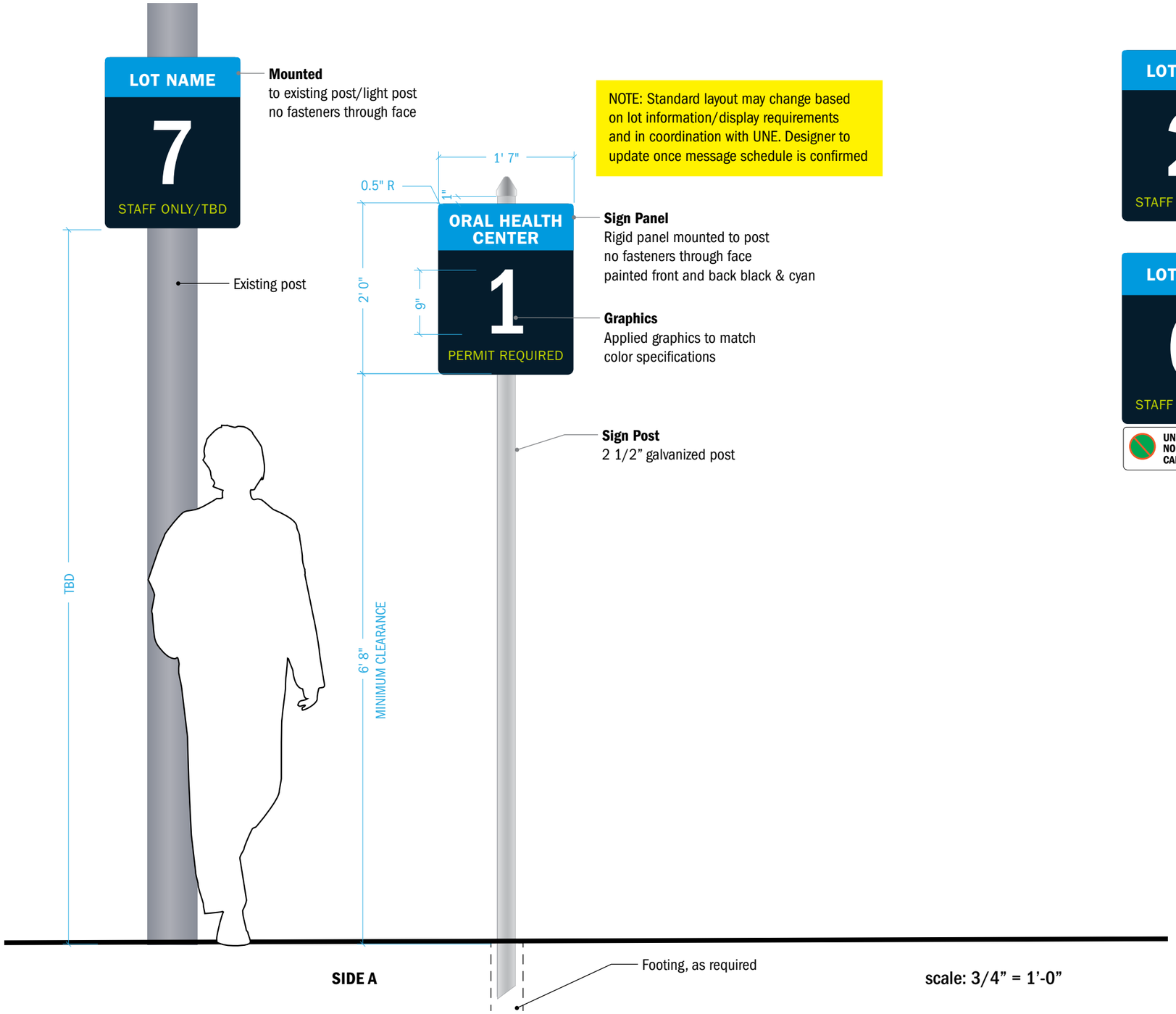
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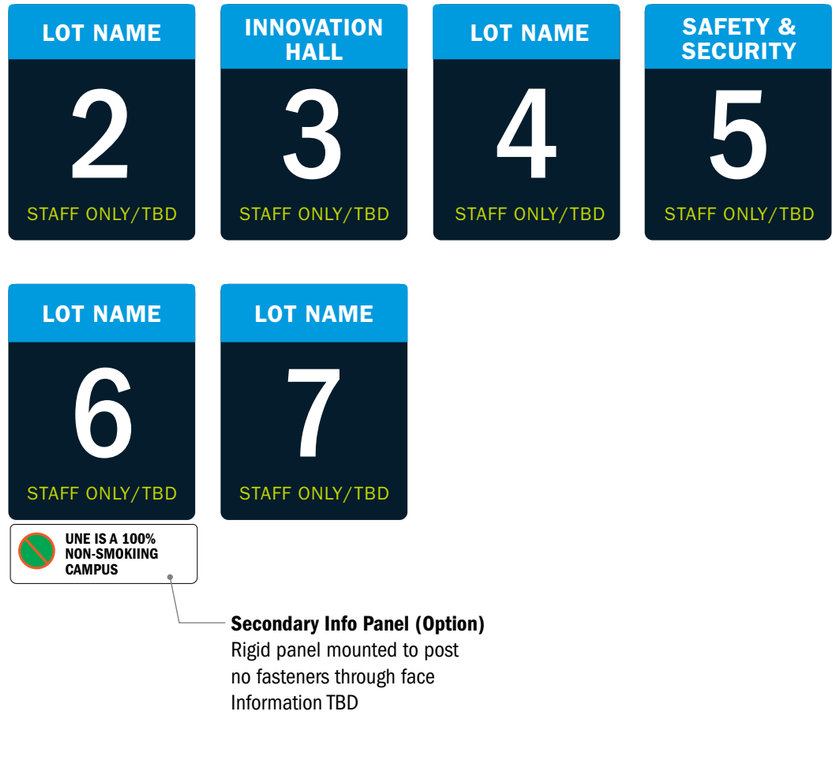
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CM-P.2

PARKING LOT ID





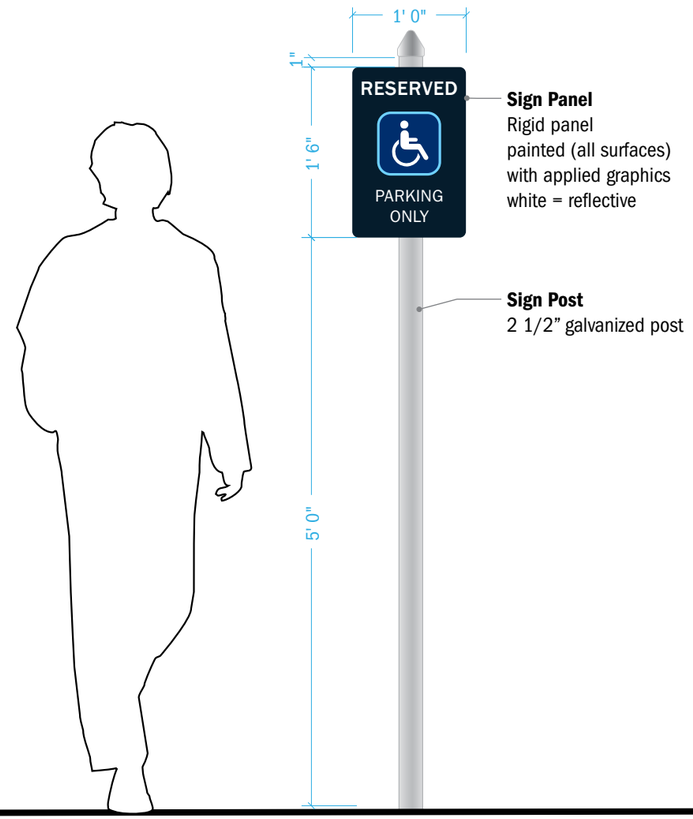
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PL-P

TRAFFIC AND PARKING SPACE ID





PK.1



PK.2



PK.3



PK.4



PK.8

scale: 3/4" = 1'-0"

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PORTLAND CAMPUS

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PK

THANK YOU

Contact info:

Kerry S. Peiser, PLA
Landscape Architect | Project Manager

kpeiser@oakpoint.com

Oak Point Associates
O: 207.283.0193 | C: 207.205.1032

Elisa Winter Holben
Principal | Design Director

elisa@winterholben.com

WINTER HOLBEN Architecture + Design
O: 207.994.3104 | C: 207.703.3293

COLOR/MATERIAL SPECIFICATIONS

PRIMARY COLORS

Blue
Blue - PMS 294c
match color

Black
PMS 296c
(needs approval)
Black with blue
undertone for signs

Gray
Gray - PMS 423c
match color

ACCENT COLORS

Cyan
Cyan
C=100%

Green
Green - PMS 382c

White
White
Matthews Paint
White Wonder
MP32071

Red
Red PMS 7625c

WATERMARK

Blue 80%
Blue - PMS 294c
@ 80% of color
match color

Black 80%
PMS 296c
@ 80% of color
(needs approval)

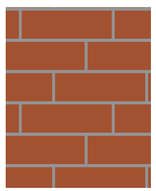
MATERIALS



Granite Smooth
Woodbury
Granite
Thermal Finish



Granite Textured
Woodbury
Granite
Rock Face Finish



Westbrook Brick
College Blend
Waterstruck™
Morin Brick
(Lewiston ME)
CONFIRM



Dark Metallic
Medium gray
metal finish



Light Metallic
Satin Silver
metal finish

Color-match
Pantone colors are noted where applicable, the color is to be matched with exterior paint and/or film.

Samples and shop drawings required for approval

White
3M 7725-10
Reflective
3M 680-10

Vivid Blue
3M 7725-47

Olympic Blue
3M 7725-57

3M Peacock Blue
3M 7725-77

3M Perfect Match Red
7725-263
Reflective
3M 680-72



Parking Space Icons

Directional Icon

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S-1

SUBMITTALS

Samples are for both Biddeford and Portland Campuses

Drawings

1 Shop drawings showing all relevent materials, connections, details and foundation.

Materials/Paint

2 Material Samples - 6x6 samples

3 Paint Samples - 6x6 samples

4 Watermark - 80% black & PMS 294c 6x6 samples

Samples - QTY 3 each
deliver to:
Chanel Douglas, UNE
Kerrie Peiser, Oak Point Associates
Elisa Winter Holben, Winter Holben

Prototype

5 Full Size Assembly - VD1 (Biddeford) - size/scale study can be printed on rigid material with way to show mounting height

6 Full Size Panel - PD (Portland & Biddeford) size/scale study printed on rigid material

7 Full Size Panel - PL (Portland & Biddeford) size/scale study printed on rigid material

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Attachment B: UNE Lighting Standards

University of New England
Exterior Lighting Standards

Exterior Lighting – General Site

The purpose of this document is to provide recommendations for exterior lighting master plan standards. Included are lighting standards for parking lots, roadways, walkways, and landscape accent areas.

References are made in this document to lighting standards published by the *Illuminating Engineering Society of North America (IESNA)*.

- The Lighting Handbook, 9th Edition
- RP-33-99 Lighting for Exterior Environments
- RP-6-01 Sports and Recreational Area Lighting
- RP-8-00 Roadway Lighting
- DG-5-94 Recommended Lighting for Walkways and Class 1 Bikeways
- RP-33-99 Lighting for Exterior Environments
- RP-6-01 Sports and Recreational Area Lighting

Lighting Fixture Distribution Classifications

The primary components of a light fixture that determine its performance are the lamp, reflector/refractor system, and ballast. The *IESNA* classifies exterior lighting fixtures by their performance characteristics relating to optical control: full cutoff, cutoff, semicutoff and noncutoff:

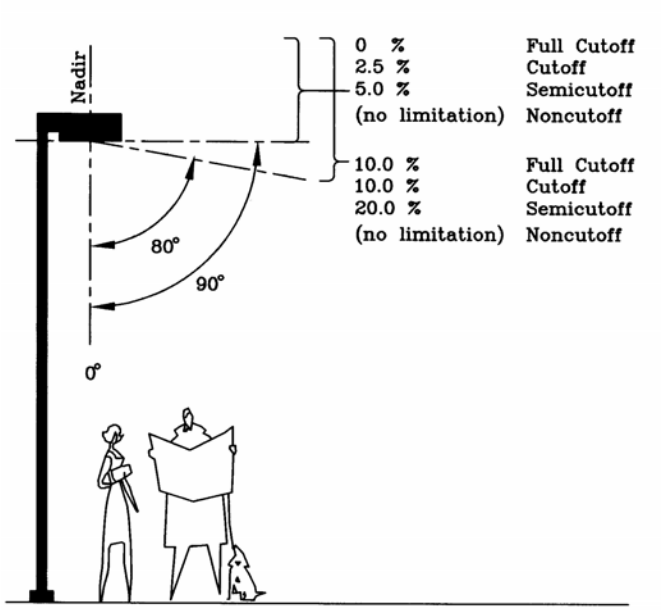


Fig. 1 *IESNA* Luminaire Cutoff Classifications

Full Cutoff

A luminaire light distribution where zero candela intensity occurs at an angle of 90° above nadir, and at all greater angles from nadir. Additionally, the candela per 1000 lamp lumens does not numerically exceed 100 (10 percent) at a vertical angle of 80° above nadir. This applies to all lateral angles around the luminaire.

Cutoff

A luminaire light distribution where the candela per 1000 lamp lumens does not numerically exceed 25 (2 1/2 percent) at a vertical angle of 90° above nadir and 100 (10 percent) at a vertical angle of 80° above nadir. This applies to all lateral angles around the luminaire.

Semicutoff

A luminaire light distribution where the candela per 1000 lamp lumens does not numerically exceed 50 (5 percent) at a vertical angle of 90° above nadir and 200 (20 percent) at a vertical angle of 80° above nadir. This applies to all lateral angles around the luminaire.

Noncutoff

A luminaire light distribution where there is no candela limitation in the zone above maximum candela.

Exterior Lighting Performance Standards

Roadways

Exterior illuminance levels for roadways should conform to the following criteria listed in **Table 1.** There are two roadway use classifications that apply: *Collector* and *Local*. In each case, the classification for pedestrian/vehicle conflict would be a *High* rating.

Collector Roadway: Roadways servicing traffic between major and local streets. These are streets used mainly for traffic movements within residential, commercial and industrial areas. They do not handle long, through trips. Collector streets may be used for truck or bus movements and give direct service to abutting properties.

Local Roadway: Local streets are used primarily for direct access to residential, commercial, industrial, or other abutting property. They make up a large percentage of the total street system, but carry a small proportion of vehicular traffic.

High Pedestrian Conflict Areas: Areas with significant numbers of pedestrians expected to be on the sidewalks or crossing the streets during darkness. Examples are downtown retail areas, near theaters, concert halls, stadiums, and transit terminals.

IESNA RP-8-00 Roadway Lighting

MAINTAINED ILLUMINANCE
VALUES FOR ROADWAYS IN FOOTCANDLES
TABLE 1

	Pedestrian Conflict Area	*Ave. Illuminance (Footcandles)*	*Illuminance Uniformity Ratio (Average-to-Minimum)*
Collector	High	1.2	4.0 to 1
Local	High	0.8	6.0 to 1

Parking Areas

Exterior illuminance levels for outdoor parking lots should conform to the following criteria listed in **Table 2.**

MAINTAINED ILLUMINANCE VALUES FOR OPEN PARKING LOTS
TABLE 2

	Basic	*Enhanced Security*[1]
Minimum Horizontal Illuminance	0.2 footcandles[2]	0.5 footcandles[2]
Maximum Horizontal Illuminance	7.5 footcandles[2]	10.0 footcandles[2]
Average Horizontal Illuminance	1.5 – 2.0 footcandles	2.0 – 2.5 footcandles
Uniformity Ratio, Maximum to Minimum	20:1	15:1

[1] If personal security or vandalism is a likely and/or severe problem, an increase of the basic level may be appropriate. This standard would be utilized in most areas of campus.

[2] Measured on the parking surface, without any shadowing effect from parked vehicles or trees at points of measurement.

Walkways and Bikeways

Exterior illuminance levels for outdoor walkways and bikeways that are remote from streets should conform to the following criteria listed in **Table 3.** The recommendations are based on classification of walkway locations. The walkway use classifications that best applies, is that of *Intermediate.*

Intermediate Walkway: Those areas of a municipality often characterized by moderately heavy nighttime pedestrian activity such as in blocks having libraries, community recreation centers, large apartment buildings, industrial buildings, or neighborhood retail stores.

MAINTAINED ILLUMINANCE VALUES FOR WALKWAYS
TABLE 3

	Average Horizontal (footcandles)[1]	*Average Hor.Uniformity (Ave.-to-Min.)*	*Average Vertical (footcandles)*[2]	*Average Vert. Uniformity (Ave.-to-Min.)*
Intermediate (Average Conditions)	0.5	4:1		
Intermediate (Special Conditions)			1.0	5:1

[1] Values measured or calculated at ground level.

[2] Values measured or calculated at 5 feet above pavement, in both directions, parallel to the direction of travel on the walkway.

Exterior Lighting Control Standards

Light Trespass

Exterior lighting should be selected and arranged such that not more than 0.1 footcandles are allowed to extend beyond property lines.

Glare Control

Exterior lighting fixtures shall include proper shielding and aiming such that excessive brightness is not seen from neighboring properties or along adjacent roadways.

Light Pollution

Exterior lighting fixtures used for the lighting of parking lots, walkways, and roadways shall not direct light at angles higher than 90 degrees above the horizontal. Directional accent lighting fixtures for accent of landscaping, signage and buildings shall include shielding as required to prevent light from being directed beyond the surfaces intended to be lighted.

Exterior Lighting Equipment Selection Standards

For the purposes of establishing a sense of visual consistency, and to assure that glare and fixture brightness are properly controlled, the following lighting equipment standards in **Table 4** should be followed.

EXTERIOR LIGHTING
EQUIPMENT REQUIREMENTS
TABLE 4

Roadways		
	Luminaires:	*IESNA* full cutoff distribution classification with flush, flat lenses.
	Lamps:	LED, 250 to 400 watt, or the equivalent in lumens. The recommended color temperature is 4000K.
	Controls:	Integral photocell.
	Lighting Poles:	Pole heights between 12 and 20 feet.
Parking Areas		
	Luminaires:	*IESNA* full cutoff distribution classification with flush, flat lenses.
	Lamps:	LED, 250 to 400 watt, or the equivalent in lumens. The recommended color temperature is 4000K.
	Controls:	Integral photocell.

Lighting Poles: Pole heights between 16 and 24 feet.

Walkways

Luminaires: *IESNA* full cutoff distribution classification with flush, flat lenses.

Lamps: LED, 100 to 250 watt, or the equivalent in lumens. The recommended color temperature is 4000K.

Controls: Integral photocell.

Lighting Poles: Pole heights between 10 and 12 feet.

Building Entryways

Luminaires: *IESNA* full cutoff, cutoff, or semi-cutoff distribution classification.

Lamps: LED, 35 to 150 watt, or the equivalent in lumens. The recommended color temperature is 4000K.

Controls: Integral photocell and/or local switching.

Mounting Heights: Between 10 and 16 feet

Building Entry Plazas

Luminaires: 36 inch high bollard lights with louver shields.

Lamps: LED, 35 to 150 watt, or the equivalent in lumens. The recommended color temperature is 4000K.

Controls: Local switching.

Building and Landscape Accent Lighting

Luminaires: Ground mounted floodlights with front face louvers or top/side shields.

Lamps: LED, 35 to 150 watt, or the equivalent in lumens. The recommended color temperature is 4000K.

Controls: Integral photocell.

Exterior Lighting – Athletic Field Lighting

Class of Play

The *Illuminating Engineering Society of North America (IESNA)* publishes recommendations for sports lighting applications. Included in the *IESNA* publication *RP-6* is information pertaining to general outdoor sports lighting practices as well as specific suggestions for equipment layout and illuminance levels. Illuminance recommendations are organized in terms of need given the sport being lighted and the anticipated class of play. The *IESNA* has identified four general classes for consideration:

- Class I For competition play before a large group of spectators (over 5000). Included in this classification are facilities for professional, college, semi-professional and sports club levels of play.
- Class II For competition play with less than 5000 spectators. Included in this classification are facilities for college, semi-professional, sports club, amateur league, and high school levels of play.

- Class III For competition play with some provisions for spectators. Included in this classification are facilities for sports club, high school, and training facilities levels of play.
- Class IV Facilities with no provisions for spectators. Included in this classification are facilities for amateur leagues, high schools, training facilities, elementary schools, recreational events, and social events level of play.

Each of these classes requires different levels of illumination given the corresponding purpose of play, skill levels of players, and spectator/broadcasting needs.

Soccer Field Lighting

Soccer is considered a multi-directional aerial sport since it involves the playing of a ball in the air as well as on the ground. Accordingly, it is important that soccer field lighting provide both adequate levels of horizontal illuminance to light the playing field, as well as vertical illuminance to light the ball in flight. The degree to which a lighting solution can provide both high levels of horizontal and vertical illuminance is largely dependant upon the location of luminaires with respect to the playing field. Luminaires that are mounted on tall poles aimed in a sharp downward direction can easily provide high levels of horizontal illuminance at the field below. Lighting the sides of a ball in flight, however, is made difficult when a vast majority of the light is delivered from overhead at great mounting heights. Vertical illuminance is more easily achieved from luminaires that are located at lower mounting heights, allowing for light to be directed from the sides. A successful athletic field lighting solution is one that achieves a balance between horizontal and vertical illuminance needs. Lighting pole heights and setback locations play a critical role in achieving this balance. As a design guide, the relationship of the pole height to the pole setback dimension from the soccer field should be as follows: pole height = (setback dimension plus 1/3 the width of the playing field) times the tangent of 30 degrees.

$$PH = (SB + 1/3W)(\tan 30°)$$

As the setback dimension increases, so too does the pole height. At sites where there is a limitation of space available for pole setback, the pole heights become shorter. Ideally, the setback distance should not be less than about fifteen feet. This would result in a pole height of about fifty feet for the average size soccer field. Poles that are less than 50 feet in height significantly increase the chance for unacceptable glare seen from areas that are adjacent to the field due to the resulting high aiming angles of the sports lights.

