

PLANNING BOARD

Tuesday, July 22, 2025 at 4:30 PM
Room 24 (Ground Level of City Hall) and
Zoom



MEMBERS

Brandon Mazer, Chair
David Silk, Vice Chair
Michael Fox
Nicholas Messina
Kelsey Robertson
Austin Smith
Joseph Zamboni

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AGENDA:

WORKSHOP - 4:30 PM

- i. Major Site Plan; 1125 Brighton Avenue; Developers Collaborative Predevelopment, LLC. and Prosperity ME, Applicant. The Planning Board will hold a hybrid workshop to consider a major site plan application to facilitate the development of 50 affordable dwelling units in an apartment building at the Barron Center complex on Brighton Avenue. The development plan also includes 31 new parking spaces and long-term bike parking. The subject property totals approximately 0.77 acres and is located in the B-2 zone. A project and plan summary are available for viewing on the city's CSS Portal (<https://css.portlandmaine.gov/>) by referencing Plan Number PL-003379-2025.

PUBLIC HEARING - 5:30 PM

1. **ROLL CALL AND DECLARATION OF QUORUM**
2. **COMMUNICATION AND REPORTS**
3. **REPORT OF ATTENDANCE AT THE MEETING HELD ON JULY 8, 2025.**

Workshop

Text Amendment to inclusionary zoning for hotel projects: Fox, Mazer, Messina, Robertson, Silk, Smith, and Zamboni present.

Public Hearing

Text Amendment to the Pedestrian Activities District (PAD) Overlay: Fox, Mazer, Messina, Robertson, Silk, Smith, and Zamboni present.

385 Congress Street: Fox, Mazer, Messina, Robertson, Silk, Smith, and Zamboni present.

203 Fore Street: Fox, Mazer, Messina, Robertson, Silk, Smith, and Zamboni present.

1584 Forest Avenue: Fox, Mazer, Messina, Robertson, Silk, Smith, and Zamboni present.

4. **REPORTS OF DECISIONS AT THE MEETING HELD ON JULY 8, 2025.**

- i. Master Development Plan Amendment; 385 Congress Street; Reger Dasco Properties and the Fathom Companies, Applicant. Silk motioned and Zamboni seconded a motion to approve the Master Development Plan Amendment. Vote 7-0. Silk motioned and Zamboni seconded a motion to adopt the approval letter as the Planning Board's decision, and to authorize the Board Chair to sign the approval letter as drafted. Vote 7-0.
- ii. Major Site Plan Approval; 203 Fore Street; Chatham Lodging Trust, Applicant. Silk motioned and Zamboni seconded a motion to waive Site Plan Standard Sec. 14.6.2.C.3, which requires parking lot landscaping, to allow the applicant to construct a parking lot without required landscaping and pay the equivalent fee in lieu of the required trees. Vote 7-0. Silk motioned and Zamboni seconded a motion to waive Technical Manual Sec 1.10.3, which requires two-way drive aisle widths to be 24 feet, to allow for a two-way drive aisle width of 22.5 feet. Vote 7-0. Silk motioned and Zamboni seconded a motion to approve the Traffic Movement Permit. Vote 7-0. Silk motioned and Zamboni seconded a motion to approve the hotel inclusionary zoning condition use application. Vote 7-0. Silk motioned and Zamboni seconded a motion to approve the major site plan application. Vote 7-0. Silk motioned and Zamboni seconded a motion to adopt the approval letter as the Planning Board's decision, and to authorize the Board Chair to sign the approval letter as drafted. Vote 7-0.

- iii. Major Site Plan Approval; 1584 Forest Avenue; Acre Properties, Applicant. Silk motioned and Zamboni seconded a motion to approve the major site plan application. Vote 6-1 (Silk opposed). Silk motioned Zamboni and seconded a motion to adopt the approval letter approval letter as the Planning Board's decision, and to authorize the Board Chair to sign the approval letter as drafted. Vote 7-0.

5. UNFINISHED BUSINESS

- i. Text Amendment to the Pedestrian Activities District (PAD) Overlay; City of Portland, Applicant. The Planning Board will hold a hybrid public hearing where the Board will make a recommendation to the City Council around a proposed amendment to the PAD Overlay of Article 8 of the Land Use Code.

6. NEW BUSINESS

- i. Major Site Plan and Subdivision; 1877 Congress Street; GreenMars Real Estate Services, Applicant. The Planning Board will hold a hybrid public hearing to consider a major site plan and subdivision application to facilitate the development of a 13-lot subdivision, and the construction of thirteen 10-unit residential buildings, developed as a conservation residential development. The subject property totals approximately 4.04 acres and is zoned RN-1 Residential. A project and plan summary are available for viewing on the city's CSS Portal (<https://css.portlandmaine.gov/>) by referencing Plan Number PL-003020-2024.

To: Chair Brandon Mazer & Members of the Planning Board
From: Andrew Graminski, Planning & Development Review Manager
Date: July 18, 2025
Re: 1125 Brighton Avenue
Project ID: PL-003379-2025
CBL: 269 B001001
Meeting Date: July 22, 2025

I. INTRODUCTION

Developers Collaborative Predevelopment LLC and Prosperity ME (“the applicant”) have submitted a Major Site Plan application to facilitate the development of a four-story 50-unit multifamily apartment building on an existing parking lot at the Barron Center Campus along Brighton Avenue. 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 94 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the July 10 and 11, 2025 editions of the *Portland Press Herald*.

Applicant: Developers Collaborative Predevelopment LLC and Prosperity ME
Applicant Representatives: Gorrill Palmer; Invivid Architecture; Aceto Kimball Landscape Architecture & Urban Design



Figure 1. A prospective rendering of the proposed 50-unit apartment building.

II. REQUIRED REVIEWS

Review	Applicable Standards
Site Plan	Section 13.6
Design Review	City of Portland Design Manual – (d) B-2 Commercial Business Zone, Appendix 2 and (i)

Waiver Requests	Applicable Standards
Request: The applicant is seeking a waiver of the parking aisle width to be reduced to 22 feet where 24 feet is required.	Technical Manual, Section 1 – Design standard Figure 1-16A depicting typical standard parking drive aisle dimension. Standard for 90 Degree Parking is 24 feet aisle width.

Note on Inclusionary Zoning:

The project fully integrates affordable housing standards that exceed the City's workforce housing requirements and the specific mandates of Land Use Code Section 17.2.3.C. Consequently, this development is exempt from the City's Inclusionary Zoning requirements.

III. PROJECT DATA

Existing Zoning	B-2
Property Size	0.77 Acres
Existing Use	Parking lot Lawn Mature pine tree stand
Proposed Use	Residential
Proposed Development Program	50-unit affordable housing development

	Existing	Proposed	Net Change
Building Footprint	n/a	11,890 SF	+11,890 SF
Building Floor Area	n/a	47,073 SF	+47,073 SF
Impervious Surface Area	15,947 SF	24,480 SF	+8,533 SF
Parking Spaces	46	31	-15
Bicycle Parking Spaces	0	32	+32
EV Charging Stations	0	6	+6

IV. EXISTING CONDITIONS AND SURROUNDING AREA

The subject property is located on the Barron Center Campus off of Brighton Avenue. The site itself is bounded by Brighton Avenue to the south, Holm Avenue to the east and the Barron Center Campus to north and west. The site is located in the B-2 Community Business zone and is currently occupied by a surface parking lot, lawn space, and a stand of mature pine trees.

The Loring House Apartments occupy the original City Hospital building, constructed between 1902 and 1904, which is located just north of the development site. The building served as a publicly owned and operated almshouse and hospital until 1982, when operations were moved into the newly constructed Barron Center. The former City Hospital building was then converted into a privately operated senior living facility. The former City Hospital building is a locally designated historic Landmark and is individually listed on the National Register of Historic Places. Historically, the City Hospital complex included a large tract of land across Brighton Avenue which was operated as a City Farm. The Landmark

designation still includes the large lawn and green space between the Landmark building (Common Use Ground) and Brighton Avenue which speaks to the agrarian/rural context that surrounded the site when the hospital was constructed in the early 20th century.

Access to both the Loring House and Barron Center is provided via a two-way driveway off of Holm Avenue called City Hospital Drive. Additionally, vehicles are able to exit the Loring House/Barron Center property utilizing a one-way driveway with bidirectional egress onto Brighton Avenue at a signalized intersection.

Originally, the proposed site for the lease area for the proposed development was about 0.87 acres. However, a survey revealed that this area would overlap with the land already designated as the Common Use Ground. To resolve this, the developer of the project has proposed reducing the lease area to be approximately 0.77 acres in size. The new boundary is set by the western edge of a 20-foot-wide utility easement that serves the Loring House Apartments. The applicant has stated in their narrative that the easement is no longer required as a new water main has been installed through the campus. The applicant has requested that the City release the easement as it is now unnecessary. More information on this subject below.

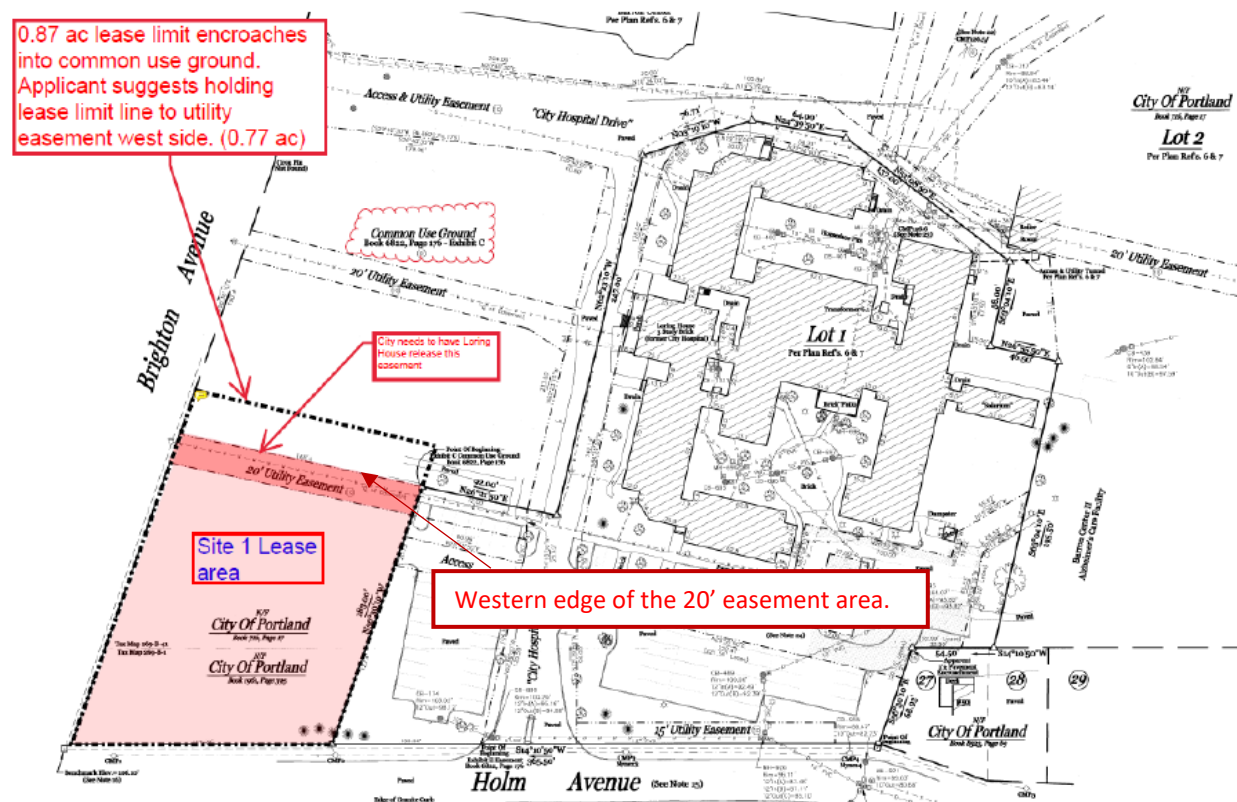


Figure 2: Site plan depicting existing 20-foot easement

The area surrounding the subject property features a mixture of automobile-oriented commercial development along Brighton Avenue, low-density residential development in the Nason's Corner Neighborhood, and Portland Housing Authority's Sagamore Village property. Sagamore Village was originally constructed in 1942 as housing for shipyard workers building Liberty Ships during World War II. In 1953 it was purchased by the Portland Housing Authority for use as low-income housing. The property was added to the National Register of Historic Places in 2020.



Figure 3: Existing property at 1125 Brighton Avenue

V. PROPOSED DEVELOPMENT

The proposed development would involve the construction of a four story, 50-unit apartment building with a ground-level community room for residents, facilities for solid waste storage, utility room, and a secure bicycle parking room with capacity for 32 bicycles. All proposed units would be affordable – 30 units will be at 50% AMI, 17 units will be at 60% AMI, and 3 units will be at 80% AMI. The proposed building would have frontages on Brighton Avenue and Holm Avenue. The unit breakdown is as follows:

Unit Size	Count	Mix %
1 Bed	15	30%
2 Bed	25	50%
3 Bed	8	16%
4 Bed	2	4%

Figure 4: Prospective rendering of the proposed 50-unit apartment building



Additionally, the proposed project would include 31 off-street vehicle parking spaces, and dedicated lawn space at the rear of the site for use by residents. The applicant proposes several right-of-way

improvements including reconstruction of sidewalks along Brighton Avenue and a new sidewalk on the western side of Holm Avenue. New landscaping would include new trees and shrubs planted primarily around the proposed outdoor patio area. Several paths are proposed that would connect the development with existing sidewalks and walking paths within the Common Use Ground next to the project site. The building would have water and sewer connections to existing mains in Brighton Avenue, with a fire department connection on the south side of the proposed building. The application proposed underground electrical service, which would connect to the overhead utility line running along the east side of Brighton Avenue, and the building's heating and cooling systems would likely be electrically powered, with natural gas as a possible alternative.

VI. RIGHT, TITLE, & INTEREST

The applicant has provided an agreement document between the City of Portland and the applicant which enables the applicant to commence the entitlements process for this proposed development on City-owned land at the Barron Center Complex. A final lease agreement has not been signed between the City and applicant at this time. The agreement document between the City and the applicant is attached as attachment D.

The City issued a Request for Proposal (RFP) on February 20, 2025, seeking developers for an affordable rental housing project. The applicant submitted a proposal in response to this RFP on April 9, 2025. The Portland City Council, via Order 222-24/25 (see attachment S3), instructed the Housing and Economic Development Committee (HEDC) to start negotiating an "Option to Lease and Ground Lease Agreement" with the applicant for this project. A draft Option Agreement has been submitted but is not yet finalized or signed.

VII. FINANCIAL & TECHNICAL CAPACITY

The applicant has provided a letter from their financial institution, Bangor Savings Bank that states the applicant has good financial standing based on previous work experience.

The applicant has retained Gorrill Palmer Consulting Engineers, Invid Architecture and Aceto Kimball Landscape Architects who have expertise and experience in the design of similar projects.

VIII. ZONING ANALYSIS

The subject property is located in the B-2 zone. The intent of the B-2 zone is to create a vibrant, pedestrian-friendly area that is supported by a mixture of commercial, service, and residential uses. It aims to serve both nearby residents who can walk to daily necessities as well as those in surrounding neighborhoods via other modes of transportation. The zone allows for a wide array of goods and services and accommodates both large and small buildings. The zone is intended for all types of transportation and requires new development to seamlessly integrate with the existing neighborhoods through design and traffic flow. The zone promotes mixed-use buildings and supports moderate to high-density housing.

	Required	Proposed
Lot Size	None	33,775 SF
Maximum Height (ft)	75 feet	45 feet
Front Yard Maximum	None	4 feet
Rear Setback	None	0

Side Setback	None	0
Lot Coverage	90%	~40%
Street Frontage	None	+/- 226 feet
Gross Floor Area	None	47,073 SF
Build-To-Zone	0-10 feet	1 Ft +/- on both Brighton Avenue and Holm Avenue
Build-To-Percentage	100%	Fully within build-to-zone on Brighton Avenue and Holm Avenue
Building length as a percentage of street frontage	None	N/A
Blank Wall Area	20 feet	20 feet
Landscape Open Space Ratio	10%	27%

*This project is complying with the corner clearance requirement listed in Section 7.5.1.

IX. SITE PLAN REVIEW STANDARDS (Section 14.6)

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 14.6. Staff comments are below.

On July 14, 2025, the applicant responded to Staff's initial feedback transmitted to the applicant on June 27, 2025. City staff are still in the process of reviewing the applicant's resubmission, and do not anticipate having finalized second-round review comments available until after the July 22nd workshop.

1. Transportation Standards (Section 14.6.1)

A. Impact on surrounding street systems

After reviewing the application's plans and documents, staff, in consultation with the city's third-party traffic engineer, anticipate no major impacts on the surrounding street system from this project. The new multifamily development at the Barron Center is not expected to create or worsen any existing or proposed safety concerns on the surrounding street network. Additionally, the site is conveniently located near METRO transit stops on both sides of Brighton Avenue, offering residents access to public transportation for daily needs. Based on the project's trip generation estimate, it's not expected to add significant peak-hour traffic volumes to the surrounding street system and does not require a Traffic Movement Permit (TMP). Given these low estimated traffic volumes, a traffic study will not be necessary.

While minimal traffic impact is expected, staff require the following to be confirmed and reflected in the site plans to meet site plan standards:

- To accommodate a slight increase in demand and encourage site traffic to use the Barron Center signal, the applicant must implement a flashing yellow arrow signal head configuration for the outbound (towards Westbrook) Brighton Avenue left turn entering the existing retail driveway. This will make the intersection more efficient for the flow of traffic.



Figure 5: Signal head would be replaced with a four-section head with a yellow flashing arrow

- Site access and egress movements is available at the STOP-controlled Brighton Avenue/Holm Avenue intersection. Additional site egress is located at the signalized Brighton Avenue/Barron Center Drive. Due to the already heavy traffic volumes on Brighton Avenue, site users should be encouraged to use the signalized intersection when exiting the site.

The applicant responded to staff's feedback by providing an updated site plan. This plan notes that the applicant will continue to coordinate with the Department of Public Works (DPW) on installing a yellow arrow signal head for the Brighton Avenue traffic signal at the intersection with City Hospital Drive. The applicant requests that the City provide the basis for this condition, as they believe the left-turn movement relates more to existing Brighton Avenue conditions than the proposal's small traffic volume.

The applicant has noted in their follow up to staff that City Hospital Drive is a driveway and not a public right-of-way, although it is located on City-owned property. Staff will confirm that the City does retain ownership of the land and rights of use. The applicant notes that they assume that the rights of access via City Hospital Drive will be made as part of any executed agreement with the City since the City has the right to grant rights of use. Staff are currently coordinating with Corporation Counsel to confirm if the final lease agreement will need to include language.

B. Access and circulation

The building's first floor will feature entrances at the front and rear of the proposed building, respectively from the Brighton Avenue frontage and from the proposed parking lot, with the Brighton Avenue entrance connecting to the public sidewalk. The structure would be built above the flood zone and would include an elevator. A rear sidewalk would lead to the trash room. The trash room would be located on the ground floor of the building. This trash room would only be accessible from the exterior of the building. The applicant is providing a rear walkway that would connect to the planned sidewalk on Holm Avenue as well as an existing sidewalk in the Common Use Ground adjacent to the proposed rear parking area.

The applicant is also requesting a waiver to reduce the parking aisle width from 24 feet to 22 feet. Staff supports this waiver due to low vehicle turnover and observations of other parking lots with 22-foot aisles.

On June 27, 2025, staff provided feedback to the applicant on their application submission. In their review letter, staff noted the following required changes:

- The applicant must replace the proposed asphalt sidewalk along the property's Brighton Avenue frontage with concrete. This site is in a concrete district, as the Technical Manual requires, so the plans need to reflect this change and include concrete details.
- The applicant must provide a sidewalk along the Holm Avenue frontage, as the Land Use Code and Technical Manual require.
- The applicant must verify that both existing receiving ramps for the crosswalk across Holm Avenue meet ADA requirements, and are required to realign and update them as necessary.
- Finally, the applicant must shift the planned CMP pullbox out of the sidewalk. All plans should show concrete, not asphalt, for all sidewalks, with updated details accordingly.

The applicant has since responded to the comments above. They updated the site plan to include a five-foot-wide concrete sidewalk along the proposed development's Brighton Avenue street frontage. The site plan also shows a new five-foot bituminous sidewalk on Holm Avenue. The Technical Manual allows the asphalt condition for the proposed Holm Avenue sidewalk because the concrete sidewalk requirement only applies along Brighton Avenue per the City's Technical Manual, Appendix 1-A.

According to the applicant's follow-up response, they have updated their plans and materials to address the above-listed bullet points regarding the Holm Avenue crosswalk and the pullbox.

As noted above, City staff are continuing to evaluate the applicant's resubmission in response to staff's June 27th review comments, and do not anticipate having updated comments until after the July 22nd Planning Board workshop.

C. Public transit access

This site is well served by public transit. Existing transit shelters for METRO Route 4 (Westbrook and intown) exist on both sides of Brighton Avenue, directly adjacent to the site. The applicant is not required to provide a new transit shelter due to this existing condition.

D. Parking

The project proposes 31 off-street parking spaces, which is well beneath the City's maximum parking allowance of two spaces per residential unit in a multifamily development, or 100 spaces. The proposed parking area is located to the rear of the proposed building as required per Article 18 in the Land Use Code.

A total of six EV parking spaces are proposed along with six EV-ready spaces. The City's Technical Manual, Sec. 1.14 requires that 20% of spaces within a new surface parking lot be equipped with chargers or energized outlets capable of providing Level 2 charging or higher. An additional 50% of spaces are required to be made EV-ready as defined in Sec. 1.14.1 of the Technical Manual. While the applicant does provide the required number of spaces equipped with EV-chargers, just 20% of the proposed spaces are EV-ready, which does not satisfy the City's requirement. The applicant is being asked to update their plans to address this comment.

A total of six spaces are reserved for handicap parking closest to the flush pedestrian walkway. The applicant does not detail in their site plan or in the site plan assessment narrative that was provided how snow storage would be handled. Staff are requesting that the applicant address this in their next submission. Additionally, staff also require that the applicant submit a copy of the parking study that was mentioned in their cover letter for review.

The applicant is proposing an interior bike rack storage room that would allow for 32 bikes, going beyond the 25 minimum required bicycle parking spaces, required at a ratio of one bicycle parking space per two dwelling units as detailed in Table 18-A.

The applicant's documents indicate they are completing a parking study to assess the current parking demand generated by the Barron Center and are currently in discussions with the City around the construction of additional parking to offset the loss of 46 existing spaces¹. This is a requirement of the lease agreement between the City and the applicant. HEDC has stipulated that there can be no net loss of existing parking at the Barron Center Campus. At this point in time, staff are unclear on whether this offset in parking would occur as part of this site plan application, or under a separate application, and are including this note for the Board's awareness of this ongoing discussion.

E. Transportation demand management (TDM)

This application is not a commercial or mixed-use development and thus does not require a TDM Plan. Staff find that this standard is not applicable to this project.

2. Environmental Quality Standards (Section 13.6.2)

A. Preservation of significant natural features

The site lacks significant natural features like wetland streams or ponds. The applicant plans to remove existing mature pine trees from a portion of the property as part of the development. However, the current project design protects a single large, deciduous Elm tree along Holm Avenue due to its size and screening benefits. The applicant proposes adding a new sidewalk along Holm Avenue where the Elm tree stands and has been asked to carefully plan and prioritize its protection during construction, providing applicable plans before work begins.

The applicant initially did not provide information related to the project's compliance with the City's low impact development (LID) standard. As of July 14, 2025, they submitted an LID scorecard (Attachment P) claiming 88 points, exceeding the 80-point minimum requirement. The applicant claims points across several LID categories, notably for developing on a site without wetlands or streams or areas of steep slope, for utilizing native vegetation, and for redeveloping a surface parking area. Staff has circulated this document for peer review but has not yet received feedback on the scorecard.

B. Site Landscaping and buffers

The developer plans to construct a new building on the site, which currently features a parking lot and a stand of pine trees. In order to accommodate the proposed building and off-street parking area, the applicant would remove the existing pine trees, many which have DBH's greater than 10" which are located along the property's Holm Avenue frontage, and a portion of the property's Brighton Avenue frontage. To compensate for the lost trees, the developer proposes new plantings as part of this development. The site includes a broad mix of trees, shrubs, perennials, and

ornamental grasses. The applicant proposes a rear lawn space and a landscaped area between the proposed parking lot and the building meeting the site plan standard requirement of one tree or six plantings per 5,000 square feet of lot area.

The applicant proposes placing a transformer pad within the frontage area between the building and the sidewalk along Brighton Avenue. The City requires screening for utility structures that are visible from the public way. Staff request that the applicant either move the transformer to a more recessed location, such as the rear of the site, or screen the transformer pad with landscaping, fencing, or another appropriate technique.

The applicant proposes reconstructing the sidewalk along the Brighton Avenue frontage with concrete and installing a new asphalt sidewalk along Holm Avenue. They also propose several internal pathways at the rear of the site, connecting to the Holm Avenue sidewalk and the Common Use Ground pathway. The application currently lacks details on how the project meets the minimum Solar Reflective Index (SRI). The applicant must provide this information in a narrative and on the site plan.

The applicant currently does not meet the street tree requirement for either the project's Brighton Avenue frontage or its Holm Avenue frontage. In total, the applicant's frontage along both streets is approximately 400 feet, which would require that 11 street trees be provided, at a required ratio of one tree per every 25 to 35 feet of frontage. The applicant will be required to update their site landscaping plan to detail the placement of these required street trees.

The applicant provides five trees in the parking area where 14 are required. According to site plan standard 13.2.6.B.3.a, developments with more than five parking spaces shall include at least one tree for every 750 square feet of uncovered asphalt parking area (including drive aisles). The parking area's impervious surface totals 10,752 square feet, which equates to 14 trees. Staff are requesting that the applicant address this comment as part of their next submission to the City.

C. Water quality/storm water management/erosion control

Currently, the site has 15,947 square feet of impervious surface but no onsite stormwater management. This project will increase the impervious surface to 24,048 square feet, including new roof and pavement. The proposed design would include two catchment areas; one serving the surface parking lot and other exterior hardscapes areas, and the second, the building's rooftop. The ground-level system, treating the parking area, would collect, treat and store stormwater before discharging treated stormwater into the existing stormdrain serving Loring House. The rooftop system would collect and store stormwater, without providing treatment, and would similarly discharge stormwater into the Loring House stormdrain. The applicant is still finalizing the exact design details according to their application.

The project must meet the City's stormwater management thresholds outlined in Sections 5 and 14 of the City's Technical Manual. The applicant will need to treat 95% of new impervious areas and 95% of non-roof developed impervious areas. The applicant will also need to provide detention to meet flooding standards and the Public Works Department's minimum detention volume and flow control requirements as detailed in Section 5 of the Technical Manual. The applicant has not yet submitted a stormwater management report, which is essential for the City to review the proposed stormwater design.

Staff have requested updates to several drawings. For example, Drawing C-40 (Grading, Drainage & Erosion Control Plan) should show proposed topography and elevation information for the drainage infrastructure, including details on the subsurface stormwater systems. Drawing C-30 (Site & Utility Plan) would need to show surface restoration, such as roadway trench paving, sidewalk reconstruction, curb resetting, and loam and seed.

3. Public Infrastructure and Community Safety Standards (Section 13.6.3)

A. Consistency with City Master Plans

The intent of the B-2 district is to create a vibrant, pedestrian-friendly area that combines commercial, service, and residential uses. The proposed development would create 50 affordable dwelling units in an area that has existing commercial and service uses. At this time, the proposed project is consistent with the designated zoning, which has been found to be in conformance with the City's comprehensive plan, Portland Plan 2030.

B. Public safety and fire prevention

The proposed plans generally meet the requirements for public safety and fire prevention. The Fire Department have received the applicant's turning templates for emergency vehicle and find that they meet City standards.

The proposal appears to incorporate principles for Crime Prevention through Environmental Design (CPTED) into the site design to enhance site security. The design does not propose any enclosed spaces with the site's open spaces the parking area is well-lit by freestanding light fixtures, and trees are appropriately spaced.

C. Availability and capacity of public utilities

For water, both the sprinkler system and the domestic water supply would connect to an existing 8-inch water main that runs along Brighton Avenue with the fire department connection being located on the building's south side, facing Brighton Avenue. Wastewater would tie into an existing 12-inch sewer line on Brighton Avenue, and the applicant has already submitted a request for capacity authorization for review. While natural gas from a nearby source is an option, the final decision on a gas connection would depend on the further design of the mechanical, electrical, and plumbing (MEP) systems. All HVAC units would be located on the roof. For electricity, the building would connect to the three-phase overhead power that runs along Brighton Avenue, which would likely require the installation of a new riser pole and underground service, pending coordination with Central Maine Power.

In the application documents, the initial plan for the area was 0.87 acres, but a survey revealed this would intrude on a "Common Use Ground." The applicant has requested that the lease area be reduced to have the westerly boundary terminate at the start of a 20-foot utility easement held by Loring House Apartments, which the applicant notes is no longer necessary due to the installation of a new water main. The applicant is asking that the City have Loring House Apartments release its rights to this easement. The applicant must also confirm that no other utilities are using this easement. Additionally, the proposed plans originally included a note regarding architectural columns but did not depict a canopy or other architectural element extending out from the face of the building along Brighton Avenue. Staff requested that the applicant confirm the presence of architectural elements that may not meet the minimum required horizontal clearance between structures and overhead utility lines. The applicant has since clarified that no architectural columns

or other elements extend beyond what is shown on the latest site plan and building elevations, which maintain minimum clearance.