Softball Field Lighting

Softball is also considered a multi-directional aerial sport since it involves the playing of a ball in the air as well as on the ground. Like soccer, it is important that softball field lighting provide both adequate levels of horizontal illuminance to light the playing field, as well as vertical illuminance to light the ball in flight. Lighting poles are generally located parallel to the base lines to light the infield, and along the outfield fence to light the outfield. Pole heights must be selected to not only provide proper coverage of the playing field, but also to assure that the top of the lighting beam from floodlights forms an angle with the horizontal of at least 10 degrees.

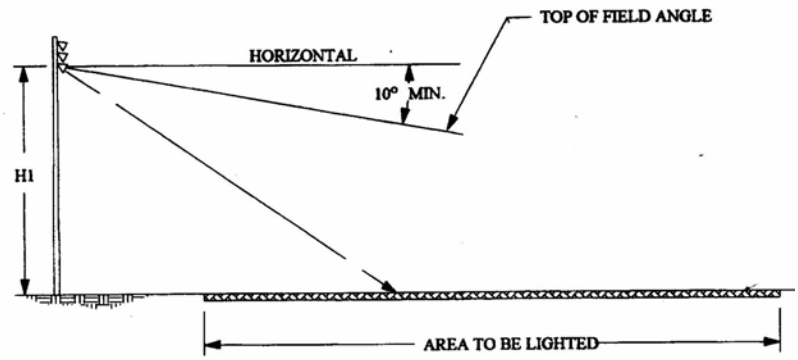


Fig. 1 *Softball Floodlight Aiming Angle*

Athletic Field Lighting Performance Standards

Illuminance Standards

Maintained illuminance levels for athletic fields should be as listed in **Table 1** and **Table 2**, below. Illuminance criteria is listed in footcandles, measured at the playing surface.

MAINTAINED ILLUMINANCE VALUES FOR SOCCER FIELDS

TABLE 1

	Illuminance	*Max. to Min. Uniformity*
Class I	75 FC	1.7 : 1
Class II	50 FC	2.5 : 1
Class III	30 FC	3 : 1
Class IV	20 FC	4 : 1

MAINTAINED ILLUMINANCE VALUES FOR SOFTBALL FIELDS

TABLE 2

	Infield		**Outfield**	
	Infield Illuminance	*Max. to Min. Uniformity*	*Outfield Illuminance*	*Max. to Min. Uniformity*
Class I	150 FC	1.3 : 1	100 FC	1.7 : 1
Class II	100 FC	1.5 : 1	70 FC	2 : 1
Class III	50 FC	2 : 1	30 FC	2.5 : 1
Class IV	30 FC	2.5 : 1	20 FC	3 : 1

Athletic Field Lighting Control Standards

Light Trespass

Exterior lighting from athletic fields should be selected and arranged such that not more than 0.1 footcandles is allowed to extend beyond property lines.

Glare Control

Exterior lighting fixtures shall include proper shielding and aiming such that excessive brightness is not seen from neighboring properties or along adjacent roadways.

Light Pollution

Exterior lighting fixtures used for the lighting of athletic fields shall be positioned such that the top of the field angle of the selected luminaires is 10 degrees, or greater.

Revised 012010

Attachment C: City of Portland Construction Management Plan General Template

Construction Management Plan
General Template
[Applicant and Project Name]

Construction Management Plans shall depict the overall planning, coordination, and control of a construction site, including phases as applicable, from beginning to completion. The City's goal for a construction management plan is to support a safe construction site and protect the public safety, accessibility (including preserving accessible pedestrian, bicycle, and vehicular modes of transport throughout the city), and welfare during construction. In addition, the construction management plan shall minimize construction impacts in their duration and magnitude to the surrounding area and develop an effective communication process for resolving concerns and conflicts.

The Construction Management Plan will be submitted as part of the Site Plan Review and it shall address the construction logistics for a project. The Construction Management Plan shall include the following submissions:

1) a construction management site plan;
2) a construction schedule (time frame); and
3) a written narrative addressing the categories below.

A. Construction Management Principles

The following narrative provides an overview of the construction management principles that the [Applicant and Contractor] has identified to minimize impacts from the construction, such as noise, vibrations, ground movement, truck traffic, and other construction related factors to the surrounding building and communities.

B. Development Review of Construction Management Plan

[Applicant and Contractor] shall submit a construction management plan that provides a comprehensive logistics and safety program for the construction project, which will be reviewed and approved as part of the site plan review process. Minimizing impacts to areas surrounding the building/construction site will be primary considerations in the process.

The Planning Authority and the Department of Public Works have the right to seek revisions to an approved Construction Management Plan or require a condition of approval that states an applicant shall coordinate a project's construction schedule with the timing of nearby construction activity, in order to avoid cumulative impacts on a neighborhood. Such a condition may involve a delay in commencement of construction, if necessary.

The following details define the intended approach to the successful management of the project construction and the construction management plan will address the general conditions contained below.

C. Performance Guarantees, Inspection Fees, Preconstruction Meeting, and Permits

Prior to scheduling a preconstruction meeting and the issuance of any city required permits, [Applicant and Contractor] shall meet all of the requirements contained in Section 14-530. Development review fees and post approval requirements and 14-532. General requirements and enforcement of Portland's Land Use Code.

Other permits, as applicable, include

1. **Street Opening and Street Occupancy Permits:** Construction activity in the public right-of-way are controlled by Chapter 25 and sewer and stormwater system connections are controlled by Chapters 24 and 32 of the Land Use Code. All required permits shall be obtained through the Department of Public Works and the requests shall conform with the approved construction management plan.
2. **Blasting:** Blasting, if required, shall conform with all measures of Article VIII. Regulation of Explosives in the Land Use Code and Section 3.7 Standards for Blasting and Regulation of Explosives in Portland's Technical Manual.
3. **Building Code:** Employ the best practices, as applicable, of Chapter 33 Safeguards During Construction, from the 2009 International Building Code.

D. Construction Administration and Communication

[Applicant and Contractor] will work diligently to implement a communication strategy as outlined below. The communication strategy is intended to ensure that all construction operations are performed in accordance with all agreements, ordinances and special permits applicable to this project. The Construction Manager will work closely with adjacent abutters, businesses, nearby construction sites, and all parties informed, as far in advance as possible, of scheduled work, particularly work anticipated to cause significant noise, vibrations, or dust. The final construction management plan shall provide for the following:

1. Contact Person and contact information for the [applicant and contractor] and who is available 24 hours
2. Construction Signage posted on the site with Contact Information for Contractor
3. Describe any additional communication strategies
4. All construction site signage is temporary and shall be removed at project completion.

E. Construction Schedule

1. The contractor shall submit a schedule or time line for the construction project, including any Phasing.
2. Hours of Construction. Construction may occur during the daytime hours as defined in Section 17-18. Construction Activities for Building permit (Attachment 1) and Section 25-129. Noise, dust and debris (Attachment 2).
3. Extended Hours or Night Work: Pursuant to Section 17-18, this section not apply to emergency utility work or "Situations where the public works authority or the office of building inspections determines that the construction activity is of a unique character which cannot reasonably be completed or performed during the permitted hours and which is not of a recurring nature, provided that prior to engaging in such activity the contractor or his representatives gives notice of the time and scope of such proposed activity, the notice to be given in a manner approved by the public works authority."
4. Material Deliveries: Schedule and designated location for delivery of materials and boxed goods.

F. Security & Public Safety

1. The Construction Management Plan will depict all proposed fencing or other barriers and access gates (with knox locking devices) with the intent of separating pedestrian and vehicle circulation from the construction site.

2. Structures undergoing construction, alteration, or demolition operations, including those in underground locations, shall comply with NFPA 1 Chapter 16. *Safeguarding Construction, Alteration, and Demolition Operations.*
3. Fire Safety Program. An overall construction of demolition fire safety program shall be developed. Essential items to be emphasized include the following:
    - Good Housekeeping
    - On-site security
    - Installation of new fire protection systems as construction progresses
    - Preservation of existing systems during demolition
    - Organization and training of an on-site fire brigade
    - Development of a pre-fire plan with the local fire department
    - Rapid communication
    - Consideration of special hazards resulting rom previous occupancies
    - Protection of existing structures and equipment from exposure fires resulting from construction, alteration, and demolition operations
4. Blasting, if required, shall conform with all measures of Article VIII. Regulation of Explosives in the Land Use Code and Section 3.7 Standards for Blasting and Regulation of Explosives in Portland's Technical Manual.
5. Any proposed temporary security lighting shall be shown on CMP and all fixtures shall be full cutoffs.

G. Construction Permitting and Traffic Control Plans

1. Construction Activity in Public Streets: Construction activity in the public right-of-way is controlled by Chapter 25 Article VII of the City Code of Ordinances. Required licenses and permits, restrictions on activity, and fees & area are outlined in that Chapter. Rules and Regulations for Excavation Activity are available through the Street Opening Clerk at the Department of Public Works. At no time can construction activity including delivery vehicles close or block streets or affect public safety access without prior notice and approval of the Department of Public Works.
2. Sewer and Stormwater: Sewer and stormwater water system connections are controlled by Chapters 24 and 32 of the City Code of Ordinance. Required permits for new connections and/or abandonment of existing connections are available through the Street Opening Clerk at the Department of Public Works. Rules and Regulations for these utility systems are available through the City Engineer's office of the Department of Public Works and in Section II of the Technical Manual.

3. Traffic Control Plans: Construction activity that impacts the existing public street system must be controlled to protect the safety of the construction workers and all modes of the traveling public. Projects are required to submit a satisfactory 'maintenance of traffic" (MOT) plan prior to any site plan, subdivision, or street opening permit approval. MOT plans may be required for projects that have impacts on local streets.

   Maintenance of Traffic (MOT) plans shall provide for the safe passage of the public through or along the construction work zone. On a case-by-case basis, applicants may be allowed to close a street and/or detour a mode of traffic when absolutely necessary

for safety. MOT plans shall employ the appropriate techniques and devices as called for n the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). In addition:

- Construction speed signing may be used as needed to slow traffic
- Traffic Control signs shall not be placed where they are an obstruction to bicycles or pedestrians.
- In some situations, flaggers may be required.
- Police details may be required at lighted intersections and may be requested by the City's transportation engineer or his designee.

All existing modes of travel in work zone area shall be accommodated if impacted by the activity. The safe passage of pedestrians, bicyclists, transit providers, and motorists are of equal importance when planning out the work zone; no pre-existing travel mode may be eliminated without the express approval of the Department of Public Works. The MOT should also address on-street parking impacts, including deliveries and parking for adjoining businesses and property owners, analysis of roadway capacity or diversion capacity if street closure or change to roadway capacity is required, and coordination with other on-going or future construction or utility projects in the vicinity.

- Traffic control of bicycle and pedestrian facilities or routes through work zones shall be maintained until the bicycle and pedestrian facilities or routes are ready for safe operation. Traffic control will not be removed to allow auto travel at the expense of bicycle and pedestrians.
- Barrier systems utilized to separate the construction activity from the public street and /or sidewalk shall not inhibit sight distances, particularly for visibility of pedestrians and bicyclists.
- ADA compliance shall be maintained.

Use of public parking spaces or the blockage of any portion of sidewalk for the purpose of construction activity shall require an occupancy permit and appropriate fee as assessed by the Department of Public Works.

H. Site Management and Controls

The final Construction Management Plan will address maintaining the site in a safe condition and will include the following:

1. Regular trash and debris removal
2. Street cleaning and damage controls
3. Dust controls- The construction shall comply with Portland's requirements under Section 25-129 on Noise, dust and debris (Attachment 2).
4. Noise: The construction shall comply with Portland's requirements under Section 17-18 of the City Code (Attachment 1) and Section 25-129 on Noise, dust and debris Attachment 2).
5. Rodent Control will be provided, if applicable, by a professional exterminator and consistent with Chapter 22 of the City Code.

6. Snow Removal: Pursuant to Section 25-173 Contractors to ensure a safe means of travel within the work zone.
    1) Snow/ice removal or commence automatically from (1" of snow and up) or Ice
    2) Remove snow as needed within the work zone, including parking spaces & not to block any driveways or sight lines with the piles of snow.
    3) Clear all walks & ramps with the work zone
    4) Sand or Salt as needed
    5) Clear all basin or drainage to help snow melt
    6) This would include Monday-Friday Sat/Sunday/Holidays

I. Erosion Control and Preservation of Trees

1. The [contractor] shall install all erosion and sedimentation controls as depicted on the approved erosion and sedimentation control plan prior to the pre-construction meeting for inspection by the City. The contractor shall regularly inspect the control measures, no less than weekly and after significant storm events, and maintain any installed temporary or permanent stormwater management systems in working order. The contractor shall document all inspection activities and corrective actions and be prepared to provide these documents for inspection by the City, Maine Department of Environmental Protection or the U.S. Environmental Protection Agency upon request.
2. The [contractor] shall maintain all tree and landscaping preservation measures as depicted on the landscaping plan (Exhibit) within the area of construction.
3. The storage of materials shall be identified and avoid being located under/near trees.

J. Construction Staging Area

1. The Construction Management Plan shall depict location of the material staging areas, the location on onsite temporary construction trailers, the location on onsite truck delivery holding areas, the location onsite truck washing stations, masonry mixing stations, the general location of the construction security fence and the general location of temporary construction dumpsters. An open storage areas shall be shown on the plan.
2. Delivery Truck Holding Areas On-Site: The delivery holding area shall be shown on the plan and shall not be blocked during construction. On days when the construction activities require multiple truck deliveries, these deliveries will be carefully scheduled so that there is always adequate on-site area for the holding of the trucks until they can be unloaded. Once at the site all vehicles well be brought within the fence line and will make every attempt to avoid queueing on public streets.
3. Delivery Truck Holding Areas Off-Site: In the event that adequate on-site area for holding of trucks is not available, an off-site marshalling area will be utilized for trucking. The designated off-site location will be identified in the construction management plan.

K. Parking During Construction

1. Construction Parking: Adequate parking for construction workers shall be provided on site or arrangements for off-street parking at an off-site location shall be provided. The parking arrangements shall be included in the construction management plan.

2. Parking: Where existing facilities are remaining in operation during construction, the construction management plan shall identify how the parking for employees and others shall be managed.
3. Truck Routes and Volumes: The Construction Management Plan shall address the designated truck routes and expected truck volumes.

L. Dewatering Plans

A basic dewatering plan for any construction work is required. The plan must cover construction sites where groundwater is not expected but the impact of rainwater may require dewatering. The plan must include operating procedures, equipment to be used, including filters, erosion and sediment control measures, or other methods of removing sediment from approved discharges.

For construction work that will require frequent dewatering of groundwater from site, a dewatering plan must be prepared and approved by the Department of Public Works. Groundwater and/or soil testing may be required to determine course of action if treatment is necessary. Approval for all discharges to City infrastructure is required.

The proposed plan must address the following:

- Project duration, discharge location, storage equipment on-site, dewatering schematic, and emergency contact.
- General requirements include trained staff on-site for all approve discharges and required site log for documentation of all discharges.
- Storage and/or treatment process should include proper settling time and maintain proper use of filtering medium as required.
- Contingency/maintenance plan for all dewatering equipment devices and filtration mediums.

Any water that is removed from an excavation must be pumped from a perforated device buried in crush stone prior discharge and/or prior to storage and treatment. There will be no discharge allowed during precipitation events.

M. Special Measures as Necessary

For construction work that will take place over a long period (e.g. 12 months or more), involve major demolition/ deep excavation/ piling and/or special construction techniques, or are located near sensitive uses (e.g. medical care facilities, schools), the Construction Management Plan should provide details and demonstrate that all appropriate special measures have been taken to avoid, minimize, or possibly compensate for potential impacts. This may include taking baseline measurements before construction, such as arranging to photograph the foundations of nearby properties upon consent of the owners, in order to assess any future impacts of vibration, noise, etc.

REGULATORY FRAMEWORK

8.5.8 The University of New England Institutional Overlay Zone Regulatory Framework

A. Applicability: All development proposed by the University of New England (UNE) within the boundary of the Institutional Overlay Zone (IOZ) shall be consistent with the approved Institutional Development Plan (IDP), consistent with the Comprehensive Plan, and meet applicable standards of the Land Use Code, unless such standards are superseded by the following Regulatory Framework. This Regulatory Framework shall govern future development by UNE within the IOZ unless amended by the Portland City Council upon formal application of UNE. The UNE IOZ shall have the boundaries depicted in Figure 8-H, and shall include the properties listed in Table 8-G.

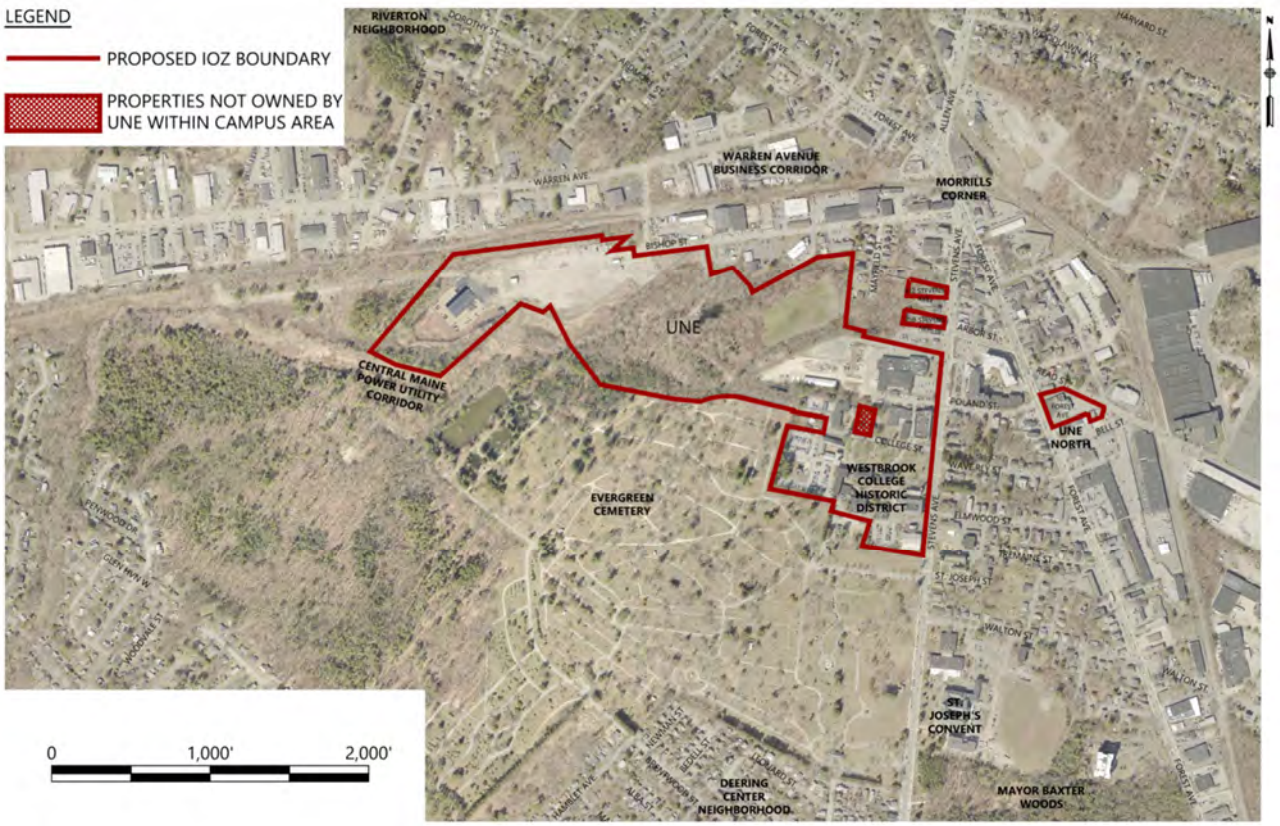


Figure 8-H: UNE Institutional Overlay Zone Boundary

Table 8-G: List of Properties Included in the UNE IOZ					
Chart	**Block**	**Lot**	**Address**	**Acreage**	**Ownership**
144	A	005	684 Stevens Avenue	0.141	UNE
144	A	006	684 Stevens Avenue	0.275	UNE
144	A	007	684 Stevens Avenue	0.371	UNE
144	A	008	684 Stevens Avenue	0.256	UNE
144	A	009	684 Stevens Avenue	0.586	UNE
145	A	001	706 Stevens Avenue	0.450	UNE
145	A	003	710 Stevens Avenue	0.165	UNE
145	A	006	714 Stevens Avenue	9.231	UNE
145	A	007	710 Stevens Avenue	0.025	UNE
145	A	008	710 Stevens Avenue	0.006	UNE
145	A	009	714 Stevens Avenue	0.036	UNE
145	A	010	714 Stevens Avenue	0.356	UNE
145	B	001	1 College Street	0.338	UNE
145	B	002	1 College Street	0.207	UNE
145	B	006	31 College Street	0.134	UNE
145	B	009	41 College Street	0.200	UNE
145	B	010	51 College Street	0.383	UNE
145	B	011	63 College Street	0.076	UNE
145	B	012	63 College Street	0.114	UNE
145	B	013	63 College Street	0.048	UNE
145	B	014	83 College Street	0.366	UNE
145	B	018	772 Stevens Avenue	8.603	UNE
145	B	022	798 Stevens Avenue	0.438	UNE
145	B	027	83 College Street	3.137	UNE
145	B	029	79 College Street	0.258	UNE
145	B	042	1 College Street	0.162	UNE
145	B	046	1 College Street	0.138	UNE
146	F	005	32 Bell Street	0.106	UNE
147	F	006	1075 Forest Avenue	1.159	UNE
281	A	003	0 Bishop Street	10.555	UNE
290	A	003	83 College Street	1.771	UNE
291	A	001	0 Bishop Street	8.394	UNE
291	A	005	83 College Street	17.972	UNE
291	A	007	83 College Street	0.459	UNE
293	C	005	83 College Street	1.574	UNE

B. Updates and Amendments.

1. It is intended that the IDP will be updated on a regular basis to ensure that the data is current and that the document remains accurate. Accordingly, UNE shall file monitoring reports every five (5) years with the Planning Authority and shall include a summary of progress on IDP implementation and progress towards targets established in UNE's Transportation Demand Management Plan (TDM), and of acquisitions and divestment since the date of IDP approval. At the time of the submission of the monitoring report, UNE shall identify any updates to the IDP which may result from updated master planning, changes in baseline information, or changes in the adjacent neighborhoods which affect UNE, to allow the IDP to remain current. Updates and minor amendments not described in Sub-section 2 and 3 below shall be reviewed
administratively by the Planning Authority.