The proposal would include an internal trash room that is accessible from an exterior door at the rear of the property. At this time, the applicant has not provided information on solid waste management, and has been asked to provide a narrative detailing the project's compliance with site plan standard 13.6.3.C.5.

Corporation Counsel has contacted Portland Water District's attorney and have confirmed that no active mains or other utility infrastructure remain within the easement area. The applicant has also sense uploaded an affidavit from Portland Water District confirming this (see attachment S). Corporation Counsel has heard back from a representative of the Loring House Associates Limited Partnership and do not anticipate any issues with consenting to the release of the easement. Corporation Counsel are currently working on drafting language for the release of the easement.

The applicant would need to provide survey information for the existing sewer manhole that would serve as the connection point for the private 8-inch sewer line, and add this information to their plans. The utility plan also requires updates to include the inverts for the proposed private sewer infrastructure. The applicant will also need to review Technical Manual standard 6.6.10 to determine if a backflow preventer is necessary for the private sewer line. Finally, the applicant must either place sewer manhole-1 (SMH-1) within the leased portion of the site or obtain a revocable license agreement from the City to authorize installation of the privately owned manhole within the City right-of-way. The applicant has noted that they will reach out to DPW Engineering if they decide to pursue a license agreement.

4. Site Design Standards (Section 14.6.4)

A. Massing, ventilation, and wind impact

The proposed development is not anticipated to have adverse massing, ventilation, wind, or heat impacts and is located along an active corridor that is characterized by the existing Barron Center Campus which has buildings that are of similar massing and height, commercial retail across Brighton Avenue, and adjacent smaller-scale residential development in Sagamore Village. Staff have not received information on the Solar Reflective Index levels of the roof. This project must meet the requirement of a minimum of 75% of the roof area must meet SRI standards. Staff request that this information is included in a roof plan.

B. Shadows

As this project is not over 65 feet tall, staff find that this site plan standard is not applicable to this project.

C. Snow and ice loading

The proposed building is designed with a flat roof and is not anticipated to distribute snow and ice onto adjacent properties.

D. View corridors

This project is not located in a view corridor as identified in the City's Design Manual thus staff find that this site plan standard is not applicable to this project.

E. Historic resources

The proposed development is not located within a designated historic district and has no known archaeological resources on-site. While adjacent to the Common Use Ground landmark, staff finds the project blends well. It incorporates transitions from the open space through a direct path connecting the rear of the site to an existing common space path, a patio area directly adjacent to the common space, and building massing that doesn't overwhelm its relationship with the historic area.

F. Exterior lighting

The applicant has submitted a photometric plan that depicts proposed exterior lighting. All proposed exterior site lighting is full cutoff. Illumination levels are adequate but will not impact the safety, comfort, and convenience of occupants and users of the site. The proposed lighting is not anticipated to have an adverse impact on abutting properties. As designed, proposed lighting appears to meet City requirements around light trespass, illumination levels (minimum, average and maximum), luminosity and color-temperature requirements, and fixture placement requirements for both site lighting and street lighting, as detailed in Section 8 of the Technical Manual.

G. Noise and vibration

All proposed heating, ventilation, and air conditioning equipment is proposed on the interior or roof of the building. The proposed equipment is not anticipated to have adverse noise or vibration impacts on abutting properties. Noting that, staff have not received a roof plan that details where the equipment will be located and how it will be screened. Staff request the applicant provide this documentation for review.

H. Signage and wayfinding

The applicant has not indicated proposed signage on building elevations. Any future signage would be permitted through the Permitting & Inspections Department.

I. Zoning-related design standards

The proposed development at 1125 Brighton Avenue requires design review under City of Portland Land Use Code section 13.6.4.I. As the property is in the B-2 Community Business zone, it must adhere to the design standards and guidelines outlined in Appendix 2 (B-2 Commercial Business Zone) and Appendix 2 (Two-family, special needs independent living units, multi-family, lodging houses, bed and breakfasts and emergency shelters) of the City of Portland Design Manual.

Staff provided the applicant with a design review memo. This memo outlined how the building design met and did not meet the design manual standards, and it included design recommendations. The applicant has since responded to that memo with updated building elevations to address staff comments.

The applicant adjusted the massing, which now provides a more active presence at the corner of Brighton Avenue and Holm Avenue. They also confirmed that the communal spaces, including the entrances and community room on the ground level, would feature windows with a visible transmittance of 0.7 or greater. The updated design creates more variation along the building facade and emphasizes the principal entrance along Brighton Avenue. The proposed building materials relate to the Loring House and other existing buildings at the Barron Center, and the building maintains a setback from the street, similar to single-family residences in Sagamore Village. Staff noted that the applicant addressed the concern about car headlight glare impacting ground floor units through the use of dense vegetative screening.

As noted above, the applicant has not yet provided a roof plan. This plan should indicate the proposed location of mechanical equipment and other rooftop appurtenances, along with information architectural screening for these units for staff review.

A full design review memo is included as Attachment S1.

X. NEIGHBORHOOD MEETING & PUBLIC COMMENT

The applicant has held one neighborhood meeting on June 25, 2025 at 6pm at the Rowe Elementary School. 12 members of the public were in attendance. Public comment centered on:

- Zoning requirements
- Traffic-related issues
- Building massing
- Building tenancy
- Unit mix
- Snow removal
- Utility and drainage
- Parking

Site's relationship to Sagamore Village comment has been received at this time and centered on:

- Projects size for the location
- Impacts on neighborhood tranquility
- Increase in parking and traffic
- Lack of community awareness on project
- Infrastructure concerns with water and sewer lines

XI. NEXT STEPS

The applicant should work with City staff to address any outstanding comments from staff detailed in this memo as well comments from the board.

XII. ATTACHMENTS

Report Attachments

- S1. Design Review Memo
- S2. Project Review Letter
- S3. City Council Order 222 24-25

Public Comments

- PC1. Comments received before 7.22.2025

Applicants Submittal

- A. Cover Letter & Site Plan Standards
- B. Major Site Plan Checklist
- C. Financial Capacity
- D. Right, Title, & Interest
- E. Technical Capacity
- F. Site Design Narrative

- G. Safety & Public Infrastructure Narrative
- H. Environmental Narrative
- I. Waiver Request
- J. Wastewater Capacity Letter
- K. Portland Water District Letter of Service Request
- L. Transportation Narrative
- M. Zoning Analysis
- N. Lighting Spec Details
- O. Construction Management Plan
- P. Stormwater Report Package
- Q. Response to Staff Comments 7.14.2025
- R. Neighborhood Meeting Materials
- S. Portland Water District Easement Affidavit

Plans

- 1. Cover Sheet
- 2. Boundary Survey
- 3. Site Plan
- 4. Landscape Plan
- 5. Grading, Drainage, & Erosion Plan
- 6. Barron Campus Existing Conditions
- 7. Previous Recording Plan – By Owen Haskell
- 8. Pedestrian Access & Site Circulation Plan
- 9. Floor Plans
- 10. Exterior Elevations
- 11. Fire Turning Template
- 12. Site lighting – Photometrics Plan
- 13. Existing Conditions Removal Plan
- 14. Stormwater Management Details
- 15. Site Details 1
- 16. Site Details 2
- 17. Site Details 3
- 18. Rendering 1
- 19. Rendering 2
- 20. Existing Pine Tree DBH Measurements



300 Southborough Drive, Suite 200, South Portland, ME 04106
(207) 772-2515 | GorrillPalmer.com

June 6, 2025

Mr. Kevin Kraft –Director

City of Portland Planning & Urban Development
389 Congress Street, 4th Floor
Portland, ME 04101

**Subject: Land at 1125 Brighton Ave - Major Site Plan Application -Prosperity Place
Residential development – City RFP#25056
Applicant: ProsperityME and Developers Collaborative Predevelopment LLC
CBL: 269 B 041**

Dear Kevin:

The team of Developers Collaborative Predevelopment LLC (DC) and ProsperityME (PME) have retained Gorrill Palmer to prepare plans and permit applications for a proposed 50-Unit family apartment building in an existing parking lot at the Barron Center complex on Brighton Ave in Portland, ME. The City of Portland has selected the DC/Prosperity team to negotiate to enter into a ground lease agreement for the purpose of expanding housing opportunities on the Barron Center Campus. The proposed 0.77-acre lease Site #1 is identified by the City of Portland GIS Parcel Viewer as part of Tax Map 269/Lot B 001. The current application is only for Site #1 as identified in the RFP. Any future development proposal for so-called Site #2 will require its own permitting effort.



Prosperity Place is an exciting joint venture between DC and ProsperityME. DC will serve as the Site #1 development consultant and provide property management services, and ProsperityME will be the owner and support tenants through wraparound services. Laura Reading and Robby Perkins-High will serve as the Project Managers for DC and ProsperityME, respectively.

While there is significant demand in the BIPOC community for housing generally, and affordable housing specifically, there is no significant BIPOC ownership of affordable housing. This partnership proposes to change that dynamic permanently. DC will develop the projects, and train ProsperityME staff to develop similar projects themselves in the future. And while DC will initially manage the properties, the intent is for ProsperityME to develop their own internal capacity to self-manage their real estate.



STRUCTURAL



FALL PROTECTION
SAFETY



TRANSPORTATION



SITE DESIGN
Page 19



SURVEY



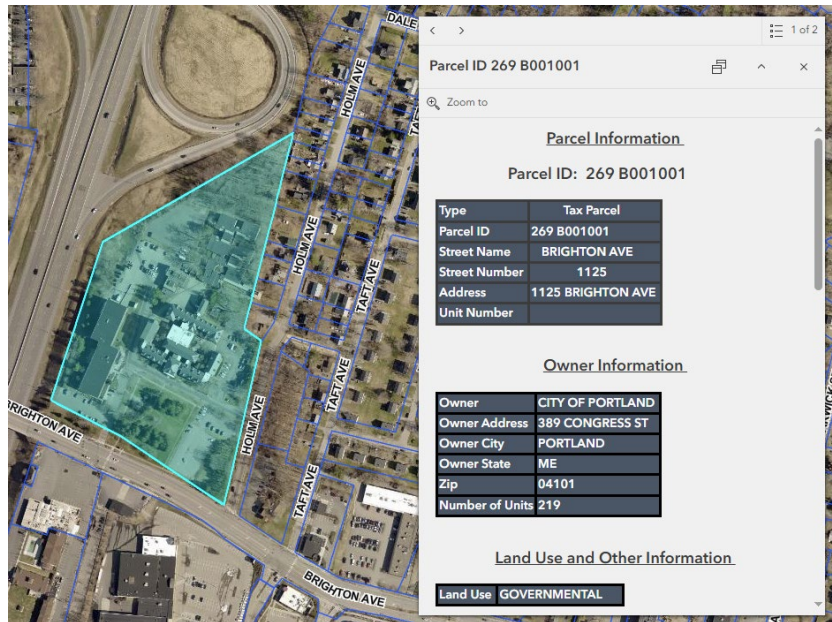
WATER
RESOURCES



TECHNOLOGY
& INNOVATION

In addition to Developers Collaborative and ProsperityME, the project team includes Invivid Architecture, Aceto Kimball Landscape Architecture & Urban Design, and Gorrill Palmer. All have established professional relationships and have partnered previously on similar projects.

According to the boundary survey by Nadeau Land Surveying, the proposed lease area is part of what is identified as the 9.1-acre Lot 2 on the recording plan of City Hospital Housing for Elderly¹. The site presently contains the Barron Center Nursing Care Facility, and the Barron Center 2 building, formerly containing an Alzheimer's care facility but currently under consideration for transitioning to an alternative use as the Alzheimers unit is not currently in operation. Lot 1 of the Subdivision contains the 104-unit 62+ Loring House senior living apartment complex, also under long term lease with the City².



The proposed Site #1 development includes greater than three dwelling units therefore the proposal qualifies for a Major Site Plan approval from the Planning Board in accordance with Table 13-A of the ReCode. The following summarizes the reviews required by the City:

Proposal	Applicable Standards
New Construction over 20,000 SF	Sec 13.6 Site plan Review, B-3 Design Review, HP Advisory
Subdivision (50 dwelling units)	Sec 14 Subdivision Review
Multi-family Residential >10 units	Section 17.2 Affordable Housing

Existing Conditions

The proposed site is bounded by Brighton Avenue to the south, Holm Avenue to the east and the Barron Center Campus to the north and west. The Loring House Apartments occupy the original City Hospital building just north of the Site #1 development area. The Loring House and the Barron Center share a two-way driveway off Holm Avenue aka City Hospital Drive that is the primary entrance into the campus. Vehicular circulation thru the campus flows from Holm Ave into the site and to several parking areas surrounding the Barron Center. A one-way

¹ See CCRD Book 196 page 39 by Owen Haskell Inc. and the ALTA survey for Wishrock Housing Partners & Investment Group CCRD Book 216, page 56, by Nadeau Land Surveys

² See CCRD book 32935 page 37 for assignment of ground lease to Loring House Associates LP

sidewalk along the adjacent streets, and repaving of new parking on the lease site. Portions of adjacent streets may also require restoration due to proposed utility connections.



Fig 1: Zoning Excerpt



Fig 2: Google Earth View

Proposed Development

The proposed building will involve the following unit mix:

Unit size	Count	Mix %
1 Bed	15	30%
2 Bed	25	50%
3 Bed	8	16%
4 Bed	2	4%
Total	50	100%

Preliminary floor plans and site renderings by Invivid accompany this submission.



First floor Plan – Prosperity Place

Traffic/parking

Drawing C-1.5 is the Pedestrian Access & Site Circulation plan for the existing campus. The campus is highlighted by the following parking and circulation conditions:

Parking/Circulation

- Four parking lots are available for Barron Center Staff, guests and visitors. There are a total of 160 spaces in these four lots. The Barron Center is understood to have a maximum resident capacity of 212 and maximum staff shift of 105 persons.

- All site access is from the Holm Avenue Driveway (aka City Hospital Drive) which allows entering and exiting movements. Per the C-1.5 plan, users of East Lot #1 (Barron Center staff) and East lots #2 & #3 (Loring House) may enter and exit via Holm Avenue. These users may also choose to exit the site via the one-way exit drive in front of the Barron Center, that exits onto Brighton Ave at the existing signalized intersection.
- Barron Center staff and visitors enter the site from Holm Ave and if proceeding to West Lot #1 (visitors) or West Lots #2 & #3 (staff), may only exit the site via the signalized exit-only driveway onto Brighton Ave. Signage prohibiting Holm Ave. access via City Hospital Drive in front of the Loring House, is posted.

Pedestrian Circulation

- The site benefits from a number of internal paved walks through the common space in front of the Loring House. The walks connect to the public sidewalk on Brighton Avenue including to the METRO shelters on both sides of Brighton. Push button activated pedestrian crossing signals and crosswalk are part of the vehicular traffic signal operations at the Exit only driveway.
- The Brighton Avenue sidewalk extends in both directions to provide convenient access to various businesses and services within 0.5 to 1 mile of the site. Walking distance to the Rowe Elementary School is approximately 0.5 mile.

The site has an existing 46 space parking lot used by Barron Center staff that will be eliminated. The development expects to work with City officials on the placement/construction of new spaces on the Barron Center campus to offset the loss of Barron Center staff parking in Site #1. The exact locations of the replacement parking are not yet finalized, but options include new parking in the exit drive, opposite the Barron Center as well as new parking in the undeveloped area on the north end of the campus.

Tenants of the building will have access to the following onsite parking:

- 31 parking spaces (Max allowed is 2 sp/unit or 100 sp)
- At least 6 ADA spaces
- 6 Level 2 EV charging spaces
- 12 EV charging ready spaces (i.e. conduit installed)
- Bike Parking – 25 spaces required (1/2 units) which may be a combination of interior and exterior racks. Bike rack storage in the building will allow for 32 bicycles in a secured room.

Utilities

The proposed project will involve new utility connections that are described as follows:

- The building will be sprinkled and contain a domestic water service, both to be extended from an 8" water main in Brighton Avenue as currently designed. The Fire Dept connection will be located along the south side of the building facing Brighton Avenue.

- A domestic sewer connection is proposed to tie into an existing 12" sewer line in Brighton Avenue. A Wastewater capacity authorization request has been submitted to Brad Roland in Engineering and we have requested he review the sewer connection alternatives and advise as to the most suitable option for connection to the City sewer.
- The building may be served by Natural gas coming from nearby, although the MEP design has not been advanced enough to decide on gas need. All HVAC equipment will be roof top mounted and screened.
- There is three-phase overhead power in Brighton Avenue and the nearest pole is slightly west of the site. A new riser pole and underground service along the north side of Brighton Avenue are currently contemplated subject to coordination with Central Maine Power. The design team is currently coordinating with CMP and the communications providers on these services. Use of electrical systems for the building's heating and cooling systems will be prioritized.

Consistency with Master Plan

Highlights of the DC/ProsperityME development proposal as accepted by the City Council include:

- A development concept that creates 50 affordable rental homes in Phase 1 for Portland families, including those experiencing homelessness;
- A focus on campus and neighborhood safety created by serving families and providing relevant supportive services;
- A thorough and inclusive neighborhood engagement plan that considers the varied impacts of potentially two phased development sites, and also allows for timely delivery of housing;
- A project team with extensive qualifications and a proven track record of delivering comparable projects, both in scale and in community engagement; and
- A place that can provide affordable homes for employees of the Barron Center and other nearby employers.

On Portland's Future Land Use Plan, Brighton Avenue remains located in the Mixed Use/Commercial/Office zone and is located on a Priority Corridor (Brighton Avenue). Priority Corridors are *"major arterials that often see heavy vehicular traffic, but also have the capacity to improve mobility by capitalizing on their potential for increased walking, bicycling, and transit use. Priority corridors can also serve as areas of additional mixed-use, higher density growth to take advantage of the transit benefits and services that well-designed, diverse corridors can offer."* Located on Brighton Avenue, the site is within an area that is maintaining a robust level of activity and development. This site is an ideal location for a building that offers enhanced residential housing programming while providing great transit and support services access. We believe the proposed residential land use goes hand in hand as complimentary to the surrounding land use as envisioned in the Comprehensive plan and current zoning.

In accordance with the Major Site plan General Document Checklist, we offer the following information. Separate sections addressing each of the Site plan standards is included in the application materials to be uploaded to Eplan.

General Documents

1. **Project Description** – A new 50-unit residential building construction for affordable rental homes for Portland families, including those experiencing homelessness, located in the B-2 zoning district. The project infills an existing 46 space parking lot on a prominent corner facing Brighton Ave and Holm Avenue. The site is proximate to the METRO 4 transit route and related services in the surrounding Nasons Corner neighborhood. See description above.
2. **Completed Checklist** – See upload to Eplan once authorized.
3. **Evidence of Right, Title and Interest.** The site is owned by the City of Portland per Deed recorded at the CCRD Book 716, page 17, and Plan book 196 page 39, copies of which are attached to this submission document.
4. **Zoning Assessment** – see attached. Located in B-2 zone.
5. **Site plan Standards Assessment** – see information below and with the Site plan Standards narrative.
6. **Summary of Existing and/or proposed easements or covenants** – no easements or covenants are proposed at this time. An existing 20' wide utility easement for a now abandoned water service to the former City Hospital, requires it being released from the Loring House Associates LP. The proposed lease area is currently aligned to include the utility easement space, however it does not extend beyond the utility easement westerly into the Common Use Ground as identified in the ALTA Survey for Wishrock Housing Partners, by Nadeau Land Surveying CCRD Boo, 216 page 56. The lease area is calculated to be 0.77 acres which is slightly less than the 0.87 acre originally contemplated in the City's RFP.
7. **Waiver Request** – The applicant is requesting a waiver to allow a parking lot aisle width reduction from 24 ft down to 22 ft.
8. **Evidence of financial and Technical Capacity** – The applicant has retained Invivid Architecture, Gorrill Palmer Consulting Engineers, and Aceto Kimball Landscape Architects to assist with the design and construction of the proposed project. The applicant will be seeking Maine State Housing Low Income Housing Tax Credit financing support. Bangor Savings Bank and Evernorth have also provided financial letters of support contained in the submission materials.

Transportation – see full narrative uploaded to Eplan

9. **Impact on Surrounding Street system** – The impact on the surrounding street system is expected to be minor based on historic street conditions and land use surrounding the site. The activity involves redevelopment of previously developed property. The site use is not

expected to create or aggravate any existing or proposed hazard or safety concerns on adjacent streets as the sidewalk conditions are robust and accommodating. The site access conditions are consistent with the neighboring sites on both sides of the street. The development is not proposing on street parking on Brighton or Holm Avenue.

10. **Access and Circulation** – The first floor of the building is to be accessible to foot traffic from both Brighton Ave as well as the interior parking lot. There will be stairs and an elevator supporting the building. The elevator will be sized to allow for stretcher and emergency personnel. The building entrances off the Brighton Avenue sidewalk will be flush to existing grade. The proposed finish floor elevation will be at least 104.00 (NGVD29) placing it well above any floodplain. Access to an interior trash room will be provided off sidewalks between the building and the parking lot.
11. **Public transit** –METRO route 4 is on Brighton Ave with bus shelters on both sides of Brighton within 500 feet of the site.
12. **Off-Street Parking** –Onsite parking for 31 vehicles is proposed for tenants. A parking study has been performed to evaluate parking use for Barron Center Staff and the applicant is discussing options for the construction of new Barron Center site parking to offset the loss of the 46 parking spaces on Site 1. Additional parking for Barron Center Staff may occur along the exit lane to Brighton Ave, in front of the Barron Center, or somewhat more remotely in undeveloped area towards the north end of the property, in an area identified as potential future lease site area 2.

Environmental – See full narrative uploaded to Eplan

13. **Preservation of Significant Natural Features** – Not applicable however the design currently contemplates protecting a single large deciduous tree along Holm Avenue based on its size and screening benefit.
14. **Landscape Preservation** – the existing trees within the Site 1 area consist or 30-35 pine trees that will be removed to make way for the building and new parking lot. New plantings are proposed to offset the loss of existing trees. The applicant will cooperate with the Parks and Recreation Department on the planting of new trees on the sidewalks and/or payment of the in-lieu fee for trees based on fifty apartment units.
15. **Site landscaping and Buffers** –The applicant is considering a playground area within the common area between the site and the Barron Center. There are several dedication trees and other features of the common space that warrant further discussion with City staff as to the potential for additional features or improvements in the common space.
16. **Water Quality, Stormwater Management and Erosion control** – The 0.77 acre lease area has approximately 15,947 SF or 0.37 ac of existing pavement. The proposed impervious area will be increased to 24,480 SF or an increase of about 8,533 SF. The site design includes a Focal point^{TM4} water quality treatment BMP and R-Tank underground storage for pavement and roof runoff control before discharge into the Holm Ave Drainage system. Typical erosion control measures including stabilized construction entrance and sediment

⁴ See [FocalPoint Biofiltration System - Modular - Ferguson Waterworks](#)

sacks at nearby catch basins will be employed during the construction to minimize sediment transport into the drainage systems.

Public Infrastructure and Safety – See full narrative uploaded to Eplan.

17. **Consistency with City Master Plans** – See Above

18. **Public Safety and Fire Prevention** – The new building will have a full sprinkler system and Fire Department Connection along the Brighton Ave. Façade. The nearest fire hydrant is located on Brighton Avenue, less than fifty feet from the proposed building.

19. **Availability and Adequacy of Public Utilities** – see above.

Site Design – See Full narrative uploaded to Eplan

20. **Massing, Ventilations and Wind Impact** – not applicable – See Architectural renderings for further information on the building.

21. **Shadows** – Not applicable

22. **Snow and Ice Loading** – the building is primarily a flat roof. Snow and Ice will not fall onto adjacent properties.

23. **View Corridors** – Not applicable

24. **Historic Resources** Not applicable

25. **Exterior Lighting** – The applicant proposes some building mounted fixtures to satisfy safety and security needs around the site. There are existing cobra head streetlights on the existing utility poles on the surrounding streets, opposite the property. Exposure lighting has completed lighting plans compliant with City Standards.

26. **Noise and Vibration** – Not applicable- rooftop equipment will be screened and dampened as necessary to satisfy City noise and vibration standards.

27. **Signage and Wayfinding** – All signage to be permitted separately by the applicant.

28. **Zone Related Design Standards** – The development satisfies ReCode 13.6.4.I.1. for the B-2 and Technical Design Manual Section (d) for the B-2, where the design shall support the development of a dense, Mixed-use neighborhood with an attractive, safe, and convenient street-level pedestrian environment.



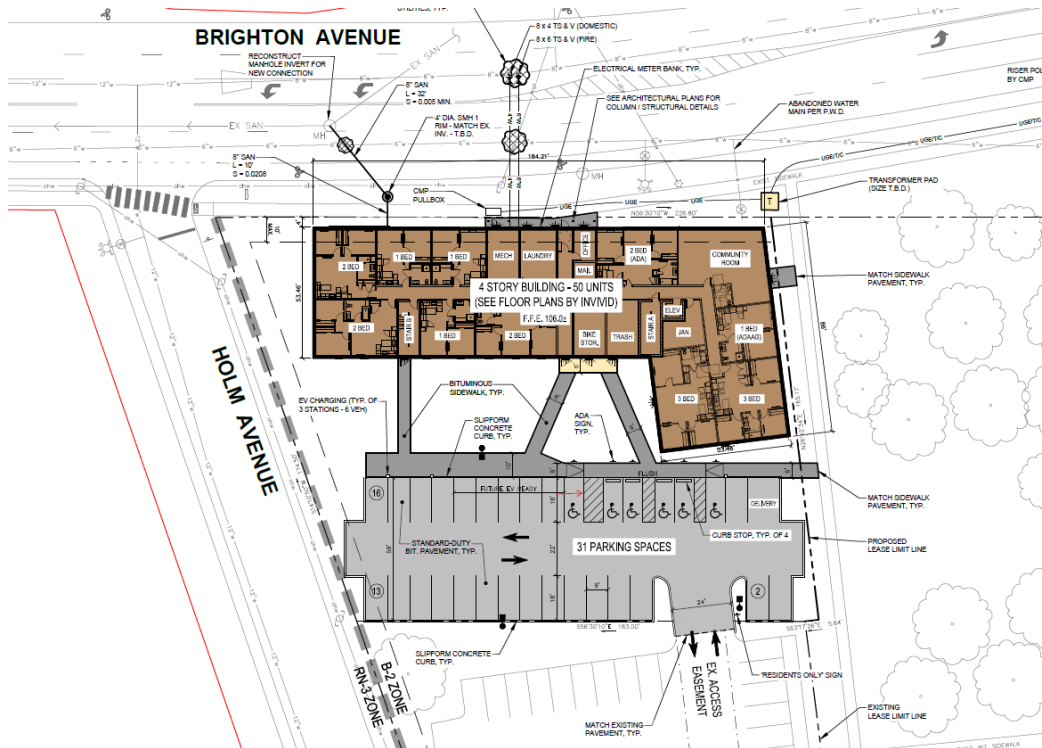


Fig 3 Proposed Site plan – Site 1 Barron Center

We trust the supporting application materials are acceptable and we look forward to the Planning Authority's prompt review and scheduling of a workshop with the Planning Board. The team is scheduling an official neighborhood meeting prior to the workshop after conducting two unofficial neighborhood meetings in the past two weeks.

Sincerely,

GORRILL-PALMER

Stephen Bushey, PE
Senior Associate
Phone: 207-772-2515 x286
sbushey@gorrillpalmer.com

See separate uploads to Eplan

C:Laura Reading/Kevin Bunker – DC
Robby Perkins-High – ProsperityME

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		
☒	NA	Project Description Cover letter with detailed project description
☒	NA	Completed Checklist (this document)
☒	NA	Evidence of Right, Title, and Interest Deeds, leases, or purchase and sales agreements
Yes	☒	Evidence of State or Federal Approvals Permits or letters of non-jurisdiction, if applicable
☒	NA	Zoning Assessment (see Zoning Assessment Table) Summary of compliance with use and dimensional standards of the land use code
☒	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
☒	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
☒	NA	Waiver Requests (see Waiver Table) Written request for waiver describing request and compliance with applicable waiver standards
☒	NA	Financial Capability Letter or evidence from a financial institution or third party verifying financial capacity to undertake project
☒	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



April 4, 2025

City of Portland
Planning Department
389 Congress Street
Portland, ME 04101

RE: Barron Center RFP

To Whom It May Concern:

On behalf of Bangor Savings Bank, I am pleased to provide this letter in support of Developers Collaborative Predevelopment LLC (DC Predevelopment), and or it's assigns, for the development of an affordable housing project to be located on a parcel of land that includes 1125 Brighton Avenue and surplus land at the site of the Barron Center in Portland, Maine. Bangor Savings Bank has collaborated with DC Predevelopment on multiple projects of a similar nature. Based on our prior experience working with the developer, we believe that the applicant has the ability to finance the proposed project costs. In addition, they possess the management skills, development expertise, and problem-solving capabilities to successfully complete the proposed project.

While this letter of support is not a commitment to lend, Bangor Savings Bank would welcome the opportunity to be a resource for project financing. Please feel free to call me at 541-2707 with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Shawn McKenna", written in a cursive style.

Shawn McKenna
Vice President
Commercial Banking



March 25, 2025

Samantha Chapin
Purchasing & Controls Manager
City of Portland
389 Congress Street
Portland, ME 04101

RE: Letter of Financial Capability – Brighton Ave Project

Dear Ms. Chapin and Members of the Review Committee:

Evernorth is pleased to provide this letter of financial and technical capability support for the ProsperityME and Developers Collaborative proposal to redevelop a portion of the City-owned land at 1125 Brighton Avenue in Portland, Maine for affordable, mixed-income housing.

Evernorth invests in community-based projects receiving Low-Income Housing Tax Credits, which we understand will be a primary funding source for the project.

We have reviewed the principal members of the development team and their respective roles in the project. The key team members identified have relevant experience and a proven ability to develop sites of comparable scale, complexity, and context, as well as experience in developing projects that reflect substantive community engagement. In our experience, the development team proposed has the financial and technical skills to successfully redevelop the site, if selected.

Evernorth has invested as an equity partner with Developers Collaborative as owner and operator in ten projects in Maine, including projects in Portland such as those located 155 Danforth and 66 State Street and most recently with Equality Community Center where Developers Collaborative's role is similarly proposed as development consultant. Our financial relationship extends eight years in providing \$43.2 million of equity capital to facilitate \$107.3 million in total affordable housing development costs.

While Evernorth has not yet worked with ProsperityME, their housing committee and staff include several individuals with which we have successful professional relationships.

This letter does not constitute a commitment of funding, and any investment is subject to the team's proposal being successfully selected, a Maine Housing tax credit award, and securing of all permits and capital sources; and customary project underwriting and due diligence. A detailed equity letter of intent and terms of investment will be offered once capital sources are secured.

We are excited for the City led opportunity to develop vacant city-owned land and further the Council's goal of increasing the development of affordable housing. I am happy to provide any additional information about our direct experience and involvement with the project partners should you need more specific information. We wish you success in this very worthwhile endeavor.

Sincerely,

Beth Boutin, Vice President, Community Investments

100 Bank Street, Suite 400, Burlington, VT 05401
Phone: 802.863.8424 Fax: 802.660.9034

120 Exchange Street, Suite 600, Portland, ME 04101
Phone: 207.772.8255 Fax: 207.772.8241

evernorthus.org

AGREEMENT TO FILE APPLICATIONS FOR LAND USE APPROVALS

THIS AGREEMENT TO FILE APPLICATIONS FOR LAND USE APPROVALS is granted this third day of June, 2025 by the CITY OF PORTLAND, a Maine body corporate politic (“City”), to DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC, a Maine limited liability company, and PROSPERITYME, a Maine nonprofit corporation (collectively the “Developers”)

RECITALS:

WHEREAS, City issued a request for proposals (the “RFP”) dated February 20, 2025, RFP No. 25056, for the development of affordable rental housing on City - owned land on the Barron Center campus at 1125 Brighton Avenue (the “Project”); and

WHEREAS, Developers submitted a proposal in response to the RFP on April 9, 2025; and

WHEREAS, by Order 222-24/25, the Portland City Council directed its Housing and Economic Development Committee to begin negotiating an option to lease and ground lease agreement with Developers for the development of the Project (collectively the “Option Agreement”); and

WHEREAS, the Developers have submitted a draft of the Option Agreement to the City for review, but it has not been executed yet; and

WHEREAS, time is of the essence for the commencement of the development of the Project, and the City is willing to provide the authorization set forth in this instrument on the terms and conditions set forth below.

NOW THEREFORE, for valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. The City hereby authorizes the Developers to prepare and file in their own name and in the City’s name applications for site plan approval of the Project with the Portland planning board, and any other land use applications necessary for development of the Project (the “Applications”) at Developers’ sole expense.

2. If at any time Developers or the City decide not to execute the Option Agreement, they shall so notify the other party, after which the Applications shall be withdrawn and the authorizations granted herein shall terminate and be of no further force or effect.

[remainder of page left blank intentionally—signatures appear on next page]

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives, as of the day and year first written above.

Approved as to form:

Signed by:

5BDA6A4DE55B4E1
City Corporation Counsel

CITY OF PORTLAND

DocuSigned by:

By: A4546612E752416
Danielle P. West, City Manager

DEVELOPERS COLLABORATIVE
PREDEVELOPMENT LLC

DocuSigned by:

By: E63A4EF02A1B404...
Kevin Bunker
Its Manager

PROSPERITYME

DocuSigned by:

By: 1C15976CE9904A9...
Claude Rwaganje,
Its Executive Director

TECHNICAL CAPABILITY

The applicant has retained a highly qualified team of professionals to undertake planning, permitting and design tasks on this project. Prosperity Place is an exciting joint venture between Developers Collaborative (DC) and ProsperityME. DC will serve as the development consultant and provide property management services, and ProsperityME will be the owner and support tenants through wraparound services. While there is significant demand in the BIPOC community for housing generally, and affordable housing specifically, there is no significant BIPOC ownership of affordable housing. This partnership proposes to change that dynamic permanently. DC will develop the projects, and train ProsperityME staff to develop similar projects themselves in the future. And while DC will initially manage the properties, the intent is for ProsperityME to develop their own internal capacity to self-manage their real estate. Design and Permitting Services will be provided by the following companies and their respective team leaders:

<i>Civil Engineer</i>	Stephen Bushey, P.E. Gorrill-Palmer Consulting Engineers 300 Southborough Drive, Suite 200 South Portland, Maine 04106 (207) 772-2515 sbushey@gorrillpalmer.com
<i>Owner/Developer</i>	Robby Perkins High-Director of Housing Initiatives ProsperityME 175 Lancaster Street Portland, ME 04101 Phone: 207-797-7890
<i>Architect</i>	Virginie Stanley Invivid Architecture 631 Stevens Avenue Suite 200 Portland, ME 04103 Virginie Stanley <virginie@invividarchitecture.com>
<i>Surveyor</i>	Nadeau Land Survey James Nadeau 918 Brighton Avenue Portland, ME 04102 Jim Nadeau <jim@nadeaulandsurveys.com>
<i>Owners representative</i>	Laura Reading Developers Collaborative 631 Stevens Avenue, Suite 203 Portland Maine 04103 Laura Reading <reading.lauraj@gmail.com>
<i>Landscape Architect</i>	Aceto Kimball Landscape Architects Grace McNeil gm@acetola.com
<i>Construction Manager</i>	TBD

The team of consultants retained by the developer have expertise and experience in the design of similar commercial projects. Resumes of key personnel for development team can be provided upon request.

SITE DESIGN

13.6.4 (A) Massing, Ventilations and Wind Impact – not applicable – See architectural elevations and renderings for further information on the building. The proposed building height is about 45 ft. which complies with the 65 height limit in the B-2 Zone.

13.6.4 (B) Shadows – Not applicable. The nearest building is located greater than 100 feet from the proposed building.

13.6.4 (C) Snow and Ice Loading – the building is primarily a flat roof. Snow and Ice will not fall onto adjacent properties or within the public ROW.

13.6.4 (D) View Corridors – Not applicable

13.6.4 (E) Historic Resources – Not applicable.

13.6.4 (F) Exterior Lighting – The applicant proposes wall mount lighting for safety and security and the door entrances. All lighting will be full cut off and dark sky compliant. Fixtures will be 3000K color temperature. Exposure Lighting has prepared the site lighting plans and selected fixtures in the accompanying site lighting information.

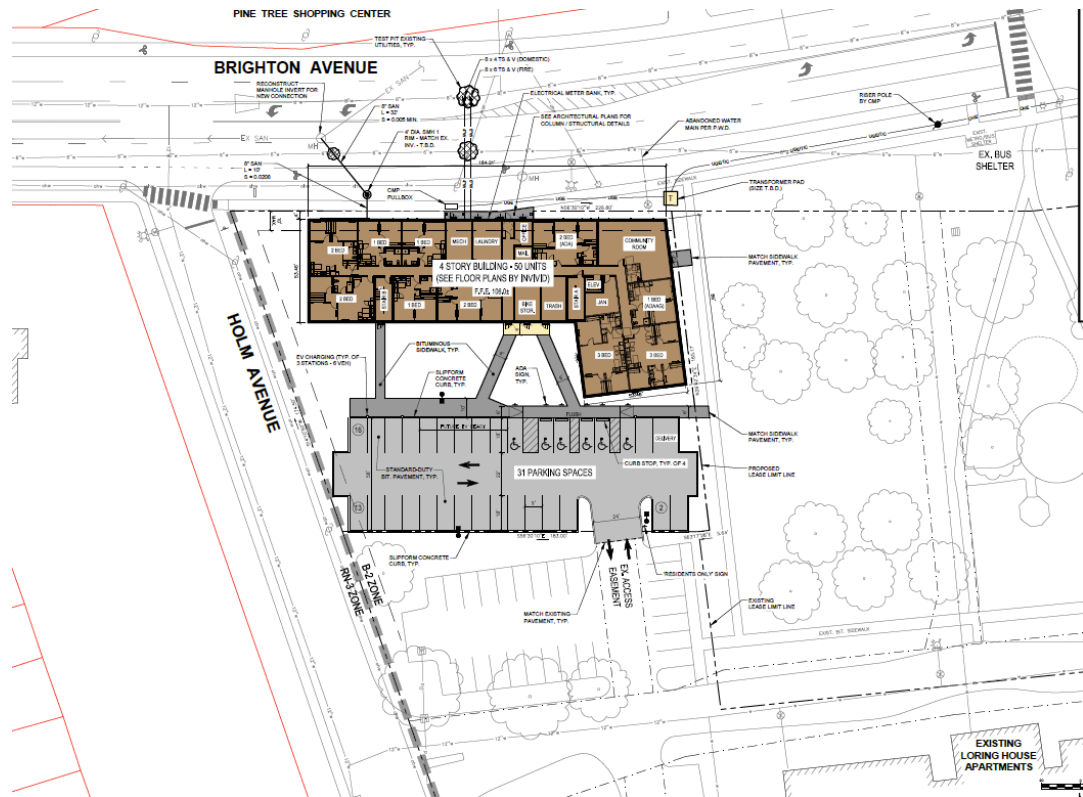


13.6.4 (G) Noise and Vibration – Not applicable- roof top equipment will be screened and dampened as necessary to satisfy City noise and vibration standards.

13.6.4 (H) Signage and Wayfinding – All tenant signage to be permitted separately by the applicant.

13.6.4 (I) Zone Related Design Standards – The development satisfies ReCode 13.6.4.I.1 and the *Design Manual* for the B-2 where the design shall support the development of a dense, Mixed-use neighborhood with an attractive, safe, and convenient street-level pedestrian environment.





Proposed Site plan – Prosperity Place 1125 Brighton Ave

PUBLIC INFRASTRUCTURE AND COMMUNITY SAFETY

13.6.3.A Consistency with City Master Plans – On Portland's Future Land Use Plan, Brighton Avenue is located within the mixed use/commercial office zone and is a Priority Corridor. Priority Corridors are “*major arterials that often see heavy vehicular traffic, but also have the capacity to improve mobility by capitalizing on their potential for increased walking, bicycling, and transit use. Priority corridors can also serve as areas of additional mixed-use, higher density growth to take advantage of the transit benefits and services that well-designed, diverse corridors can offer.*” Located Brighton Avenue, the site is within a corridor area that is maintaining a robust level of activity and development including proximity to many services, a transit corridor, schools and related neighborhood conveniences. This site is an ideal location for a building with residential land that is complimentary to existing site land use in our opinion.

The proposed land use is as envisioned in the Comprehensive plan and current zoning.



Aerial Image of surrounding vicinity

13.6.3 (B) Public Safety and Fire Prevention – The new building will have a full sprinkler system and Fire Department Connection along the Brighton Ave Façade. The nearest fire hydrant is located on Brighton Ave, immediately in front of the site, less than fifty feet from the proposed building. The Barron Center and Loring House (former City Hospital) have operated at this location for many years and ample fire prevention resources are available on the property.

Features for safety and security including locking doors, video, and related measures will be considered and applied as needed within the building to assure safety and security throughout.

13.6.3 (C) Availability and Adequacy of Public Utilities – The proposed project will involve new utility connections that are described as follows:

- The building will be sprinkled and contain a domestic water service, both to be extended from an 8" water main in Brighton Avenue. The Fire Dept connection will be located along the south side of the building facing Brighton Avenue.
- A domestic sewer connection is proposed to tie into an existing 12" sewer line in Brighton Avenue.
- The building may be served by Natural gas coming from Brighton Ave.
- There is overhead 3-phase power on Brighton Avenue. The design team is currently coordinating with CMP and the communications providers on these services.

ENVIRONMENTAL

13.6.2 (A) Preservation of Significant Natural Features – Not applicable

There are several trees as identified on the removals plan that will be removed as a part of the construction of the building. The applicant is proposing landscaped area around the site perimeter to replace what is lost while enhancing the site for the benefit of the residents.

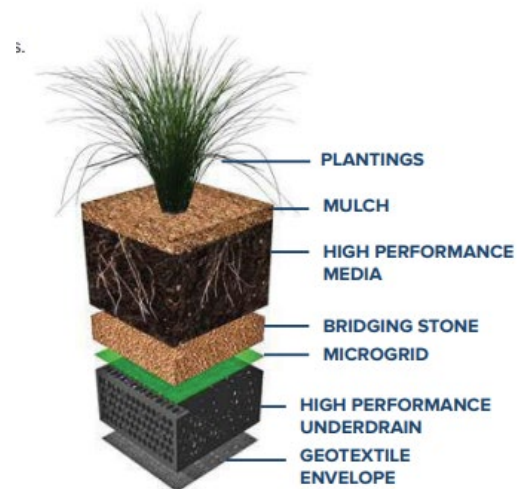
13.6.2 (B) Site landscaping and Buffers – As mentioned above, the applicant is proposing new street tree plantings along the street frontage. No heritage or feature trees exist on the site, and none are proposed.





Streetview from Brighton Avenue to corner of building.

14.6.2 (C) Water Quality, Stormwater Management and Erosion control – The site is partially covered with pavement (15,947 SF) in the current condition and there are no onsite stormwater management measures in place. Stormwater runoff sheets across pavement and lawn area before capture in one catch basin in the adjacent Loring House parking lot. Runoff is then conveyed via storm drain pipe north on Holm Avenue to various additional systems before ultimately reaching a discharge to a Capasic Brook tributary. The site's impervious will increase slightly to 24, 480 SF and become a combination of roof and new pavement surfaces. The design includes collection and treatment of parking lot runoff as well as collection and storage of both roof and parking lot runoff before tying into the existing drain on the Loring House site. A Focal Point™ Stormwater filter and R-Tank™ underground storage system will be installed. Exact design details are being conducted by Ferguson Waterworks, vendor for these systems. Additional information related to the design and sizing calculations will be provided upon receipt. The systems are designed to provide water quality treatment and quantity control in a manner both compliant with City standards as well as substantially improved over the existing conditions. Typical erosion control measures including stabilized construction entrance and sediment sacks at nearby catch basins will be employed during the construction to minimize sediment transport into the drainage systems. Upon the completion of construction the site will be fully stabilized by pavement, building or landscaping.



Focal Point Section



R-Tank Storage Example

GENERAL APPLICATION DOCUMENT

WAIVER REQUESTS

The Accompanying Waiver Table provides a description of the applicable waiver requests and supporting evidence for these requests.

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’.	Justification for Waiver: Address specific waiver criteria, if applicable, and document reasons for the waiver request.
<i>Technical Manual Section 1 Transportation Standards – Design standard Figure I-16A depicting typical standard parking drive aisle dimension</i>	<i>Standard for 90 Deg parking is 24’ aisle width</i>	The applicant is seeking a waiver of the aisle width to reduce it to 22 ft.	The site area is limited and based on the residential land use, implementation of a narrower drive aisle is reasonable based on the lower turnover of vehicles expected.



300 Southborough Drive, Suite 200, South Portland, ME 04106
(207) 772-2515 | GorrillPalmer.com

May 30, 2025

Mr. Brad Roland, P.E.
Water Resources Division
City of Portland Public Services
212 Canco Road, Suite B
Portland, Maine 04103

Subject: 1125 Brighton Avenue
Applicant – Developers Collaborative Predevelopment LLC
Proposed Multi-Unit Housing – 50 units Site 1
Request for Ability to Serve Letter/Wastewater Capacity Determination

Dear Brad:

The team of Developers Collaborative Predevelopment LLC (DC) and ProsperityME have retained Gorrill Palmer to prepare plans and permit applications for a proposed 50-Unit apartment building in an existing parking lot at the Barron Center complex on Brighton Ave in Portland, ME. The City of Portland has selected the DC/Prosperity team to enter into a development agreement for the purpose of expanding housing opportunities on the Barron Center Campus. The proposed 0.87-acre lease site #1 is identified by the City of Portland GIS Parcel Viewer as part of Tax Map 269/Lot B041.

The building proposed for Site #1 (see attached site plan) has 220 feet of frontage on Brighton Avenue and 174 feet on Holm Avenue. The site is relatively flat and currently contains a paved parking lot with 46 spaces. It is our understanding that the City maintains a cross-country sewer line from the Barron Center that extends northerly and out to Holm Avenue. There also appears to be a 12" sewer line in Brighton Ave per the I&I mapping plans, however we don't know much more about that sewer. Based on the proximity to Brighton Ave it appears that a sewer connection to the Brighton Ave main might be preferred. We can discuss potential service to the cross country main thru the campus, however that would likely entail an easement from leased land under control of Loring House Associates LP. A sanitary connection out to Holm Avenue is also less certain until you take a look at it.

The projected water use for the project is summarized below using flow demand projections from the Maine State Plumbing Code:

Flow Demand		
Use	Design Flow per user (GPD)	Design Flow (GPD)
1-Bedroom Units - 15	120 gpd per unit	1,800
2-Bedroom Units - 25	90 gpd per bed	4,500
3-Bedroom Units - 8	90 gpd per bed	2,160
4-Bedroom Units - 2	90 gpd per bed	720
Total		9,180



STRUCTURAL



FALL PROTECTION
SAFETY



TRANSPORTATION



SITE DESIGN
Page 52



SURVEY



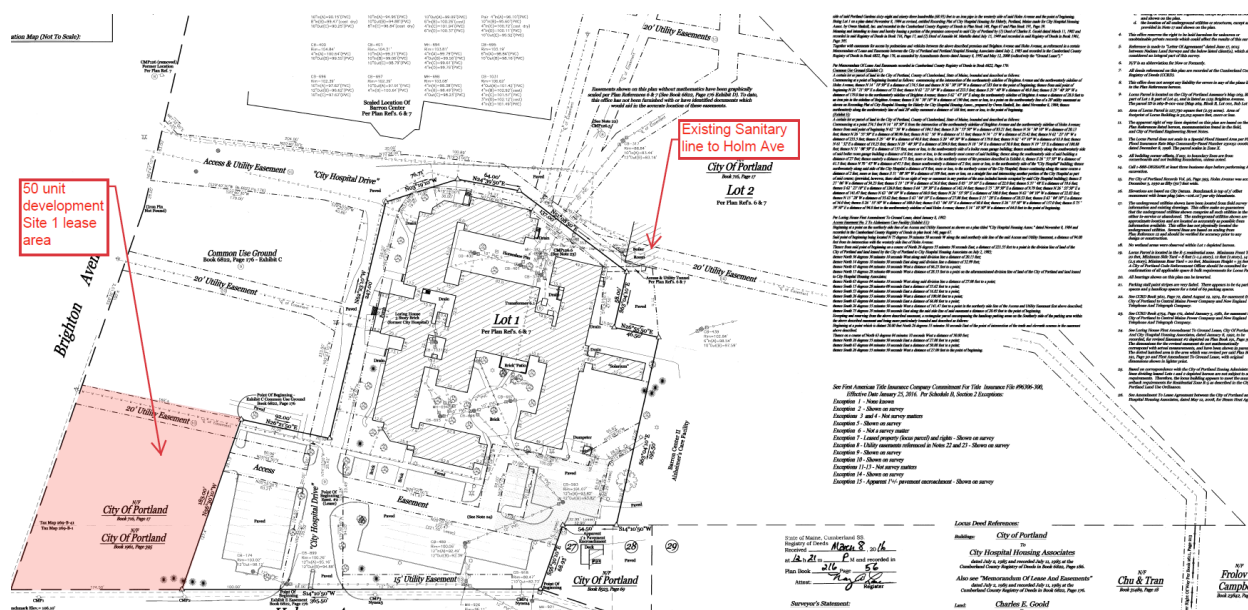
WATER
RESOURCES



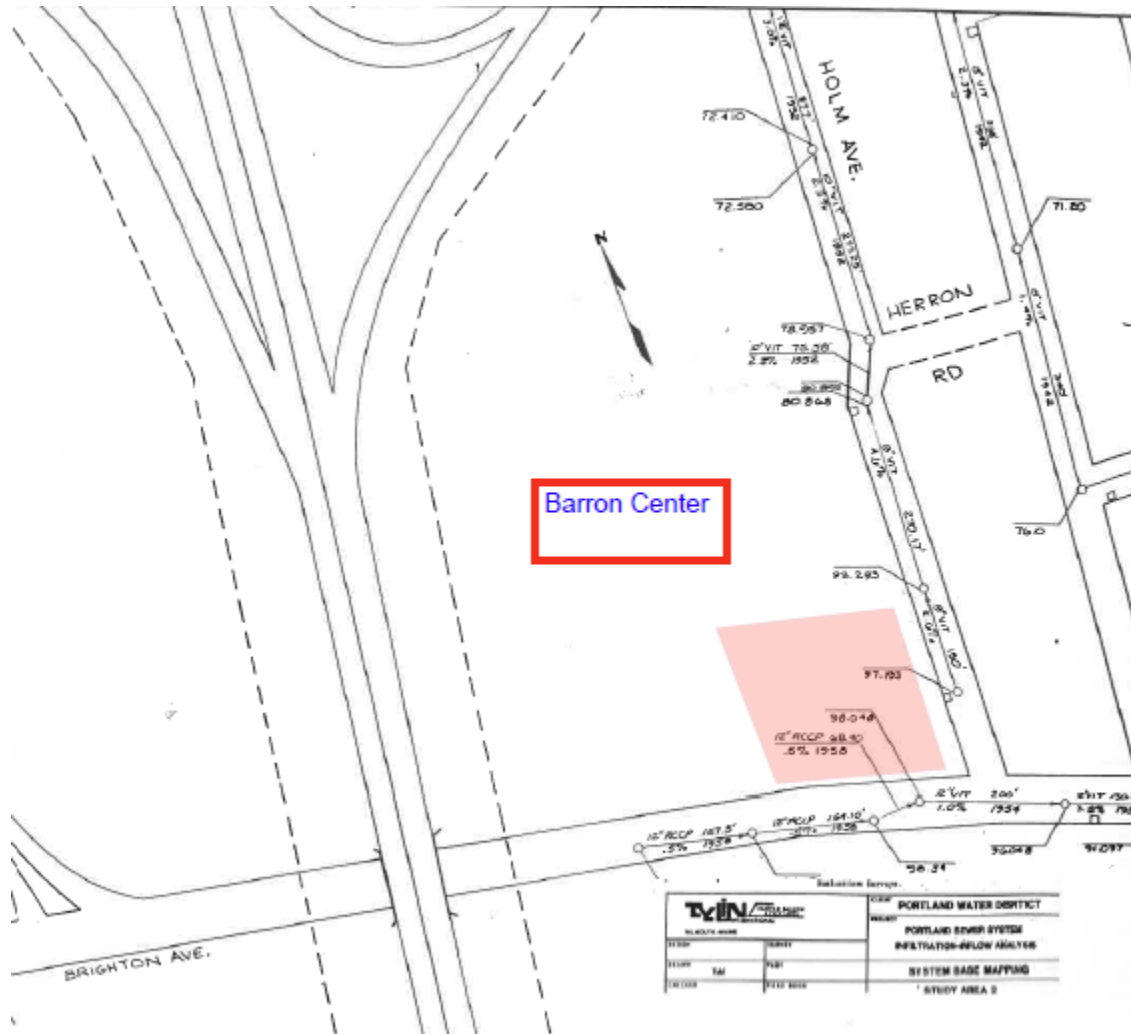
TECHNOLOGY
& INNOVATION



PWD Infrastructure map



Excerpt of Lease Plan Wishrock CCRD Book 216 page 56



Excerpt of I&I mapping

We have also requested the fixture count spreadsheet be completed by the Architect. When complete we will forward to your attention.

Specifically, our office is interested in a letter from you indicating the following:

- The ability of the City's wastewater division to serve the project.
- Any other factors which may affect the water and sewer service to this site.
- The ability of the wastewater collection and treatment systems to handle site generated wastewater flow.
- Any connection service or impact fees.

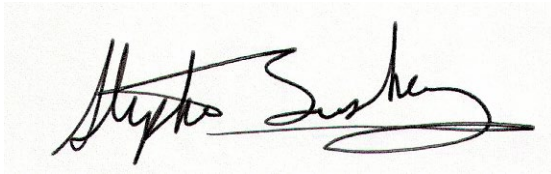
Based on the presence of existing wastewater infrastructure in the vicinity of the site, we trust that the existing water system has adequate capacity to serve this building, so we request your consideration of this determination. As requested by the City of Portland, we are writing to request a letter indicating the ability of the DPW to serve this project. A base map of the site is

included with this letter. Your prompt review and reply are appreciated as we would like to provide any information possible related to the water supply to the development to City staff in an upcoming submission on June 6th.

If you have any questions regarding this information requested, please contact me at 772-2515 or at sbushey@gorrillpalmer.com.

Sincerely,

GORRILL-PALMER CONSULTING ENGINEERS



Stephen Bushey, PE

Senior Associate

Phone: 207-772-2515 x286
sbushey@gorrillpalmer.com

Attachments



U:\Developers Collaborative\0129762A.00 - City of Portland Barron Ctr Hsg 1st RFP\Z - CAD\DWG\BARRON-PBASE.dwg 5/28/2025 10:39 AM

Rev.	Date	Revision

Rev.	Date	Revision

Design: SRB	Draft: CDD	Date: JUNE 2025
Checked: SRB	Scale: AS NOTED	Job No.: 0129762A.00
File Name: BARRON-PBASE.dwg		
This plan shall not be modified without written permission from Gorriil Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorriil Palmer.		



GORRIIL PALMER
An LJB Engineering Company

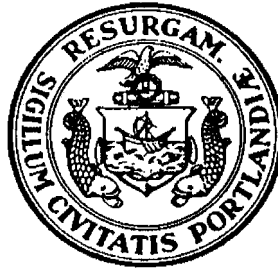
Gorriil Palmer, an LJB Engineering Company
GorriilPalmer.com
(207) 772-2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	SITE CONCEPT
Project:	CITY OF PORTLAND - BARRON CENTER - SITE 1 1125 Brighton Avenue, Portland, Maine
Client:	DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC 631 Stevens Avenue, Suite 203, Portland, Maine 04103 PH. 207.772.7673

Drawing No.
C-1

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

Department of Public Services,
212 Canco Road Suite B
Portland, Maine 04103-2991



Bradley Roland, P.E.
Water Resources Division

Date: May 30, 2025

1. Please, Submit Utility, Site, and Locust Plans.

Site Address: 1125 Brighton Ave Barron Center - new 50 unit apartment building

Chart Block Lot Number: Tax Map 269/Lot B001

Proposed Use: 50 Residential Units

Previous Use: parking lot

Existing Sanitary Flows: unknown GPD

Existing Process Flows: 0 GPD

Description and location of City sewer that is to receive the proposed building sewer lateral.

Site Category | Commercial (see part 4 below)
Industrial (complete part 5 below)
Governmental
Residential
Other (specify)

X

Clearly, indicate the proposed connections, on the submitted plans.

2. Please, Submit Contact Information.

City Planner's Name: TBD Phone: _____

Owner/Developer Name: ProsperityME

Owner/Developer Address: 175 Lancaster Street Suite 216A Portland Maine 04101

Phone: _____ Fax: _____ E-mail: prosperityme@prosperityme.org

Engineering Consultant Name: Stephen Bushey, P.E.

Engineering Consultant Address: Gorill Palmer 300 Southborough Drive - Suite #200, So. Portland, ME 04106

Phone: 207-772-2515 Fax: _____ E-mail: sbushey@gorillpalmer.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: 9,180 GPD

Peaking Factor/ Peak Times: Not Applicable

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) XSUBSURFACE WASTEWATER 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: Not Applicable

Size of External Grease Interceptor: _____

Retention Time: _____

Peaking Factor/ Peak Times: _____

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: Not Applicable 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.

see cover letter



300 Southborough Drive, Suite 200, South Portland, ME 04106
(207) 772-2515 | GorrillPalmer.com

May 30, 2025

MEANS Group

Portland Water District
225 Douglas Street
P.O. Box 3553
Portland, Maine 04104-3553

Subject: 1125 Brighton Avenue
Applicant – Developers Collaborative Predevelopment LLC
Proposed Multi-Unit Housing – 50 units Site 1
Request for Ability to Serve Letter/Water Supply Capacity Determination

Attn: MEANS Group:

The team of Developers Collaborative Predevelopment LLC (DC) and ProsperityME have retained Gorrill Palmer to prepare plans and permit applications for a proposed 50-Unit apartment building in an existing parking lot at the Barron Center complex on Brighton Ave in Portland, ME. The City of Portland has selected the DC/Prosperity team to enter into a development agreement for the purpose of expanding housing opportunities on the Barron Center Campus. The proposed 0.87-acre lease site #1 is identified by the City of Portland GIS Parcel Viewer as part of Tax Map 269/Lot B041.

The building proposed for Site #1 (see attached site plan) has 220 feet of frontage on Brighton Avenue and 174 feet on Holm Avenue. The site is relatively flat and currently contains a paved parking lot with 46 spaces. It is our understanding that the PWD maintains a 12" water main thru the Barron Center property and also in Holm Avenue that is available for public water supply. There are also 6" and 8" cast mains in Brighton Ave. We understand that a former service line on the west side of the lot was previously abandoned and no longer shows up on PWD GIS infrastructure mapping, although it was previously shown on recorded plats for the campus (see attached). Current architectural plans have positioned our fire entry room off the Brighton Ave frontage under the assumption that domestic and fire services might extend off the 8" main in Brighton Ave. We can discuss potential service from the 12" main thru the campus, however that would entail an easement from leased land under control of Loring House Associates LP. The projected water use for the project is summarized below using flow demand projections from the Maine State Plumbing Code:

Flow Demand		
Use	Design Flow per user (GPD)	Design Flow (GPD)
1-Bedroom Units - 15	120 gpd per unit	1,800
2-Bedroom Units - 25	90 gpd per bed	4,500
3-Bedroom Units - 8	90 gpd per bed	2,160
4-Bedroom Units - 2	90 gpd per bed	720
Total		9,180



STRUCTURAL



FALL PROTECTION
SAFETY



TRANSPORTATION



SITE DESIGN
Page 59



SURVEY



WATER
RESOURCES



TECHNOLOGY
& INNOVATION



We have also requested the fixture count spreadsheet be completed by the Architect. When complete we will forward to MEANS attention.