2. Minor amendments that impact phasing of the development or change the approach to parking, transportation, neighborhood engagement, or design shall be reviewed by the Planning Board for consistency with the objectives of the IDP. In addition to consistency with the objectives of the IDP, review of phasing and development program amendments shall focus on integration with the campus and impacts on transportation or infrastructure. This review may occur simultaneously with the site plan review of an anticipated project.

3. Major amendments shall be reviewed by the Planning Board and are required under the following circumstances:
a. A change to the IOZ boundary or Regulatory Framework is required;
b. The IDP is no longer representative of the institutional mission or approach to community as a result of redevelopment in the area or City upgrades to neighborhood planning (such as, but not limited to, roadway changes, infrastructure upgrades, community design,); or,
c. Development proposed by UNE is inconsistent with the Campus Master Plan, Transportation Plan intent, Design Plan intent, or Environment and Infrastructure plan intent identified in the IDP.

4. Proposed amendments to the IOZ boundary or regulatory framework must also be adopted by the City Council subject to the provisions of the Land Use Code.

C. Uses. The UNE Campus will encompass a variety of uses to support the academic programs on the campus. In addition to the uses permitted in the underlying zone, the uses in Table 8-H shall also be permitted as a matter of right in all buildings that are located within the IOZ. In recognition that the UNE Campus contains undergraduate and graduate-level programming, ground floor retail, restaurant, or comparable community-oriented uses that provide services to local residents, students, faculty and staff may be provided. Such uses are expressly permitted whether ancillary to or supporting the educational institution, and shall be open and welcoming to the general public in addition to students, faculty, staff, or visitors of UNE.

Table 8-H: Permitted Uses
Laboratory and Research Facilities
Off-Street Parking
Intermodal Transportation Facilities

D. Dimensional requirements.

1. Applicability
   All principal buildings and structures located within the IOZ shall be subject to the dimensional requirements of the underlying zone, except where modified by the provisions of this Section.

   For the purposes of this IOZ, "lot" is defined as the combination of the contiguous lots under UNE ownership, including land separated by a public or private right-of-way. The "lot" boundary is as shown in Figure 8-H. Side and rear setbacks shall not be required between buildings on contiguous lots owned by UNE on the condition that such contiguous lots shall be considered merged and shall not be separately conveyed unless required setbacks in the underlying zones are provided.

Table 8-I: Dimensional Requirements	
Building Height (max.)	Maximum building heights for new principal buildings in the IOZ shall be governed by the UNE IOZ Height Map (Figure 8-I)

2. Transition Zones
   The UNE campus abuts residential zones to the north and across Stevens Avenue to the east. As shown on the UNE IOZ Height Map, transition zones extend twenty-five feet from the lot boundary. Within transition zones, the maximum building height shall be fifty feet.



Figure 8-I: Open Space and Maximum Height Map

E. Transportation.

1. Transportation Demand Management (TDM)

a. At the time of the first site plan review following IDP approval, UNE shall submit a campus-wide TDM Plan substantially in accordance with those TDM objectives and strategies identified in the approved IDP. The TDM Plan will be updated with each subsequent application for site plan approval to allow for progressive and responsive implementation over time.

b. The TDM Plan shall be designed to provide transportation choice with the goal of reducing parking demand and single-occupancy vehicle trips to and from UNE by students, faculty, staff, and visitors.

c. The TDM Plan shall establish parking, mode share, and trip reduction targets associated with each phase of development, as well as a data collection plan.

d. The TDM Plan shall include parameters to encourage trip reduction and to ensure pedestrian, vehicular, bicycle, and public transit access and safety.

e. Annual monitoring reports will be submitted for the TDM Plan. TDM monitoring reports shall include a summary of progress towards targets established in the TDM Plan. If deficiencies are identified, they will be resolved in accordance with the site plan approval.

2. Parking.

Parking requirements in the IOZ shall be established at the time of site plan review based on a parking study that includes a campus-wide analysis of demand and supply. Parking studies shall integrate parking and trip reduction achievements and data contained in the TDM Plan. Parking requirements shall be determined in accordance with the requirements in the Land Use Code in effect at the time of site plan review and shall be sufficient to alleviate parking pressure on surrounding neighborhoods.

F. Environment.

1. All proposed campus development projects shall avoid to the extent practicable and feasible, significant impacts to wetlands and aquatic resources. Development shall comply with the Urban Impaired Stream (UIS) Standard of Chapter 500 of the Maine DEP Stormwater Management Rules, as applicable.

2. All new buildings and parking facilities shall be set back a minimum of 75 feet from the normal high-water line of existing streams. Notwithstanding this requirement, the Planning Board may approve a reduction of the setback requirement for a new building to the least amount necessary to achieve the goals of the development and minimize overall impacts, provided that the setback is not reduced to less than 40 feet.

3. Development in significant wildlife habitats (as defined by the Maine Department of Environmental Protection) will be minimized to the maximum extent practicable and shall comply with all applicable local, state and federal permitting requirements in effect at the time.

G. Mitigation measures.

1. Site plan impacts to off-premise infrastructure shall be mitigated in a manner proportionate to those impacts. Mitigation may include financial or in-kind contributions to existing or planned City projects focused on mitigating the impacts of the development. Mitigation contribution shall be determined based on the City's standard procedure in effect at the time of site plan review.

2. Impacts to natural resources shall be mitigated in accordance with local, state and federal permitting standards in effect at the time.

H. Design.

1. Introduction and intent.

New development in the IOZ shall adhere to the following design guidelines and the site plan standards of the City of Portland. All new development shall be designed to create a visual connection with the goal of achieving a cohesive campus appearance with a strong identity and sense of place. These standards are intended to regulate future development on the UNE campus to

ensure that new development is sensitive to adjacent neighborhoods while allowing UNE to maintain a thriving academic institution in Portland.

2. Standards
   a. Cohesive campus
      The overall composition and experience of the campus will be considered for cohesive identity.
   b. Building design
      Building facade materials will be of high quality, durable to the weather, and contribute to an attractive campus experience.
   c. Building entrances
      Building entrances will include prominent facades and be oriented toward pedestrian-oriented activity areas, including parking areas, to facilitate safe and barrier free access.
   d. Lighting
      New or renovated buildings should have adequate exterior lighting to ensure that entrances and surrounding areas are safe. All new exterior lighting will be selected to provide lighting levels that meet the safety criteria of the Illuminating Engineers Society of North America, IESNA. Consideration will be given to limit light trespass and glare into neighboring properties through the use of cutoff fixtures at the edge of campus, resulting in less light spillover into the surrounding community.

   e. Outdoor Spaces
      Building designs should strive to include a variety of open spaces and activities ranging from small intimate courtyards for contemplative study to open lawn areas for informal recreation and outdoor classes. Where applicable, provision should be made during the programming and conceptual design of new facilities to provide opportunities for outdoor use of open space as part of the site and for integration within the larger open space/conservation network.

   f. Mitigation of impacts
      Buildings and site development will endeavor to minimize potential negative impacts related to shadows, wind, noise, heat, glare, lighting, contaminants, and the environment.

3. Signage. Signs shall comply with the requirements of Article 20, except as modified below:

   a. Signs shall be designed in accordance with a signage plan pursuant to signage standards promulgated by the university, providing for a unified and ADA compliant campus-wide system for identification, orientation, and regulatory signage.
   b. A unified campus-wide signage plan shall be submitted for review and approval by the Planning Authority. Any update to such plan due to a change in name, text or logo shall not require amendment to the IDP.
   c. Banners are allowed as follows:

i. Generic banners containing the logo and colors of the university, used for decorative purposes.

ii. Banners used for advertising university events, which can be displayed for a maximum of four weeks prior to and one week following the event.

I. Neighborhood integration.

1. Neighborhood Engagement

a. For the purpose of keeping surrounding residential areas appraised of its future development plans, and to address any neighborhood issues related to the operations of the UNE campus, UNE shall adhere to the ongoing neighborhood engagement principles identified in the IDP.

b. Ongoing community engagement shall be conducted, including the continuation of posting project updates on UNE's Campus Planning web page and the creation of a dedicated email address for neighbor communications with UNE's Planning Department.

c. A Community Advisory Group shall be created for the purpose of sharing information on project development, planning, and seeking input. To the extent practicable, the group shall be comprised of representatives of interested groups such as the Deering Center Neighborhood, parks and trails, bicycle/pedestrian, public transit, and the business community.

d. A designated community contact shall be engaged to be the point of contact for providing information to the neighborhood and receiving feedback.

2. Construction Management

At the time of site plan review, UNE shall submit a Construction Management Plan substantially in accordance with the construction management principles identified in the Institutional Development Plan for review and approval by the Planning Authority.

J. Monitoring

1. Monitoring reports shall be provided to the City of Portland Planning Authority every five (5) years from the date of IDP approval. Monitoring reports shall include a summary of progress on IDP implementation and of acquisitions and divestment since the date of IDP approval.

FIGURE 1.4 - UNE CAMPUS SITE NEIGHBORHOOD CONTEXT: PROPOSED ZONING

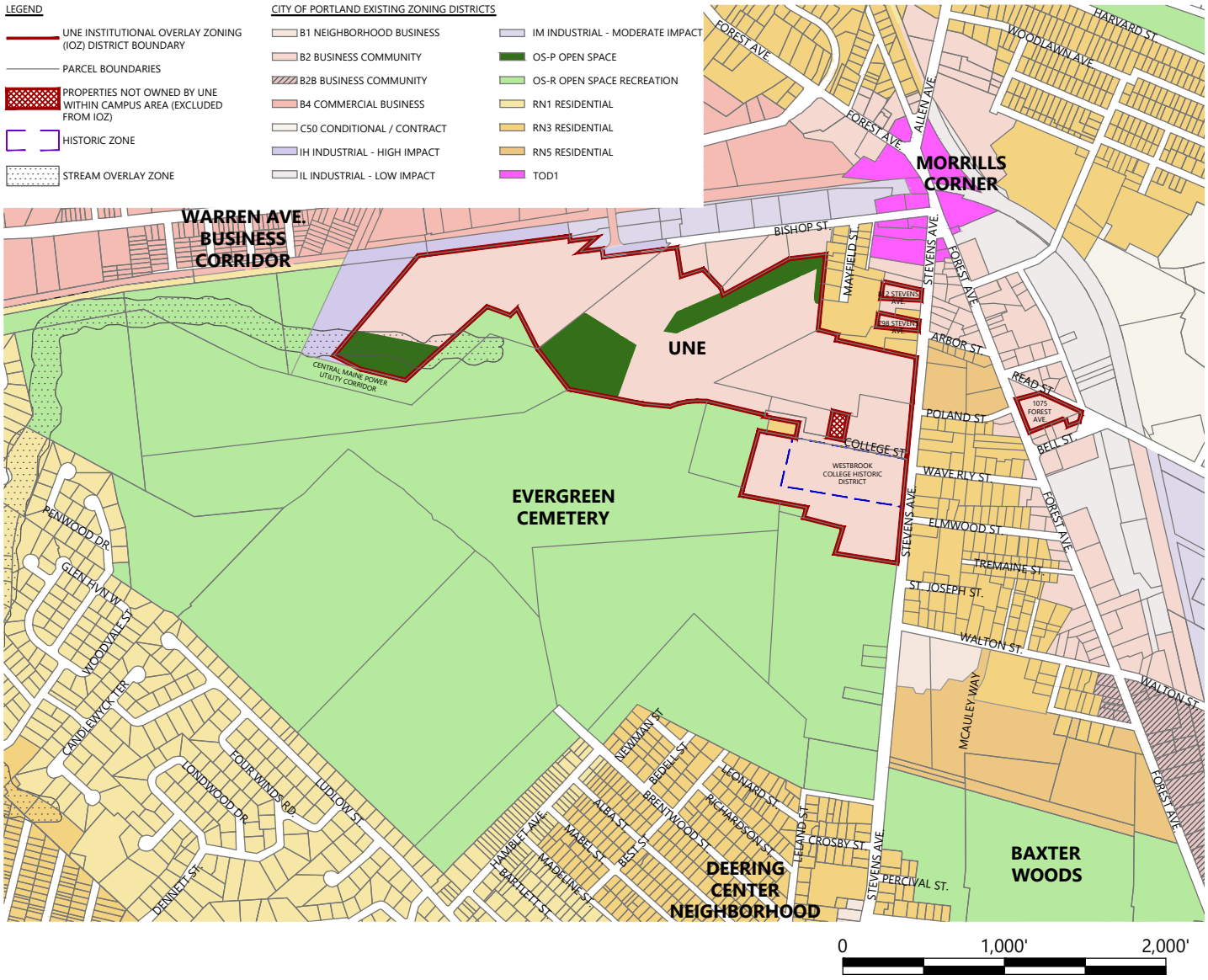
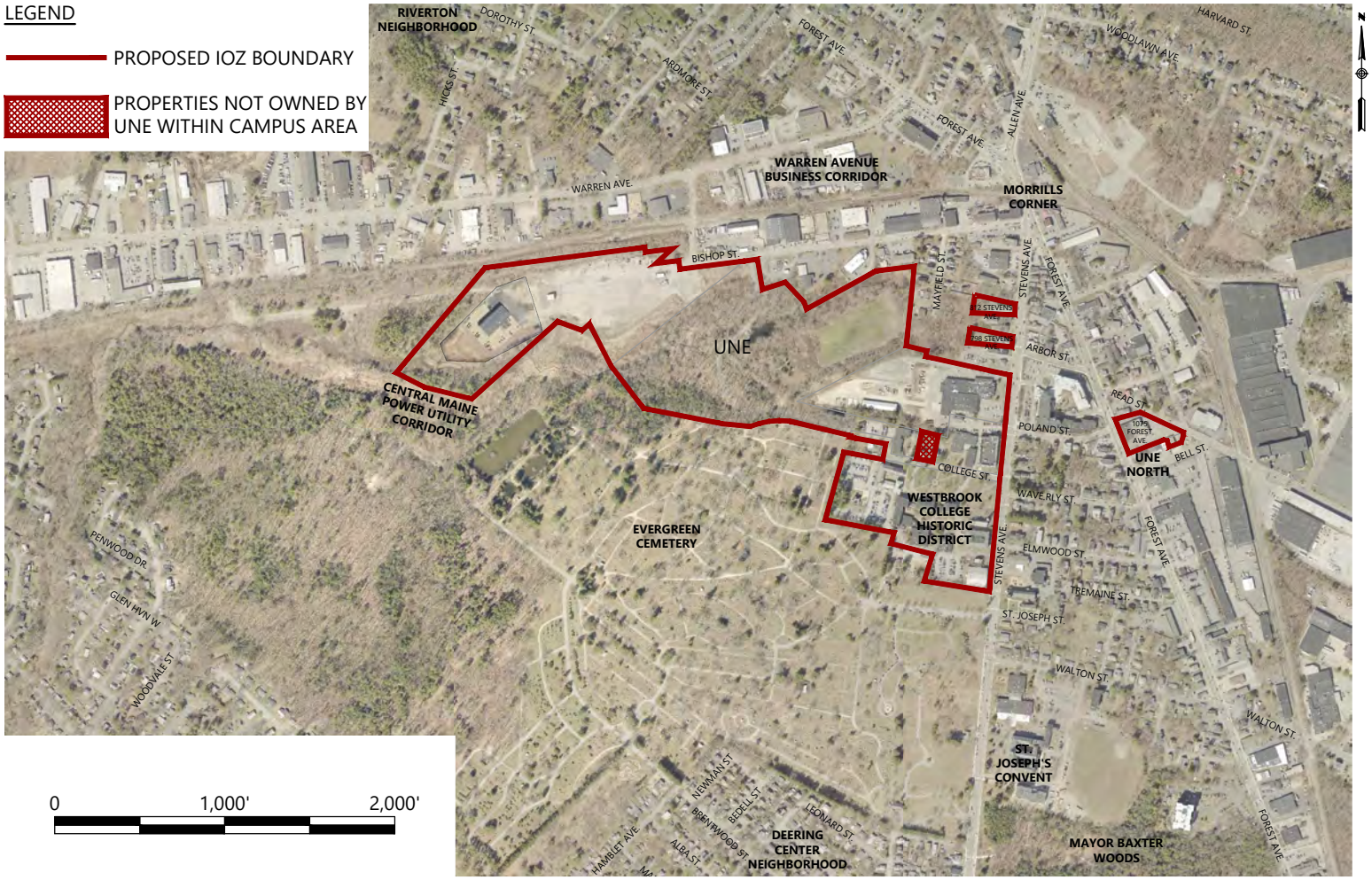


FIGURE 1.1 - UNE CAMPUS SITE & NEIGHBORHOOD CONTEXT MAP

Att. G



12 Mountfort Street
Portland, Maine 04101
www.woodardcurran.com

T 800.426.4262
T 207.774.2112
F 207.774.6635

Att. H

Via Electronic Mail

October 9, 2024

Natasha Kypfer, Senior Planner
City of Portland
389 Congress Street, 4th Floor
Portland, ME 04101
nkypfer@portlandmaine.gov

Re: UNE Institutional Overlay Zone Application (ZN-003059-2024)
Neighborhood Meeting #1

Dear Natasha:

I, Megan Gatto, consultant for the University of New England (UNE), hereby certify that a Neighborhood Meeting was held on Thursday, June 13, 2024, at the UNE Portland Campus, 716 Stevens Avenue, in the Hannaford Lecture Hall, Room 109, at the College of Pharmacy, for the Institutional Overlay Zone proposed for the UNE Portland Campus (address: 716 Stevens Avenue).

I also certify that on June 3, 2024, notices were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes owners within 1,000 feet of the proposed Institutional Overlay Zone.

2. Residents on the "interested parties" list.

Sincerely,

Woodard & Curran, Inc.

Megan Gatto

Megan Gatto, AICP
Project Manager

Attachments:
1. Copy of the notice sent
2. Sign-in sheets
3. Presented material (PowerPoint Presentation)
4. Meeting Minutes

12 Mountfort Street
Portland, Maine 04101
www.woodardcurran.com

T 800.426.4262
T 207.774.2112
F 207.774.6635

June 3, 2024

Dear Neighbor:

On behalf of the University of New England (Applicant), please join us at a neighborhood meeting to discuss our plans for the Portland Campus Overlay Zone located at 716 Stevens Avenue in Portland, Maine.

The City of Portland has implemented an Institutional Overlay Zone (IOZ) ordinance that "provides a regulatory mechanism available to the city's four major medical and higher education campuses where an improved regulatory structure is needed to facilitate a consistent, predictable, and clear growth management process." This applies to the University of New England. This process will ultimately simplify the campus planning and regulatory permitting process in the future as the University grows. UNE has initiated the necessary work to coordinate with the City of Portland and apply for this Institutional Zone change.

This neighborhood meeting will provide an overview of the IOZ process and gather our neighbors' input on the growth of the campus, in advance of our Application to the City.

Neighborhood Meeting

Meeting Location: University of New England – Portland Campus, 716 Stevens Avenue, Hannaford Lecture Hall, Room 109, College of Pharmacy, Portland, ME

Meeting Date: Thursday, June 13, 2024

Meeting Time: 6:00-7:00 PM

The City of Portland's Land Use Code requires that property owners within 500 feet of the proposed development and residents on the City's "interested parties list" be invited to participate in a neighborhood meeting. In an effort to be more inclusive, UNE has extended beyond the 500-foot requirement to include property owners within 1,000 feet of the Portland Campus. Your contact information has been provided to us by the City of Portland as part of these lists. A sign-in sheet will be circulated at the meeting, and minutes of the meetings will be taken. Both the sign-in sheets and minutes will be submitted to the Planning Authority for inclusion in the project's Institutional Overlay Zone (IOZ) application to City Planning, which includes an Institutional Development Plan and Regulatory Framework.

If you have any questions, please contact me at +1 (781) 613-0168 or via email at megan.gatto@woodardcurran.com

Sincerely,

WOODARD & CURRAN, INC.

Megan Gatto

Megan Gatto, AICP
Project Manager

On behalf of the University of New England (UNE) - Portland Campus

Note:

Under the City of Portland land use code, an applicant for a major site plan, master development plan, subdivision of over five lots, or zoning map amendment is required to hold a neighborhood meeting within 30 days of an application being deemed complete and no less than seven calendar days before a public hearing. Should you wish to offer additional comments on this proposed development, you may forward them by e-mail to planning@portlandmaine.gov or by mail to the Planning and Urban Development Department, Planning Division, 4th Floor, 389 Congress Street Portland, ME 04101.

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Portland, Maine 04101
www.woodardcurran.com

T 800.426.4262
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F 207.774.6635

Woodard & Curran

Neighborhood Meeting Sign-In Sheet

DATE: **June 13, 2024**

RE: UNE Portland Campus – Institutional Overlay Zone (IOZ) Neighborhood Meeting Sign-In Sheet

---

Dear Neighbors,

Thank you for attending tonight's public Neighborhood Meeting at the University of New England – Portland Campus, 716 Stevens Avenue, Hannaford Lecture Hall, Room 109, College of Pharmacy, Portland, ME for the proposed rezoning of the UNE Portland Campus. Please sign in below.

Thank you,

UNE IOZ Project Team

Name	Email
Susan Small	SSmall2@maine.rr.com
FRAN GIRARD	frangirard380@gmail.com
Katherine Kilcullen	cccc@maine.rr.com
CHRISTOPHER NELSON	CMNELSON707@AOL.COM
Kate Sykes	KSykes@portlandmaine.gov

Woodard & Curran

Name	Email
Jerry HANKINSON	jerryhankinson@gmail.com
Mona Oates	MONAOATES@GMAIL.COM
~~Craig Infantini~~	
Scott Dalton	Sbdal06371@gmail.com
Brenda Boothby	brendaboothby@gmail.com
Carleton Winslow	carletonwinslow@yahoo.com

email Dev. Plan

Woodard & Curran

Name	Email
Sean Hagan	hagan.sean@gmail.com
Anna Bullett	~~anna~~ abullett@portlandme.gov



UNIVERSITY OF NEW ENGLAND
INNOVATION FOR A HEALTHIER PLANET

Woodard & Curran

BERNSTEIN SHUR

Sewall
The evolution of expertise

University of New England – Portland Campus

Institutional Overlay Zone (IOZ)

Alan Thibeault, Vice President for University Operations



UNIVERSITY OF NEW ENGLAND

INNOVATION FOR A HEALTHIER PLANET

Agenda

Welcome

Overview of UNE (*Portland Campus History + Programming*)

Regulatory Process – *(Institutional Overlay Zone)*

Campus Master Plan

Public Involvement Opportunities

Comments and Questions

UNE Portland Campus: History

- Founded in 1830
- Portland Campus located at 716 Stevens Avenue
- UNE is a private university with a comprehensive health education mission that includes medicine, pharmacy, dental medicine, nursing, and allied health professionals.



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UNE Portland Campus: Programming

The UNE Portland Campus is primarily a graduate campus, focused on educating health professionals, and is currently home to four of the University's premier Colleges: the Westbrook College of Health Professions, the College of Dental Medicine, the College of Graduate and Professional Studies and the School of Pharmacy.





Programs:

- Dental Medicine
- Dental Hygiene
- Nursing
- Nurse Anesthesia
- Occupational Therapy
- Pharmacy
- Physical Therapy
- Physician Assistant
- Health, Wellness, and Occupational Studies

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Recent Activities at UNE Portland



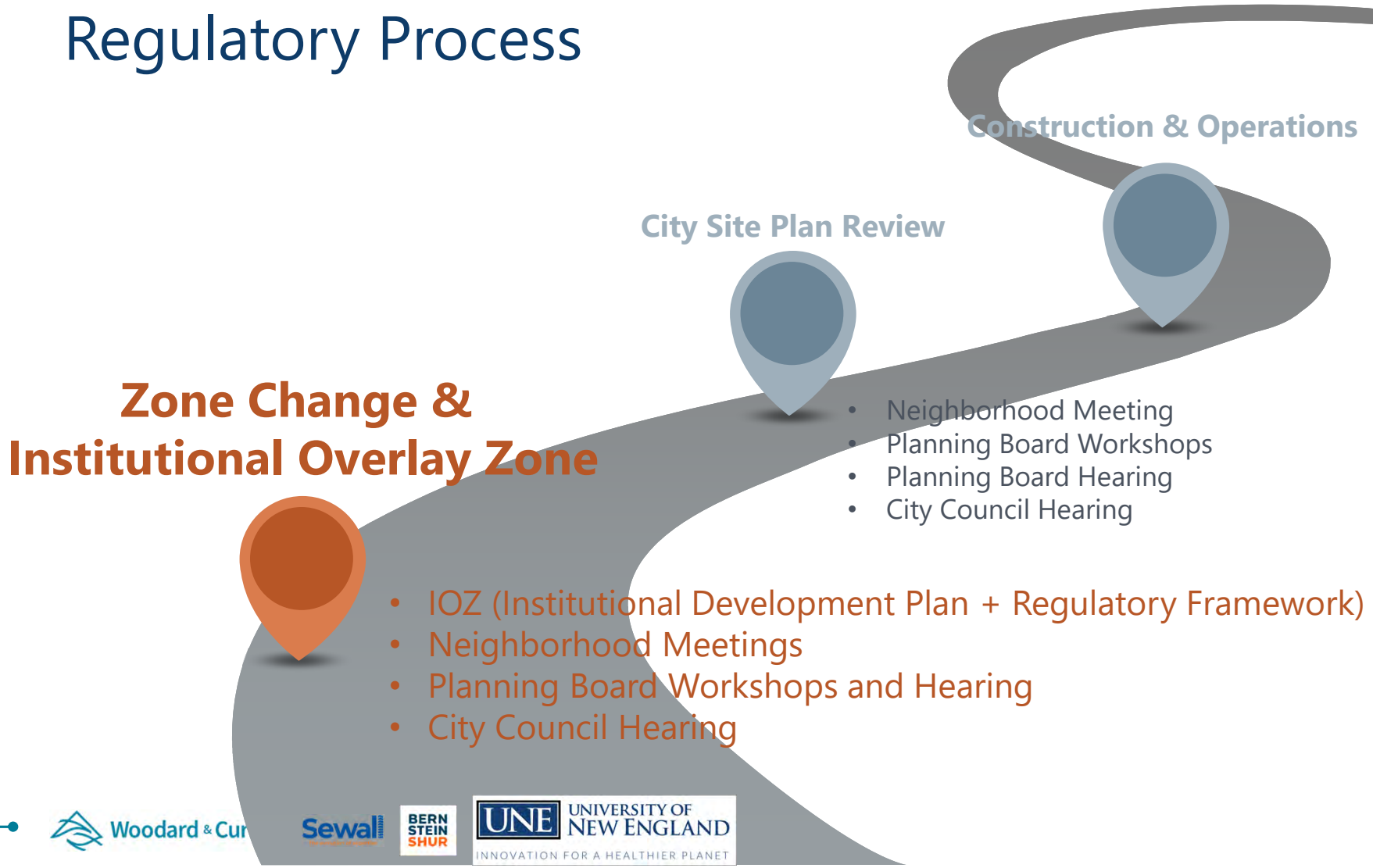
Woodard & Curran Sewall BERN STEIN SHUR UNE UNIVERSITY OF NEW ENGLAND
INNOVATION FOR A HEALTHIER PLANET

COM Building Rendering



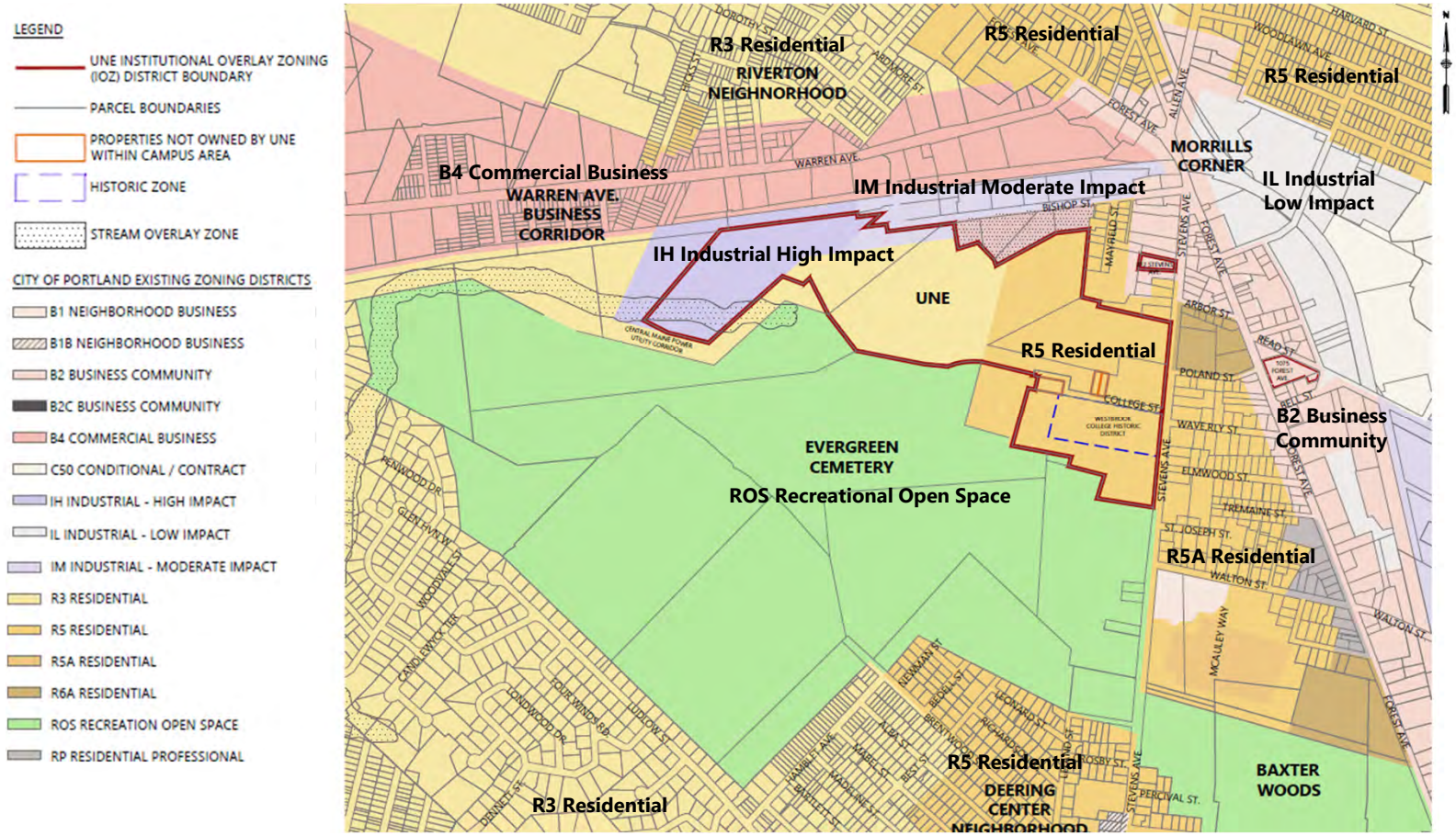
Woodard & Curran Sewall BERN STEIN SHUR UNE UNIVERSITY OF NEW ENGLAND
INNOVATION FOR A HEALTHIER PLANET

Regulatory Process

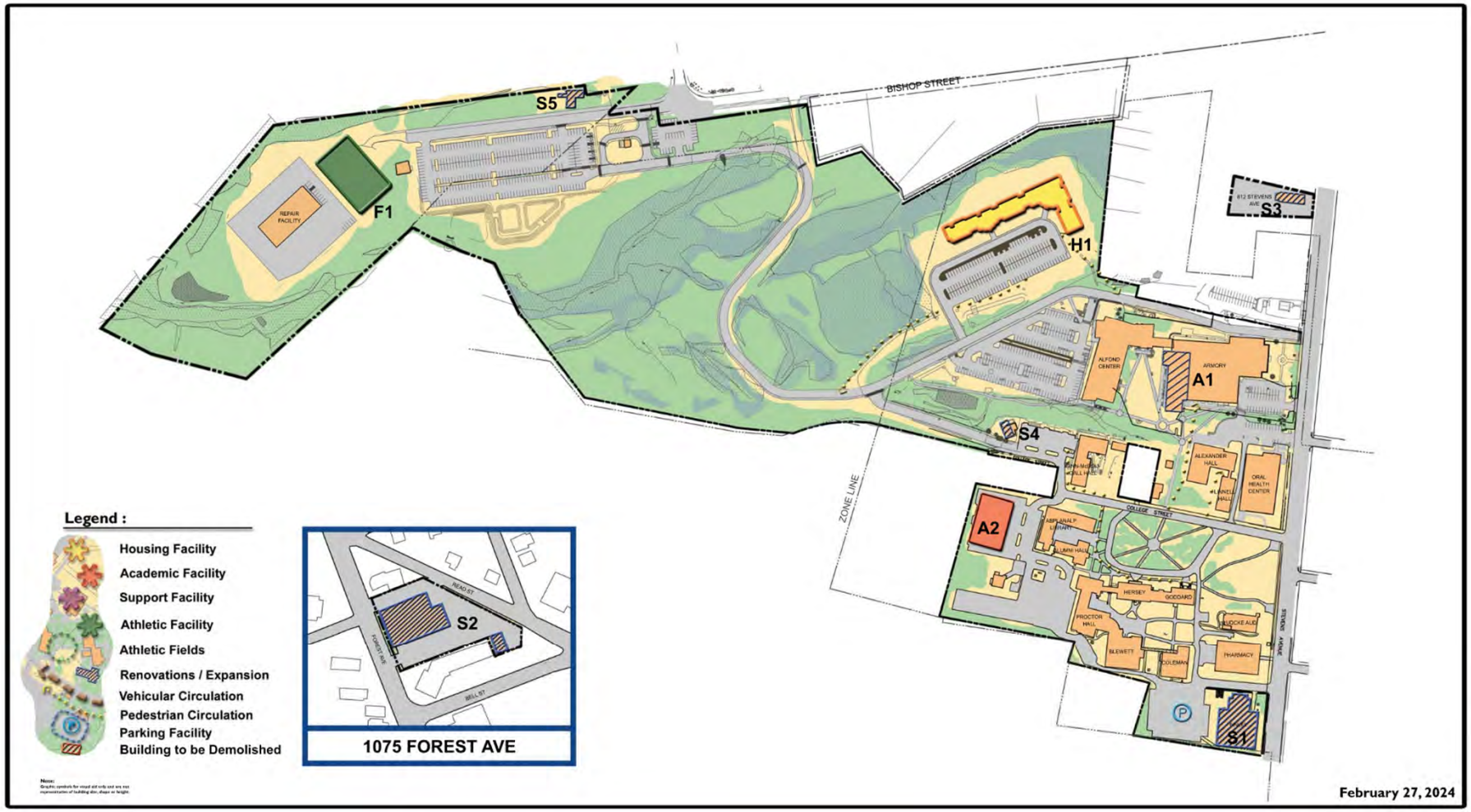


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Existing Zoning



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INNOVATION FOR A HEALTHIER PLANET



University of New England Portland Campus

Campus Master Plan

Five Year Plan

Site Design Associates

Civil Engineering & Land Planning

BERN STEIN SHUR

Sewall

Woodard & Curran

10+ Year Development Plan

	Student Population
Fall 2025	1,400
Fall 2028	1,600
Fall 2033	1,750

Priority 1: Short-Term Development Plan (0-5 years)				
Campus Master Plan Identifier	Project	Use Category	Total Square Footage	Estimated Occupancy
H1	Residence Hall	Housing	175,000	350 beds
A1	Innovation Hall Renovation/Expansion	Academic	24,000	2 offices
S3	812 Stevens Ave. Renovation/Expansion	Support	10,000	6 offices
Priority 2: Medium-Term Development Plan (5-10 years)				
Campus Master Plan Identifier	Project	Use Category	Total Square Footage	Estimated Occupancy
S2	UNE North/1075 Forest Ave. Renovation/Expansion	Support	60,000	10 offices
S4	79 College Street Renovation/Expansion	Support	2,500	2 offices
S5	Bishop Street Renovation/Expansion	Support	2,000	N/A
Priority 3: Long-Term Development Plan (10+ years)				
Campus Master Plan Identifier	Project	Use Category	Total Square Footage	Estimated Occupancy
A2	Academic Building	Academic	60,000	20 offices
F1	Athletic Facility	Athletic	65,000	12 offices

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Public Involvement Opportunities - IOZ

- Pre-Submission Neighborhood Meeting – **WE ARE HERE**
- Post-Submission Neighborhood Meeting – Summer/Fall
- Public Hearings as part of the Regulatory Process
  - Planning Board Workshops
  - Planning Board Hearing
  - City Council Hearing
- Continued Public Engagement

Woodard & Curran Sewall BERNSTEIN SHUR UNE UNIVERSITY OF NEW ENGLAND INNOVATION FOR A HEALTHIER PLANET

Communications

- Current/active project monthly updates on Campus Planning webpage (www.une.edu/campus/campus-planning).
- Email questions/concerns/feedback directly to UNE's Planning Department (uneprojects@une.edu).
- Deering Center Neighborhood Association (DCNA), to present and review future development plans and receive ideas/feedback.

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Open Forum

We are here to listen and answer questions.

UNE

- Your input is important to us
- Second Neighborhood Meeting in summer/fall
- Visit our website at for updates
  - http://www.une.edu/campus/campus-planning
- Email with questions, concerns, or feedback directly to UNE's Planning Department and project team members.
  - uneprojects@une.edu



Thank you!

Woodard & Curran Sewall BERN STEIN SHUR UNE UNIVERSITY OF NEW ENGLAND INNOVATION FOR A HEALTHIER PLANET

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NEIGHBORHOOD MEETING MINUTES

University of New England – Portland Campus Rezoning – Neighborhood Meeting #1

PROJECT:
University of New England (UNE)
Portland Campus Rezoning

MEETING DATE: 06/13/2024

LOCATION:
University of New England - Portland Campus, 716 Stevens Avenue, Hannaford Lecture Hall, Room 109, College of Pharmacy, Portland, ME

ISSUED DATE: 10/09/2024

ATTENDEES:

Presenters/Representatives
Alan Thibeault – UNE
Jim Irwin - UNE
Mary Costigan – Bernstein Shur
Diane Morabito - Sewall
Barry Sheff – Woodard & Curran (W&C)
Megan Gatto – Woodard & Curran (W&C)

Public
Susan Small
Fran Girard
Katherine Kilcullen
Christopher Nelson
Kate Sykes
Jerry Hankinson
Mona Oates
Haig Tifrakjian
Scott Dalton
Brenda Boothby
Carleton Winslow
Sean Hagan
Anna Bullett

Total recorded attendance was 13.

In person began at 6:00 p.m.

Project Presentation & Content

- Welcome and Introductions provided by Alan Thibeault, UNE
- Project Background presentation provided by Alan Thibeault, UNE and Mary Costigan, Bernstein Shur
  - Overview of UNE (Portland Campus History + Programming)
  - Regulatory Process (Institutional Overlay Zone)
  - Campus Master Plan
  - Public Involvement Opportunities
  - Comments and Questions

Record of Feedback

Throughout and following the project presentation, there was a question-and-answer period with attendees. The following topics were discussed:

- Questions and discussion about zoning, property acquisitions, and tax concerns
    - Representatives clarified that the proposed IOZ only applies to UNE property as currently held and will not apply to property acquired thereafter, without revisions to the IOZ necessitating Planning Board and City Council approval.
    - Participant asked what the Roux did for underlying zoning; representatives responded the change was from I-M to B5.
    - Participant asked if IOZ application was submitted to City; representatives confirmed it has not submitted an application and will use the information gained tonight to revise the draft before it is submitted.
    - Participant asked if the City is considering an adjacent zone change; representative responded they were not aware of that.
    - Participant asked about whether UNE makes payment in lieu of taxes (PILOT) to the City; representatives responded that they did not, and as a non-profit were not required to. However, UNE provides significant services to the greater community, including the low-cost dental clinics on campus.
    - Participant asked about whether PILOT could be a condition of IOZ approval; representatives responded they felt that would be an unusual condition.
    - Concerns were raised about City tax increases from future UNE property acquisitions.
- Questions and discussion about UNE's future plans for campus expansion
    - Participant asked what additional properties UNE is considering in the long term; representatives responded that one homeowner on Stevens Avenue has approached the University to sell their property, and that the University is considering this offer.
- Questions and discussion about traffic and parking
    - Concerns were raised about parking along Stevens Avenue.
    - Participant asked how UNE communicates with students on encouraging use of the Bishop Street remote lot; respondents reiterated communication with students is constant to increase usage of the remote parking lot.
    - Participant asked is UNE contemplating a parking garage in the future; representatives responded that structured parking is not envisioned on campus, as the city has confirmed that the current parking capacity is adequate to meet the University's needs.
    - Participant asked about shuttle usage; representatives responded that METRO use is down since COVID however the University still offers free bus passes to all faculty, staff and students, and encourages usage to reduce single occupancy vehicle trips.
    - Concerns were raised about on-street parking impacts; representatives expressed understanding and reiterated the Bishop Street remote parking and other parking on campus is intended to alleviate on-street parking, but student habits are a challenge to change, especially when pubic parking is readily

available closer to the buildings, then the students, faculty and staff will use it. UNE will continue to support any revisions to public parking the City makes.
    - Representatives clarified the size of the Bishop Street parking lot and usage: There are approximately 350 spaces with 100 cars parked at any given time.
    - Participant inquired about COM building parking needs; representatives explained that parking was a Site Plan review consideration with the City's Planning Board and that there is adequate parking supply available on campus. In fact, during its review the Planning Board suggested UNE has too much parking on site.
    - Participant asked is the City studying traffic at Morrill's Corner; representatives explained they were not aware of any ongoing City traffic studies.
- Questions and discussion about Westbrook Historic District
    - Concerns were raised regarding impacts to historic district; representatives expressed no intention to change the historic district.
- Questions and discussion about Campus Master Plan
    - Representatives clarified there would be height and dimensional limits to campus master plan, which will enable the University to meet campus program needs.
    - Representatives responded to a specific question regarding the location of Bishop Street remote parking versus proposed housing, and the intent to keep housing closer to the academic buildings on campus.
- Questions and discussion about zoning restriction changes and adjacent lot zoning
    - Concerns were raised regarding noise and light impacts; representatives reassured they had no intention of seeking changes from existing City Ordinances for noise or light trespass, and actually utilizes its own lighting standards to limit the impacts as well.
    - There was a discussion about noise and light restrictions in various city zones, for example: noise standards in B-2 zoning districts versus R-zone standards; representatives reassured these standards were City-wide and the proposed IOZ would not seek to modify those.
    - Concerns were raised regarding off-campus Waste Management truck collections before 7am.
- Questions and discussion about environmental impacts
    - Concerns were raised regarding impervious area, including Gulliver's field on Mayfield Street and climate impacts; representatives explained their overarching approach to protecting natural resources and UNE goal to Carbon Neutrality by 2040 and its commitment to its Climate Action Plan, most recently updated in 2017. UNE has a long, successful track record designing and constructing facilities in sensitive environmental locations, and is confident that this could be achieved on Gulliver's Field as well.
    - Participant asked what wildlife studies have been done; representatives explained that all studies associated with prior Site Plan approvals are public record and available through the City.
    - A concern was raised about a nearby well or individual spring and the water level; representatives shared the COM building stormwater design was reviewed and approved by the City Planning Board and had a lack of awareness of the particular issue raised and did not believe they were related, but

promised to make inquiries into this issue so it could be adequately considered in any future design.
    - A concern was raised about impacts to migratory birds, in particular the American Woodcock, resulting from development; representatives reiterated that all studies associated with prior Site Plan approvals are public record and available through the City.
    - A concern was raised about construction impacts to Mayfield with planned housing (H1) building; representatives offered assurance that City Site Plan and MaineDEP Site Law standards have always and will continue to be met when proposing future projects.
- Questions and discussion about housing
    - Participant asked If anyone looked at land behind Bruno's for housing; representatives responded that UNE has not looked at that land.
    - Positive comment shared about student tenants in the area.
    - Concerns were raised about the height of housing - too tall; representatives explained the intent of increased height to reduce footprints and impervious area and maintain open space on campus.
    - Participant asked can you develop multiple buildings or move housing to Bishop Street and parking to Gulliver field; representatives reiterated their intent to locate housing proximate to academic buildings, and that multiple buildings would have greater potential impact
- Questions and discussion about maximum growth potential
    - Participant asked about student population size and program sizes; representatives responded with current campus demographics.
- Questions and discussion about neighborhood traffic
    - Concerns were raised about traffic at Morrill's Corner; representative expressed understanding and shared a benefit of the Bishop Street parking lot and private connector road is to remove students, staff, and faculty from the intersection. This access road would also afford public cyclists access without going through Morrill's Corner.
- Questions and discussion about meeting noticing
    - Some attendees asked for earlier public notice.
    - One commenter noted that the meeting room was hard to find.