Specifically, our office is interested in a letter from you indicating the following:

- The ability of the Portland Water District's facilities to serve the project.
- Any other factors which may affect the water and sewer service to this site.
- The ability of the water supply system to provide adequate domestic and fire supply water demand.
- Existing fire flow data the District may have in the site vicinity along Brighton Avenue and /or Holm Avenue.
- Any connection service or impact fees.

Based on the presence of existing water infrastructure in the vicinity of the site, we trust that the existing water system has adequate capacity to serve this building, so we request your consideration of this determination. As requested by the City of Portland, we are writing to request a letter indicating the ability of the Portland Water District to serve this project. A base map of the site is included with this letter. Your prompt review and reply are appreciated as we would like to provide any information possible related to the water supply to the development to City staff in an upcoming submission on June 6th.



If you have any questions regarding this information requested, please contact me at 772-2515 or at sbushey@gorrillpalmer.com.

Sincerely,

GORRILL-PALMER CONSULTING ENGINEERS

A handwritten signature in black ink, appearing to read 'Stephen Bushey', written over a light-colored, textured background.

Stephen Bushey, PE

Senior Associate

Phone: 207-772-2515 x286
sbushey@gorrillpalmer.com

Attachments



U:\Developers Collaborative\0129762A.00 - City of Portland Barron Ctr Hsg 1st RFP\Z - CAD\DWG\BARRON-PBASE.dwg 5/28/2025 10:39 AM

Rev.	Date	Revision

Rev.	Date	Revision

Design: SRB	Draft: CDD	Date: JUNE 2025
Checked: SRB	Scale: AS NOTED	Job No.: 0129762A.00
File Name: BARRON-PBASE.dwg		
This plan shall not be modified without written permission from Gorriil Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorriil Palmer.		

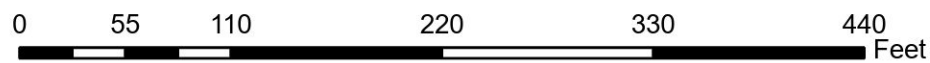
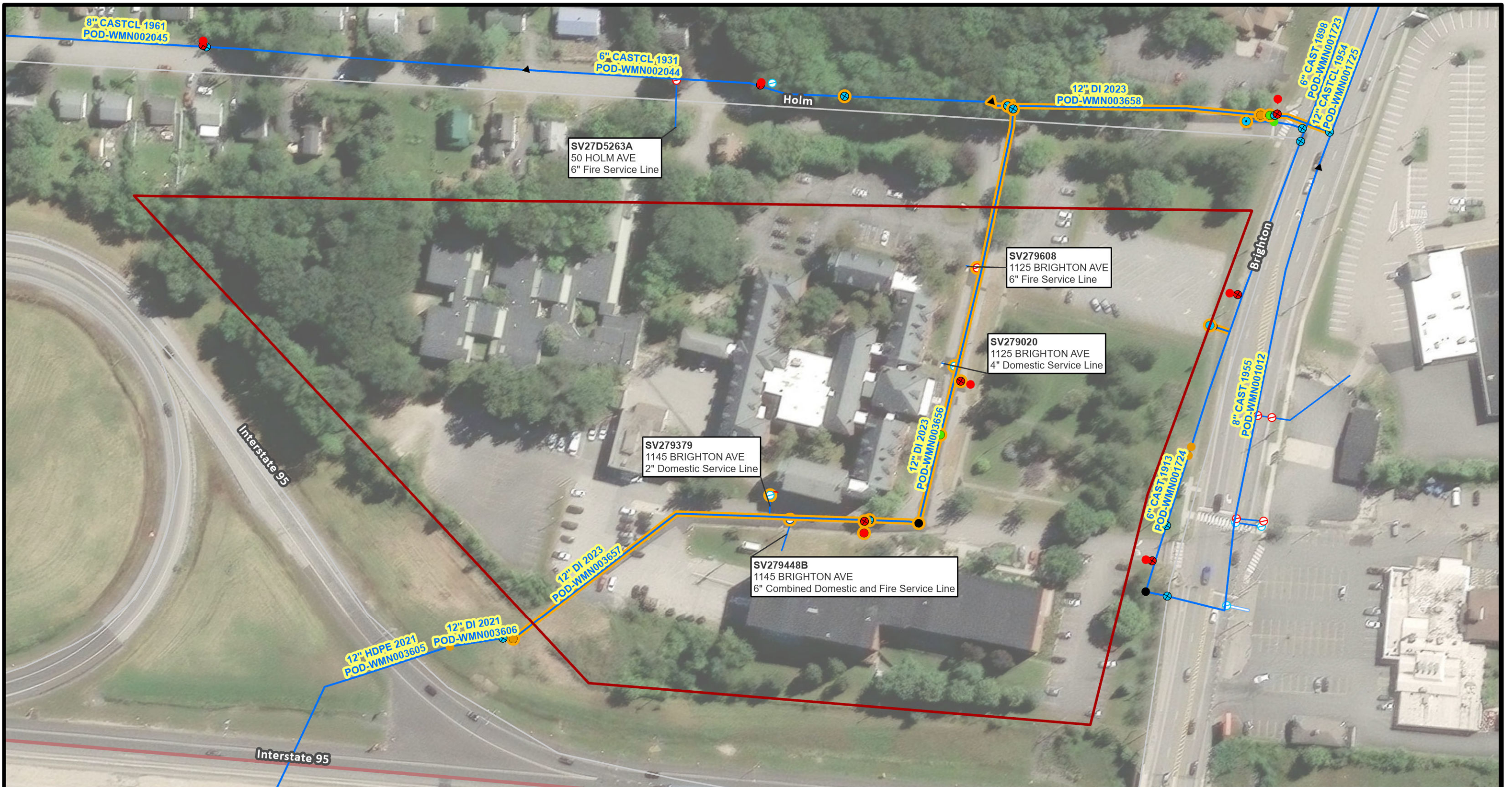


GORRIIL PALMER
An LJB Engineering Company

Gorriil Palmer, an LJB Engineering Company
GorriilPalmer.com
(207) 772-2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	SITE CONCEPT
Project:	CITY OF PORTLAND - BARRON CENTER - SITE 1 1125 Brighton Avenue, Portland, Maine
Client:	DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC 631 Stevens Avenue, Suite 203, Portland, Maine 04103 PH. 207.772.7673

Drawing No.
C-1



225 Douglass Street
PO Box 3553
Portland, Maine 04104



Legend

- | | | |
|----------------|-----------------------|-----------|
| ● Connection | ● Combined Service | ● Manhole |
| ● Air Valve | ● Domestic Service | ● CSO |
| ● Blow Off | ● Fire Service | |
| ● By Pass | ● Shallow Water Main | |
| ● Distribution | ● Proposed Water Main | → Gravity |
| ● Transmission | ● Deep Water Main | → Force |
| ● Meter Pits | | |

1145 Brighton Avenue

Portland



Disclaimer: This map is suitable for preliminary study and analysis and is based on PWD record information. PWD is not liable for any damages whatsoever resulting from inaccurate data or from errors made in the location and marking of its infrastructure.

Drawn By: HAF

Scale: As Noted

Infrastructure Map

Date: March 31, 2025

TRANSPORTATION

13.6.1(A) Impact on Surrounding Street system – No significant impact is predicted for the proposed development. The activity consists of the development of a new 50-unit low-income apartment building for families. The site will be accessed from existing travel routes in/out of the Barron Center property. These conditions include limited two-way access from Holm Ave and a signalized Exit only drive from the site onto Brighton Avenue. The proposed site use is not expected to create or aggravate any existing or proposed hazards or safety concern on adjacent streets as sidewalk conditions are ample to allow pedestrian movement to nearby streets, services, transit, and activities. The site access conditions are consistent with the neighboring sites on both sides of the street. The activity is considered an urban infill development that's consistent with City goals and objectives.

The Table below shows trip generation based on 50 dwelling units based on two ITE Land Use codes for comparison:

Time Period	LUC 221 (Mid-rise) Multifamily Housing	LUC 223 - Affordable Housing
Weekday	192	326
AM Adj	10	25
PM Adj	20	23
AM Gen	22	25
PM Gen	32	25
Saturday	20	64*

*Based on one study

In accordance with Section 2 of the Technical manual it appears that a Traffic Movement permit will not be required as trip generation will be less than 100 passenger car equivalents (PCE) in the peak hour. The Peak hour trip generation is very close to 25 PCE and thus we will await any further direction from the City traffic staff as to any further need of a Transportation Study. On the basis of the existing site access conditions and proximity to a traffic signal on Brighton Ave to control traffic exiting the property, we don't believe the project will significantly impact onsite conditions and surrounding traffic on Brighton or Holm Avenue.

13.6.1(B) Access and Circulation – The ground level of the building will be accessible with ample access for emergency vehicles and site tenants along the street fronts and in the parking lot. The elevator and hallways will be sized to allow for a medical stretcher and emergency personnel. The building entrances off the Brighton Avenue sidewalk will be flush to existing grade. The existing Brighton Avenue sidewalk along the site perimeter will be reconstructed if impacted during foundation construction. ADA access will be accommodated at all entrances.

Parking/Circulation

- Four parking lots are available for Barron Center Staff, guests and visitors. There are total of 160 spaces in these four lots. The Barron Center is understood to have a maximum resident capacity of 212 and maximum staff shift of 105 persons. The Loring House has their own parking lots within the lease area and these will not be impacted by the proposed development.
- All site access is from the Holm Avenue Driveway which allows entering and exiting movements. Per the C-1.5 plan, users of East Lot #1 (Barron Center staff) and East lots #2 & #3 (Loring House) may enter and exit via Holm Avenue. These users may also choose to exit the site via the one-way exit drive in front of the Barron Center, that exits onto Brighton Ave at the existing signalized intersection.
- Barron Center staff and visitors enter the site from Holm Ave and if proceeding to West Lots #1 (visitors) or West Lots #2 & #3 (staff), may only exit the site via the signalized exit-only driveway onto Brighton Ave. Signage prohibiting Holm Ave. access via the drive in front of the Loring House, is posted.

Pedestrian Circulation

- The site benefits from a number of internal paved walks through the common space in front of the Loring House. The walks connect to the public sidewalk on Brighton Avenue including to the METRO shelters on both sides of Brighton. Push button activated pedestrian crossing signals and crosswalk are part of the vehicular traffic signal operations at the Exit only driveway.
- The Brighton Avenue sidewalk extends in both directions to provide convenient access to various businesses and services within 0.5 to 1 mile of the site. Walking distance to the Rowe Elementary School is approximately 0.5 mile.

The site has an existing 46 space parking lot used by Barron Center staff that will be eliminated. The development expects to work with City officials on the placement/construction of new spaces on the Barron Center campus to offset the loss of Barron Center staff parking in Site #1. The exact locations of the replacement parking are not yet finalized, but options include new parking in the exit drive, opposite the Barron Center as well as new parking in the undeveloped area on the north end of the campus.

Tenants of the building will have access to the following onsite parking:

- 31 parking spaces (Max allowed is 2 sp/unit or 100 sp)
- At least 6 ADA spaces
- 6 Level 2 EV charging spaces
- 12 EV charging ready spaces (i.e. conduit installed)
- Bike Parking – 25 spaces required (1 per 2 units) which may be a combination of interior and exterior racks. The Bike room in the building will have capacity for up to 32 bikes in a rack system as shown in the image below.

13.6.1(C) **Public transit** –The nearest bus stop (pictured below) is on Brighton Avenue in front of the Barron Center that includes the Metro 4 Route (Westbrook and intown – see right).

1. 13.6.1(D) **Off-Street Parking** – Off street parking is to be provided with 31 spaces onsite. Several City Standard Dero Bike Hitches will be provided in the sidewalks as may be determined by City Staff to support the 291 SF interior bike room in the building.

13.6.1 (E) **Traffic Demand Management** - Not applicable



Portland, Maine



Yes. Life's good here.

Planning & Urban Development Department

ZONING ANALYSIS Relevant Zone(s) B-2 - apartment site -1125 Bright

All Projects:

	Required	Proposed
Lot Size	-	33,775 SF (lease)
Area Per Dwelling Unit	-	
Minimum Street Frontage	-	226 ft+/-
Front Yard Minimum		
Front Yard Maximum	10 ft	3.5 ft
Rear Yard		
Yard Right		
Yard Left		
Side Street Setback		
Step Back		
Maximum Lot Coverage	100%	<100%
Minimum Lot Coverage		
Maximum Height	50 ft adj RN-3	45 ft
Open Space		
Maximum Impervious Area	90%	<90%
Pavement Setback		
Floor Area Ratio		
Off Street Parking Spaces	0	31
Loading Bays		
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):			



V-Locity® Small (VALS)

Outdoor LED Area Light



IP66



OVERVIEW

Lumen Package	6,000 - 27,000
Wattage Range	36 - 178
Efficacy Range (LPW)	96 - 171
Weight lbs(kg)	20 (9.1)
Control Options	IMSBT, ALB, ALS, 7-Pin, PCI

QUICK LINKS

[Ordering Guide](#)[Performance](#)[Photometrics](#)[Dimensions](#)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical units. Cast aluminum wiring access door located underneath.
- Self-contained optic, board and heat sink assembly can be rotated or replaced in the field.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: TBD lbs in carton.

Optical System

- State-of-the-Art acrylic optics delivers industry leading optical control with an integrated gasket to provide IP66 rated seal.
- Proprietary refractor optics provide exceptional coverage and uniformity in distribution types 2, 3M, 3W, 4M, 4W, 4F, FTM, 5QN, 5QM, 5Q, 5QW, AM, WF and LC/RC.
- Available in 5000K, 4000K, 3500K, 3000K and 2700K color temperatures per ANSI C78.377 as well as phosphor converted amber.
- Minimum CRI of 80 (optional 70 CRI for 5000K, 4000K, and 3000K).
- Factory or field installable integral shielding available for enhanced spill light control.
- Zero Uplight (excludes adjustable arms).

Electrical

- High-performance driver features over-voltage, under voltage, short-circuit and over temperature protection.
- 0-10 volt dimming (10% - 100%) standard, must specify EXT option for dimming leads to be extended to fixture exterior.
- Standard Universal Voltage (120-277 VAC) Input 50/60 Hz or optional High Voltage (347-480 VAC).
- L70 Calculated Life: >60k Hours
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F).
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Driver is fully encased in potting material for moisture resistance and complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls

- Optional integral passive infrared Bluetooth™ motion and photocell sensor. Fixtures operate independently and can be commissioned via iOS or Android configuration app.
- LSI's AirLink™ wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7.

Installation

- REDiMount pole mount arm allows for a true one person installation.
- Side arm pole mount designed to mount to square or round poles.
- Pole mount arms can accommodate pole drill patterns from 2.4 to 5" on center and utilize LSI's reduced B3 or traditional B5 drill patterns.
- Additional mounting options are available including a mast arm or adjustable slip fitter that allow for luminaire attachment to a 2 3/8" tenon or mast arm.
- Adjustable arms allow for 65° of tilt (-5° below horizontal to +60° above horizontal) in 5° increments.

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsicorp.com/resources/terms-conditions-warranty/> for more information.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- DarkSky approved with 3000K or warmer color temperature selection and fixed mounting arms / non-adjustable brackets.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598-1.
- 3G rated for ANSI C136.31 high vibration applications are qualified.



V-Locity® Small (VALS) Outdoor LED Area Light

Type : _____

 Have questions? Call us at (800) 436-7800

ORDERING GUIDE

[Back to Quick Links](#)

TYPICAL ORDER EXAMPLE: VALS 18L 4W UNV 40K8 BLK SA ALBMR2LR IS						
Prefix	Lumen Package	Distribution	Orientation ²	Voltage	Color Temp /Rendering	Finish
VALS - V-Locity Area Light Small	6L - 6,000 lms, 36W 9L - 9,000 lms, 54W 12L - 12,000 lms, 74W 15L - 15,000 lms, 91W 18L - 18,000 lms, 111W 21L - 21,000 lms, 130W 24L - 24,000 lms, 155W 27L - 27,000 lms, 178W Custom Lumen Packages ¹	2 - Type 2 3M - Type 3 Medium 3W - Type 3 Wide 4M - Type 4 Medium 4F - Type 4 Forward 4W - Type 4 Wide FTM - Forward Throw Medium 5QN - Type 5 Square Narrow 5QM - Type 5 Square Medium 5Q - Type 5 Square 5QW - Type 5 Square Wide AM - Automotive Merchandise WF - 6x6 Wide Flood LC - Left Corner RC - Right Corner	(Blank) - Standard L - Optics rotated left 90° R - Optics rotated right 90°	UNV - Universal Voltage (120-277V) HV - High Voltage (347-480V)	50K7 - 5000 CCT - 70 CRI 50K8 - 5000 CCT - 80 CRI 40K7 - 4000 CCT - 70 CRI 40K8 - 4000 CCT - 80 CRI 35K8 - 3500 CCT - 80 CRI <i>DarkSky Approved CCT's</i> 30K7 - 3000 CCT - 70 CRI 30K8 - 3000 CCT - 80 CRI 27K8 - 2700 CCT - 80 CRI	BLK - Black BRZ - Dark Bronze GMG - Gun Metal Gray GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus SVG - Satin Verde Green WHT - White
Mounting	Controls (Choose One)				Options	
SA - Universal Side Arm Pole Mount SF - Adjustable Slip Fitter UA - Universal Adjustable Pole Mount Arm MA - Mast Arm	(Blank) - None Wireless Controls System ALSC - AirLink Synapse Control System ALSCS2 - AirLink Synapse Control System with 12-20' MH Motion Sensor ALSCS4 - AirLink Synapse Control System with 20-40' MH Motion Sensor ALBMR1LR - AirLink Blue Long Range Wireless Multi-Range Sensor Controller (8-15' MH) ⁴ ALBMR2LR - AirLink Blue Long Range Wireless Multi-Range Sensor Controller (16-40' MH) ⁴ Stand-Alone Controls EXT - 0-10v Dimming leads extended to housing exterior CR7P - 7 Pin Control Receptacle ANSI C136.41 ³ IMSBTL1 - Integral Bluetooth™ Motion and Photocell Sensor (8-24' MH) ⁴ IMSBTL2 - Integral Bluetooth™ Motion and Photocell Sensor (25-40' MH) ⁴ PCIU - 120-277 Button Photocell PC1347 - 347V Button Photocell				IS - Integral Shield ² TE - Toolless Entry (Mast Arm Only)	



Need more information?
Click here for our glossary

Have additional questions?
Call us at (800) 436-7800



Accessory Ordering Information⁵

CONTROLS ACCESSORIES		FUSING OPTIONS ⁷		EXTERNAL SHIELDING OPTIONS	
Description	Order Number	Description	Order Number	Description	Order Number
Twist Lock Photocell (120V) for use with CR7P	122514	Single Fusing (120V)	See Fusing Accessory Guide	1.5" External Shield	See Shielding Guide
Twist Lock Photocell (208-277) for use with CR7P	122515	Single Fusing (277V)		3" External Shield	
Twist Lock Photocell (347V) for use with CR7P	122516	Double Fusing (208V, 240V)			
Twist Lock Photocell (480V) for use with CR7P	1225180	Double Fusing (480V)			
AirLink 5 Pin Twist Lock Controller	661409	Double Fusing (347V)			
AirLink 7 Pin Twist Lock Controller	661410				
Shorting Cap for use with CR7P	149328				

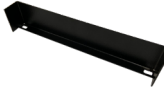
1. Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.
2. Not available on Type 5 or wide flood distributions.
3. Control device or shorting cap must be ordered separately. See Accessory Ordering Information.
4. Motion sensors are field configurable via the LSI app that can be downloaded from your smartphone's native app store.
5. Accessories are shipped separately and field installed.
6. "CLR" denotes finish. See Finish options.
7. Fusing must be located in hand hole of pole. See [Fusing Accessory Guide](#) for compatibility.

V-Locity® Small (VALS) Outdoor LED Area Light

Type : _____

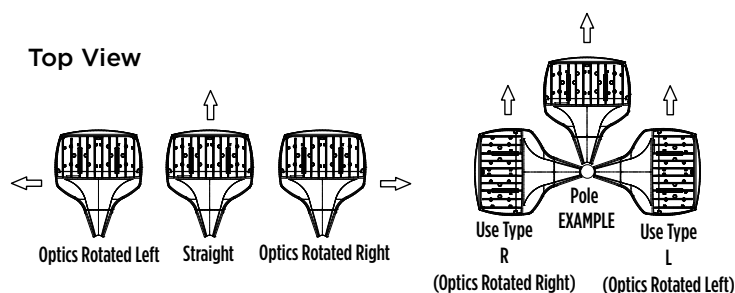
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ACCESSORIES

MOUNTING ACCESSORIES		SHIELDING, POLES & MISC. ACCESSORIES	
Side Arm	Bullhorn Bracket Mounts onto a 2" (51mm) IP, 2.375" (60mm) O.D. tenon and allows for mounting up to 4 adjustable slip fitter mount luminaires Part Number: BKS PTB 2 CLR / BKS PTB 12 CLR (2 Luminaires) Part Number: BKS PTB 3-30 CLR / BKS PTB 13-30 CLR (3 Luminaires) Part Number: BKS PTB 4 CLR / BKS PTB 14 CLR (4 Luminaires)		
	Flood Wall Mount Bracket Mounts onto vertical wall surface (hardware/anchors not included) Part Number: BKS FMW 5 CLR (5" Straight Version) Part Number: BKS FMW 18 CLR (18" Curved Version)		
	Bolt on Side Tenon Mount Bolt on Side Tenon Mount Part Number: BKSFB0 5 CLR (5" Straight Version) Part Number: BKSFB0 18 CLR (18" Curved Version) Part Number: BKSFB0 30 CLR (30" Dual Tenon Version)		
Tenon / Slipfitter	Square Tenon Top Allows to seamlessly integrate LSI luminaires to open top 4", 5" or 6" square poles with 11 ga. Or 7 ga. wall thickness Part Number: BKA ISF10_SQ CLR		
	Square Tenon Top Mounts onto a 2" (51mm) IP, 2.375" (60mm) O.D. tenon and allows for mounting up to 4 luminaires Part Number: BKA XNM *		
	Square Internal Slipfitter Mounts inside 4" or 5" square pole and allows for mounting up to 4 luminaires Part Number: BKA X_ISF * CLR		
Wall Mount/ Wood Pole	Wall Mount Bracket Mounts onto vertical wall surface (hardware/anchors not included) Part Number: BKS XBO WM CLR		
	Wood Pole Bracket Mounts onto wooden poles (6" minimum OD, hardware/anchors not included) Part Number: BKS XBO WP CLR		
		Integral Shield for Asymmetric Distributions Field Install Integral shield provides maximum backlight control by shielding each individual row of LEDs with minimal impact on Streett/front side distribution (includes 2 shields) Part Number: 839727	
		Integral Shield for Left and Right Corner Distributions Field install integral shield provides cutoff from two sides for maximum spill light control when utilizing LC or RC corner distributions (includes 2 shields) Part Number: TBD	
		External Shield External shield blocks view of light source from anyside of luminaire, additional shielding configurations available Part Number: 835696 (1.5") / 835694 (3")	
		Square Poles 14 - 39" steel and aluminum poles in 4", 5" and 6" sizes for retrofit and new construction Part Number: 450/550/650	
		Round Poles 10 - 30" steel and aluminum poles in 4" and 5" sizes for retrofit and new construction Part Number: 4RP/SRP	
		Tapered Poles 20' - 39" steel and aluminum poles for retrofit and new construction Part Number: RTP	
		Bird Spikes 10' linear bird spike (3' recommended per luminaire) silicone adhesive (covers approximately 25' linear fee of bird spike) and application tool Spike Part Number: 751631 Adhesive Part Number: 751632 Caulk Gun Part Number: 751636	

- 1 Replace CLR with paint finish description
- 2 Replace XX with SQ for square pole or RD for round pole (≥3" OD)
- 3 Replace * with S (Single), D180 (Double @180°), D90 (Double @90°), T90 (Triple), Q90 (Quad)
- 4 Replace _ with 4 (4" square pole) or 5 (5" square pole)

OPTICS ROTATION

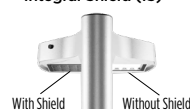


ACCESSORIES/OPTIONS

Integral Shield (IS)

Integral Shield (IS) available for improved backlight control without sacrificing Streett side performance. LSI's Integral Shield (IS) option delivers backlight control that significantly reduces spill light behind the pole for applications with pole locations close to adjacent properties. The design maximizes forward reflected light while reducing glare, maintaining the optical distribution selected, and most importantly eliminating light trespass. Shields rotate with the optical distribution.

Integral Shield (IS)



Luminaire Shown with AirLink Blue Sensor Option



7 Pin Photoelectric Control

7-pin ANSI C136.41-2013 control receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).

Luminaire Shown with CR7P



V-Locity® Small (VALS) Outdoor LED Area Light

Type : _____

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PERFORMANCE

[Back to Quick Links](#)

Delivered Lumens (70 CRI)												
Lumen Package	Distribution	CRI	3000K CCT / 70 CRI			4000K CCT / 70 CRI			5000K CCT / 70 CRI			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
6L	2	70	5,376	149	B1-U0-G2	5,696	158	B1-U0-G3	5,709	157	B1-U0-G3	36
	3M		5,127	142	B1-U0-G2	5,432	151	B1-U0-G2	5,444	150	B1-U0-G2	
	3W		4,859	135	B1-U0-G3	5,148	143	B1-U0-G3	5,160	142	B1-U0-G3	
	4M		5,214	145	B1-U0-G2	5,524	153	B1-U0-G2	5,537	152	B1-U0-G2	
	4F		4,956	138	B1-U0-G3	5,251	146	B1-U0-G3	5,263	145	B1-U0-G3	
	4W		4,540	126	B1-U0-G3	4,811	134	B1-U0-G3	4,822	133	B1-U0-G3	
	FTM		4,999	139	B1-U0-G2	5,297	147	B1-U0-G2	5,309	146	B1-U0-G2	
	50N		5,686	158	B2-U0-G1	6,025	167	B2-U0-G1	6,038	166	B2-U0-G1	
	50M		5,796	161	B3-U0-G1	6,141	171	B3-U0-G1	6,155	169	B3-U0-G1	
	5Q		5,585	155	B3-U0-G1	5,917	164	B3-U0-G1	5,931	163	B3-U0-G1	
	5QW		5,425	151	B3-U0-G1	5,748	160	B3-U0-G2	5,761	159	B3-U0-G1	
	AM		5,575	155	B0-U0-G1	5,908	164	B0-U0-G1	5,921	163	B0-U0-G1	
	WF		5,754	160	B2-U0-G0	6,097	169	B2-U0-G0	6,111	168	B2-U0-G0	
	LC/RC		4,694	130	B1-U0-G3	4,974	138	B1-U0-G3	4,985	137	B1-U0-G3	
9L	2	70	8,081	150	B1-U0-G3	8,562	159	B2-U0-G3	8,581	159	B2-U0-G3	54
	3M		7,706	143	B1-U0-G3	8,165	151	B1-U0-G3	8,184	152	B1-U0-G3	
	3W		7,304	135	B1-U0-G3	7,739	143	B1-U0-G3	7,756	144	B1-U0-G3	
	4M		7,837	145	B1-U0-G2	8,304	154	B1-U0-G3	8,323	154	B1-U0-G3	
	4F		7,450	138	B1-U0-G3	7,894	146	B1-U0-G4	7,911	147	B1-U0-G3	
	4W		6,825	126	B1-U0-G3	7,232	134	B1-U0-G3	7,248	134	B1-U0-G3	
	FTM		7,515	139	B1-U0-G2	7,963	147	B1-U0-G2	7,981	148	B1-U0-G2	
	50N		8,547	158	B3-U0-G1	9,056	168	B3-U0-G1	9,077	168	B3-U0-G1	
	50M		8,712	161	B3-U0-G2	9,231	171	B3-U0-G2	9,252	171	B3-U0-G2	
	5Q		8,395	155	B3-U0-G2	8,895	165	B3-U0-G2	8,915	165	B3-U0-G2	
	5QW		8,154	151	B4-U0-G2	8,640	160	B4-U0-G2	8,659	160	B4-U0-G2	
	AM		8,381	155	B0-U0-G1	8,880	164	B0-U0-G2	8,900	165	B0-U0-G2	
	WF		8,649	160	B3-U0-G0	9,165	170	B3-U0-G0	9,186	170	B3-U0-G0	
	LC/RC		7,057	131	B1-U0-G3	7,477	138	B1-U0-G3	7,494	139	B1-U0-G3	
12L	2	70	10,996	149	B2-U0-G3	11,651	157	B2-U0-G3	11,677	158	B2-U0-G3	74
	3M		10,486	142	B1-U0-G3	11,111	150	B1-U0-G3	11,136	151	B1-U0-G3	
	3W		9,939	134	B2-U0-G4	10,531	142	B2-U0-G4	10,554	143	B2-U0-G4	
	4M		10,664	144	B1-U0-G3	11,300	153	B1-U0-G3	11,325	153	B1-U0-G3	
	4F		10,137	137	B1-U0-G4	10,741	145	B1-U0-G4	10,765	146	B1-U0-G4	
	4W		9,287	125	B1-U0-G3	9,840	133	B1-U0-G3	9,862	133	B1-U0-G3	
	FTM		10,226	138	B1-U0-G3	10,835	146	B1-U0-G3	10,859	147	B1-U0-G3	
	50N		11,630	157	B3-U0-G1	12,323	167	B3-U0-G1	12,351	167	B3-U0-G1	
	50M		11,854	160	B4-U0-G2	12,561	170	B4-U0-G2	12,589	170	B4-U0-G2	
	5Q		11,423	154	B4-U0-G2	12,104	164	B4-U0-G2	12,131	164	B4-U0-G2	
	5QW		11,096	150	B4-U0-G2	11,757	159	B4-U0-G2	11,783	159	B4-U0-G2	
	AM		11,404	154	B1-U0-G2	12,083	163	B1-U0-G2	12,111	164	B1-U0-G2	
	WF		11,770	159	B3-U0-G1	12,471	169	B3-U0-G1	12,499	169	B3-U0-G1	
	LC/RC		9,602	130	B2-U0-G3	10,175	137	B2-U0-G3	10,197	138	B2-U0-G3	

V-Locity® Small (VALS) Outdoor LED Area Light

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Delivered Lumens (70 CRI)												
Lumen Package	Distribution	CRI	3000K CCT / 70 CRI			4000K CCT / 70 CRI			5000K CCT / 70 CRI			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
15L	2	70	13,324	146	B2-U0-G4	14,118	155	B2-U0-G4	14,150	156	B2-U0-G4	91
	3M		12,707	140	B1-U0-G3	13,464	148	B1-U0-G3	13,494	149	B1-U0-G3	
	3W		12,043	132	B2-U0-G4	12,761	140	B2-U0-G4	12,789	141	B2-U0-G4	
	4M		12,923	142	B1-U0-G3	13,693	150	B1-U0-G3	13,724	151	B1-U0-G3	
	4F		12,284	135	B1-U0-G5	13,016	143	B2-U0-G5	13,045	144	B1-U0-G5	
	4W		11,254	124	B1-U0-G4	11,924	131	B1-U0-G4	11,951	132	B1-U0-G4	
	FTM		12,391	136	B1-U0-G3	13,130	144	B1-U0-G3	13,159	145	B1-U0-G3	
	5QN		14,093	155	B3-U0-G2	14,933	164	B3-U0-G2	14,966	165	B3-U0-G2	
	5QM		14,365	158	B4-U0-G2	15,221	167	B4-U0-G2	15,255	168	B4-U0-G2	
	5Q		13,842	152	B4-U0-G2	14,667	161	B4-U0-G2	14,699	162	B4-U0-G2	
	5QW		13,445	148	B4-U0-G2	14,246	157	B4-U0-G2	14,278	158	B4-U0-G2	
	AM		13,819	152	B1-U0-G2	14,642	161	B1-U0-G2	14,675	162	B1-U0-G2	
	WF		14,262	157	B3-U0-G1	15,112	166	B3-U0-G1	15,146	167	B3-U0-G1	
	LC/RC		11,636	128	B2-U0-G4	12,329	135	B2-U0-G4	12,357	136	B2-U0-G4	
18L	2	70	16,125	145	B2-U0-G4	17,086	154	B3-U0-G4	17,124	154	B3-U0-G4	111
	3M		15,377	139	B2-U0-G3	16,294	147	B2-U0-G4	16,331	147	B2-U0-G4	
	3W		14,574	131	B2-U0-G5	15,443	139	B2-U0-G5	15,477	139	B2-U0-G5	
	4M		15,639	141	B1-U0-G4	16,571	149	B1-U0-G4	16,608	150	B1-U0-G4	
	4F		14,866	134	B2-U0-G5	15,751	142	B2-U0-G5	15,786	142	B2-U0-G5	
	4W		13,619	123	B2-U0-G4	14,430	130	B2-U0-G4	14,462	130	B2-U0-G4	
	FTM		14,996	135	B1-U0-G3	15,889	143	B1-U0-G3	15,925	144	B1-U0-G3	
	5QN		17,055	154	B3-U0-G2	18,072	163	B4-U0-G2	18,112	163	B3-U0-G2	
	5QM		17,384	157	B4-U0-G2	18,420	166	B4-U0-G2	18,461	166	B4-U0-G2	
	5Q		16,751	151	B4-U0-G2	17,749	160	B4-U0-G2	17,789	160	B4-U0-G2	
	5QW		16,271	147	B5-U0-G3	17,241	155	B5-U0-G3	17,279	156	B5-U0-G3	
	AM		16,723	151	B1-U0-G2	17,720	160	B1-U0-G2	17,760	160	B1-U0-G2	
	WF		17,260	155	B4-U0-G1	18,289	165	B4-U0-G1	18,330	165	B4-U0-G1	
	LC/RC		14,081	127	B2-U0-G4	14,920	134	B2-U0-G4	14,954	135	B2-U0-G4	

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Delivered Lumens (70 CRI)												
Lumen Package	Distribution	CRI	3000K CCT / 70 CRI			4000K CCT / 70 CRI			5000K CCT / 70 CRI			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
21L	2	70	18,480	142	B3-U0-G5	19,582	151	B3-U0-G5	19,625	151	B3-U0-G5	130
	3M		17,624	136	B2-U0-G4	18,674	144	B2-U0-G4	18,716	144	B2-U0-G4	
	3W		16,703	128	B3-U0-G5	17,699	136	B3-U0-G5	17,738	136	B3-U0-G5	
	4M		17,923	138	B1-U0-G4	18,992	146	B1-U0-G4	19,034	146	B1-U0-G4	
	4F		17,038	131	B2-U0-G5	18,053	139	B2-U0-G5	18,093	139	B2-U0-G5	
	4W		15,608	120	B2-U0-G5	16,538	127	B2-U0-G5	16,575	127	B2-U0-G5	
	FTM		17,186	132	B1-U0-G3	18,210	140	B1-U0-G3	18,251	140	B1-U0-G3	
	50N		19,547	150	B4-U0-G2	20,712	159	B4-U0-G2	20,758	159	B4-U0-G2	
	50M		19,923	153	B5-U0-G3	21,111	162	B5-U0-G3	21,158	162	B5-U0-G3	
	5Q		19,198	148	B5-U0-G3	20,342	156	B5-U0-G3	20,388	156	B5-U0-G3	
	50W		18,648	143	B5-U0-G3	19,759	152	B5-U0-G3	19,804	152	B5-U0-G3	
	AM		19,166	147	B1-U0-G2	20,308	156	B1-U0-G2	20,354	156	B1-U0-G2	
	WF		19,782	152	B4-U0-G1	20,960	161	B4-U0-G1	21,007	161	B4-U0-G1	
	LC/RC		16,138	124	B3-U0-G5	17,100	132	B3-U0-G5	17,138	132	B3-U0-G5	
24L	2	70	21,338	138	B3-U0-G5	22,609	146	B3-U0-G5	22,660	146	B3-U0-G5	155
	3M		20,349	131	B2-U0-G4	21,561	139	B2-U0-G4	21,610	139	B2-U0-G4	
	3W		19,286	124	B3-U0-G5	20,435	132	B3-U0-G5	20,480	132	B3-U0-G5	
	4M		20,695	134	B1-U0-G4	21,928	141	B1-U0-G5	21,977	142	B1-U0-G5	
	4F		19,672	127	B2-U0-G5	20,844	134	B2-U0-G5	20,890	135	B2-U0-G5	
	4W		18,022	116	B2-U0-G5	19,095	123	B2-U0-G5	19,138	123	B2-U0-G5	
	FTM		19,843	128	B1-U0-G4	21,026	136	B1-U0-G4	21,073	136	B1-U0-G4	
	50N		22,569	146	B4-U0-G2	23,914	154	B4-U0-G2	23,967	154	B4-U0-G2	
	50M		23,004	148	B5-U0-G3	24,375	157	B5-U0-G3	24,430	157	B5-U0-G3	
	5Q		22,167	155	B5-U0-G3	23,487	152	B5-U0-G3	23,540	152	B5-U0-G3	
	50W		21,531	139	B5-U0-G3	22,815	147	B5-U0-G3	22,865	147	B5-U0-G3	
	AM		22,130	143	B1-U0-G2	23,448	151	B1-U0-G2	23,501	151	B1-U0-G2	
	WF		22,840	147	B4-U0-G1	24,201	156	B4-U0-G1	24,255	156	B4-U0-G1	
	LC/RC		18,634	120	B3-U0-G5	19,744	127	B3-U0-G5	19,788	127	B3-U0-G5	
27L	2	70	23,816	134	B3-U0-G5	25,235	142	B3-U0-G5	25,292	142	B3-U0-G5	178
	3M		22,712	128	B2-U0-G4	24,066	135	B2-U0-G5	24,120	136	B2-U0-G5	
	3W		21,526	121	B3-U0-G5	22,808	128	B3-U0-G5	22,859	129	B3-U0-G5	
	4M		23,098	130	B2-U0-G5	24,475	137	B2-U0-G5	24,530	138	B2-U0-G5	
	4F		21,956	123	B2-U0-G5	23,265	131	B2-U0-G5	23,316	131	B2-U0-G5	
	4W		20,114	113	B2-U0-G5	21,313	120	B2-U0-G5	21,361	121	B2-U0-G5	
	FTM		22,148	124	B2-U0-G4	23,468	132	B2-U0-G4	23,521	133	B2-U0-G4	
	50N		25,190	142	B4-U0-G2	26,691	150	B4-U0-G2	26,751	151	B4-U0-G2	
	50M		25,676	144	B5-U0-G3	27,206	153	B5-U0-G3	27,267	153	B5-U0-G3	
	5Q		24,741	139	B5-U0-G3	26,215	147	B5-U0-G3	26,274	148	B5-U0-G3	
	50W		24,032	135	B5-U0-G4	25,464	143	B5-U0-G4	25,521	144	B5-U0-G4	
	AM		24,700	139	B1-U0-G3	26,172	147	B1-U0-G3	26,231	148	B1-U0-G3	
	WF		25,493	143	B4-U0-G1	27,012	152	B5-U0-G1	27,073	152	B4-U0-G1	
	LC/RC		20,798	117	B3-U0-G5	22,037	124	B3-U0-G5	22,086	125	B3-U0-G5	

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Delivered Lumens (80 CRI)												
Lumen Package	Distribution	CRI	2700K CCT / 80 CRI			3000K CCT / 80 CRI			3500K CCT / 80 CRI			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
6L	2	80	4,843	133	B1-U0-G2	4,985	137	B1-U0-G2	5,009	138	B1-U0-G2	36
	3M		4,619	127	B1-U0-G2	4,754	131	B1-U0-G2	4,777	131	B1-U0-G2	
	3W		4,377	120	B1-U0-G3	4,505	124	B1-U0-G3	4,527	125	B1-U0-G3	
	4M		4,697	129	B0-U0-G2	4,835	133	B0-U0-G2	4,858	134	B0-U0-G2	
	4F		4,465	123	B1-U0-G3	4,595	126	B1-U0-G3	4,618	127	B1-U0-G3	
	4W		4,090	113	B1-U0-G2	4,210	116	B1-U0-G2	4,230	116	B1-U0-G2	
	FTM		4,504	124	B0-U0-G2	4,636	128	B0-U0-G2	4,658	128	B0-U0-G2	
	50N		5,122	141	B2-U0-G0	5,272	145	B2-U0-G1	5,298	146	B2-U0-G0	
	50M		5,221	144	B3-U0-G1	5,374	148	B3-U0-G1	5,400	149	B3-U0-G1	
	5Q		5,031	138	B3-U0-G1	5,178	143	B3-U0-G1	5,203	143	B3-U0-G1	
	5QW		4,887	134	B3-U0-G1	5,030	138	B3-U0-G1	5,054	139	B3-U0-G1	
	AM		5,023	138	B0-U0-G1	5,170	142	B0-U0-G1	5,195	143	B0-U0-G1	
	WF		5,184	143	B2-U0-G0	5,336	147	B2-U0-G0	5,362	148	B2-U0-G0	
	LC/RC		4,229	116	B1-U0-G2	4,353	120	B1-U0-G2	4,374	120	B1-U0-G2	
9L	2	80	7,280	135	B1-U0-G3	7,493	139	B1-U0-G3	7,529	139	B1-U0-G3	54
	3M		6,943	129	B1-U0-G2	7,146	132	B1-U0-G2	7,181	133	B1-U0-G2	
	3W		6,580	122	B1-U0-G3	6,772	125	B1-U0-G3	6,805	126	B1-U0-G3	
	4M		7,061	131	B1-U0-G3	7,267	135	B1-U0-G3	7,303	135	B1-U0-G3	
	4F		6,711	124	B1-U0-G3	6,908	128	B1-U0-G3	6,941	129	B1-U0-G3	
	4W		6,148	114	B1-U0-G3	6,328	117	B1-U0-G3	6,359	118	B1-U0-G3	
	FTM		6,770	125	B1-U0-G2	6,968	129	B1-U0-G2	7,002	130	B1-U0-G2	
	50N		7,700	143	B2-U0-G1	7,925	147	B3-U0-G1	7,964	148	B2-U0-G1	
	50M		7,848	145	B3-U0-G2	8,078	150	B3-U0-G2	8,117	150	B3-U0-G2	
	5Q		7,562	140	B3-U0-G2	7,784	144	B3-U0-G2	7,822	145	B3-U0-G2	
	5QW		7,346	136	B3-U0-G2	7,561	140	B3-U0-G2	7,598	141	B3-U0-G2	
	AM		7,550	140	B0-U0-G1	7,771	144	B0-U0-G1	7,809	145	B0-U0-G1	
	WF		7,792	144	B3-U0-G0	8,020	149	B3-U0-G0	8,060	149	B3-U0-G0	
	LC/RC		6,357	118	B1-U0-G3	6,543	121	B1-U0-G3	6,575	122	B1-U0-G3	
12L	2	80	9,906	134	B2-U0-G3	10,196	138	B2-U0-G3	10,245	139	B2-U0-G3	74
	3M		9,447	128	B1-U0-G3	9,723	132	B1-U0-G3	9,771	132	B1-U0-G3	
	3W		8,953	121	B2-U0-G3	9,215	125	B2-U0-G4	9,260	125	B2-U0-G3	
	4M		9,608	130	B1-U0-G3	9,889	134	B1-U0-G3	9,937	134	B1-U0-G3	
	4F		9,132	124	B1-U0-G4	9,399	127	B1-U0-G4	9,445	128	B1-U0-G4	
	4W		8,366	113	B1-U0-G3	8,611	117	B1-U0-G3	8,653	117	B1-U0-G3	
	FTM		9,212	125	B1-U0-G3	9,482	128	B1-U0-G3	9,528	129	B1-U0-G3	
	50N		10,477	142	B3-U0-G1	10,784	146	B3-U0-G1	10,837	147	B3-U0-G1	
	50M		10,680	145	B4-U0-G2	10,992	149	B4-U0-G2	11,046	149	B4-U0-G2	
	5Q		10,291	139	B4-U0-G2	10,592	143	B4-U0-G2	10,643	144	B4-U0-G2	
	5QW		9,996	135	B4-U0-G2	10,288	139	B4-U0-G2	10,338	140	B4-U0-G2	
	AM		10,274	139	B1-U0-G2	10,574	143	B1-U0-G2	10,626	144	B1-U0-G2	
	WF		10,603	144	B3-U0-G0	10,914	148	B3-U0-G0	10,967	148	B3-U0-G0	
	LC/RC		8,651	117	B2-U0-G3	8,904	121	B2-U0-G3	8,947	121	B2-U0-G3	

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Delivered Lumens (80 CRI)									
Lumen Package	Distribution	CRI	4000K CCT / 80 CRI			5000K CCT / 80 CRI			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
6L	2	80	5,219	144	B1-U0-G2	5,330	147	B1-U0-G2	36
	3M		4,978	137	B1-U0-G2	5,083	140	B1-U0-G2	
	3W		4,717	130	B1-U0-G3	4,818	133	B1-U0-G3	
	4M		5,062	139	B0-U0-G2	5,170	142	B0-U0-G2	
	4F		4,812	132	B1-U0-G3	4,914	135	B1-U0-G3	
	4W		4,408	121	B1-U0-G2	4,502	124	B1-U0-G2	
	FTM		4,854	134	B0-U0-G2	4,957	136	B0-U0-G2	
	5QN		5,521	152	B2-U0-G1	5,638	155	B2-U0-G1	
	5QM		5,627	155	B3-U0-G1	5,747	158	B3-U0-G1	
	5Q		5,422	149	B3-U0-G1	5,537	152	B3-U0-G1	
	5QW		5,267	145	B3-U0-G1	5,379	148	B3-U0-G1	
	AM		5,413	149	B0-U0-G1	5,528	152	B0-U0-G1	
	WF		5,587	154	B2-U0-G0	5,706	157	B2-U0-G0	
	LC/RC		4,558	125	B1-U0-G2	4,655	128	B1-U0-G2	
9L	2	80	7,846	145	B1-U0-G3	8,012	148	B1-U0-G3	54
	3M		7,482	139	B1-U0-G3	7,641	142	B1-U0-G3	
	3W		7,091	131	B1-U0-G3	7,242	134	B1-U0-G3	
	4M		7,609	141	B1-U0-G3	7,771	144	B1-U0-G3	
	4F		7,233	134	B1-U0-G3	7,387	137	B1-U0-G3	
	4W		6,626	123	B1-U0-G3	6,767	125	B1-U0-G3	
	FTM		7,296	135	B1-U0-G2	7,451	138	B1-U0-G2	
	5QN		8,298	154	B3-U0-G1	8,475	157	B3-U0-G1	
	5QM		8,458	157	B3-U0-G2	8,638	160	B3-U0-G2	
	5Q		8,150	151	B3-U0-G2	8,324	154	B3-U0-G2	
	5QW		7,917	147	B3-U0-G2	8,085	150	B3-U0-G2	
	AM		8,137	151	B0-U0-G1	8,310	154	B0-U0-G1	
	WF		8,398	156	B3-U0-G0	8,577	159	B3-U0-G0	
	LC/RC		6,851	127	B1-U0-G3	6,997	130	B1-U0-G3	
12L	2	80	10,676	144	B2-U0-G3	10,903	148	B2-U0-G3	74
	3M		10,181	138	B1-U0-G3	10,398	141	B1-U0-G3	
	3W		9,649	131	B2-U0-G4	9,854	133	B2-U0-G4	
	4M		10,354	140	B1-U0-G3	10,574	143	B1-U0-G3	
	4F		9,842	133	B1-U0-G4	10,051	136	B1-U0-G4	
	4W		9,017	122	B1-U0-G3	9,208	125	B1-U0-G3	
	FTM		9,928	134	B1-U0-G3	10,139	137	B1-U0-G3	
	5QN		11,292	153	B3-U0-G1	11,532	156	B3-U0-G1	
	5QM		11,510	156	B4-U0-G2	11,754	159	B4-U0-G2	
	5Q		11,090	150	B4-U0-G2	11,326	153	B4-U0-G2	
	5QW		10,773	146	B4-U0-G2	11,002	149	B4-U0-G2	
	AM		11,072	150	B1-U0-G2	11,308	153	B1-U0-G2	
	WF		11,428	155	B3-U0-G0	11,671	158	B3-U0-G0	
	LC/RC		9,323	126	B2-U0-G3	9,521	129	B2-U0-G3	

V-Locity® Small (VALS) Outdoor LED Area Light

Type : _____

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Delivered Lumens (80 CRI)												
Lumen Package	Distribution	CRI	2700K CCT / 80 CRI			3000K CCT / 80 CRI			3500K CCT / 80 CRI			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
15L	2	80	12,004	132	B2-U0-G3	12,355	136	B2-U0-G3	12,415	137	B2-U0-G3	91
	3M		11,448	126	B1-U0-G3	11,783	130	B1-U0-G3	11,840	131	B1-U0-G3	
	3W		10,849	120	B2-U0-G4	11,167	123	B2-U0-G4	11,221	124	B2-U0-G4	
	4M		11,642	128	B1-U0-G3	11,983	132	B1-U0-G3	12,041	133	B1-U0-G3	
	4F		11,066	122	B1-U0-G4	11,390	126	B1-U0-G4	11,445	126	B1-U0-G4	
	4W		10,138	112	B1-U0-G3	10,435	115	B1-U0-G3	10,486	116	B1-U0-G3	
	FTM		11,163	123	B1-U0-G3	11,490	127	B1-U0-G3	11,546	127	B1-U0-G3	
	50N		12,696	140	B3-U0-G1	13,068	144	B3-U0-G1	13,131	145	B3-U0-G1	
	50M		12,941	143	B4-U0-G2	13,320	147	B4-U0-G2	13,385	148	B4-U0-G2	
	5Q		12,470	138	B4-U0-G2	12,835	142	B4-U0-G2	12,897	142	B4-U0-G2	
	50W		12,113	134	B4-U0-G2	12,467	138	B4-U0-G2	12,528	138	B4-U0-G2	
	AM		12,449	137	B1-U0-G2	12,814	141	B1-U0-G2	12,876	142	B1-U0-G2	
	WF		12,849	142	B3-U0-G1	13,225	146	B3-U0-G1	13,289	147	B3-U0-G1	
	LC/RC		10,482	116	B2-U0-G3	10,789	119	B2-U0-G4	10,842	120	B2-U0-G3	
18L	2	80	14,526	131	B2-U0-G4	14,952	135	B2-U0-G4	15,024	135	B2-U0-G4	111
	3M		13,853	125	B1-U0-G3	14,259	129	B1-U0-G3	14,328	129	B1-U0-G3	
	3W		13,129	118	B2-U0-G4	13,514	122	B2-U0-G5	13,579	122	B2-U0-G4	
	4M		14,089	127	B1-U0-G3	14,501	131	B1-U0-G3	14,572	131	B1-U0-G3	
	4F		13,392	121	B1-U0-G5	13,784	124	B2-U0-G5	13,851	125	B1-U0-G5	
	4W		12,269	111	B1-U0-G4	12,628	114	B1-U0-G4	12,689	114	B1-U0-G4	
	FTM		13,509	122	B1-U0-G3	13,905	125	B1-U0-G3	13,972	126	B1-U0-G3	
	50N		15,365	138	B3-U0-G2	15,814	143	B3-U0-G2	15,891	143	B3-U0-G2	
	50M		15,661	141	B4-U0-G2	16,119	145	B4-U0-G2	16,198	146	B4-U0-G2	
	5Q		15,091	136	B4-U0-G2	15,532	140	B4-U0-G2	15,608	141	B4-U0-G2	
	50W		14,658	132	B4-U0-G2	15,087	136	B4-U0-G2	15,161	137	B4-U0-G2	
	AM		15,066	136	B1-U0-G2	15,507	140	B1-U0-G2	15,582	140	B1-U0-G2	
	WF		15,549	140	B3-U0-G1	16,004	144	B3-U0-G1	16,082	145	B3-U0-G1	
	LC/RC		12,685	114	B2-U0-G4	13,057	118	B2-U0-G4	13,120	118	B2-U0-G4	
21L	2	80	16,649	128	B2-U0-G4	17,136	131	B2-U0-G4	17,219	132	B2-U0-G4	130
	3M		15,877	122	B2-U0-G3	16,342	125	B2-U0-G4	16,422	126	B2-U0-G3	
	3W		15,047	115	B2-U0-G5	15,488	119	B2-U0-G5	15,563	119	B2-U0-G5	
	4M		16,147	124	B1-U0-G4	16,620	128	B1-U0-G4	16,701	128	B1-U0-G4	
	4F		15,348	118	B2-U0-G5	15,797	121	B2-U0-G5	15,874	122	B2-U0-G5	
	4W		14,061	108	B2-U0-G4	14,473	111	B2-U0-G4	14,543	112	B2-U0-G4	
	FTM		15,483	119	B1-U0-G3	15,936	122	B1-U0-G3	16,014	123	B1-U0-G3	
	50N		17,609	135	B3-U0-G2	18,125	139	B3-U0-G2	18,213	140	B3-U0-G2	
	50M		17,949	138	B4-U0-G2	18,474	142	B4-U0-G2	18,564	142	B4-U0-G2	
	5Q		17,295	133	B4-U0-G2	17,801	137	B4-U0-G2	17,888	137	B4-U0-G2	
	50W		16,800	129	B5-U0-G3	17,291	133	B5-U0-G3	17,376	133	B5-U0-G3	
	AM		17,267	133	B1-U0-G2	17,772	136	B1-U0-G2	17,859	137	B1-U0-G2	
	WF		17,821	137	B4-U0-G1	18,343	141	B4-U0-G1	18,432	141	B4-U0-G1	
	LC/RC		14,539	112	B2-U0-G4	14,964	115	B2-U0-G4	15,037	115	B2-U0-G4	

V-Locity® Small (VALS) Outdoor LED Area Light

Type : _____

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Delivered Lumens (80 CRI)									
Lumen Package	Distribution	CRI	4000K CCT / 80 CRI			5000K CCT / 80 CRI			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
15L	2	80	12,937	143	B2-U0-G4	13,212	146	B2-U0-G4	91
	3M		12,337	136	B1-U0-G3	12,600	139	B1-U0-G3	
	3W		11,692	129	B2-U0-G4	11,941	132	B2-U0-G4	
	4M		12,547	138	B1-U0-G3	12,814	141	B1-U0-G3	
	4F		11,926	132	B1-U0-G4	12,180	134	B1-U0-G4	
	4W		10,926	121	B1-U0-G4	11,158	123	B1-U0-G4	
	FTM		12,031	133	B1-U0-G3	12,287	136	B1-U0-G3	
	5QN		13,683	151	B3-U0-G1	13,974	154	B3-U0-G1	
	5QM		13,947	154	B4-U0-G2	14,244	157	B4-U0-G2	
	5Q		13,439	148	B4-U0-G2	13,725	151	B4-U0-G2	
	5QW		13,054	144	B4-U0-G2	13,332	147	B4-U0-G2	
	AM		13,417	148	B1-U0-G2	13,702	151	B1-U0-G2	
	WF		13,848	153	B3-U0-G1	14,142	156	B3-U0-G1	
	LC/RC		11,297	125	B2-U0-G4	11,537	127	B2-U0-G4	
18L	2	80	15,656	141	B2-U0-G4	15,988	144	B2-U0-G4	111
	3M		14,930	135	B1-U0-G3	15,248	137	B1-U0-G3	
	3W		14,150	128	B2-U0-G5	14,451	130	B2-U0-G5	
	4M		15,184	137	B1-U0-G4	15,507	140	B1-U0-G4	
	4F		14,433	130	B2-U0-G5	14,740	133	B2-U0-G5	
	4W		13,222	119	B1-U0-G4	13,503	122	B1-U0-G4	
	FTM		14,559	131	B1-U0-G3	14,869	134	B1-U0-G3	
	5QN		16,559	149	B3-U0-G2	16,911	152	B3-U0-G2	
	5QM		16,878	152	B4-U0-G2	17,237	155	B4-U0-G2	
	5Q		16,264	147	B4-U0-G2	16,609	150	B4-U0-G2	
	5QW		15,798	142	B4-U0-G3	16,133	145	B4-U0-G3	
	AM		16,237	146	B1-U0-G2	16,582	149	B1-U0-G2	
	WF		16,758	151	B4-U0-G1	17,114	154	B4-U0-G1	
	LC/RC		13,672	123	B2-U0-G4	13,962	126	B2-U0-G4	
21L	2	80	17,943	138	B3-U0-G4	18,324	141	B3-U0-G4	130
	3M		17,112	131	B2-U0-G4	17,475	134	B2-U0-G4	
	3W		16,217	124	B2-U0-G5	16,562	127	B2-U0-G5	
	4M		17,402	134	B1-U0-G4	17,772	136	B1-U0-G4	
	4F		16,541	127	B2-U0-G5	16,893	130	B2-U0-G5	
	4W		15,154	116	B2-U0-G4	15,476	119	B2-U0-G4	
	FTM		16,686	128	B1-U0-G3	17,041	131	B1-U0-G3	
	5QN		18,978	146	B3-U0-G2	19,381	149	B3-U0-G2	
	5QM		19,344	148	B4-U0-G2	19,755	152	B4-U0-G2	
	5Q		18,639	143	B4-U0-G2	19,036	146	B4-U0-G2	
	5QW		18,106	139	B5-U0-G3	18,490	142	B5-U0-G3	
	AM		18,609	143	B1-U0-G2	19,005	146	B1-U0-G2	
	WF		19,206	147	B4-U0-G1	19,615	151	B4-U0-G1	
	LC/RC		15,669	120	B2-U0-G4	16,002	123	B2-U0-G4	