Attendees requested a copy of the Master Plan be provided to them. A follow up email was promised to be sent to all attendees with email addresses on the attendance sheet, which would include the Master Plan.

List of Plans, Documents or Drawings Shared

The following information was shared via the PowerPoint presentation given at the meeting, with the presentation attached for reference:

- Regulatory Process and project timeline
- Campus Master Plan
- Work completed to date
- Website for campus project updates
- Email for follow up questions and concerns.

Meeting Close

- The meeting closed at approximately 7:15 and the project team thanked attendees and noted that a second Neighborhood Meeting would be held in the summer/fall 2024 and those in attendance will receive an email notice as well as another mailed notice.

12 Mountfort Street
Portland, Maine 04101
www.woodardcurran.com

T 800.426.4262
T 207.774.2112
F 207.774.6635

Att. I

Via Electronic Mail

November 19, 2024

Natasha Kypfer, Senior Planner
City of Portland
389 Congress Street, 4th Floor
Portland, ME 04101
nkypfer@portlandmaine.gov

Re: UNE Institutional Overlay Zone Application (ZN-003059-2024)
Neighborhood Meeting #2

Dear Natasha:

I, Caitlin Suhr, consultant for the University of New England (UNE), hereby certify that a Neighborhood Meeting was held at 6 PM on Wednesday, October 30, at the UNE Portland Campus, 716 Stevens Avenue, in the Hannaford Lecture Hall, Room 109, at the College of Pharmacy, for the Institutional Overlay Zone proposed for the UNE Portland Campus (address: 716 Stevens Avenue).

I also certify that on October 15, 2024, notices were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes owners within 1,000 feet of the proposed Institutional Overlay Zone.

2. Residents on the "interested parties" list.

Sincerely,

Woodard & Curran, Inc.

Caitlin Suhr

Caitlin Suhr, PE
Project Manager

Attachments:
1. Copy of the notice sent
2. Sign-in sheets
3. Presented material (PowerPoint Presentation)
4. Record of Feedback

12 Mountfort Street
Portland, Maine 04101
www.woodardcurran.com

T 800.426.4262
T 207.774.2112
F 207.774.6635

October 15, 2024

Dear Neighbor,

On behalf of the University of New England (UNE) (Applicant), please join us at a Neighborhood Meeting to discuss UNE's plans for an Institutional Overlay Zone (IOZ) at their Portland campus, located at 716 Stevens Avenue in Portland, Maine.

The City of Portland's Land Use Code allows for the creation of an IOZ to "provide a regulatory mechanism available to the city's four major medical and higher education campuses where an improved regulatory structure is needed to facilitate a consistent, predictable, and clear growth management process." Consistent with that purpose, UNE is seeking a zoning amendment to create an UNE IOZ to accommodate the development and growth of their Portland Campus.

UNE has submitted a Text and Map Amendment Application to the City of Portland to create an UNE IOZ, and to change the underlying zoning of the UNE properties to B-2 Community Business. As part of that Application, the City of Portland's Land Use Code requires at least two Neighborhood Meetings be held to encourage public involvement. The first meeting was held on June 13, 2024, during the development of the IOZ Application, and before the formal submission of the zone change application. A second meeting is required to be held during the City's review, which is currently ongoing.

This Neighborhood Meeting will provide an overview of the IOZ process, provide an update on UNE's IOZ Application, including the Institutional Development Plan (IDP) and Regulatory Framework, and provide an opportunity to gather neighbors' input on the growth of the campus.

Neighborhood Meeting

Meeting Location: University of New England – Portland Campus, 716 Stevens Avenue, Hannaford Lecture Hall, Room 109, College of Pharmacy, Portland, ME

Meeting Date: Wednesday, October 30, 2024

Meeting Time: 6:00 – 7:00 PM

The City of Portland's Land Use Code requires that property owners within 500 feet of the proposed development and residents on the City's "interested parties list" be invited to participate in a Neighborhood Meeting. In an effort to be more inclusive, UNE has extended beyond the 500-foot requirement to include property owners within 1,000 feet of the Portland campus. Your contact information has been provided to us by the City of Portland as part of these lists. A sign-in sheet will be circulated at the meeting, and minutes of the meeting will be taken. Both the sign-in sheet and meeting minutes will be submitted to the Planning Authority for inclusion in the project's IOZ application to City Planning.

If you have any questions, please contact me at 207-558-3707 or via email at csuhr@woodardcurran.com. We hope to see you.

Sincerely,

Woodard & Curran, Inc.



Caitlin Suhr, PE
Project Manager
On behalf of the University of New England (UNE)

Attachments: Campus Map with Neighborhood Meeting Location

Note:

Under the City of Portland Land Use Code, at least two Neighborhood Meetings shall be required as part of an Application for an Institutional Overlay Zone (Section 8.5.3.B.). The first shall be held prior to the formal submission of a zone change application for an Institutional Overlay Zone and the second shall be held during the City's review. Meetings shall identify the concerns, if any, of affected residents and property owners, and inform the development of the Institutional Development Plan (IDP) and regulatory framework. Meetings shall be held in a convenient location proximate to the institution. The applicant shall provide written notification to property owners of record within 500 feet of the proposed IOZ boundary at least ten days prior to the meeting dates and maintain written records of the meetings.

Should you wish to offer additional comments on this Application, you may forward them by e-mail to planning@portlandmaine.gov or by mail to the Planning and Urban Development Department, Planning Division, 4th Floor, 389 Congress Street, Portland, ME 04101.

UNIVERSITY OF NEW ENGLAND

INNOVATION FOR A HEALTHIER PLANET

PORTLAND CAMPUS

FACILITIES

1. Finley Recreation Center
2. Pharmacy Building
3. Ludcke Auditorium
4. Coleman Dental Hygiene Building
5. Goddard Hall
6. Hersey Hall
7. Blewett Hall
8. Parker Pavilion
9. WCHP Lecture Hall
10. Proctor Hall
11. Art Gallery
12. Alumni Hall
13. Abplanalp Library
14. Ginn Hall
15. McDougall Hall
16. Safety and Security/ Shuttle Terminal
17. Alexander Hall
18. Linnell Hall
19. Oral Health Center
20. Facilities Management
21. Girard Innovation Hall
    - A. Graduate Admissions
22. UNE North (see inset)
23. Gulliver's Field (see inset)
24. Harold and Bibby Alfond Center for Health Sciences (opening June 2024)

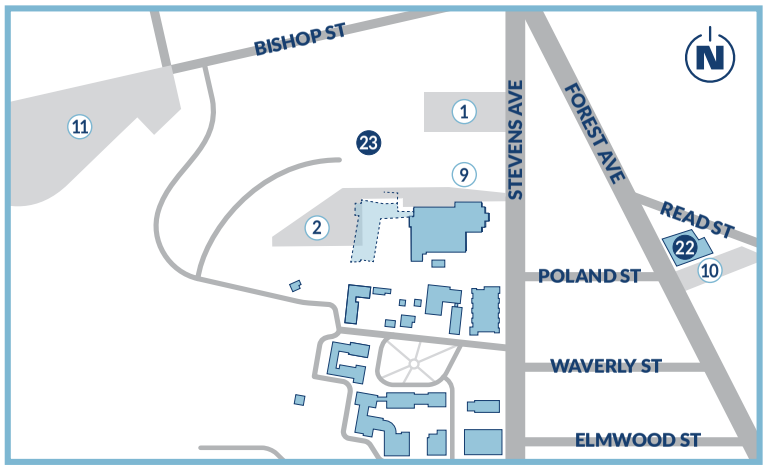
PARKING

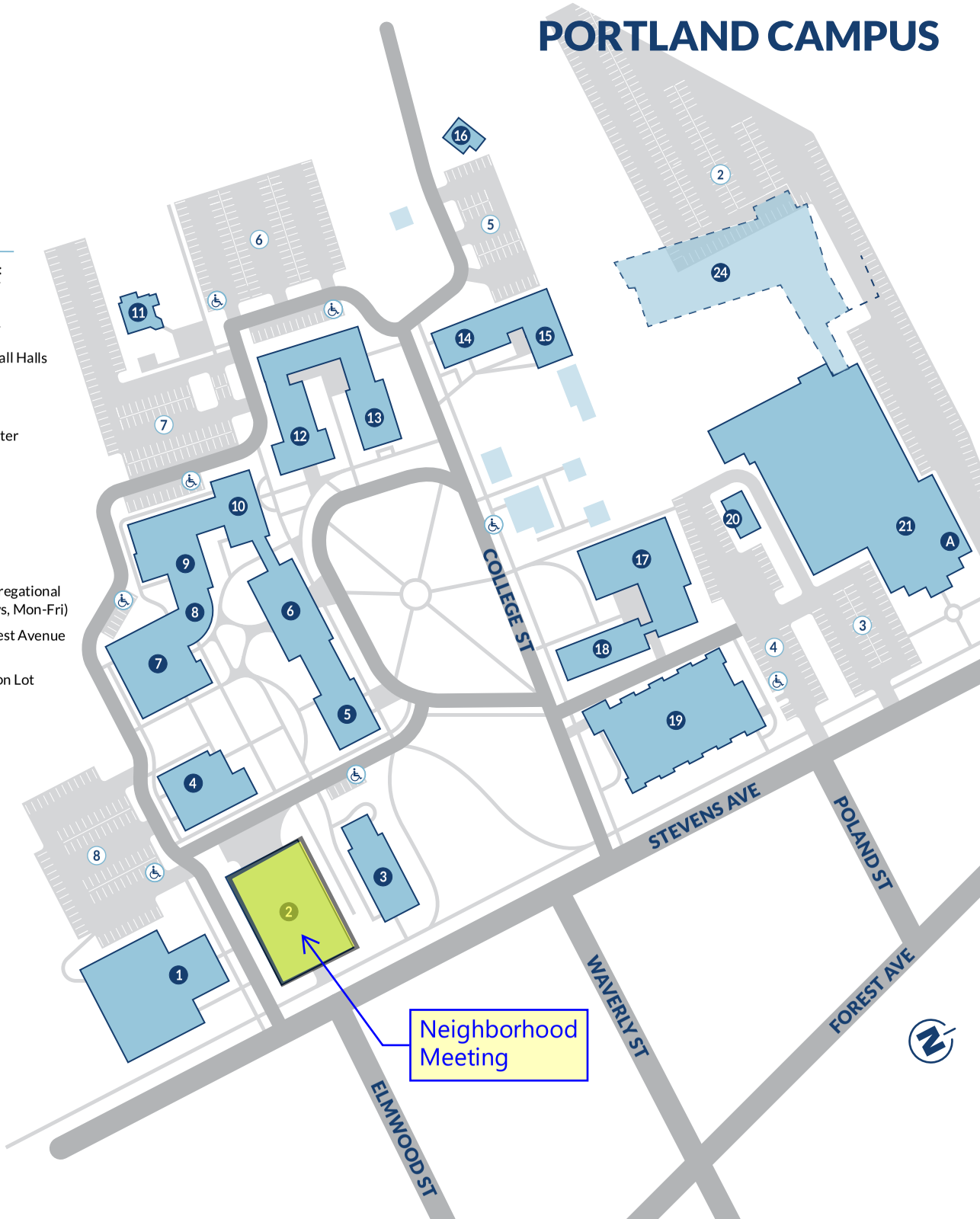
3. Innovation Hall South: Patient Parking ONLY
4. Oral Health Center: Patient Parking ONLY
5. Behind Ginn/McDougall Halls
6. Behind Library
7. Behind Proctor Hall
8. Finley Recreation Center
- Handicap Parking

Additional UNE Parking Available (see inset)

1. 812 Stevens Avenue
2. Innovation Hall Rear
9. Stevens Avenue Congregational Church (2 Middle Rows, Mon-Fri)
10. UNE North: 1075 Forest Avenue (South Side Only)
11. Bishop Street Extension Lot

The UNE Portland Campus is proud to be on the National Register of Historic Places (1977) and to be the original home of Westbrook Seminary (1831–1929), Westbrook Junior College (1929–1970), and Westbrook College (1970–1996).





University of New England
Institutional Overlay Zoning
Neighborhood Meeting
October 30, 2024
6pm at Hannaford Lecture Hall

Attendee	Address/Contact Information
Mona Oates	29 Mayfield St. Portland ME 04103 monaoates@gmail.com
LISA PRESIEWSKI	
Karl Parker	karlparker18@gmail.com ✓
Matt Montgomery	259 Walton St mattmonty1@gmail.com ✓
Kate Sykes	KSykes@PortlandMaine.gov
Katherine Kibalka	cccc@maine.rr.com
Hiren Mukherjea	

University of New England
Institutional Overlay Zoning
Neighborhood Meeting
October 30, 2024
6pm at Hannaford Lecture Hall

Attendee	Address/Contact Information
Fr. Paul Sullivan SJ	OLH Parish - 492 Ocean Ave Portland 04103 Paul.Sullivan@portlanddiocese.org
William Burke	St. Brigid School - 695 Stevens Avenue, Portland, 04103 william.burke@portlanddiocese.org
Scott Dalton	751 Stevens Ave Portland 04104 sbdalo6371@gmail.com
Susan Small	39 Mayfield St. ssmall2@maine.rr.com

University of New England
Institutional Overlay Zoning
Neighborhood Meeting
October 30, 2024
6pm at Hannaford Lecture Hall

Attendee	Address/Contact Information	
Mark Jaronczyk	19 Maggie Lane, 04103, 714-721-8978, mj_xxcal@hotmail.com	✓



UNIVERSITY OF NEW ENGLAND
INNOVATION FOR A HEALTHIER PLANET

Woodard & Curran

BERNSTEIN SHUR

Sewall
The evolution of expertise

University of New England – Portland Campus

Institutional Overlay Zone (IOZ)

Alan Thibeault, Vice President for University Operations



UNE UNIVERSITY OF NEW ENGLAND

INNOVATION FOR A HEALTHIER PLANET

Agenda

Overview of UNE

Regulatory Process

Institutional Development Plan

Public Engagement

Comments and Questions

UNE Portland Campus

Mission: UNE prepares students to thrive in a rapidly changing world and, in so doing, to improve the health of people, communities, and our planet.



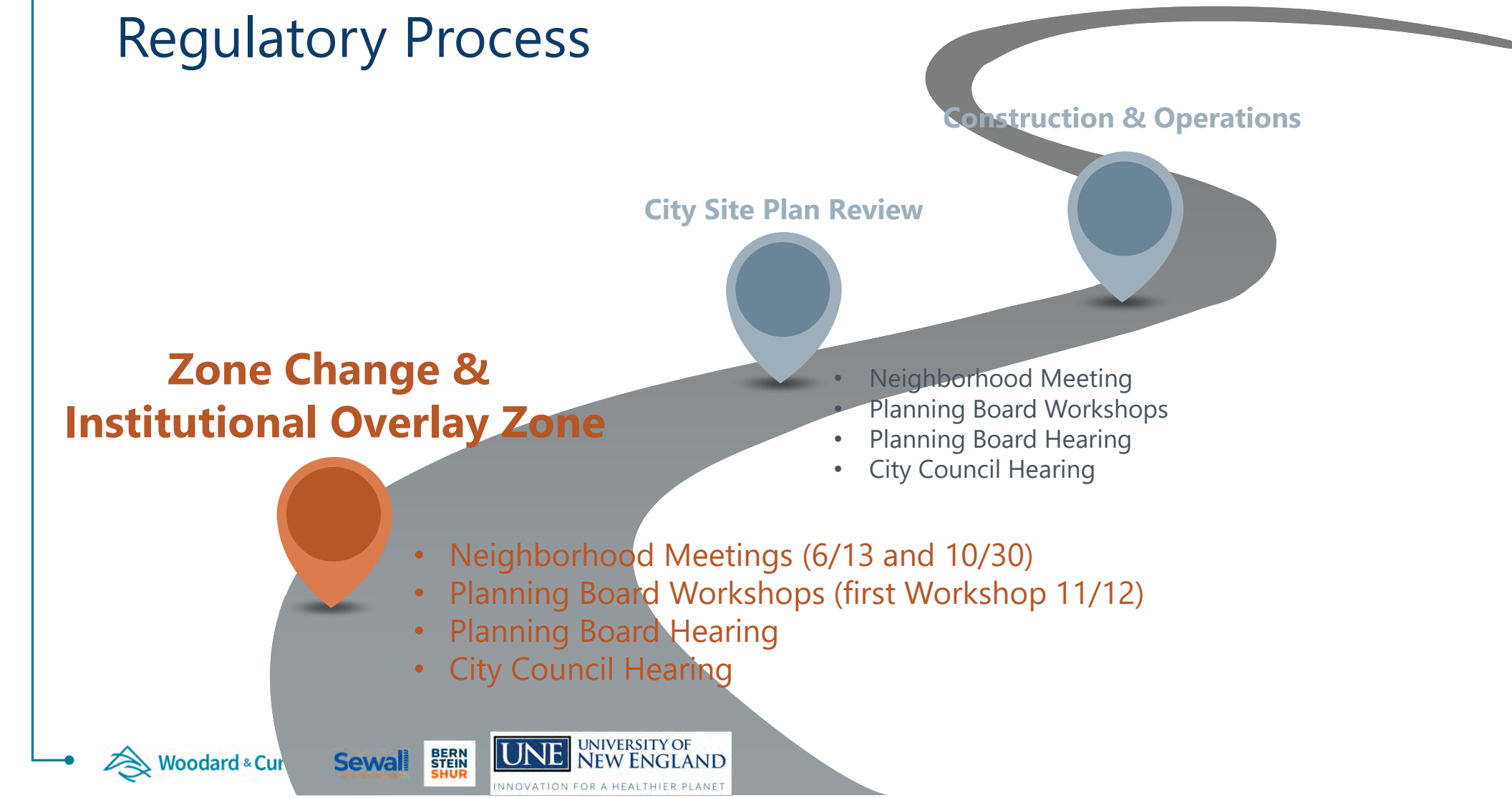


Programs:

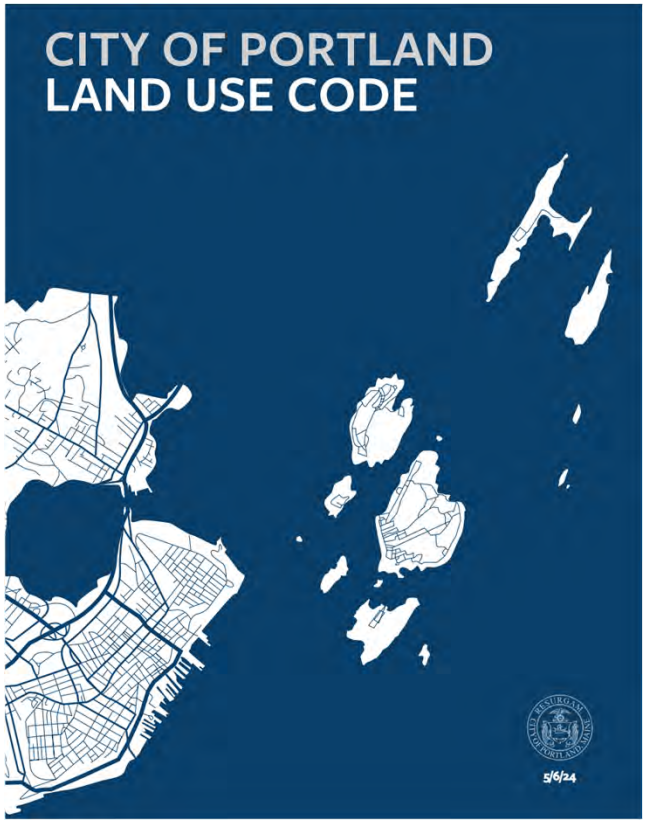
- Dental Medicine
- Dental Hygiene
- Nursing
- Nurse Anesthesia
- Occupational Therapy
- Pharmacy
- Physical Therapy
- Physician Assistant
- Health, Wellness, and Occupational Studies

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Regulatory Process



What is a Zoning Amendment?