V-Locity® Small (VALS) Outdoor LED Area Light

Type : _____

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Delivered Lumens (80 CRI)												
Lumen Package	Distribution	CRI	2700K CCT / 80 CRI			3000K CCT / 80 CRI			3500K CCT / 80 CRI			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
24L	2	80	19,223	124	B3-U0-G5	19,785	127	B3-U0-G5	19,882	128	B3-U0-G5	155
	3M		18,332	118	B2-U0-G4	18,869	122	B2-U0-G4	18,961	122	B2-U0-G4	
	3W		17,374	112	B3-U0-G5	17,882	115	B3-U0-G5	17,970	116	B3-U0-G5	
	4M		18,644	120	B1-U0-G4	19,189	124	B1-U0-G4	19,283	124	B1-U0-G4	
	4F		17,721	114	B2-U0-G5	18,240	117	B2-U0-G5	18,329	118	B2-U0-G5	
	4W		16,235	105	B2-U0-G5	16,710	108	B2-U0-G5	16,792	108	B2-U0-G5	
	FTM		17,877	115	B1-U0-G3	18,400	119	B1-U0-G3	18,489	119	B1-U0-G3	
	5QN		20,332	131	B4-U0-G2	20,927	135	B4-U0-G2	21,029	135	B4-U0-G2	
	5QM		20,724	133	B4-U0-G2	21,331	137	B5-U0-G3	21,435	138	B5-U0-G3	
	5Q		19,969	129	B5-U0-G3	20,554	132	B5-U0-G3	20,654	133	B5-U0-G3	
	5QW		19,397	125	B5-U0-G3	19,965	129	B5-U0-G3	20,062	129	B5-U0-G3	
	AM		19,936	128	B1-U0-G2	20,520	132	B1-U0-G2	20,620	133	B1-U0-G2	
	WF		20,576	133	B4-U0-G1	21,178	136	B4-U0-G1	21,282	137	B4-U0-G1	
	LC/RC		16,787	108	B2-U0-G5	17,278	111	B3-U0-G5	17,362	112	B3-U0-G5	
27L	2	80	21,455	121	B3-U0-G5	22,083	124	B3-U0-G5	22,191	125	B3-U0-G5	178
	3M		20,461	116	B2-U0-G4	21,060	119	B2-U0-G4	21,163	120	B2-U0-G4	
	3W		19,392	110	B3-U0-G5	19,959	113	B3-U0-G5	20,057	113	B3-U0-G5	
	4M		20,809	117	B1-U0-G4	21,418	121	B1-U0-G4	21,522	121	B1-U0-G4	
	4F		19,779	111	B2-U0-G5	20,358	115	B2-U0-G5	20,458	115	B2-U0-G5	
	4W		18,121	103	B2-U0-G5	18,651	106	B2-U0-G5	18,742	106	B2-U0-G5	
	FTM		19,953	113	B1-U0-G4	20,537	116	B1-U0-G4	20,637	117	B1-U0-G4	
	5QN		22,693	128	B4-U0-G2	23,357	132	B4-U0-G2	23,471	133	B4-U0-G2	
	5QM		23,131	130	B5-U0-G3	23,808	134	B5-U0-G3	23,924	135	B5-U0-G3	
	5Q		22,288	126	B5-U0-G3	22,941	130	B5-U0-G3	23,053	130	B5-U0-G3	
	5QW		21,650	122	B5-U0-G3	22,284	126	B5-U0-G3	22,392	127	B5-U0-G3	
	AM		22,252	126	B1-U0-G2	22,903	130	B1-U0-G2	23,015	130	B1-U0-G2	
	WF		22,966	129	B4-U0-G1	23,638	133	B4-U0-G1	23,753	134	B4-U0-G1	
	LC/RC		18,736	106	B3-U0-G5	19,285	109	B3-U0-G5	19,379	110	B3-U0-G5	

V-Locity® Small (VALS) Outdoor LED Area Light

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Delivered Lumens (80 CRI)									
Lumen Package	Distribution	CRI	4000K CCT / 80 CRI			5000K CCT / 80 CRI			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
24L	2	80	20,717	133	B3-U0-G5	21,157	136	B3-U0-G5	155
	3M		19,757	127	B2-U0-G4	20,177	130	B2-U0-G4	
	3W		18,724	121	B3-U0-G5	19,122	123	B3-U0-G5	
	4M		20,093	129	B1-U0-G4	20,520	132	B1-U0-G4	
	4F		19,099	123	B2-U0-G5	19,505	126	B2-U0-G5	
	4W		17,497	113	B2-U0-G5	17,869	115	B2-U0-G5	
	FTM		19,266	124	B1-U0-G3	19,676	127	B1-U0-G3	
	5QN		21,912	141	B4-U0-G2	22,378	144	B4-U0-G2	
	5QM		22,335	144	B5-U0-G3	22,810	147	B5-U0-G3	
	5Q		21,521	139	B5-U0-G3	21,979	142	B5-U0-G3	
	5QW		20,905	135	B5-U0-G3	21,349	138	B5-U0-G3	
	AM		21,486	138	B1-U0-G2	21,943	141	B1-U0-G2	
	WF		22,176	143	B4-U0-G1	22,647	146	B4-U0-G1	
	LC/RC		18,091	117	B3-U0-G5	18,476	119	B3-U0-G5	
27L	2	80	23,123	130	B3-U0-G5	23,615	133	B3-U0-G5	178
	3M		22,052	125	B2-U0-G4	22,521	127	B2-U0-G4	
	3W		20,899	118	B3-U0-G5	21,343	121	B3-U0-G5	
	4M		22,427	126	B1-U0-G5	22,903	129	B1-U0-G5	
	4F		21,317	120	B2-U0-G5	21,770	123	B2-U0-G5	
	4W		19,529	111	B2-U0-G5	19,944	113	B2-U0-G5	
	FTM		21,504	122	B1-U0-G4	21,961	124	B1-U0-G4	
	5QN		24,457	138	B4-U0-G2	24,977	141	B4-U0-G2	
	5QM		24,929	140	B5-U0-G3	25,459	143	B5-U0-G3	
	5Q		24,021	136	B5-U0-G3	24,532	138	B5-U0-G3	
	5QW		23,333	132	B5-U0-G3	23,829	135	B5-U0-G3	
	AM		23,982	136	B1-U0-G2	24,491	138	B1-U0-G2	
	WF		24,751	139	B4-U0-G1	25,277	142	B4-U0-G1	
	LC/RC		20,193	115	B3-U0-G5	20,622	117	B3-U0-G5	

Electrical Data (Amps) ¹							
Lumen Package	120V	208V	240V	277V	347V	480V	Wattage
6L	0.30	0.17	0.15	0.13	0.10	0.08	36
9L	0.45	0.26	0.23	0.19	0.16	0.11	54
12L	0.62	0.36	0.31	0.27	0.21	0.15	74
15L	0.76	0.44	0.38	0.33	0.26	0.19	91
18L	0.93	0.53	0.46	0.40	0.32	0.23	111
21L	1.08	0.63	0.54	0.47	0.37	0.27	130
24L	1.29	0.75	0.65	0.56	0.45	0.32	155
27L	1.46	0.84	0.73	0.63	0.50	0.36	175

Recommended Lumen Maintenance					
Ambient Temp	Lumen Multiplier				
	0 hrs. ²	25K hrs. ²	50K hrs. ²	75K hrs. ³	100K hrs. ³
C					
50 C	100%	94%	88%	83%	78%

1 Lumen maintenance values at 40C are calculated per TM-21 based on LM-80 data and in-situ testing.
2 In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times the IESNA LM-80-08 total test duration for the device under testing.
3 In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times the IESNA LM-80-08 total test duration for the device under testing.

V-Locity® Small (VALS) Outdoor LED Area Light

Type : _____

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PHOTOMETRICS

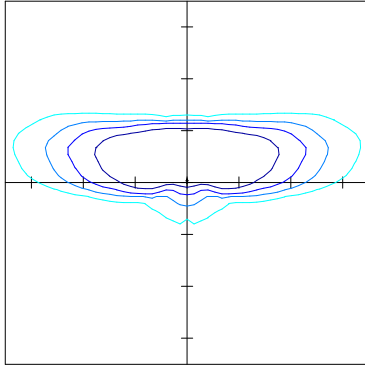
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Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

See the individual product page on <https://www.lsicorp.com/> for detailed photometric data.

VALS 18L 2 40K8

V-LOCITY Area Small, 18,000lm,
Type 2 Distribution

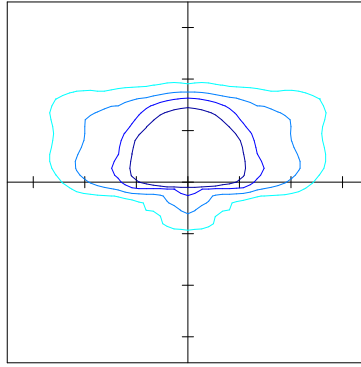


20' Mounting Height / 30' Grid Spacing
■ 2 FC ■ 1 FC ■ 0.5 FC ■ 0.2 FC

Shielding	No Shield	W/Shield
IES Type	III Medium	III Medium
BUG Rating	B2-U0-G4	B1-U0-G3
Street Side Lumen %	87.3%	96.1%
House Side Lumen %	12.7%	3.9%
Uplight %	0.0%	0.0%

VALS 18L 3M 40K8

V-LOCITY Area Small, 18,000lm, Type 3
Medium Distribution

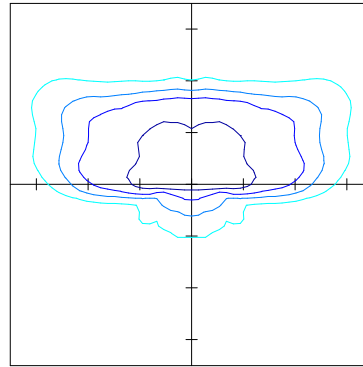


20' Mounting Height / 30' Grid Spacing
■ 2 FC ■ 1 FC ■ 0.5 FC ■ 0.2 FC

Shielding	No Shield	W/Shield
IES Type	III Very Short	III Very Short
BUG Rating	B1-U0-G3	B1-U0-G3
Street Side Lumen %	93.4%	97.2%
House Side Lumen %	8.6%	2.8%
Uplight %	0.0%	0.0%

VALS 18L 3W 40K8

V-LOCITY Area Small, 18,000lm, Type 3 Wide
Distribution

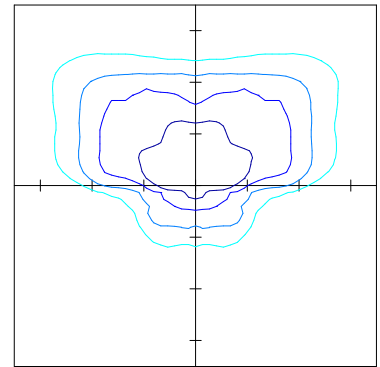


20' Mounting Height / 30' Grid Spacing
■ 2 FC ■ 1 FC ■ 0.5 FC ■ 0.2 FC

Shielding	No Shield	W/Shield
IES Type	IV Medium	IV Medium
BUG Rating	B2-U0-G5	B1-U0-G4
Street Side Lumen %	86.9%	94.0%
House Side Lumen %	13.1%	6.0%
Uplight %	0.0%	0.0%

VALS 18L 4W 40K8

V-LOCITY Area Small, 18,000lm, Type 4
Wide Distribution

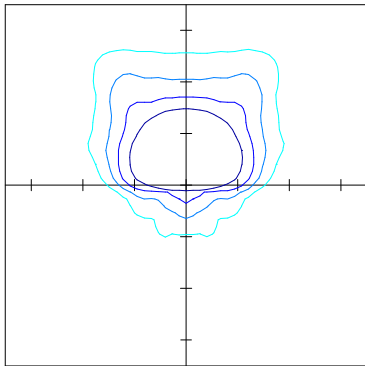


20' Mounting Height / 30' Grid Spacing
■ 2 FC ■ 1 FC ■ 0.5 FC ■ 0.2 FC

Shielding	No Shield	W/Shield
IES Type	IV Medium	IV Medium
BUG Rating	B1-U0-G4	B0-U0-G3
Street Side Lumen %	89.9%	94.0%
House Side Lumen %	10.1%	3.5%
Uplight %	0.0%	0.0%

VALS 18L 4M 40K8

V-LOCITY Area Small, 18,000lm, Type 4
Medium Distribution

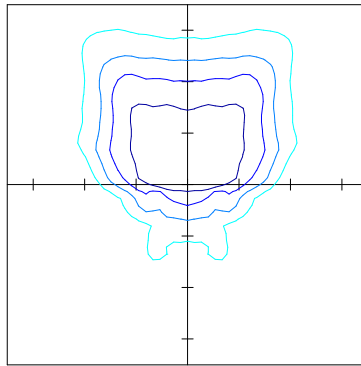


20' Mounting Height / 30' Grid Spacing
■ 2 FC ■ 1 FC ■ 0.5 FC ■ 0.2 FC

Shielding	No Shield	W/Shield
IES Type	IV Very Short	III Very Short
BUG Rating	B1-U0-G4	B0-U0-G2
Street Side Lumen %	92.9%	99.0%
House Side Lumen %	7.1%	1.0%
Uplight %	0.0%	0.0%

VALS 18L 4F 40K8

V-LOCITY Area Small, 18,000lm, Type 4
Forward Distribution

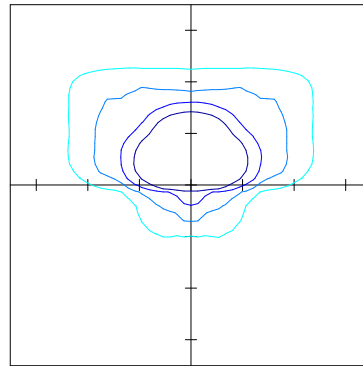


20' Mounting Height / 30' Grid Spacing
■ 2 FC ■ 1 FC ■ 0.5 FC ■ 0.2 FC

Shielding	No Shield	W/Shield
IES Type	IV Short	IV Short
BUG Rating	B2-U0-G5	B0-U0-G3
Street Side Lumen %	89.7%	98.3%
House Side Lumen %	10.3%	1.7%
Uplight %	0.0%	0.0%

VALS 18L FTM 40K8

V-LOCITY Area Small, 18,000lm, Forward
Throw Medium Distribution

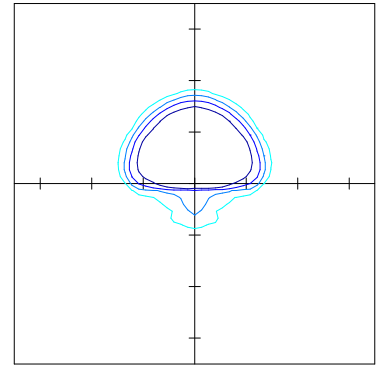


20' Mounting Height / 30' Grid Spacing
■ 2 FC ■ 1 FC ■ 0.5 FC ■ 0.2 FC

Shielding	No Shield	W/Shield
IES Type	III Very Short	III Very Short
BUG Rating	B1-U0-G3	B0-U0-G3
Street Side Lumen %	93.0%	98.4%
House Side Lumen %	7.0%	1.6%
Uplight %	0.0%	0.0%

VALS 18L AM 40K8

V-LOCITY Area Small, 18,000lm, Automotive
Merchandise Distribution



20' Mounting Height / 30' Grid Spacing
■ 2 FC ■ 1 FC ■ 0.5 FC ■ 0.2 FC

Shielding	No Shield	W/Shield
IES Type	III Very Short	III Very Short
BUG Rating	B1-U0-G2	B0-U0-G2
Street Side Lumen %	95.3%	99.3%
House Side Lumen %	4.7%	0.7%
Uplight %	0.0%	0.0%

V-Locity® Small (VALS) Outdoor LED Area Light

Type : _____

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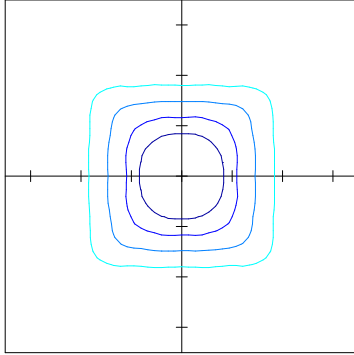
PHOTOMETRICS (CONTINUED)

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

See the individual product page on <https://www.lsicorp.com/> for detailed photometric data.

VALS 18L 5QN 40K8

V-LOCITY Area Small, 18,000lm, Type 5
Square Narrow Distribution

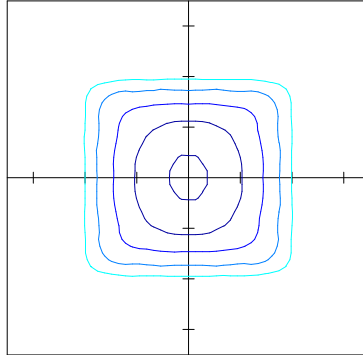


20' Mounting Height / 30' Grid Spacing
■ 2 FC ■ 1 FC ■ 0.5 FC ■ 0.2 FC

IES Type	VS Very Short
BUG Rating	B3-U0-G2
0 - 60° Zonal Lumens	73.8%
60 - 90° Zonal Lumens	26.2%
Uplight %	0.0%

VALS 18L 5QM 40K8

V-LOCITY Area Small, 18,000lm, Type 5
Square Medium Distribution

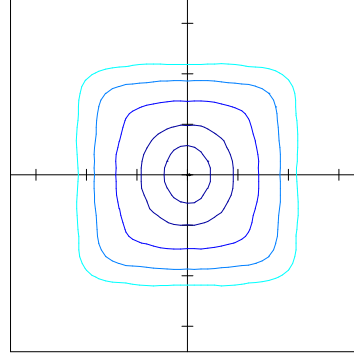


20' Mounting Height / 30' Grid Spacing
■ 2 FC ■ 1 FC ■ 0.5 FC ■ 0.2 FC

IES Type	VS Short
BUG Rating	B4-U0-G2
0 - 60° Zonal Lumens	51.0%
60 - 90° Zonal Lumens	49.0%
Uplight %	0.0%

VALS 18L 5Q 40K8

V-LOCITY Area Small, 18,000lm, Type 5
Square Distribution

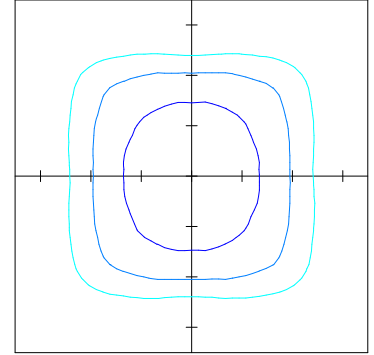


20' Mounting Height / 30' Grid Spacing
■ 2 FC ■ 1 FC ■ 0.5 FC ■ 0.2 FC

IES Type	VS Medium
BUG Rating	B5-U0-G3
0 - 60° Zonal Lumens	41.8%
60 - 90° Zonal Lumens	58.2%
Uplight %	0.0%

VALS 18L 5QW 40K8

V-LOCITY Area Small, 18,000lm, Type 5
Square Wide Distribution

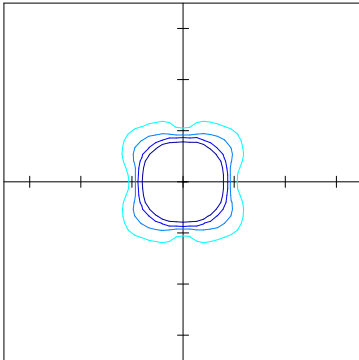


20' Mounting Height / 30' Grid Spacing
■ 2 FC ■ 1 FC ■ 0.5 FC ■ 0.2 FC

IES Type	VS Medium
BUG Rating	B5-U0-G3
0 - 60° Zonal Lumens	33.7%
60 - 90° Zonal Lumens	66.3%
Uplight %	0.0%

VALS 18L WF 40K8

V-LOCITY Area Small, 18,000lm, Wide Flood
Distribution

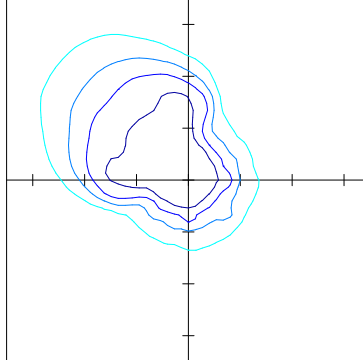


20' Mounting Height / 30' Grid Spacing
■ 2 FC ■ 1 FC ■ 0.5 FC ■ 0.2 FC

NEMA Type	6x6
Max Candela	9,352
Max Candela Angle	-19.5H x -29V
Beam Angle	80.7 x 90.0°
Field Angle	109.9 x 117.7°

VALS 18L LC 40K8

V-LOCITY Area Small, 18,000lm, Left Corner
Distribution

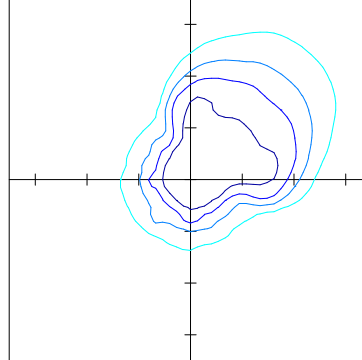


20' Mounting Height / 30' Grid Spacing
■ 2 FC ■ 1 FC ■ 0.5 FC ■ 0.2 FC

Shielding	No Shield	W/Shield
IES Type	N/A	N/A
BUG Rating	B2-U0-G4	B1-U0-G3
Street Side Lumen %	75.9%	91.9%
House Side Lumen %	24.1%	8.1%
Uplight %	0.0%	0.0%

VALS 18L RC 40K8

V-LOCITY Area Small, 18,000lm, Right Corner
Distribution



20' Mounting Height / 30' Grid Spacing
■ 2 FC ■ 1 FC ■ 0.5 FC ■ 0.2 FC

Shielding	No Shield	W/Shield
IES Type	N/A	N/A
BUG Rating	B2-U0-G4	B1-U0-G3
Street Side Lumen %	75.9%	91.9%
House Side Lumen %	24.1%	8.1%
Uplight %	0.0%	0.0%

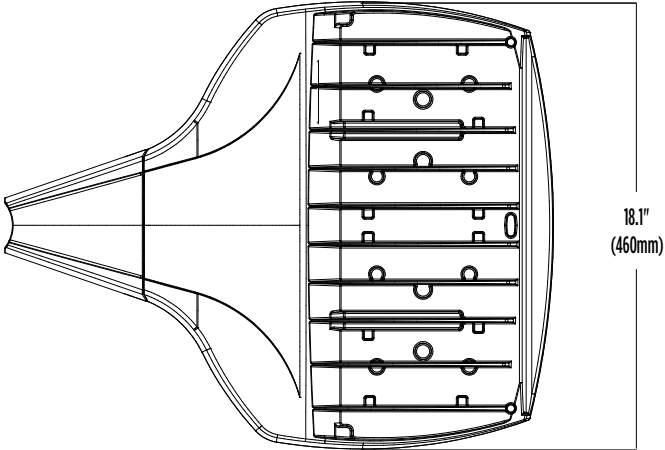
V-Locity® Small (VALS) Outdoor LED Area Light

Type : _____

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PRODUCT DIMENSIONS

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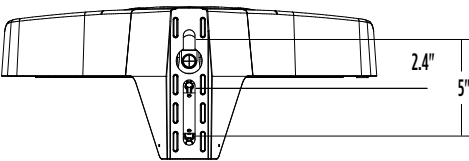
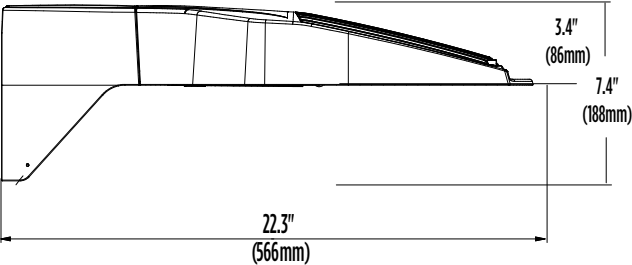
Luminaire EPA Chart - SA Side Arm		
Tilt Degree		0°
	Single	0.7
	D180°	1.3
	D90°	1.0
	T90°	1.4
	TN120°	1.5
	Q90°	1.4

Luminaire EPA Chart - UA Universal Adjustable Arm						
Tilt Degree		0°	15°	30°	45°	60°
	Single	0.8	0.8	1.3	1.8	2.1
	D180°	1.5	1.9	2.5	3.2	3.8
	D90°	1.5	1.9	2.5	3.2	3.8
	T90°	1.8	2.1	2.7	3.2	3.8
	TN120°	1.8	2.3	3.4	4.3	5.0
	Q90°	1.8	2.1	2.7	3.2	3.8

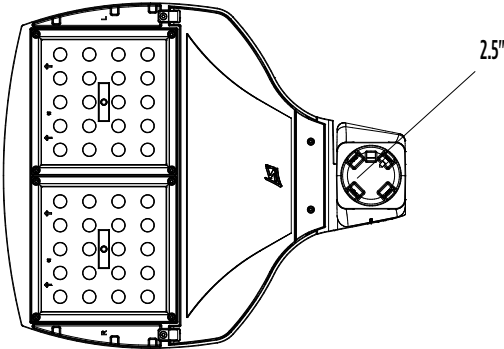
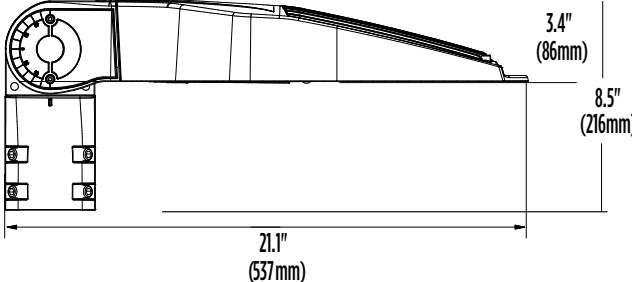
Luminaire EPA Chart - MA Mast Arm		
Tilt Degree		0°
	Single	0.5

Luminaire EPA Chart - SF Adjustable Slip Fitter						
Tilt Degree		0°	15°	30°	45°	60°
	Single	0.7	1.3	1.4	1.8	2.2

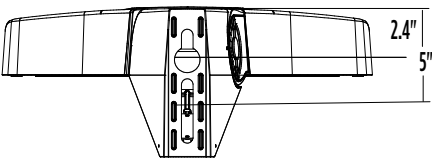
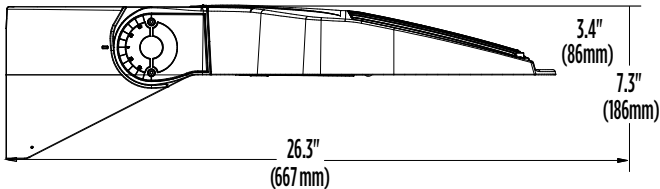
SA Universal Side Arm Mount



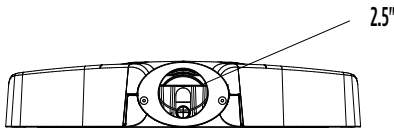
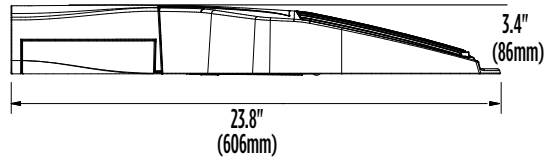
SF Adjustable Slipfitter



UA Universal Adjustable Arm



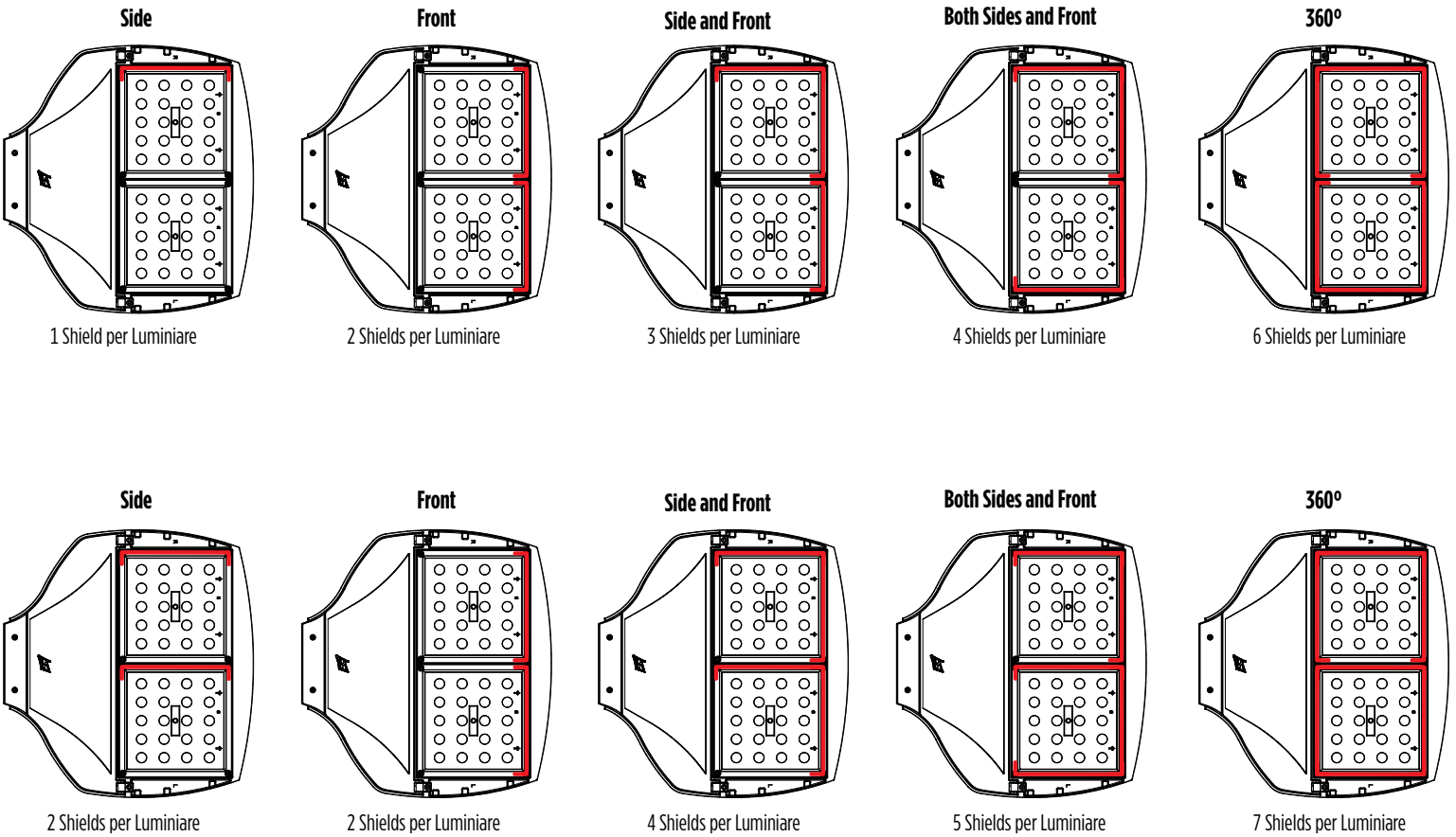
MA Mast Arm



EXTERNAL SHIELDING

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Field installable external shields are available in 1.5" and 3" depths for blocking visibility of the light source from any side of the luminaire (consult factory for custom shield sizes). For "house side" shielding we recommend using the integral shield option which provides effective spill light control and also block visibility of the light source behind the luminaire. Due to the highly configurable nature of this product, IES files are not available for any external shield accessory configuration.



CONTROLS

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Integral Bluetooth™ Motion and Photocell Sensor (IMSBTxL)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is IP66 rated for cold and wet locations (-40°F to 167°F). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

Click here to learn more details about IMSBT



LEVITON App



Apple



Android

AirLink Blue (ALBMRxLR, ALBCSx)

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/ Site, Wall Mounted, Parking Garage and Canopy luminaires.

Click here to learn more details about AirLink Blue



AirLink Blue App



Apple

Sensor Sequence of Operations

Standard Programming	On Event	Off Event	On Light Level	Dim Light Level	Daylight Harvesting	Delay To Off	Sensitivity
OMSBTxL/IMSBTxL	Motion	No Motion	100%	N/A	On; Auto Calibration	20 minutes	High
OMS	Motion	No Motion	N/A	N/A	N/A	30 seconds	Auto

Operation	Description
On Event	Trigger that activates lights to turn on; either automatic via motion detected or manually activated via push of button.
Off Event	Trigger that activates lights to turn off; either automatic via no motion detected or manually activated via push of button.
On Light Level	The light level that the fixtures will turn on to when ON EVENT occurs.
Dim Light Level	The light level that the fixtures will dim down to when no motion is detected.
Delay to Dim	The amount of time after which no motion is detected that the fixtures will be triggered to dim down. This sequence is optional, and sensor can be programmed to only trigger the fixture to turn off by entering 100% in this field.
Delay to Off	The amount of time after which no motion is detected that the fixtures will be triggered to turn off. If delay to dim is part of the programmed functionality, this is the amount of time after which no motion is detected after the fixture have already dimmed down.
Sensitivity	The sensitivity can be set to high, medium, low, or auto where applicable. High will detect smaller, simple motions. Low will only detect larger more complex motions. Auto temperature calibration adjusts the PIR sensitivity as ambient temperature rises to increase detection of heat movement through the field of view.



Mirada Small Silicone (XWS SIL)

Outdoor Wall Sconce



OVERVIEW

Lumen Package (lm)	1,000 - 8,000
Wattage Range (W)	10 - 61
Efficacy Range (LPW)	126 - 162
Weight lbs (kg)	10 (4.5)
Control Options	IMSBT, ALB, ALS, PCI

QUICK LINKS

[Ordering Guide](#)[Performance](#)[Photometrics](#)[Dimensions](#)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Extended housing available with 1/2" threaded hubs for surface conduit and rated wire.
- Standard luminaire shipping weight: TBD lbs in carton.
- Max luminaire shipping weight: 12 lbs in carton (20 lbs w/EH option)

Optical System

- State-of-the-Art one piece silicone optic provides industry leading optical control while also acting as an integrated gasket reducing system complexity and improving fixture reliability.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in distribution types 2, 3, and FT.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- **Zero uplight.**
- 5000K, 4000K, 3500K, 3000K, and 2700K color temperatures per ANSI C78.377. Also available in Phosphor Converted Amber with peak intensity at 610nm.
- 70 or 80CRI Minimum.

Electrical

- High-performance programmable driver features over-voltage, under-voltage, short circuit and over temperature protection. Custom lumen and wattage packages available.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 VAC)

Input 50/60 Hz or optional High Voltage (347-480 VAC).

- L80 Calculated Life: >100k Hours
- Total harmonic distortion (THD): <20%
- 3L to 12L operating temperature: -40°C to +50°C (-40°F to +122°F)
- 15L operating temperature: -40°C to +45°C (-40°F to +113°F).
- 18L operating temperature: -40°C to +40°C (-40°F to +104°F).
- 21L operating temperature: -40°C to +35°C (-40°F to + 95°F).
- Power factor (PF): >.90
- Input power stays constant over life.
- Optional 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed via hinged door.
- Optional integral emergency battery pack provides 90-minutes of constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance. The fixture delivers 1500 lumens during emergency mode.

Controls

- Integral passive infrared Bluetooth™ motion sensor options. Fixtures operate independently and can be commissioned via an iOS or Android configuration app. Updates and modifications to the control strategy are easily implemented via an intuitive app.
- The ALBMRxLR utilizing an external antenna for long range communications allows for Bluetooth Mesh wireless up to

100' from node to node. Ensures reliable wireless communications for applications where only wall-mount fixture product is being utilized.

Installation

- Universal wall mounting plate easily mounts directly to 4" octagonal or square junction box.
- 2 fasteners secure the hinged door underneath the housing and provide quick & easy access to the electrical compartment for installing/servicing.
- Optional terminal block accepts up to 12 ga wire.

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsicorp.com/resources/terms-conditions-warranty/> for more information.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- **IDA compliant; with 3000K color temperature selection.**
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP65 rated luminaire per IEC 60598-1.
- 3G rated for ANSI C136.31 high vibration applications when pole mounted (using optional XPMa bracket) or wall mounted.
- IK08 rated luminaire per IEC 66262 mechanical impact code.
- DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

Mirada Small Silicone (XWS SIL)

Type : _____

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ORDERING GUIDE

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TYPICAL ORDER EXAMPLE: XWS LED 6L SIL FT UNV DIM 40 70CRI ALBCS1 BLK CWBB						
Prefix	Light Source	Lumen Package	Lens	Distribution	Voltage	Driver
XWS - Mirada Small Wall Sconce	LED	1L - 1,000 (10w) UNV Only 2L - 2,000 (15w) 3L - 3,000 (26w) 5L - 5,000 (39w) 6L - 6,000 (52w) 8L - 8,000 (63w) Custom Lumen Packages¹	SIL - Silicone	2 - Type 2 3 - Type 3 FT - Forward Throw	UNV - Universal Voltage (120-277V) HV - High Voltage (347-480V)	DIM - 0-10v Dimming (0-10%)
Color Temperature	Color Rendering	Controls		Finish	Options	
50 - 5,000 CCT 40 - 4,000 CCT 35 - 3,500 CCT (80 CRI only) 30 - 3,000 CCT 27 - 2,700 CCT (80 CRI only)	70CRI - 70 CRI 80CRI - 80 CRI	Blank - None <u>Wireless Controls</u> ALBMR1LR - AirLink Blue Wireless Motion & Photo Sensor Controller (8-15' mounting height)² ALBMR2LR - AirLink Blue Wireless Motion & Photo Sensor Controller (16 - 40' mounting height)² <u>Standalone Controls</u> EXT - 0-10v Dimming leads extended to housing exterior IMSBT1L - Integral Bluetooth™ Motion Sensor 8-24' MH²³ <u>Button Type Photocells</u> PCI120 - 120V PCI208-277 - 208 -277V PCI347 - 347V		BLK - Black BRZ - Dark Bronze GMG - Gun Metal Gray GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus SVG - Satin Verde Green WHT - White	Blank - None BB - 10w Battery Back-up (0°C)⁴ CWBB - 10w Cold Weather Battery Backup (-20°C)⁴ BB20 - 20W Battery Back-up (0°C)⁴ EH - Extended Housing⁵ SP1 - 10kV Surge Protection Device	
Need more information? Click here for our glossary.				Have additional questions? Call us at (800) 436-7800 		



Need more information?
[Click here for our glossary](#)

Have additional questions?
 Call us at (800) 436-7800



ACCESSORY ORDERING INFORMATION*

Part Number	Description
758274CLR	XWS Extended Housing/Surface Conduit Wiring Box
760159CLR	XWS Spacer Plate/Wiring Box

*Accessories are shipped separately and field installed.

Battery Backup

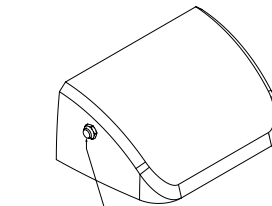
- Emergency battery system provides 90-minutes of constant power to the LED system, ensuring code compliance.
- A test switch/indicator button is installed on the housing for ease of maintenance.
- 10w battery delivers ~1,500 lumens during emergency mode.
- 20w battery delivers ~3,000 lumens during emergency mode.



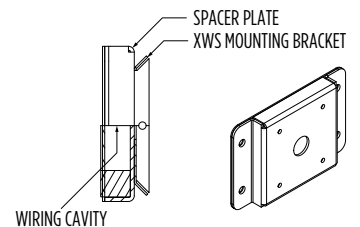
Luminaire shown with battery backup



AirLink Wireless Control Luminaire shown with ALBMR1LR



BUTTON PHOTOCELL
 LUMINAIRE SHOWN WITH PCI



1 Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.
 2 When high voltage (HV) is specified, IMSBT and ALBMRxLR control options are limited to 6L and 8L lumen packages.
 3 IMSBTxL is field configurable via the LSI app that can be downloaded from your smartphone's native app store.
 4 Universal Voltage Only (120-277V). 20W Battery Backup only available 1L - 6L.
 5 For applications with surface conduit.

PERFORMANCE

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Delivered Lumens ¹												
Lumen Package	Distribution	CRI	3000K CCT (70 CRI)			4000K CCT (70 CRI)			5000K CCT (70 CRI)			Wattage
			Delivered Lumens	Efficacy	Bug Rating	Delivered Lumens	Efficacy	Bug Rating	Delivered Lumens	Efficacy	Bug Rating	
1L	2	70	1,429	143	B1-U0-G1	1,524	152	B1-U0-G1	1,526	153	B1-U0-G1	10
	3		1,491	149	B0-U0-G1	1,590	159	B0-U0-G1	1,592	159	B0-U0-G1	
	FT		1,459	146	B0-U0-G1	1,556	156	B1-U0-G1	1,557	156	B1-U0-G1	
2L	2	70	1,851	142	B1-U0-G1	1,974	152	B1-U0-G1	1,976	152	B1-U0-G1	13
	3		1,930	148	B1-U0-G1	2,058	158	B1-U0-G1	2,060	158	B1-U0-G1	
	FT		1,889	145	B1-U0-G1	2,015	155	B1-U0-G1	2,017	155	B1-U0-G1	
3L	2	70	2,765	146	B1-U0-G1	2,950	155	B1-U0-G1	2,953	155	B1-U0-G1	19
	3		2,884	152	B1-U0-G1	3,077	162	B1-U0-G1	3,079	162	B1-U0-G1	
	FT		2,822	149	B1-U0-G1	3,010	158	B1-U0-G1	3,012	159	B1-U0-G1	
5L	2	70	4,655	133	B2-U0-G1	4,965	142	B2-U0-G1	4,970	142	B2-U0-G1	35
	3		4,855	139	B1-U0-G1	5,179	148	B1-U0-G1	5,184	148	B1-U0-G1	
	FT		4,750	136	B1-U0-G2	5,067	145	B1-U0-G2	5,072	145	B1-U0-G2	
6L	2	70	5,578	130	B2-U0-G1	5,950	138	B2-U0-G2	5,956	139	B2-U0-G2	43
	3		5,819	135	B1-U0-G2	6,207	144	B1-U0-G2	6,214	145	B1-U0-G2	
	FT		5,693	132	B1-U0-G2	6,073	141	B1-U0-G2	6,079	141	B1-U0-G2	
8L	2	70	7,531	123	B2-U0-G2	8,034	132	B2-U0-G2	8,041	132	B2-U0-G2	61
	3		7,856	129	B2-U0-G2	8,380	137	B2-U0-G2	8,388	138	B2-U0-G2	
	FT		7,687	126	B2-U0-G2	8,199	134	B2-U0-G2	8,207	135	B2-U0-G2	

LUMEN SCALING FACTOR		
70CRI - 80CRI	3000K 70CRI - 3500K 80CRI	3000K 70CRI - 2700K 80CRI
0.93	1.00	0.86

Electrical Data - Current Draw AMPS ²						
Lumen Package	120V	208V	240V	277V	347V	480V
1L	0.08	0.05	0.04	0.04	0.03	0.02
2L	0.11	0.06	0.05	0.05	0.04	0.03
3L	0.16	0.09	0.08	0.07	0.05	0.04
5L	0.29	0.17	0.15	0.13	0.10	0.07
6L	0.36	0.21	0.18	0.16	0.12	0.09
8L	0.51	0.29	0.25	0.22	0.18	0.13

Recommended Lumen Maintenance - XWS ³					
Ambient Temperature C°	Initial ⁴	25K hrs. ⁴	50K hrs. ⁴	75K hrs. ⁵	100K hrs. ⁵
25	100%	95%	90%	85%	80%
40	100%	91%	82%	73%	65%

1 1L not available in HV
2 1L not available with controls.
3 Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing.
4 In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).
5 In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times NA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).

Mirada Small Silicone (XWS SIL)

Type : _____

 Have questions? Call us at (800) 436-7800

PHOTOMETRICS

[Back to Quick Links](#)

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

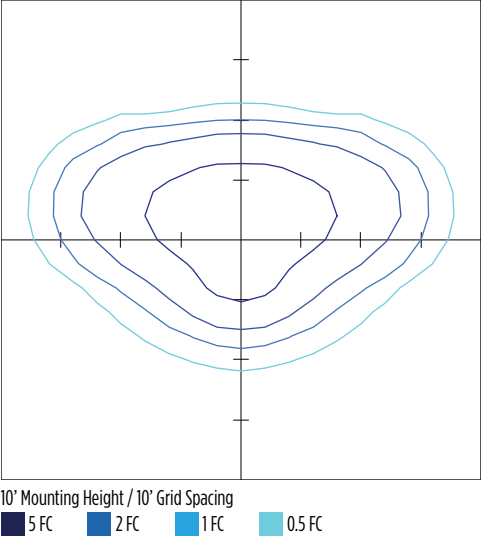
See the individual product page on <https://www.lsicorp.com/> for detailed photometric data.

XWS-LED-6L-SIL-2-40-70CRI

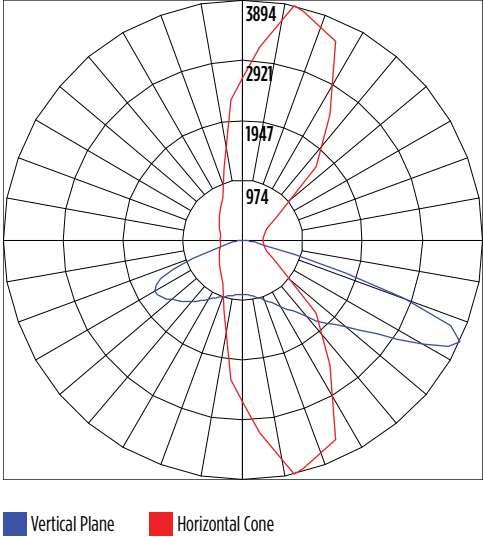
Luminaire Data	
Type 2 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	5,951
Watts	42.5
Efficacy	138
IES Type	Type II - Short
BUG Rating	B1-U0-G1

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	834	20%
Medium (30-60°)	3,379	50%
High (60-80°)	1,647	28%
Very High (80-90°)	91	1%
Uplight (90-180°)	0	0%
Total Flux	5,951	100%

ISO Footcandle



Polar Curve

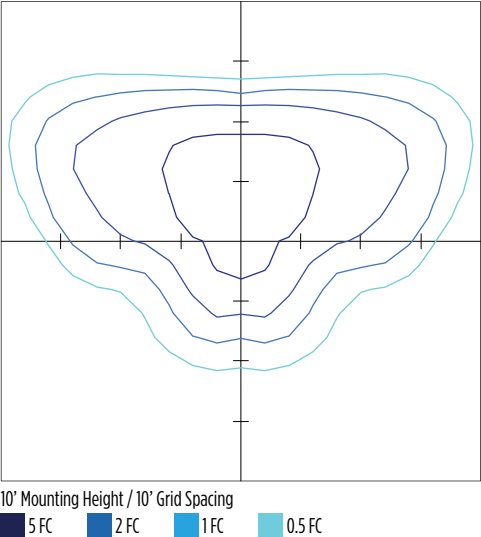


XWS-LED-6L-SIL-3-40-70CRI

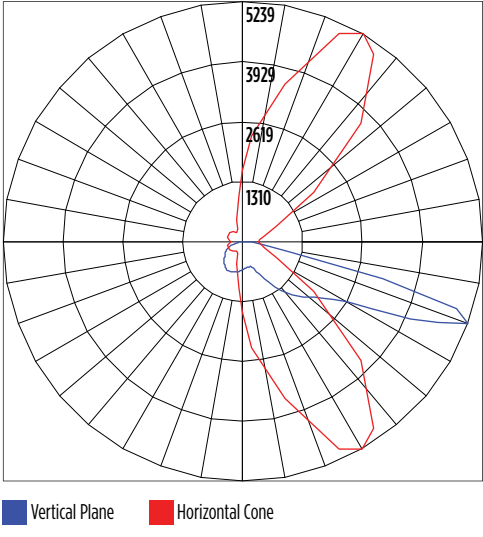
Luminaire Data	
Type 3 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	6,208
Watts	42.5
Efficacy	146
IES Type	Type III - Medium
BUG Rating	B1-U0-G2

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	582	9%
Medium (30-60°)	2,997	48%
High (60-80°)	2,506	40%
Very High (80-90°)	124	2%
Uplight (90-180°)	0	0%
Total Flux	6,208	100%

ISO Footcandle



Polar Curve



PHOTOMETRICS

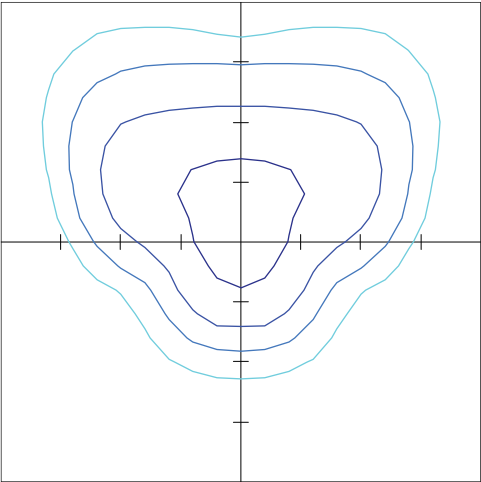
[Back to Quick Links](#)

XWS-LED-6L-SIL-FT-40-70CRI

Luminaire Data	
Type FT Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	6,073
Watts	42.5
Efficacy	143
IES Type	Type IV - Short
BUG Rating	B1-U0-G2

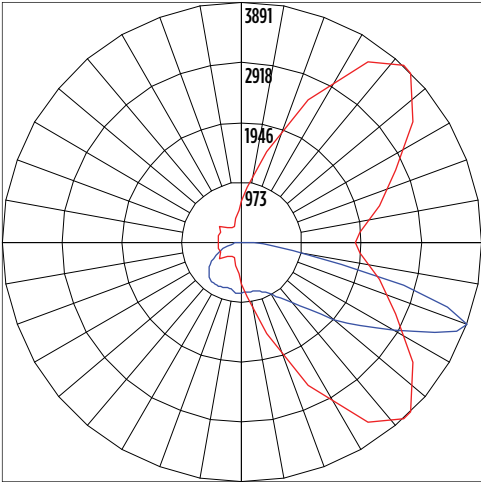
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	708.3	12%
Medium (30-60°)	2,715.5	45%
High (60-80°)	2,475.4	41%
Very High (80-90°)	173.6	3%
Uplight (90-180°)	0	0%
Total Flux	6,073	100%

ISO Footcandle



10' Mounting Height / 10' Grid Spacing
5 FC 2 FC 1 FC 0.5 FC

Polar Curve

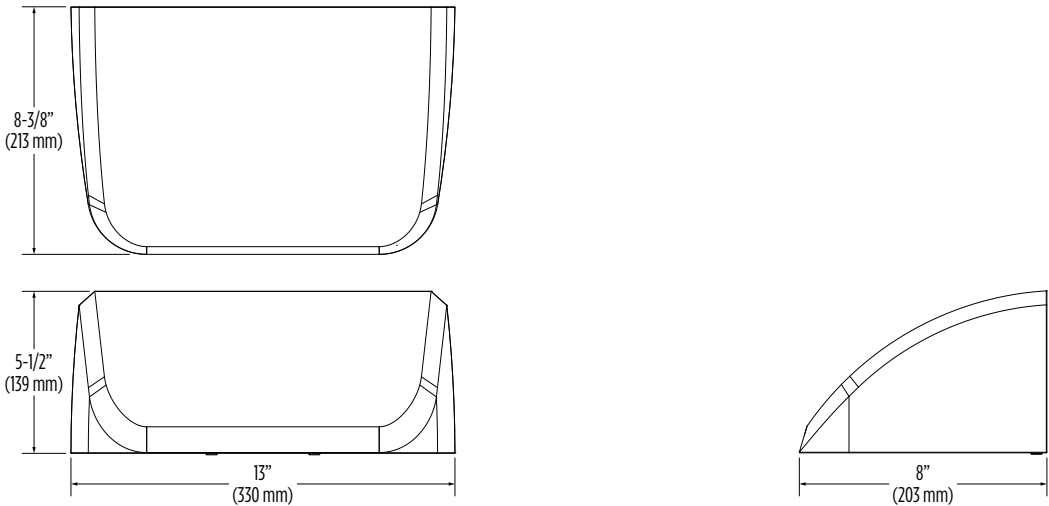


Vertical Plane Horizontal Cone

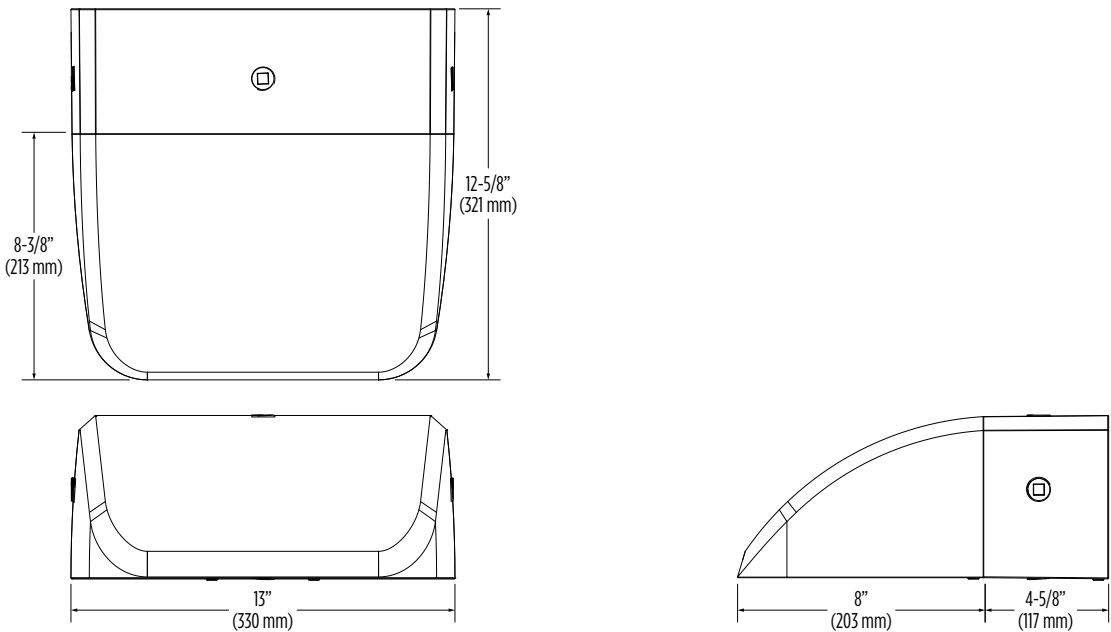
PRODUCT DIMENSIONS

[Back to Quick Links](#)

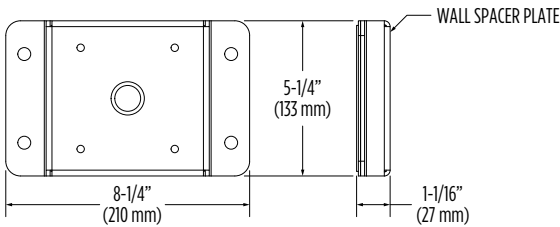
STANDARD HOUSING
(XWS)



SCWB EXTENDED HOUSING
(XWS 758274CLR)



XWS SPACER PLATE/WIRING BOX
(XWS 760159CLR)



NOTE: Wall spacer plate allows the luminaire to float off the wall and provides space for securing wires (8.25" X 5.25" X 1.07").

CONTROLS

[Back to Quick Links](#)

Integral Bluetooth™ Motion and Photocell Sensor (IMSBTxL)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is IP66 rated for cold and wet locations (-40°F to 167°F). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

[Click here to learn more details about IMSBT](#)



LEVITON App



Apple



Android

AirLink Wireless Lighting Controller (ALSC, ALSCS)

The AirLink integrated controller is a California Title 24 compliant lighting controller that provides real-time light monitoring and control with utility-grade power monitoring. It includes a 24V sensor input and power supply to connect a sensor into the outdoor AirLink wireless lighting system. The wireless integrated controller is compatible with this fixture.

[Click here to learn more details about AirLink](#)

AirLink Blue (ALBMRxLR)

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/ Site, Wall Mounted, Parking Garage and Canopy luminaires.

[Click here to learn more details about AirLink Blue](#)



AirLink Blue App



Apple

Sensor Sequence of Operations

Standard Programming	On Event	Off Event	On Light Level	Dim Light Level	Daylight Harvesting	Delay To Off	Sensitivity
IMSBTxL	Motion	No Motion	100%	N/A	On; Auto Calibration	20 minutes	High

Operation	Description
On Event	Trigger that activates lights to turn on; either automatic via motion detected or manually activated via push of button.
Off Event	Trigger that activates lights to turn off; either automatic via no motion detected or manually activated via push of button.
On Light Level	The light level that the fixtures will turn on to when ON EVENT occurs.
Dim Light Level	The light level that the fixtures will dim down to when no motion is detected.
Delay to Dim	The amount of time after which no motion is detected that the fixtures will be triggered to dim down. This sequence is optional, and sensor can be programmed to only trigger the fixture to turn off by entering 100% in this field.
Delay to Off	The amount of time after which no motion is detected that the fixtures will be triggered to turn off. If delay to dim is part of the programmed functionality, this is the amount of time after which no motion is detected after the fixture have already dimmed down.
Sensitivity	The sensitivity can be set to high, medium, low, or auto where applicable. High will detect smaller, simple motions. Low will only detect larger more complex motions. Auto temperature calibration adjusts the PIR sensitivity as ambient temperature rises to increase detection of heat movement through the field of view.

Primary NXT Quick Ship - PB4RA-NXT-QS
4.5" Round Adjustable Downlight

Project: BARRON CENTER



TRIM DETAILS



usailighting.com/beveled22primaryNXT-QS

HOUSING



BeveLED 2.2 Primary NXT provides consistent, high quality white light in an economical architectural solution with our iconic BeveLED trim.

FEATURES

- Universally adjustable all-in-one fixture can perform in accent, downlight, or wall wash configurations with 0-40° lockable tilt and 362° rotation
- 3000K and 3500K color temperature options, both at 90+ CRI
- Adjustable Downlight and Wall Wash configurations
- Dry/damp/wet location rated for bathrooms and showers
- High LED performance with budget-conscious features
- Flanged and Flangeless trim options for sheetrock, millwork and acoustical ceiling tiles

PERFORMANCE DATA

Classic White		15W LED		20W LED	
		15L3M		20L3M	
Color Temperature		3000K, 90+ CRI	3500K, 90+ CRI	3000K, 90+ CRI	3500K, 90+ CRI
T20 20° beam	Lumens	1268	1483	1722	2014
	lm/W	85	99	86	101
	TIR optic	Intensity (cd)	8704	10101	11818
	Solite Lens	UGR	18	19	19
T55 50° beam	Lumens	1148	1343	1559	1824
	lm/W	77	90	78	91
	TIR optic	Intensity (cd)	1898	2203	2577
	Solite Lens	UGR	20	20	21

Primary NXT Quick Ship - PB4RA-NXT-QS 4.5" Round Adjustable Downlight

Project: BARRON CENTER



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Lighting

PB4RAF	20L3M	30KH	T55	S	WH-WH	NCEC	UNV-D31	-	-
Trim Style	Wattage	LED Color Temp	Beam	Lens	Finish	Housing	Voltage & Dimming Driver	Mounting Options	Accessory Kits
F Flanged	 Classic White		T20 20° beam	S Solite (provided standard)	WH-WH White	NCEC New Construction rough-in tray	Universal Voltage 120V-277V	- None	- Leave Blank for Flanged
L Flangeless	15L3M 15W LED	30KH 3000K, 90+ CRI	T55 55° beam		BL-BL Black		UNV-D31 Hatch 0-10V, Forward and Reverse Phase (120V only), Trimode Dimming Driver, dims to 1% (provided standard)	PFBK Pair of butterfly brackets for vertical adjustment of Primary NXT housings	SPAK Spackle Frame Kit
	20L3M 20W LED	35KH 3500K, 90+ CRI						PFBK-CB27 Pair of butterfly brackets for vertical adjustment of Primary NXT housings with 27" Channel Bar	
								PFBK-CB32 Pair of butterfly brackets for vertical adjustment of Primary NXT housings with 32" Channel Bar	
								PFBK-CB52 Pair of butterfly brackets for vertical adjustment of Primary NXT housings with 52" Channel Bar	

IMPORTANT NOTES

- D31 dimming driver is Trimode – can be used with 0-10V, Forward Phase (Triac), and/or Reverse Phase (ELV) dimming controls
- UL2043 rated for use in air handling plenums.
- Housing ships with integral nailer bars provided standard. These mounting accessories are required for grid ceiling applications. Specify PFBK accessory for butterfly brackets which allow for in-place housing height adjustment. To install with channel bars, specify a PFBK-CB kit
- Spackle frame kit accessory is required for flangeless in sheetrock installation
- Fixture accepts ceiling thickness up to 5/8" standard
- Dry/damp/wet location rated for bathrooms and showers
- Products will ship within 10 days for 100 pieces or less - per fixture type. Consult with USAI Lighting for larger quantities.