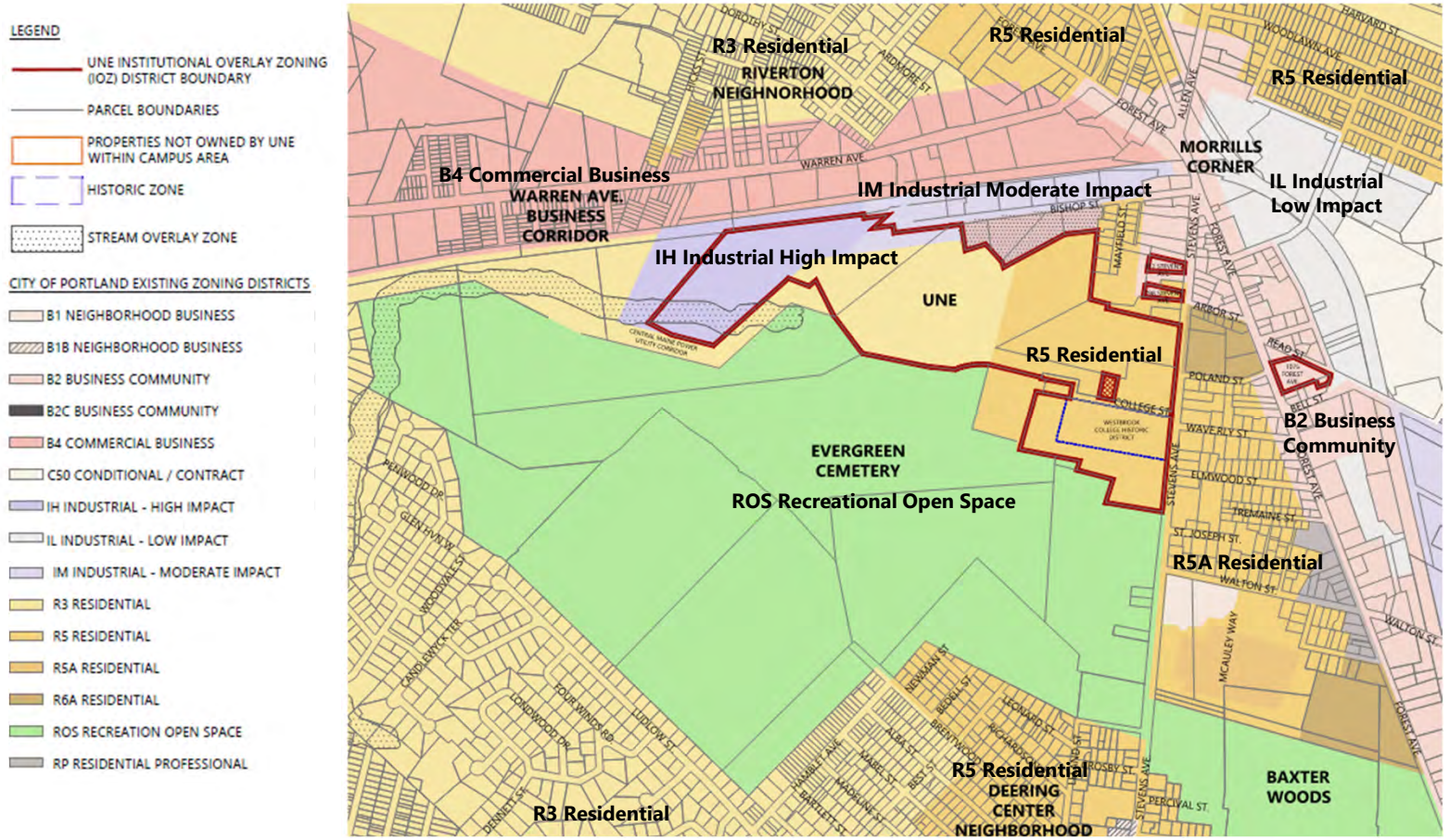
A request to change the way a property is designated in the City's Land Use Code.

Establishes the parameters that will apply to future development:

- Permitted uses
- Dimensional requirements (height & setbacks)
- Design guidelines

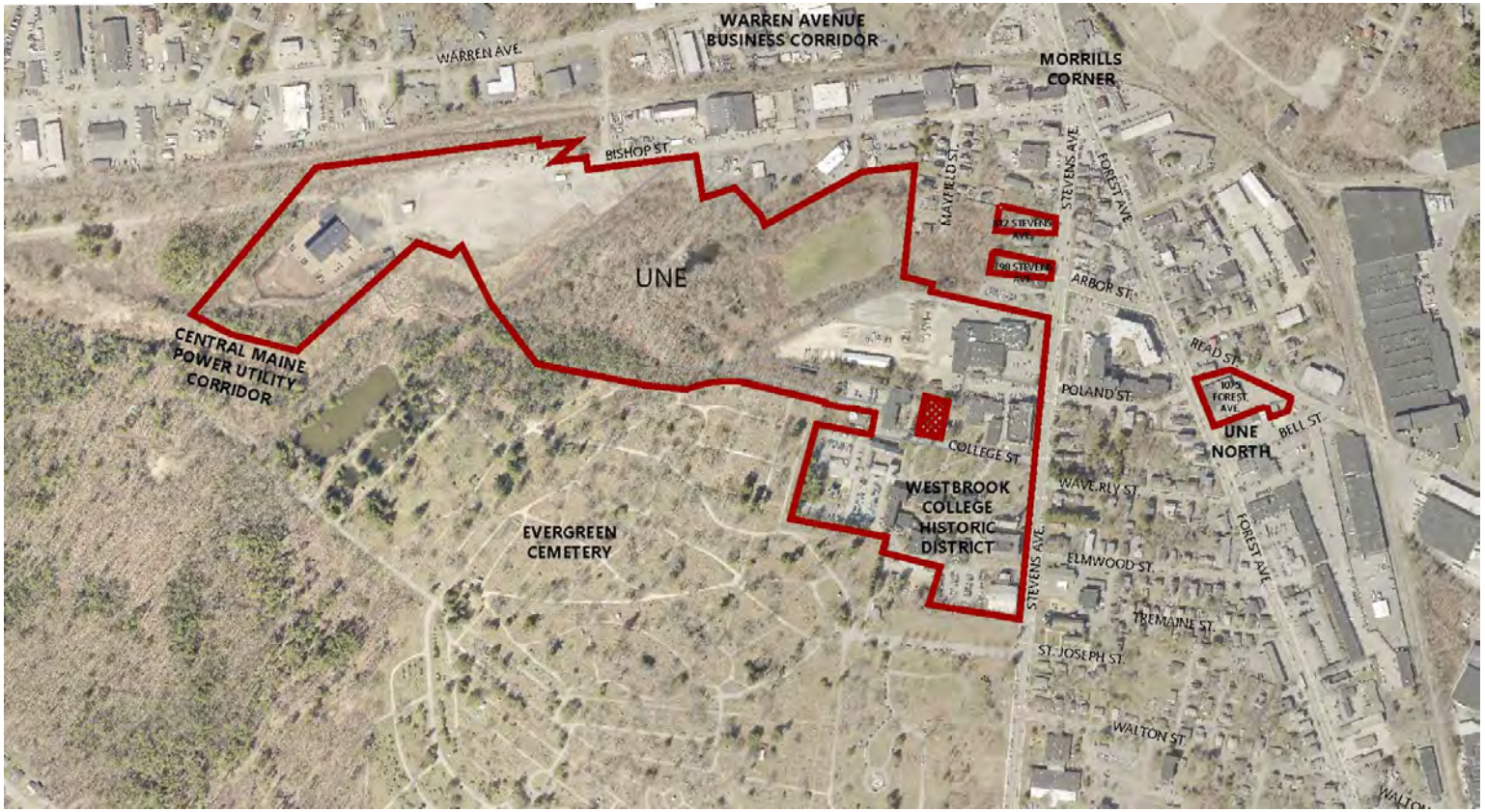
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Existing Zoning



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Institutional Overlay Zone (IOZ)



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INNOVATION FOR A HEALTHIER PLANET

Public Feedback

- Traffic & Parking
- Building Height & Locations
- Natural Resources & Environment
- Historical District
- Housing
- Zoning



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Institutional Development Plan (IDP)

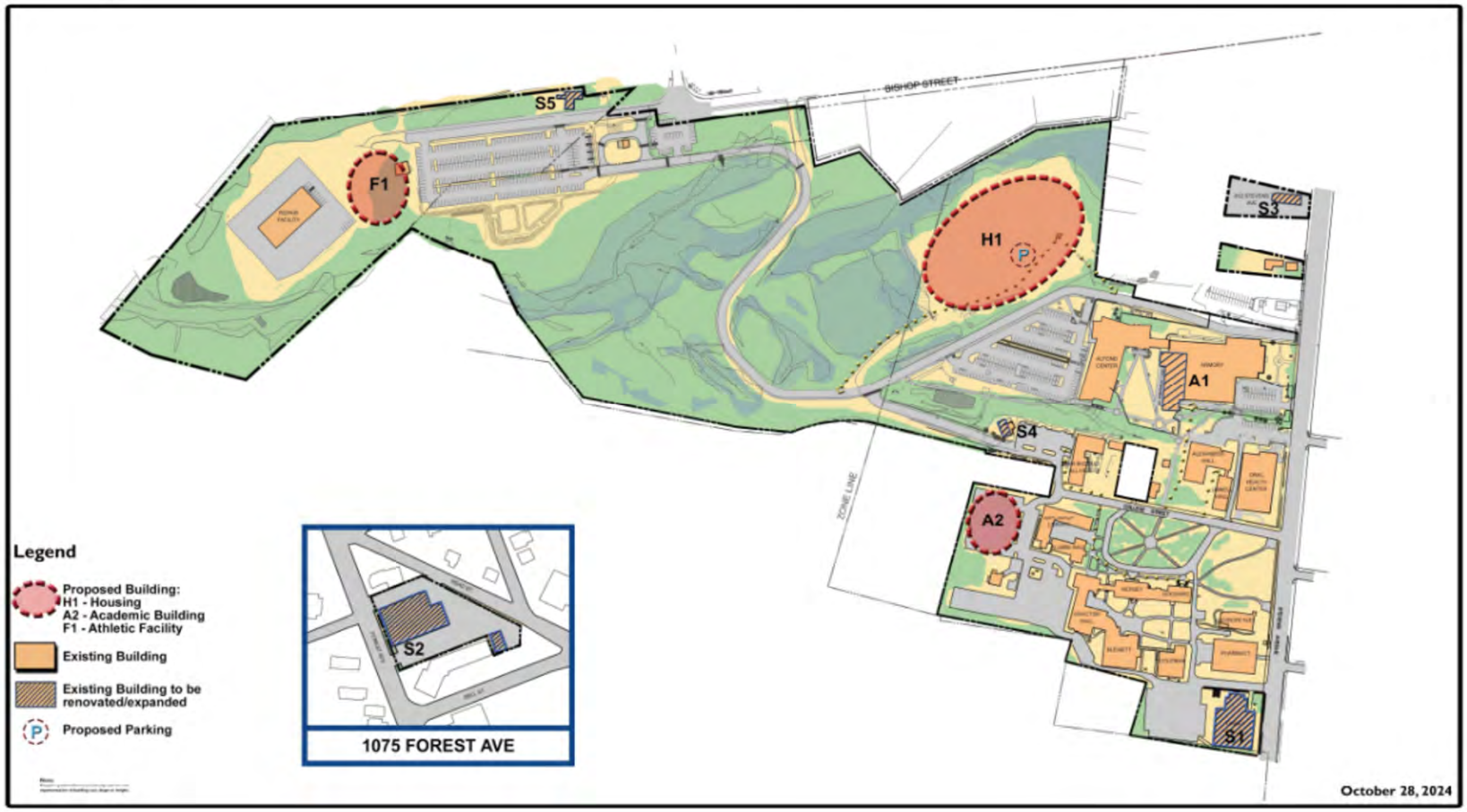


Planning for the future development of UNE's Campus

- Baseline Characteristics of the Institution
- Campus Master Plan
- Transportation Plan
- Environmental Plan
- Infrastructure Plan
- Design
- Neighborhood Engagement

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Campus Master Plan



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INNOVATION FOR A HEALTHIER PLANET

10+ Year Development Plan

Priority 1: Short-Term Development Plan (0-5 years)				
Campus Master Plan Identifier	Project	Use Category	Total Square Footage	Estimated Occupancy
H1	Residence Hall	Housing	175,000	350 beds
A1	Innovation Hall Renovation/Expansion	Academic	24,000	2 offices
S3	812 Stevens Ave. Renovation/Expansion	Support	10,000	6 offices
Priority 2: Medium-Term Development Plan (5-10 years)				
Campus Master Plan Identifier	Project	Use Category	Total Square Footage	Estimated Occupancy
S2	UNE North/1075 Forest Ave. Renovation/Expansion	Support	60,000	10 offices
S4	79 College Street Renovation/Expansion	Support	2,500	2 offices
S5	Bishop Street Renovation/Expansion	Support	2,000	N/A
Priority 3: Long-Term Development Plan (10+ years)				
Campus Master Plan Identifier	Project	Use Category	Total Square Footage	Estimated Occupancy
A2	Academic Building	Academic	60,000	20 offices
F1	Athletic Facility	Athletic	65,000	12 offices

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Student Populations

Year	Student Population
Fall 2015	1,397
Fall 2018	1,257
Fall 2021	1,198
Fall 2023	979
Fall 2025	1,400
Fall 2028	1,600
Fall 2033	1,750

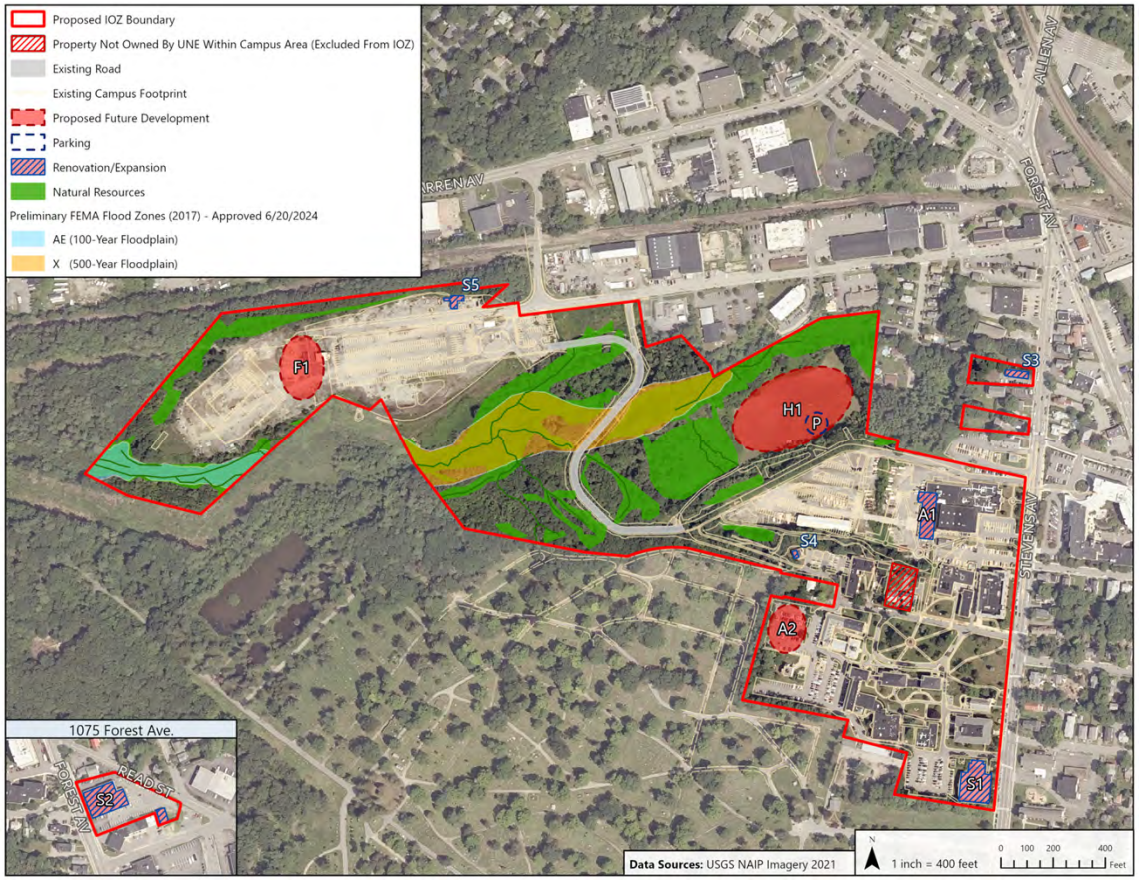
Proposed Height Map



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INNOVATION FOR A HEALTHIER PLANET

IDP: Environmental Plan

- UNE committed to fostering environmental stewardship
- Extensive open space and natural areas
- New development sited to avoid existing natural resources
- Maintaining Capisic Brook riparian zone
- Partnership with Portland Trails
- Future site development projects will be required to go through Site Plan Review and comply with local and state stormwater management requirements



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INNOVATION FOR A HEALTHIER PLANET

IDP: Transportation Plan

- Traffic volumes in area have been declining
- Inclusion of on-campus housing will help reduce peak hour trips to and from campus
- Projected long-term growth of student population not expected to have any significant off-site impacts
- Newly constructed connector road provides relief to Morrill's Corner

ITE Trip Generation

Time Period	New One-way Trips	Time Period	New One-way Trips
Daily	234	PM Peak Hour	23
Entering	117	Entering	7
Exiting	117	Exiting	16
AM Peak Hour	23		
Entering	18		
Exiting	5		

Average Annual Daily Traffic

Location	2008	2010	2013	2016	2019	2022
Bishop Street, west of Forest Avenue	--	--	1650	--	--	--
Walton Street, west of Forest Avenue	--	2800	3120	2580	--	--
Forest Avenue, NW of Warren Avenue	20020	19010	19820	18140	--	17370
Forest Avenue, no. of Arbor Street	--	--	24500	22140	22570	18730
Forest Avenue, no. Walton Steet	--	--	21830	--	--	16610
Forest Avenue, so. of Walton Avenue	--	--	21710	--	--	17030
Stevens Avenue, so. of Walton Avenue	--	12510	11680	11620	--	--
Stevens Avenue, no. of Walton Avenue	--	11170	10980	11180	--	--
Stevens Avenue, so. of Forest Avenue	--	10360	10050	11230	--	8320
Warrens Avenue, SW of Forest Avenue	13370	11560	13130	11390	12380	13300
Allen Avenue, no. of Goodridge Ave	--	18210	--	16040	16220	17340

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Public Involvement Opportunities - IOZ

- Pre-Submission Neighborhood Meeting – held on June 13, 2024
- Post-Submission Neighborhood Meeting – **WE ARE HERE**
- Public Hearings as part of the Regulatory Process
  - Planning Board Workshops (First Workshop 11/12)
  - Planning Board Hearing
  - City Council Hearing
- Continued Public Engagement

Woodard & Curran Sewall BERNSTEIN SHUR UNE UNIVERSITY OF NEW ENGLAND INNOVATION FOR A HEALTHIER PLANET

Communications

- Your input is important to us
- Visit our website at for updates
  - http://www.une.edu/campus/campus-planning
- Email with questions, concerns, or feedback directly to UNE's Planning Department and project team members.
  - uneprojects@une.edu



Thank you!

Woodard & Curran Sewall BERN STEIN SHUR UNE UNIVERSITY OF NEW ENGLAND INNOVATION FOR A HEALTHIER PLANET

Open Forum

We are here to listen and answer questions.

12 Mountfort Street
Portland, Maine 04101
www.woodardcurran.com

T 800.426.4262
T 207.774.2112
F 207.774.6635

NEIGHBORHOOD MEETING MINUTES

University of New England – Portland Campus Rezoning – Neighborhood Meeting #2

PROJECT:
University of New England (UNE)
Portland Campus Rezoning

MEETING DATE: October 30, 2024

ISSUED DATE: November 19, 2024

LOCATION:
University of New England - Portland Campus, 716 Stevens Avenue, Hannaford Lecture Hall, Room 109, College of Pharmacy, Portland, ME

ATTENDEES:

Presenters/Representatives
Alan Thibeault – UNE
Mary Costigan – Bernstein Shur
Diane Morabito – Sewall
Caitlin Suhr – Woodard & Curran (W&C)

Public
See attached sign-in sheet

Total recorded attendance was 12.

In person began at 6:00 p.m.

Project Presentation & Content

- Welcome and Introductions provided by Alan Thibeault, UNE
- Presentation provided by Alan Thibeault, UNE and Mary Costigan, Bernstein Shur
  - Overview of UNE
  - Regulatory Process (Institutional Overlay Zone)
  - Institutional Development Plan
  - Public Involvement Opportunities
  - Comments and Questions

Record of Feedback

Throughout and following the project presentation, there was a question-and-answer period with attendees. The following questions were asked and feedback provided:

- Participant asked if information on the upcoming Planning Board Workshop could be provided.
- Participant asked if any future property acquisitions would automatically be included in the IOZ.

- Participant asked where the headwaters of Capisic Brook are located.
- Participant asked what an urban impaired stream is.
- Participant asked if the parking lot behind the newly constructed College of Osteopathic Medicine (COM) building has been permitted and how many spaces it has.
- Participant asked what the ratio of students and staff is to parking spaces.
- Participants expressed that it is difficult to find on-street parking on Stevens Avenue due to students parking there.
- Participants expressed that the City doesn't enforce the 1-hour parking restrictions on side streets, and that students block driveways of abutters.
- Participant asked what the existing building is located behind the Bishop Street parking area.
- Participant asked what height is allowed in the B-2 zone under current zoning.
- Participant asked how many stories the proposed housing building would be.
- Participant asked whether the new housing would be dormitories or apartments.
- Participant asked what will happen if the building height request as part of this application doesn't get approved.
- Participant asked if the housing will be for students only.
- Participant asked if UNE is bound by rent control restrictions.
- Participant asked what the height is of the new medical (COM) building.
- Participant asked whether the housing building could be located where the proposed athletic facility is, near Bishop Street.
- Participant asked what academic programs will be occupying proposed development A2.
- Participant asked if the location of proposed development A2 is located in an existing parking lot.
- Participant asked how many units would be in the housing building.
- Participant noted that there was recently construction noise happening at night at one of the parking lots on campus.
- Participant noted that 2024 student population data was not provided in the table in the presentation.
- Participant asked what UNE's plans are for the building at 798 Stevens Avenue.
- Participant asked whether UNE has done traffic counts for new roadway internal to campus.
- Participant asked when UNE met with DCNA.
- Participant asked what DCNA's concerns were related to the IOZ application.
- Participant asked if a copy of the PowerPoint presentation could be made available.
- Participant asked if this information is available on UNE's website.

List of Plans, Documents or Drawings Shared

The following information was shared via the PowerPoint presentation given at the meeting, with the presentation attached for reference:

- UNE Portland Campus overview
- Regulatory process and project timeline
- Existing and proposed zoning

- Summary of public feedback received to date
- Institutional Development Plan (IDP)
- Campus Master Plan
- Proposed Height Map
- IDP: Environmental Plan
- IDP: Transportation Plan
- Public involvement opportunities
- Email for follow up questions and concerns.

Meeting Close

- The meeting closed at approximately 7:30 and the project team thanked attendees.

12 Mountfort Street
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F 207.774.6635

Att. J

Via Electronic Mail

December 20, 2024

Natasha Kypfer, Senior Planner
City of Portland
389 Congress Street
Portland, ME 04101
nkypfer@portlandmaine.gov

Re: University of New England – Map and Text Amendment Application ZN-003059-2024
Response to City Comments

Dear Natasha:

Thank you for coordinating the review of our application (ZN-003059-2024), a Map and Text Amendment, proposing a new Institutional Overlay Zone (IOZ) for the University of New England (UNE) at 716 Stevens Avenue, with a change to the underlying zoning to B-2 Community Business. We received the comments from the City's reviewers on October 17, 2024, and are providing responses.

Our responses are provided in tables in the following sections:

- Attachment 1: Institutional Development Plan (IDP): Response To Comments
- Attachment 2: Regulatory Framework: Response To Comments

If you have any questions or require additional information, please do not hesitate to contact me at (207) 558-3707 or csuhr@woodardcurran.com. We look forward to continuing to collaborate with the City as we work through the IOZ process.

Sincerely,

Woodard & Curran, Inc.

Caitlin Suhr, PE
Project Manager

cc: Alan Thibeault, University of New England
Mary Costigan, Bernstein Shur
Diane Morabito, Sewell Infrastructure

PN: 0235387.00

Worksheet(s) Table Legend:
Provided on Page # = Requirement Met
Partially Provided on Page # = Requirement Not Fully Satisfied
Not Provided = Requirement Not Satisfied

1. ATTACHMENT 1: INSTITUTIONAL DEVELOPMENT PLAN (IDP): RESPONSE TO COMMENTS

Institutional Development Plan (IDP): Content Land Use Code, Section 8.5.4.C			
Category, Sub-category, requirement and Sub-requirement	***Location, IDP Page #***	***Review Comments: Overview & Updates Requested***	***Comment Response Provided by Applicant***
1. Context Information *a. The institution's adopted mission, vision or purpose statement*	Pages 4-5	As stated and provided for on pages 4-5, UNE is guided by its Mission, Vision, and Core Values, as well as its own strategic plan ("Our World, Our Future").	This requirement has been met.
1. Context Information *b. A summary of relevant baseline data on the institution, including;* *i. A neighborhood context plan*	Pages 11-12, Figure 1.1	The UNE's approximately 72-acre campus is bounded by Warren Ave., Bishop St. Extension, and Bishop St. to the north; Stevens Ave. to the east; and, Evergreen Cemetery and CMP's Utility Corridor to the south, as depicted in provided Figure 1.1.	This requirement has been met.
1. Context Information *b. A summary of relevant baseline data on the institution, including;* *ii. An inventory of current programs and services.*	Page 7-9	The UNE Portland campus houses three academic colleges: the Westbrook College of Health Professions (WCHP), the College of Dental Medicine, and the College of Graduate and Professional Studies. In addition, UNE operates two health clinics on campus: the Oral Health Center and the Dental Hygiene Center, as well as UNE North, the Center for Global Humanities, and cultural institutions that include the Maine Women Writers Collection and the UNE Art Gallery.	This requirement has been met.

1. Context Information *b. A summary of relevant baseline data on the institution, including;* *iii. A current census of the number of people using the institution (e.g., employees, enrollment, patients), with an indication of maximums and minimums over time.*	Page 18, Table 1.3	Table 1.3 titled "FTE Student, Faculty, and Professional Staff Data", includes population data from 2016-2023 for student, faculty and professional staff, and campus population. Please also add an additional column to Table 1.3 that includes patient figures visiting the campus (for example, dental patients to the Oral Health Center), further, consider incorporating part-time data, as the provided table only documents FTE.	Table 1.3 has been updated to include historical patient visit data. UNE does not keep track of other campus visitors so is unable to provide this information.
1. Context Information *b. A summary of relevant baseline data on the institution, including;* *iv. An inventory and/or plan of all existing property holdings within the main campus and within the City of Portland, including an indication of functional land use links between off-campus properties and the main campus (e.g. remote parking).*	Page 17, Table 1.2	Table 1.2 titled "UNE Owned Properties in the City of Portland", documents UNE's total of 17 parcels, the majority of which are contiguous in the campus core, while several are outparcels. Please speak to the functional land use links between off-campus properties and the main campus (e.g. remote parking and the Bishop Street shuttle service).	This section has been updated to include descriptions of the outparcels, including their functional land use, and links to the campus core.
1. Context Information *b. A summary of relevant baseline data on the institution, including;* *v. An inventory and/or plan of existing facilities, including data on use, floor area, and any existing functional connections between facilities.*	Page 16, Figure 1.5 Pages 21-22	The UNE campus map is provided on page 16 as Figure 1.5, depicting the 25 distinct facilities and 11 parking areas, with an inset map centered around the Campus Quad. Please supplement Figure 1.5 Campus Map with a table listing the 25 facilities and 11 parking areas identified in Figure 1.5, organized chronologically by facility number. Please also incorporate the parking spaces data from Table 3.5 here as well. The table should include columns for facility name, total	Table 1.2 has been added to this section that lists and describes the facilities and parking areas as shown on the Campus Map.

		floor area, and use. For parking areas, organize chronologically by parking area # and include columns for total square footage, total number of existing spaces, and a breakdown of ADA and EV spaces.	
1. Context Information *c. A summary of the baseline characteristics of the existing campus and context of the institution, based on identified study areas, including:* *i. A summary of existing resources, such as historic, open space, and natural resources.*	Pages 19-20	UNE's campus is the site of the Westbrook College Historic District, which includes six buildings built between 1834 and 1952. Further, existing open space and natural resources are summarized, and include notation of the Portland Trails Forest City Trail connection and the Capisic Brook watershed area.	This requirement has been met.
1. Context Information *c. A summary of the baseline characteristics of the existing campus and context of the institution, based on identified study areas, including:* *ii. A summary of the existing transportation system, including vehicular, pedestrian, transit, bicycle, and parking supply, demand, and utilization*	Page 41-44, Table 3.5	Table 3.5 titled "UNE Portland Campus - Parking Spaces" details the currently 11 parking lots located on campus, plus the on-street parking along two principle campus roadways, which amounts to 882 spaces total, plus the 182 permitted spaces presently at the COM building. Please include a quick summary of the existing transportation system within the Context chapter, to incorporate what is detailed on pages 41-44.	A summary of the existing transportation system has been added to the Context chapter.
1. Context Information *c. A summary of the baseline characteristics of the existing campus and context of the institution, based on identified study areas, including:*	Page 20	Existing stormwater management systems utilize on-site infiltration systems, with secondary use of conveyance to the Stevens Ave. and Bishop St. CSO. Existing wastewater infrastructure for the campus is discharged to	This requirement has been met.

iii. A summary of existing public infrastructure supporting the institution, including demand, utilization and any capacity issues.		a CSO in College St. and Stevens Ave. Other public utilities include: PWD, CMP, and Unitil.	
1. Context Information *c. A summary of the baseline characteristics of the existing campus and context of the institution, based on identified study areas, including:* *iv. Relevant municipal plans, projects, and studies that may influence the IDP study area and opportunities for integrating institutional growth.*	Page 21	A breakdown of the City's Comprehensive Plan, with tie in to the eight policy guide topics as they relate to UNE's work is provided with excerpts from Portland's Plan that UNE works to promote and advance are underscored and include the: environment, economy, historic resources, and housing. Please include additional studies that should be referenced in this section, such as the: Portland-South Portland Smart Corridor Plan (final report dated June 2018), the One Climate Future Plan, and the Forest Avenue Redesign Project. For example, within the Smart Corridor Plan on Page 143 it states: "[The] University of New England (UNE) office at 1075 Forest Avenue, shown in Figure 142 is a parcel that addresses the street well, and would be enhanced by the recommended planting palette and materials design guidelines found later in this section."	This section has been updated to reference additional studies as suggested in the comment.
1. Context Information *d. A summary of public involvement in the development of the IDP, including major areas of public concern.*	Page 22	UNE has worked to involve the public in the creation of the IDP during the IOZ submission process, this includes holding one of two required neighborhood meetings, which took place on June 13, 2024. Please be sure to update this section with the 10/30 neighborhood meeting date. Additionally, it may be beneficial to include a few sentences on the required review by both the Planning Board and City Council, as these	This section has been updated to include the 10/30 neighborhood meeting, as well as to include an additional meeting with Deering Center Neighborhood Association. Additional information on the City review process and opportunities for public engagement at Planning Board and City Council has also been provided.

		will also be opportunities for public involvement.	
2. Assessment of future institutional growth and change, including: *a. A description of institutional needs and areas of future institutional growth and change, with:* *i. A projected census of users (e.g., enrollment /employment/patient/ visitor figures and anticipated variations over time).*	Page 25, Table 2.2	Table 2.2 titled "Projected Growth of FTE Student, Faculty, and Professional Staff" provides a snapshot of data for the years of 2025, 2028, and 2033. Please include data on campus visitors, i.e. visiting faculty, prospective students, guests, etc.; to incorporate as a column in Table 2.2. Please also add patients seen for on-campus health visits.	Projected patient visit data has been added to Table 2.2. UNE does not track other types of visitors (such as visiting faculty, prospective students, or guests) so is unable to provide projections for these visitor types.
2. Assessment of future institutional growth and change, including: *a. A description of institutional needs and areas of future institutional growth and change, with:* *ii. Institutional objectives for property both within and outside the IOZ boundary (e.g. acquisition and/or disposition), including an indication of any functional land use connection for sites outside the IOZ boundary to the main campus.*	Pages 26-28	UNE identifies five categories for key current and future institutional needs: campus reorganization, new building and renovation, educational/pedagogy improvements, campus infrastructure, and housing.	This requirement has been met.
2. Assessment of future institutional growth and change, including: *a. A description of institutional needs and areas of future*	Pages 28-30, Table 2.3	A development plan is shown in Table 2.3, titled "10 +- Year Development Program", which identifies three core priority timelines: the short-term (0-5 years), medium-term (5-10 years), and long-term (10+ years).	This requirement has been met.

institutional growth and change, with: *iii. A development plan addressing anticipated or potential institutional needs and physical improvements, including the proposed boundary of the IOZ and any phasing of the development.*			
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *i. Transportation and access, with:* *a) An analysis of the projected changes in parking demand, supply, and impacts to the off-street and on-street parking capacity, including an explanation of the proposed parking plan.*		Please provide an analysis of the projected changes in parking demand, supply, and impacts, and a review of current parking conditions. The previous TDM plan could be utilized to assist in completing this section. Further, a discussion on how to mitigate neighborhood impact by reducing on-street parking usage by UNE students and personnel should be included here.	This section has been updated to include the parking analysis based upon the historical parking counts.
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support*	Page 36-37, Tables 3.2 & 3.3	Table 3.2 titled "Trip Generation Analysis" provides a snap shot of vehicular usage projections for the student population in the years 2025, 2028, and 2033.	This section has been updated to project increases in pedestrian, bicycle and transit trips based upon ITE data for the projected increase in student population.

the development parameters as set out in the regulatory framework, including: *i. Transportation and access, with:* *b) An analysis of the projected changes in vehicular, pedestrian, transit, and bicycle access routes and facilities, their capacity, and safety.*		Please provide more details, as it relates to pedestrian and bicycle usage in this section, which largely focuses on vehicular travel.	
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *i. Transportation and access, with:* *c) A transportation, access, and circulation plan, representing the synthesis of the analysis, and including a program of potential improvements or set of guidelines to address access deficiencies to and within the IOZ. The plan should outline proposed mechanisms and potential strategies to meet transportation objectives, including transportation demand management, phasing,*	Pages 38-44	UNE's original TDM plan was created in 2010, and is routinely updated, most recently in April 2022. Strategies that emerged from the plan include: education and promotion, carpooling & ridesharing, transit service, incentives, EV charging infrastructure, bicycle infrastructure, and pedestrian & bicycle access. Please provide a more detailed transportation, access, and circulation plan, that expands beyond the strategies identified in the TDM. As an example, perhaps providing a circulation plan of the core campus as a visual could then highlight potential opportunities for connections to the existing and future trail network. Please also speak to the existing Traffic Movement Permit (TMP) in this section, whether UNE envisions surpassing the threshold for a new TEMP under your build-out plans, i.e. indicate when a revised TMP may be required, or triggered, in the future.	A circulation and access plan for the core campus (Figure 3.6) has been added, as suggested, showing the sidewalk connections as well as trail connections with some discussion. A discussion was added regarding the historical TMP information and recent campus building projects. It is unlikely a TMP will be required for the building projects anticipated in this 10-year plan.

and when a Traffic Movement Permit (TMP) may be required.			
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *ii. Environment, with:* *a) An analysis of potential cumulative impacts on natural resources and open spaces.*	Page 52	Please provide an expanded analysis under the 'Proposed Future Development and the Environment' paragraph, which should detail potential cumulative impacts to the existing natural resources and open spaces on campus. For example, perhaps some good data to capture here could be existing vs. proposed impervious lot coverage, the existing open space on campus vs. proposed loss or gain of open space over time, and the existing square footage of wetlands vs. potential impacts or gains in the future.	An expanded analysis related to anticipated impacts on natural resources and open space has been included in this section.
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *ii. Environment, with:* *b) An analysis of projected energy consumption, hazardous materials*	Pages 57-60	UNE's operational sustainability is detailed within the categories of energy conservation, waste management practices, biomedical waster best practices, sustainable landscaping, and noise generation.	This requirement has been met.

generation, noise generation, and similar issues as relevant.			
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *ii. Environment, with:* *c) An environmental plan, representing the synthesis of the analysis and including a proposed program or set of guidelines for future preservation, enhancement, conservation, and/or mitigation*	Page 56, Figure 4.8	Figure 4.8 titled "Natural Resources and Campus Master Plan" shows proposed campus improvements in locations aimed to mitigate impact to natural resources.	This requirement has been met.
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *iii. Infrastructure, with:*	Pages 62-63	Utility demand and capacity are detailed through the lens of the various providers: water services supplied by PWD, electricity supplied by CMP, telephone & data services by Consolidated Communications and Spectrum, natural gas and heating fuels supplied by Unitil, and existing wastewater infrastructure	This requirement has been met.

a) An analysis of projected public utility demand and the capacity of associated infrastructure.			
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *iii. Infrastructure, with:* *b) An analysis of projected public safety needs and projected impacts to the capacity of these services.*	Page 64	UNE has security officers who provide 24/7 patrol and dispatch coverage of the campus, in addition, an emergency notification service (Rave Mobile Safety), provides faculty, staff, and students with timely updates during emergencies, speaking to the capacity of public safety as the campus grows.	This requirement has been met.
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *iii. Infrastructure, with:* *c) An infrastructure plan, representing the synthesis of the analysis and including a proposed*	Pages 61-62, Figure 5.1	Figure 5.1 titled "Existing Stormwater Infrastructure and Campus Master Plan" illustrates existing City sanitary sewer and stormwater infrastructure surrounding and within the campus, as well, future stormwater run-off flows are detailed. Please include a set of guidelines to support sustainable growth at the conclusion of this chapter.	A set of guidelines to support sustainable growth has been added at the conclusion of this chapter.

program or set of guidelines to support sustainable growth.			
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *iv. Design, with:* *a) An analysis of projected impacts to neighboring properties and public spaces, including potential shadow, wind, and lighting impacts, impacts of height and massing, and impacts to historic resources.*	Pages 65-72, Figures 6.1, 6.2, 6.3, & 6.4	The City wants to ensure UNE is adequately addressing potential impacts to the surrounding parcels, including: Evergreen Cemetery, the isolated parcels within the Campus, and properties on Mayfield Street. Please provide spot elevations on the buildings shown in Figure 6.2 to better dedicate heights. Provide rendering of proposed development looking from Mayfield Street towards proposed student housing building (west). Additionally, as UNE considered alternative building layouts and parking configurations for the conceptual student housing on the Gulliver's Field site?	Building height information has been added to Figure 6.1 to provide greater context for existing and proposed facilities. A rendering of the proposed housing development looking from Mayfield Street towards the proposed student housing building has been included as Figure 6.3. The design of the proposed housing building and associated parking area is still in the planning stages. UNE is evaluating alternatives for building footprints and parking configurations within the general area depicted on the Campus Master Plan. The general area for development will be within the existing Gulliver's Field site, however final design will be developed in the future and reviewed by the City as part of the Site Plan Review process. The rendering included as Figure 6.3 shows a version of the housing located at the closest point to Mayfield Street within the 85-ft maximum height overlay.
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set*	Page 71-72, Figure 6.4	Figure 6.4 titled "Proposed Maximum Heights" has identified transition zones along the edges of the IOZ boundary. Please provide the design rationale for the proposed 50 ft height within the 25 ft-wide transition zone—was there any consideration of varying the maximum height to better align with the surrounding context? Did UNE	Figure 6.4 has been revised to be a "Proposed Open Space and Maximum Height Map" and has been updated to include open space, i.e., "no build", areas. The design rationale for the proposed 50 ft height within the 25 ft-wide transition zone was to provide a step back of building heights from the campus edges and

out in the regulatory framework, including: *iv. Design, with:* *b) An analysis of transition areas between the institution and adjoining neighborhoods, including identification of key character defining components of the surrounding context.*		consider mapping lower maximum heights along Capisic Brook, and what is the rationale for mapping 65 ft on the two outparcels fronting Stevens Avenue? Additionally, the parcel on Forest Avenue, under ReCode, would allow a height of up to 75 ft. We recommend removing the height limitation for that parcel should ReCode pass as proposed.	adjacent properties, with the intent to focus densification and greater building heights internal to the campus. The open space areas that have been added to the plan will provide further buffering of neighboring properties, and will preserve existing wetland and open space areas, such as along Capisic Brook and adjacent to the Mayfield Street neighborhood. The proposed maximum height of the outparcels on Stevens Ave and Forest Ave have been revised to 75-ft for consistency with the updated maximum height for the B2 zone as part of the recently adopted ReCode. The UNE outparcels at 1075 Forest Ave, 32 Bell Street, and 812 Stevens Ave are zoned B2 under ReCode. As part of this IOZ application, UNE is seeking to change the underlying zoning at outparcel 798 Stevens Ave to B2 for consistency with the rest of the campus and nearby properties on Stevens Ave.
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *iv. Design, with:*	Page 72	UNE's Campus Safety and Security Department monitors through in-person patrols and CCTV cameras and provides response 24/7, which contribute to low crime statistics on campus.	This requirement has been met.

c) An analysis of existing Crime Prevention Through Environmental Design issues and identification of how these principles would be addressed as part of the proposed campus development.			
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *iv. Design, with:* *d) A conceptual built environment/public realm plan, representing the synthesis of the analysis and including a set of guidelines for urban design, landscape, open space, and streetscape treatments, with particular attention to the treatment of edges (both within and abutting the IOZ boundary) to achieve compatible transitions.*	Pages 71-75	Figure 6.4 titled "Proposed Maximum Heights" could be expanded on as a conceptual built environment/public realm plan for this section. Has there been consideration for a more targeted contextual set of heights throughout the campus to address varying building typologies in adjacent neighborhoods?	Figure 6.4 has been revised to be a "Proposed Open Space and Maximum Height Map" and has been updated to include open space, i.e., "no build", areas. The open space areas that have been added to the plan will provide further buffering of neighboring properties, and will preserve existing wetland and open space areas, such as along Capisic Brook and adjacent to the Mayfield Street neighborhood, and Evergreen Cemetery. The proposed maximum height areas have been thoughtfully selected to facilitate future development in portions of the campus that will not impact natural resources and will enhance campus engagement and safety.
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or*	Pages 76-77	UNE outlines four steps in their effort to provide ongoing community engagement, which include:	This requirement has been met.

potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including: *v. Neighborhood engagement, with:* *a) A plan for ongoing community engagement that represents best practices, promotes collaborative problem solving around community concerns, fosters transparency, and identifies mechanisms for neighborhood feedback and institutional accountability.*		-Developing a comprehensive CMP -Providing monthly project updates for all current/active projects -Creating a dedicated email address to allow neighbors to forward questions, concerns, and feedback -Attendance as local community neighborhood association meetings	
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *v. Neighborhood engagement, with:* *b) A property management framework that identifies the institution's process for handling operational property issues with neighbors.*	Page 76	UNE directly oversees the maintenance and care of its facilities; it does not inspect or approve any off-campus housing.	This requirement has been met.

2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *v. Neighborhood engagement, with:* *c) Strategies for assuring communication pertaining to property acquisition and disposition in surrounding neighborhoods.*	Page 77	UNE has established strategies for assuring communication pertaining to property acquisition and disposition in surrounding neighborhoods, including alerting abutting properties of the transition of ownership and providing the appropriate contact information.	This requirement has been met.
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *v. Neighborhood engagement, with:* *d) A set of construction management principles to apply to all institutional construction, that represent best practice, aim to minimize short- and long-term construction impacts on*	Pages 82-84, + Attachment A	UNE has identified construction management principles that will be implemented to minimize impacts to its surrounding neighborhoods from noise, vibrations, ground movement, truck traffic, dust control and other construction related factors.	This requirement has been met.

surrounding residents and businesses, and ensure a clear communication strategy is in place in advance of construction.			

2. REGULATORY FRAMEWORK RESPONSE TO COMMENTS

Regulatory Framework: Content Land Use Code, Section 8.5.5.D			
Category & Requirement	***Location, R.F. – PDF Page Number & Document Section***	***Review Comments: Overview & Updates Requested***	***Comment Response Provided by Applicant***
1. Zoning boundary of the IOZ *The area to which the regulations apply, as shown on the zoning map, subject to other provisions of this ordinance (i.e. the map amendment to the City's zoning map)*	Page 144, Figure 8-H	General comment: Please add page numbers to the Regulatory Framework document itself.	Page numbers have been added.
2. Phasing and schedules *Requirements that relate to particular proposed phases* *A chart showing the schedule or thresholds for submitting an amended IDP (or elements of an IDP, such as a Transportation Demand Management (TDM) Plan)*		N/A - No phasing or scheduling proposed (imminent site plan) at this time.	

3. Uses *Clarification, as necessary, on permitted uses*	Page 146, Section C., Table 8-H		
4. Dimensional requirements *Graphics, sketches, or standards, including details for transition zones within the IOZ boundary*	Pages 146-147, Section D., Figure 8-I	Staff requests further discussion regarding the proposed height map and how to consider the surrounding context. See attached comments.	The applicant met with City Staff on October 22, 2024, and December 13, 2024, to further discuss the proposed height map. Changes to the height map have been incorporated as shown on Figure 8-I.
5. Transportation *Elements such as Transportation Demand Management Plan (TDM) trip reduction targets or contribution to area-wide TDM measures* *Broad parameters for ensuring pedestrian, vehicular, bicycle and transit access and safety* *Parking ratios and management strategies* *Thresholds for access improvements*	Page 148, Section E.	*City Staff is working with the applicant to draft language for this requirement section.*	The applicant is working with City Staff on the final language for this requirement section.

6. Environment *The approach to the inclusion of open space and preservation of environmentally-sensitive areas*	Page 148, Section F.		
7. Mitigation measures *The broad approach to identified mitigation measures, which would be addressed in greater detail in the site plan review process* *Thresholds for addressing deficiencies* *Goals for preservation/protection*	Page 148, Section G.	*City Staff is working with the applicant to draft language for this requirement section.* *City Staff is working with the applicant to draft language for this requirement section.*	The applicant is working with City Staff on the final language for this requirement section.
8. Design *Graphics and standards to clarify building placement and envelope (height and massing)* *Guidelines for integration of site features* *Required treatments for transition zones and treatment for all edges*		*City Staff is working with the applicant to draft language for this requirement section.*	The applicant is working with City Staff on the final language for this requirement section.

(both within and abutting the IOZ boundary) *Guidelines for establishing campus identity*			
9. Neighborhood integration Thresholds and strategies for neighborhood engagement Mitigation of impacts on neighboring properties, including construction impacts Buffering requirements Objectives for pedestrian linkages and safety Other requirements that address community concerns	Page 150, Section I.	*City Staff is working with the applicant to draft language for this requirement section.*	The applicant is working with City Staff on the final language for this requirement section.
10. Monitoring *A schedule for regular monitoring reports on IDP implementation in accordance with the IDP*		This section should simply address monitoring, stating that updates will be provided to the Planning Authority every five years.	Monitoring requirements have been added to this section.

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Att. K

Via Electronic Mail

February 7, 2025

Natasha Kypfer, Senior Planner
City of Portland
389 Congress Street
Portland, ME 04101
nkypfer@portlandmaine.gov

Re: University of New England – Map and Text Amendment Application ZN-003059-2024
Response to City Comments Round 2

Dear Natasha:

Thank you for coordinating the review of our application (ZN-003059-2024), a Map and Text Amendment, proposing a new Institutional Overlay Zone (IOZ) for the University of New England (UNE) at 716 Stevens Avenue, with a change to the underlying zoning to B-2 Community Business, and OS-P Open Space Preservation. We received the second round of comments from the City's reviewers on January 17, 2025, and are providing responses on the attached table:

- Attachment 1: Institutional Development Plan (IDP): Response To Comments

In addition to the written comments received from City staff, we have also heard feedback from the Planning Board and public at the second Planning Board Workshop held on January 28, 2025. Some of the feedback we heard included a suggestion to consider rezoning the proposed open space areas as Open Space Preservation (OS-P), suggestions for ongoing community engagement requirements to be incorporated into the Regulatory Framework, and suggestions related to the maximum height areas and consideration of increased transition zones. Responses and further information related to these topics are provided below for consideration.

Open Space Preservation (OS-P) Rezoning

Staff suggested considering rezoning UNE's proposed open space areas as Open Space Preservation (OS-P), for consistency with the City's Land Use Ordinance. UNE is committed to preserving these areas of campus, which are largely comprised of natural resources such as wetlands and streams. In line with Staff's suggestion, UNE is proposing to rezone three areas of campus as OS-P. These areas are shown on Figures 1.4 and 6.4 in the IDP. These areas make up approximately 14% of the campus' total area, reflecting UNE's commitment to protecting the environment and providing ample open space areas on their campus.

Ongoing Community Engagement

UNE and City Staff have had discussions regarding the requirements for ongoing community engagement, as described in Section I, Neighborhood Integration, of the draft Regulatory Framework. UNE has a history of consistent outreach to its neighbors and is committed to continuing that engagement. To reflect this commitment, UNE will conduct annual

neighborhood outreach through neighborhood meetings, to be hosted on campus. Neighbors within 500' of the campus will receive notices ahead of the meeting, and UNE will provide a record of participants, content, and feedback to the City, as required in Section 13.5.5.C of the City's Land Use Code.

Height Map

During the second Planning Board Workshop, Members of the Planning Board and public shared suggestions on further revisions to the proposed Open Space and Maximum Height Map, which is a figure included in both the IDP and Regulatory Framework. Suggestions included providing additional transition zones between the proposed housing site and the Mayfield Street neighborhood and providing open space areas adjacent to Evergreen Cemetery. In consideration of the feedback related to the maximum heights near Mayfield Street, the Open Space and Maximum Height Map has been revised to reflect an additional transition zone with a maximum height of 50' adjacent to the proposed housing site. This transition zone is in addition to the 50' wide no build area adjacent to the Mayfield Street neighborhood, which is proposed to be rezoned as OS-P.

UNE has considered the feedback received suggesting additional open space area be provided adjacent to Evergreen Cemetery. There is an area of approximately 4.6 acres of OS-P that is proposed adjacent to Evergreen Cemetery. The remaining area of campus immediately adjacent to the cemetery has been previously developed with an access roadway that provides connectivity between the core campus and the Bishop Street intermodal facility. A 25' wide transition zone with maximum height of 50' is provided on the campus adjacent to Evergreen Cemetery, which exceeds the typical minimum 15' setback required in the B-2 zone for areas adjacent to Open Space Recreation (OS-R) areas (as Evergreen Cemetery is zoned).

If you have any questions or require additional information, please do not hesitate to contact me at (207) 558-3707 or csuhr@woodardcurran.com. We look forward to continuing to collaborate with the City as we work through the IOZ process.

Sincerely,

Woodard & Curran, Inc.

Caitlin Suhr, PE
Project Manager

cc: Alan Thibeault, University of New England
Mary Costigan, Bernstein Shur
Diane Morabito, Sewall Infrastructure

Attachments: Institutional Development Plan (IDP) Response To Comments Table

Worksheet(s) Table Legend:
Provided on Page # = Requirement Met
Partially Provided on Page # = Requirement Not Fully Satisfied
Not Provided = Requirement Not Satisfied

1. ATTACHMENT 1: INSTITUTIONAL DEVELOPMENT PLAN (IDP): RESPONSE TO COMMENTS

Institutional Development Plan (IDP): Content Land Use Code, Section 8.5.4.C			
Category, Sub-category, requirement and Sub-requirement	***Location, IDP Page #***	***Review Comments: Overview & Updates Requested***	***Comment Response Provided by Applicant***
1. Context Information *a. The institution's adopted mission, vision or purpose statement*	Pages 4-5	As stated and provided for on pages 4-5, UNE is guided by its Mission, Vision, and Core Values, as well as its own strategic plan ("Our World, Our Future").	This requirement has been met.
1. Context Information *b. A summary of relevant baseline data on the institution, including;* *i. A neighborhood context plan*	Pages 11-12, Figure 1.1	The UNE's approximately 72-acre campus is bounded by Warren Ave., Bishop St. Extension, and Bishop St. to the north; Stevens Ave. to the east; and, Evergreen Cemetery and CMP's Utility Corridor to the south, as depicted in provided Figure 1.1.	This requirement has been met.
1. Context Information *b. A summary of relevant baseline data on the institution, including;* *ii. An inventory of current programs and services.*	Page 7-9	The UNE Portland campus houses three academic colleges: the Westbrook College of Health Professions (WCHP), the College of Dental Medicine, and the College of Graduate and Professional Studies. In addition, UNE operates two health clinics on campus: the Oral Health Center and the Dental Hygiene Center, as well as UNE North, the Center for Global Humanities, and cultural institutions that include the Maine Women Writers Collection and the UNE Art Gallery.	This requirement has been met.

1. Context Information *b. A summary of relevant baseline data on the institution, including;* *iii. A current census of the number of people using the institution (e.g., employees, enrollment, patients), with an indication of maximums and minimums over time.*	Page 21, Table 1.3	Table 1.3 titled "FTE Student, Faculty, and Professional Staff Data", includes population data from 2016-2023 **for student, faculty and professional staff, campus population, and patient visits. Note, UNE does not keep track of general campus visitors.**	This requirement has been met.
1. Context Information *b. A summary of relevant baseline data on the institution, including;* *iv. An inventory and/or plan of all existing property holdings within the main campus and within the City of Portland, including an indication of functional land use links between off-campus properties and the main campus (e.g. remote parking).*	Page 20, Table 1.2	Table 1.2 titled "UNE Owned Properties in the City of Portland", documents UNE's total of 17 parcels, the majority of which are contiguous in the campus core, while several are outparcels. **An additional section speaks to the functional land use links between off-campus properties (outparcels) and the main campus.**	This requirement has been met.
1. Context Information *b. A summary of relevant baseline data on the institution, including;* *v. An inventory and/or plan of existing facilities, including data on use, floor area, and any existing functional connections between facilities.*	Page 16, Figure 1.5 Pgs. 17-19, Table 1.1	The UNE campus map is provided on page 16 as Figure 1.5, depicting the 25 distinct facilities and 11 parking areas, with an inset map centered around the Campus Quad. **A campus facilities table has been provided detailing each facility, their location, name, total floor area, building height, and use. Further, the table includes each parking facility, a lot description, total parking area, total number of spaces including those ADA and EV charging compliant.**	This requirement has been met.

1. Context Information *c. A summary of the baseline characteristics of the existing campus and context of the institution, based on identified study areas, including:* *i. A summary of existing resources, such as historic, open space, and natural resources.*	Pages 22-23	UNE's campus is the site of the Westbrook College Historic District, which includes six buildings built between 1834 and 1952. Further, existing open space and natural resources are summarized, and include notation of the Portland Trails Forest City Trail connection and the Capisic Brook watershed area.	This requirement has been met.
1. Context Information *c. A summary of the baseline characteristics of the existing campus and context of the institution, based on identified study areas, including:* *ii. A summary of the existing transportation system, including vehicular, pedestrian, transit, bicycle, and parking supply, demand, and utilization*	Page 41-53, Table 3.5 & 3.6, Page 50, Figure 3.6	Table 3.5 titled "UNE Portland Campus - Parking Spaces" details the currently 11 parking lots located on campus, plus the on-street parking along two principal campus roadways, which amounts to 882 spaces total, plus the 182 permitted spaces presently at the COM building. **Table 3.6 details parking occupancy at the UNE Portland campus data and assumptions from 2015-2033. The chapter concludes with three main parking goals for the campus.**	This requirement has been met.
1. Context Information *c. A summary of the baseline characteristics of the existing campus and context of the institution, based on identified study areas, including:* *iii. A summary of existing public infrastructure supporting the institution, including demand, utilization and any capacity issues.*	Page 24	Existing stormwater management systems utilize on-site infiltration systems, with secondary use of conveyance to the Stevens Ave. and Bishop St. CSO. Existing wastewater infrastructure for the campus is discharged to a CSO in College St. and Stevens Ave. Other public utilities include: PWD, CMP, and Unitil.	This requirement has been met.

1. Context Information *c. A summary of the baseline characteristics of the existing campus and context of the institution, based on identified study areas, including:* *iv. Relevant municipal plans, projects, and studies that may influence the IDP study area and opportunities for integrating institutional growth.*	Page 24-27	A breakdown of the City's Comprehensive Plan, with tie in to the eight policy guide topics as they relate to UNE's work is provided with excerpts from Portland's Plan that UNE works to promote and advance are underscored and include the: environment, economy, historic resources, and housing. **Additional studies also referenced are: One Climate Future, the Smart Corridor Plan, and the Forest Avenue Redesign Project.**	This requirement has been met.
1. Context Information *d. A summary of public involvement in the development of the IDP, including major areas of public concern.*	Pages 27-28	UNE has worked to involve the public in the creation of the IDP during the IOZ submission process, **this includes holding two required neighborhood meetings, which took place on June 13, 2024 and October 30, 2024, as well as the necessary Planning Board and City Council meetings during the adoption of the IOZ.**	This requirement has been met.
2. Assessment of future institutional growth and change, including: *a. A description of institutional needs and areas of future institutional growth and change, with:* *i. A projected census of users (e.g., enrollment /employment/patient/ visitor figures and anticipated variations over time).*	Page 31, Table 2.2	Table 2.2 titled "Projected Growth of FTE Student, Faculty, and Professional Staff, **and Patient Visits" provides a snapshot of data assumptions for the years of 2025, 2028, and 2033. Note, UNE does not keep track of general campus visitors.**	This requirement has been met.

2. Assessment of future institutional growth and change, including: *a. A description of institutional needs and areas of future institutional growth and change, with:* *ii. Institutional objectives for property both within and outside the IOZ boundary (e.g. acquisition and/or disposition), including an indication of any functional land use connection for sites outside the IOZ boundary to the main campus.*	Pages 32-34	UNE identifies five categories for key current and future institutional needs: campus reorganization, new building and renovation, educational/pedagogy improvements, campus infrastructure, and housing.	This requirement has been met.
2. Assessment of future institutional growth and change, including: *a. A description of institutional needs and areas of future institutional growth and change, with:* *iii. A development plan addressing anticipated or potential institutional needs and physical improvements, including the proposed boundary of the IOZ and any phasing of the development.*	Pages 34-35, Table 2.3	A development plan is shown in Table 2.3, titled "10 +- Year Development Program", which identifies three core priority timelines: the short-term (0-5 years), medium-term (5-10 years), and long-term (10+ years).	This requirement has been met.
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support*	Page 24, Pages 51-53	**The context section notes: "A campus parking analysis, based upon the historical count data, projects a maximum occupancy rate per university population to be at 0.39 from 2025 to 2033. This rate is similar to the Institute of Transportation Engineers (ITE) 85th percentile parking rate." Further,**	This requirement has been met.

the development parameters as set out in the regulatory framework, including: *i. Transportation and access, with:* *a) An analysis of the projected changes in parking demand, supply, and impacts to the off-street and on-street parking capacity, including an explanation of the proposed parking plan.*		**provided within the Transportation Plan section, UNE includes a parking analysis based upon the historical parking counts.**	
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *i. Transportation and access, with:* *b) An analysis of the projected changes in vehicular, pedestrian, transit, and bicycle access routes and facilities, their capacity, and safety.*	Page 36-37, Tables 3.2 & 3.3	Table 3.2 titled "Trip Generation Analysis" provides a snap shot of vehicular usage projections for the student population in the years 2025, 2028, and 2033.	This requirement has been met.
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the*	Pages 45-53, Figure 3.6	UNE's original TDM plan was created in 2010, and is routinely updated, most recently in April 2022. Strategies that emerged from the plan include: education and promotion, carpooling & ridesharing, transit service, incentives, EV	This requirement has been met.

identified study area, and support the development parameters as set out in the regulatory framework, including: *i. Transportation and access, with:* *c) A transportation, access, and circulation plan, representing the synthesis of the analysis, and including a program of potential improvements or set of guidelines to address access deficiencies to and within the IOZ. The plan should outline proposed mechanisms and potential strategies to meet transportation objectives, including transportation demand management, phasing, and when a Traffic Movement Permit (TMP) may be required.*		charging infrastructure, bicycle infrastructure, and pedestrian & bicycle access. **Figure 3.6 titled "Core Campus Bicycle and Pedestrian Connectivity", shows the primary campus sidewalks, bike facilities, and off-site connections. UNE notes, opportunities to expand this network (as visualized in Fig. 3.6), and to increase these alternative commuting modes, will continue to be explored. Details regarding the Traffic Movement Permit (TMP) have also been included in this section.**	
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *ii. Environment, with:* *a) An analysis of potential cumulative impacts on natural resources and open spaces.*	Page 61 Page 80, Figure 6.4	**Provided under the 'Proposed Future Development and the Environment' section, UNE details their commitment to preserving 10± acres on campus as dedicated open space, which is also depicted in Figure 6.4 titled "Proposed Open Space and Maximum Height Map".** **Staff suggests an additional table be added to this section, breaking down the acreage on campus, and providing the dedicated open space calculations.**	Table 4.1 has been added to this section summarizing the total campus area and dedicated open space area calculations. Language has also been added to this section to note UNE's commitment to rezoning the three open space areas as Open Space Preservation (OS-P).

2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *ii. Environment, with:* *b) An analysis of projected energy consumption, hazardous materials generation, noise generation, and similar issues as relevant.*	Pages 67-70	UNE's operational sustainability is detailed within the categories of energy conservation, waste management practices, biomedical waster best practices, sustainable landscaping, and noise generation.	This requirement has been met.
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *ii. Environment, with:* *c) An environmental plan, representing the synthesis of the analysis and including a proposed program or set of guidelines for future preservation, enhancement, conservation, and/or mitigation*	Page 66, Figure 4.8	Figure 4.8 titled "Natural Resources and Campus Master Plan" shows proposed campus improvements in locations aimed to mitigate impact to natural resources.	This requirement has been met.

2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *iii. Infrastructure, with:* *a) An analysis of projected public utility demand and the capacity of associated infrastructure.*	Pages 72-73	Utility demand and capacity are detailed through the lens of the various providers: water services supplied by PWD, electricity supplied by CMP, telephone & data services by Consolidated Communications and Spectrum, natural gas and heating fuels supplied by Unitil, and existing wastewater infrastructure	This requirement has been met.
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *iii. Infrastructure, with:* *b) An analysis of projected public safety needs and projected impacts to the capacity of these services.*	Page 74	UNE has security officers who provide 24/7 patrol and dispatch coverage of the campus, in addition, an emergency notification service (Rave Mobile Safety), provides faculty, staff, and students with timely updates during emergencies, speaking to the capacity of public safety as the campus grows.	This requirement has been met.
2. Assessment of future institutional growth and change, including:	Pages 71-74, Figure 5.1	Figure 5.1 titled "Existing Stormwater Infrastructure and Campus Master Plan" illustrates existing City sanitary sewer and	This requirement has been met.

b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including: *iii. Infrastructure, with:* *c) An infrastructure plan, representing the synthesis of the analysis and including a proposed program or set of guidelines to support sustainable growth.*		stormwater infrastructure surrounding and within the campus, as well, future stormwater run-off flows are detailed. **At the conclusion of this chapter, a set of guidelines to support sustainable growth was added.**	
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *iv. Design, with:* *a) An analysis of projected impacts to neighboring properties and public spaces, including potential shadow, wind, and lighting impacts, impacts of height and massing, and impacts to historic resources.*	Pages 65-72, Figures 6.1, 6.2, 6.3, & 6.4	The City wants to ensure UNE is adequately addressing potential impacts to the surrounding parcels, including: Evergreen Cemetery, the isolated parcels within the Campus, and properties on Mayfield Street. **Figure 6.1 was updated to include spot elevations on campus current and future buildings, in order to better delineate height. Further, Figure 6.3 was updated to provide a 3D view from Mayfield Street towards proposed student housing building (west). With regard to the future development of the Gulliver's Field site, UNE notes they are evaluating** **alternatives for building footprints and parking configurations within the general area depicted on the Campus Master Plan (Figure 2.1, P. 33). The general area for development will be within the existing**	This requirement has been met.

		Gulliver's Field site, however final design will be developed in the future and reviewed as part of site plan application	
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *iv. Design, with:* *b) An analysis of transition areas between the institution and adjoining neighborhoods, including identification of key character defining components of the surrounding context.*	Page 79-81, Figure 6.4	**Figure 6.4 titled "Proposed Open Space and Maximum Height Map" depicts open space (i.e. "no build" areas), as well, a 25-ft-wide transition zone around the interior perimeter of the contiguous campus, with a maximum height in that transition zone of 50-ft. UNE indicates the design rationale of which is to provide a stepback of building heights from the campus edges and adjacent properties, with the intent to focus densification and greater building heights internal to the campus. Further, the open space areas added to the plan will provide added buffering of neighboring properties, and will preserve existing wetland and open space areas, including along Capisic Brook and adjacent to the Mayfield Street neighborhood.**	This requirement has been met.
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set*	Page 81	UNE's Campus Safety and Security Department monitors through in-person patrols and CCTV cameras and provides response 24/7, which contribute to low crime statistics on campus.	This requirement has been met.

out in the regulatory framework, including: *iv. Design, with:* *c) An analysis of existing Crime Prevention Through Environmental Design issues and identification of how these principles would be addressed as part of the proposed campus development.*			
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *iv. Design, with:* *d) A conceptual built environment/public realm plan, representing the synthesis of the analysis and including a set of guidelines for urban design, landscape, open space, and streetscape treatments, with particular attention to the treatment of edges (both within and abutting the IOZ boundary) to achieve compatible transitions.*	Pages 79-84, Figure 6.4	**Figure 6.4 titled "Proposed Open Space and Maximum Height Map" was revised to include open space (i.e., "no build", areas). The open space areas added to the plan provide further buffering of neighboring properties, and will preserve existing wetland and open space areas, such as along Capisic Brook and adjacent to the Mayfield Street neighborhood, and Evergreen Cemetery. UNE notes, the proposed maximum height areas have been selected to facilitate future development in portions of the campus that will not impact natural resources and will enhance campus engagement and safety.**	This requirement has been met.

2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *v. Neighborhood engagement, with:* *a) A plan for ongoing community engagement that represents best practices, promotes collaborative problem solving around community concerns, fosters transparency, and identifies mechanisms for neighborhood feedback and institutional accountability.*	Pages 85-86	UNE outlines four steps in their effort to provide ongoing community engagement, which include: -Developing a comprehensive CMP -Providing monthly project updates for all current/active projects -Creating a dedicated email address to allow neighbors to forward questions, concerns, and feedback -Attendance as local community neighborhood association meetings	This requirement has been met.
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *v. Neighborhood engagement, with:* *b) A property management framework that identifies the*	Page 86	UNE directly oversees the maintenance and care of its facilities; it does not inspect or approve any off-campus housing.	This requirement has been met.

institution's process for handling operational property issues with neighbors.			
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *v. Neighborhood engagement, with:* *c) Strategies for assuring communication pertaining to property acquisition and disposition in surrounding neighborhoods.*	Page 86	UNE has established strategies for assuring communication pertaining to property acquisition and disposition in surrounding neighborhoods, including alerting abutting properties of the transition of ownership and providing the appropriate contact information.	This requirement has been met.
2. Assessment of future institutional growth and change, including: *b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the regulatory framework, including:* *v. Neighborhood engagement, with:* *d) A set of construction management principles to apply to all institutional construction, that*	Pages 91-93, + Attachment A	UNE has identified construction management principles that will be implemented to minimize impacts to its surrounding neighborhoods from noise, vibrations, ground movement, truck traffic, dust control and other construction related factors.	This requirement has been met.

represent best practice, aim to minimize short- and long-term construction impacts on surrounding residents and businesses, and ensure a clear communication strategy is in place in advance of construction.			