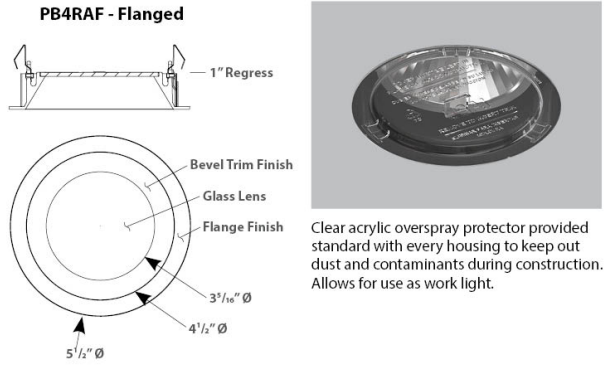
Primary NXT Quick Ship - PB4RA-NXT-QS 4.5" Round Adjustable Downlight

Project: BARRON CENTER



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Lighting

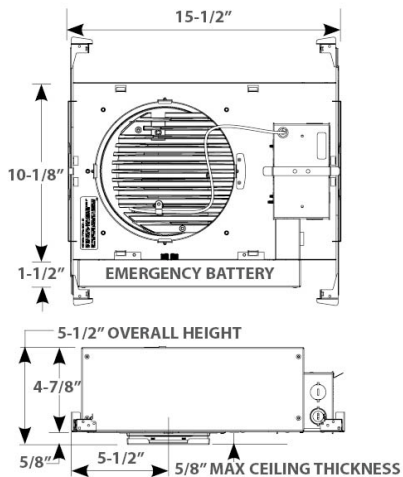
TRIM DETAILS



HOUSING DETAILS

New Construction Rough-In Tray - NCEC

Above ceiling access required to service the EM battery



Primary NXT Quick Ship - PB4RA-NXT-QS 4.5" Round Adjustable Downlight

Project: BARRON CENTER



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Lighting

FIELD REPLACEABLE LED LIGHT ENGINE is serviceable through the aperture with a Phillips screwdriver.

USAI CLASSIC WHITE LED COLOR TECHNOLOGY: is tightly binned for fixture-to-fixture color consistency within a 2-Step MacAdam's Ellipse.

OPTICS: Field interchangeable optics allow for easy beamspread swaps on site. Total Internal Reflection (TIR) optics optimized for 20°, 25°, 40°, and 55° beams, while the wallwash optic provides a dedicated asymmetric reflector for uniform vertical illuminance.

ADJUSTMENT: True hot aiming with center beam optics feature a 0° - 40° vertical tilt and 362° rotation. Tilt and rotation are lockable with a Phillips head screwdriver.

TRIM: Die cast aluminum beveled trim has a 4.5" aperture with a 1" regressed bevel and is fitted with a glass lens. Trim is self-flanged with 1/2" overlap and is retained with two mounting clips.

HOUSING: All BeveLED 2.2 Primary NXT housings are universal and accept flanged trims standard. They can be revised to accept flangeless trims with the simple addition of either a spackle frame or millwork accessory kit from USAI. Housings are fabricated of black electrocoated 20 ga. steel construction with 18 ga. steel thru wire J-box, 4 in 4 out at min. 90°C, #12 AWG thru branch circuit wiring. Max ceiling thickness = 5/8".

MOUNTING: PB4_F overlap flange fixtures are designed for use in sheetrock, acoustical ceiling tile, and many other ceiling materials. Residential grade adjustable nailer bars extendible from 14" to 24" centers with integral nails are provided standard for attachment to building structure. Adjustable butterfly brackets are optional and allow for housing height adjustment in the field during installation, and C-channel bars are optionally available for grid ceiling installations. C-channel bars must be ordered with PFBK bracket option in order to be attached to the housing.

CEILING CUTOUT: Round Standard Trim with Overlap Flange: 4-3/4" diameter

WARRANTY: Based on IESNA LM80-2008, USAI Lighting LED light fixtures have a 50,000 hour rated life at 70% lumen maintenance (L70). USAI Lighting Warranty covers replacement parts for 5 years from date of shipment. Ambient temperatures at fixture location should not exceed 40 degrees C.

LISTINGS: Dry/Damp/Wet listed under covered ceilings only. UL2943 rated for use in air handling plenums. NRTL/CSA-US tested to UL standards.



NOTES: Ambient temperatures at fixture location should not exceed 40°C during normal operation. Not for use in corrosive environment. Use of pressure washer voids warranty.

PHOTOMETRICS: Consult factory or website for IES files. Tested in accordance with IESNA LM79.

Primary NXT Quick Ship - PB4RA-NXT-QS
4.5" Round Adjustable Downlight

Project: BARRON CENTER



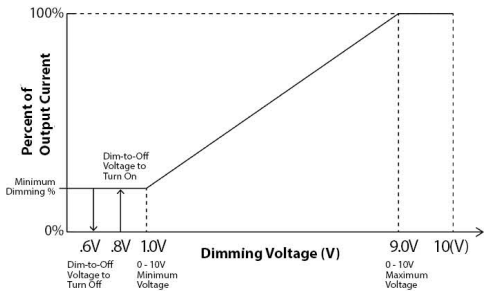
FIELD REPLACEABLE DIMMING DRIVER: A Hatch FTX/FTY 0-10V, forward and reverse phase trimode solid state electronic constant current integral dimming driver with a high power factor is provided. When used with 0-10V dimming controls, the dimming driver can be used with universal voltage 120V-277V and sources 2mA. When used as a phase dimming driver, the gray and purple 0-10V dimming wires must be capped off separately and must be used with 120V only. This dimming driver is located within the fixture housing and is serviceable from below the ceiling through the aperture. Some ontime delay may be experienced depending on control system used. All dimming drivers comply with IEEE C62.41 surge protection.

D31 Hatch FTX/FTY 0-10V, Forward and Reverse Phase Trimode Dimmer Compatibility Charts

D31 Dimmer Compatibility Chart

120V ONLY PHASE DIMMING		
Dimmer Information		Qty Fixtures Per Dimmer
Manufacturer	Product	
Leviton	6613-PL (LE)	Use fixture wattage per fixture specification sheet to determine maximum number of fixtures per dimmer. Max number of fixtures is limited by dimmer load rating per dimmer specification sheet.
	6615-PL (TE)	
	6672-1LW	
	TSM10-LAW	
	IP106	
	Sureslide 6631	
Legrand	VP106-1LE	
	H703PTuW	
	ADTP703Tu	
Eaton	9573	
Cooper	DAL06P-C5	
	18025	
GE	18020	
	10464	
Qplus	BAK-004AG	
Lutron	DV-600P-WH	
	N600-WH	
	AY-600P-AL	
	S-603PG	
	DVCL-153P-WH (DUP)	
	SELV-300P (TE)	
	MFR2-600M-H	
	SLV-600P-AL	
	DVCL-153PR-WH	
	AYCL-153P-WH	

WHEN USED WITH 0-10V DIMMING CONTROLS (UNV 120V-277V)		
Manufacturer	Product	Dimmed Light Output Range
120V / 277V		
Lutron	DIVA DVSTV Series	100% - 1%
Keygma	KD11A010V	100% - 1%



Calculating the maximum fixture quantity per dimmer:

FOR PHASE CONTROLS (120V ONLY)

Use fixture wattage per fixture specification sheet to determine maximum number of fixtures per dimmer. Max number of fixtures is limited by dimmer load rating per dimmer specification sheet.

FOR 0-10V CONTROLS (120V-277V UNIVERSAL)

Use source current per fixture specification sheet to determine number of fixtures per dimmer. Max number of fixtures is limited by dimmer load rating.

(D31 WIRING DIAGRAM ON NEXT PAGE)

Primary NXT Quick Ship - PB4RA-NXT-QS 4.5" Round Adjustable Downlight

Project: BARRON CENTER

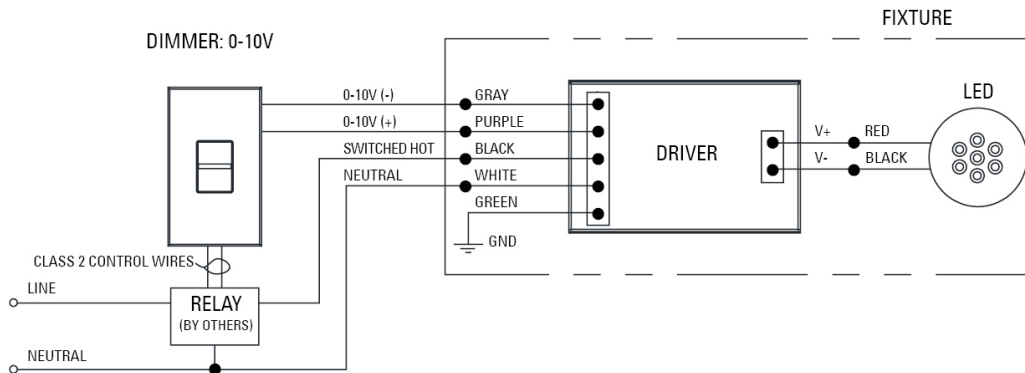


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D31 TRIMODE

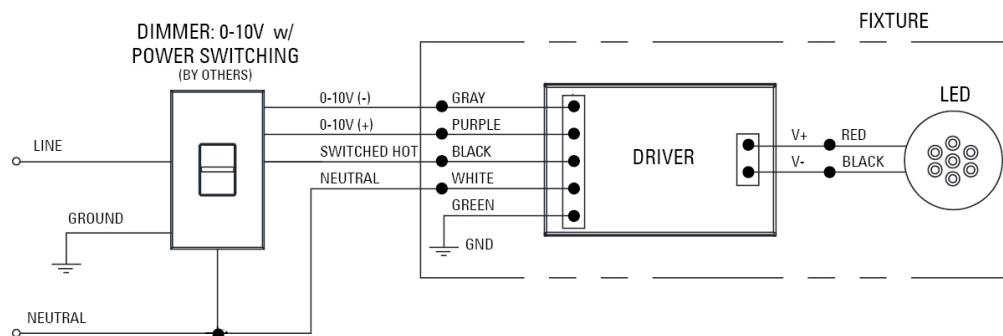
0-10V DIMMING W/RELAY TO SWITCH POWER



NOTE:

If switched, non-dimming operation is desired, cap off purple and gray wires individually at installation. Do NOT cap purple and gray wires together.

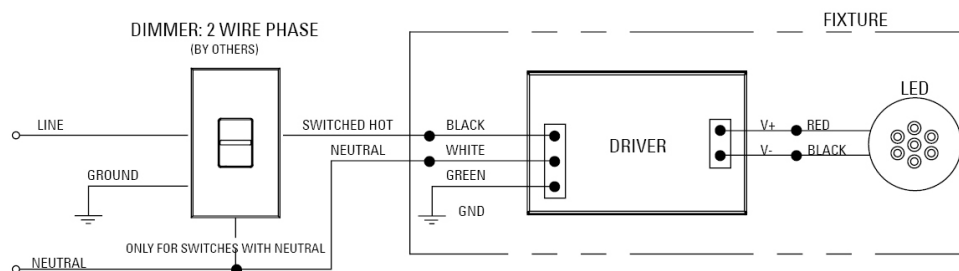
0-10V DIMMING (NO RELAY)



NOTE:

If switched, non-dimming operation is desired, cap off purple and gray wires individually at installation. Do NOT cap purple and gray wires together.

PHASE DIMMING (120V ONLY)



NOTE:

Cap off purple and gray wires individually at installation. Do NOT cap purple and gray wires together.

USAI PART NUMBER BREAKOUT

Full Fixture Specification: PB4RAF-20L3M-30KH-T55-S-WH-WH-NCEC-UNV-D31

2.2 Primary NXT Trim: PB4RAF-T55-S-WH-WH-TRM

2.2 Primary NXT Housing: PB4R-20L3M-30KH-NCEC-UNV-D31-HSG

Primary NXT Quick Ship - PB4RA-NXT-QS 4.5" Round Adjustable Downlight

Project: BARRON CENTER



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Lighting

DOWNLOAD FILES

↓ IES FILES

↓ REVIT / BIM

WIRING INSTRUCTIONS

[TRIMODE DIM GENERAL WIRING INST I2-718-07](#)

PRODUCT BROCHURES

[Primary NXT Brochure](#)
[USAI Revit Family User Guide](#)
[Quick Ship Brochure](#)

PERFORMANCE DATA

[PB4RA-NXT-QS Photometry](#)

INSTALLATION INSTRUCTIONS

[Primary NXT PB4 NCEC/NCIC Hsg Installation I2-734](#)
[Primary NXT PB4 NCEC/NCIC Hsg Service I2-735](#)
[Primary NXT PB4 Trim Installation I2-736](#)

DIMMING COMPATIBILITY

[USAI Dimming Driver Choices](#)
[TRIMODE DIMMING COMPATIBILITY REFERENCE GUIDE I2-717-07](#)

SPEC SHEET PDFS

[Round + Square/Adjustable + Wall Wash - PB4-NXT-QS PDF](#)

CONSTRUCTION MANAGEMENT PLAN Prosperity Place - 1125 Brighton Ave Barron Center



Prepared For: Portland Department of Planning & Urban Development Department

Project Owner: ProsperityME

Construction Manager: To be determined

This document and its subsequent attachments comprise the Construction Management Plan being submitted to the Portland Department of Planning & Urban Development Department for the new 50-unit LIHTC 4-story, residential apartment building on Brighton Avenue. This plan is being submitted by Gorrill Palmer Consulting Engineers on behalf of the Owner. The Plan is subject to modification by the selected contractor. The purpose of the Construction Management plan is to identify, mitigate and plan for all potential impacts throughout the duration of construction. The Contractor will ensure that the safety of the public and the surrounding communities are a top priority.

The ProsperityME Development consists of 11,890 SF floorplate, 4-Story, wood Framed Building with 50 units of housing on floors 1 thru 4. The completion of the project is currently anticipated for July 2027.

This CM plan will be continually updated as the project progresses to meet the needs of the project, community, and the City of Portland. The Contractors' main objective is to deliver the project successfully with zero safety accidents or incidents, by means of communication and teamwork.

A. Construction Management Principles

The impact of this project during construction will be minimized via the following management practices and principals:

- As articulated on the attached plan (Exhibit A), the Construction Zone will be secured with a combination of jersey barriers, fencing and gates along Brighton Ave, Holm Avenue, and City Hospital Drive as may be necessary. These barriers will prevent any access into the site from public. Sidewalk closings will be reviewed and coordinated with DPW.

- All construction activities will be performed within the limits of the site fence to ensure public is never exposed to any risks caused by construction activities. The sidewalk along Brighton Avenue adjacent to the building will be closed for the duration of the project until completion.
One entrance off the interior City Hospital Drive will be maintained into and out of the site.
- Pedestrians on Brighton Avenue will be rerouted to the south side of the street around the limits of the project. The nearby crosswalks at the nearby intersections will be utilized to reroute pedestrians across Brighton Ave.
- Proper signage will be utilized to inform pedestrians of the change in travel conditions.
- All adjacent buildings along Portland Street will remain fully accessible to the public throughout construction.
- All deliveries will be scheduled and coordinated to ensure there is minimal off-site queuing required.
- All construction activities will occur within the sound ordinance times regulated by City Code.

B. Development Review of Construction Management Plan

The contractor will develop a comprehensive management plan that will be in place for the duration of the construction timeline (or until permanent/final measures are installed and can be utilized).

These are depicted on Exhibit A.

Each contractor member will complete a job specific safety orientation prior to starting work activities. At no point will the public have access to the project site within the fenced limits.

C. Performance Guarantees, Inspection Fees, Preconstruction Meeting, and Permits

All fees, building permit fee and guarantees will be paid/issued prior to the commencement of construction. All street opening permits will be applied for by the selected site contractor upon award and in hand prior to opening the street for work.

There is no blasting anticipated for this project however there may be pile driving.

D. Construction Administration and Communication

The contact person for all construction activities for the project will be:

General Superintendent TBD

Due to the proximity to occupied buildings and the number of anticipated deliveries, community

outreach and communication will be required throughout construction to keep the public and neighboring businesses informed of our plan.

Signage will be posted onsite with additional emergency contact information for the selected Superintendent that will be the site contact for the project. An Emergency Call Log will be developed and distributed to the project team (to include subcontractors).

Quarterly reporting and updating of our Construction Management Plan will be required to update the city and community of the following activities:

1. Construction schedule updates
2. Material deliveries, including notice of any oversized loads that may impact public traffic
3. Requests for upcoming off-hours work including weekends and holidays
4. Notice of any upcoming activities that may produce strong noise, vibration or dust that could adversely affect the neighboring communities
5. Requests for any street openings or public sidewalk work to be completed as part of the construction contract

E. Construction Schedule

The project is expected to commence immediately upon permit issuance (summer 2026) and be completed no more than 14 to 16 months post commencement of work. The anticipated completion date is August 2027.

Construction work hours will be in accordance with section 17-18.

Specifically, work hours will be limited to Monday – Friday 7:00am -7:00pm. Should Saturday work be required, the use of heavy equipment will be kept within the time constraints of 8:00am to 4:00pm.

Final Schedule to be provided by the select contractor

F. Security & Public Safety

Please refer to Exhibit A for the site fencing/gates, traffic, and pedestrian routing plan, which will be

utilized for the duration of the project. If required by the city, Knox Box Pad Locks will be installed at each gate for fire department emergency access.

The fire safety program on-site will consist of the following:

1. Fire extinguishers will be placed throughout the construction site for the duration of the project.
2. On site fuel storage will be limited but will be required throughout construction. A free-standing, 30-minute fire-rated enclosure will be provided for this safe and secure storage.
3. During construction, our Means of Egress will have at least two permanent stairs. Temporary signage will be installed to clearly indicate these egress methods.
4. Good Housekeeping – The Contractor will provide dumpsters for the removal of debris from the site. All subcontractors are responsible for the daily clean-up of their work areas. Additionally, the Contractors will have laborers to assist with this daily clean-up. Daily safety walks by the Construction Superintendent will be utilized to ensure that all working floors are equipped with an inspected fire extinguisher and a clear means of egress in the event of an emergency.
5. Any personnel (whether working or visiting the site) will go through our safety orientation that will include our emergency evacuation plan.

G. Construction Permitting and Traffic Control Plans

The construction will be near pedestrian right of ways and will interact with public traffic throughout the duration of the project. There will be little to no lay down area for materials on-site. Deliveries will be scheduled in advance and planned for accordingly. We will stay in constant communication with the City and the neighboring businesses and Barron Center and Loring House Staff to keep them informed of our upcoming construction activities /deliveries with the intent to minimize impacts to all surrounding Streets.

This project includes new utilities that will require new taps/tie-ins within the public ROW. All street opening permits will be applied for and approved prior to start of utility work in the street.

H. Site Management and Controls

The General Contractor will adopt the following site management and maintenance activities through the duration of the project:

1. Trash and debris will be contained within the project fencing and changed out on a regular basis.
2. A stabilized construction entrance will be installed at the gate locations and maintained by the selected sitework contractor. Street cleaning will be reviewed daily and cleaned as required to remove dirt/debris caused by the construction efforts
3. Noise will comply with City Ordinances.
4. If needed, water will be used to control dust during the sitework activities of the project. We do not anticipate any other activities that will require dust control measures.
5. Onsite snow removal will be handled by the General Contractor.

I. Erosion Control and Preservation of Trees

We will comply with the approved erosion and sedimentation control plan and City Code requirements.

J. Construction Staging Area

Exhibit A of this document is the draft site logistics plan for the project. An offsite marshalling area may be needed during the erection of the steel structure, concrete placements, and the exterior siding system due to the limited area on site. Once all these subcontractors are procured, we will have further review and update this plan accordingly.

K. Parking During Construction

Off-site parking is required. Employee parking will be provided by employers utilizing legal parking methods including nearby parking lots. It will be discussed in the Subcontract agreements that no street parking will be allowed during work hours to leave available for the local businesses and citizens. Subcontractors can utilize the nearby parking and shuttle to the site but they will not be allowed to use Barron Center parking.

L. Special Measures as Necessary

This is a 4-story wood building that will be erected utilizing a small 80-Ton RT Crane. Once an erector / crane has been selected, the contractor will further review and discuss with the City to update this plan if needed particularly for any in-street crane parking. Should we encounter any groundwater, dewatering will be handled by the sitework contractor. This can be further discussed with the Contractor at the Preconstruction meeting for specific details.

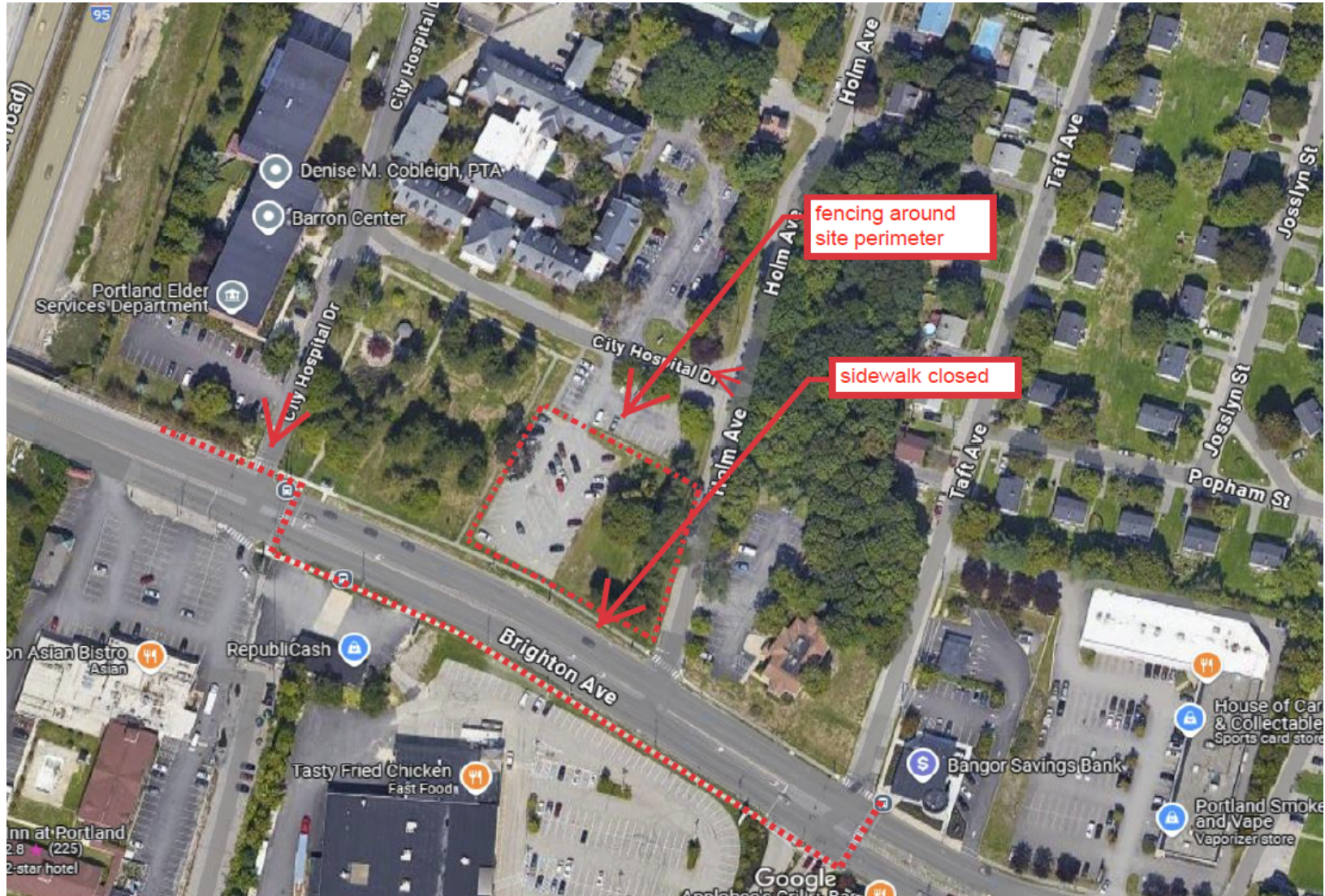
M. Project truck routing

All truck deliveries will be routed as stated below:

Incoming- US Highway MTA onto Riverside to Brighton, and then left or right onto Holm Avenue. The gate entrance will be located at the rear of the project off City Hospital Drive.

Outgoing- Leave site via signalized intersection, turn left or right and head to highway or points intown Portland.

Brighton Ave /Temporary Pedestrian Access Plan



Signage at Construction Gates

Deliveries

Due to the confined nature of the site, we will implement a Just In Time Delivery system to minimize onsite material storage.

ATTENTION
ALL VENDORS, VISITORS,
and DELIVERIES
MUST CHECK IN
AT CONSTRUCTION
MANAGERS OFFICE

NO UNAUTHORIZED PERSONNEL
BEYOND THIS POINT
ALL VISITORS
MUST SIGN IN AT
CONSTRUCTION MANAGEMENT OFFICE

NOTICE
THIS IS A TOBACCO FREE SITE
Use and Possession of Any
Tobacco Products is Strictly
Prohibited

NOTICE
Hard Hats,
Safety Glasses
and
Hard Toed Boots
REQUIRED BEYOND
THIS POINT

**NO
TRESPASSING**
AUTHORIZED
PERSONNEL ONLY
VIOLATORS
WILL BE
PROSECUTED

**CONSTRUCTION
VEHICLES
ENTERING/
EXITING**



300 Southborough Drive, Suite 200, South Portland, ME 04106
(207) 772-2515 | GorrillPalmer.com

Stormwater Management Memorandum

**To: Andrew Graminski
Planner**

**From: Stephen Bushey, PE
Samuel Foglio, EI**

Date: July 10, 2025

**Re: Proposed Residential Development
Barron Center - Site 1 Housing
Developers Collaborative
Predevelopment LLC / ProsperityME**

Task

Perform a stormwater management analysis for the proposed development of a new 50-unit residential building and redeveloped parking area in Portland, ME.

References

- Boundary and Topographic Survey dated June 6, 2025 by Nadeau Land Surveys
- Field reconnaissance by Gorrill Palmer
- Civil Plan Set dated July 2025 prepared by Gorrill Palmer
- City GIS information
- City of Portland Technical Manual

Background

Developers Collaborative Predevelopment LLC (DC) and ProsperityME are currently seeking a Major Site Plan Permit from the City of Portland Planning Board for the construction of a residential housing development consisting of a new 11,890 SF, 50-unit building. The City of Portland has selected the DC/ProsperityME team to negotiate to enter into a ground lease agreement for the purpose of expanding housing opportunities on the Barron Center Campus. The proposed 0.77-acre lease Site #1 is identified by the City of Portland GIS Parcel Viewer as part of Tax Map 269/Lot B 001.

The site is tributary to the City's public stormwater collection system within Holm Avenue. The project will create less than 1 acre of new impervious area, and therefore will not require permitting from MeDEP. However, to meet local City of Portland ordinances, the project will follow the provisions of Chapter 500. The plans prepared by Gorrill Palmer include the infrastructure necessary to serve the project and to comply with current local stormwater standards. Erosion and Sedimentation Controls will also be employed during the construction of this project and are summarized in the Erosion and Sedimentation Control Plans provided on Sheet C-4.0.

The project will include the removal of existing impervious parking area, with portions of this area being revegetated. In the existing condition, there is approximately 26,142 SF of impervious area onsite, whereas the post-development condition includes 34,468 SF of impervious area. This equates to a net creation of around 8,326 SF of new impervious area. The entire site is developed in the existing condition, consisting of either parking lot or lawn area. Therefore, no new developed area will be created as a result of this project. A summary of these areas is displayed in Table 1 below.

TABLE 1 – IMPERVIOUS AND DEVELOPED AREAS SUMMARY			
	Pre-development	Post-development	Net
Impervious Area (SF)	26,142	34,468	+8,326
Lawn Area (SF)	25,054	16,728	-8,326
Developed Area (SF)	51,196	51,196	0

The purpose of this analysis and memorandum is to document what measures will be implemented to provide stormwater management for the project.

Existing Conditions

The project site is comprised of an existing 26,142± SF paved parking lot, as well as 25,054 SF of maintained lawn area around the perimeter. The site generally drains northeasterly, away from Brighton Avenue and down Holm Avenue. A low area within the eastern lawn area collects stormwater runoff, where it then sheets to Holm Avenue. An existing catch basin in the parking area onsite captures the remainder of the site's runoff. Both of these areas are then tributary to a catch basin at the intersection of City Hospital Drive and Holm Avenue in the northeast corner of the site. This structure is connected to a 12" PVC pipe, which is part of the City's public stormwater system. Further downstream, the public drainage enters into the City's sand filter off of Holm Avenue, and ultimately Capisic Brook. Because Capisic Brook is identified as an Urban Impaired Stream (UIS), the applicant will provide the In-Lieu-Fee payment to the City as part of the application process to meet the UIS Standard.

A Medium Intensity Soil Survey was obtained from USDA's Web Soil Survey. The site primarily consists of Hinkley loamy sand (HIB), which is classified as a Type A soil. These soils are acceptable to support the installation of the proposed SWM BMP, using proper installation techniques and measures to prevent erosion.

Proposed Development

The proposed development will include the redevelopment of portions of the existing parking lot and lawn area into 50 residential units, associated utilities, and parking facilities. The site will continue to drain to the northeast in the post-development condition. The newly created parking lot and a portion of the new lawn area will be graded to drain via sheet flow or shallow concentrated flow to a proprietary FocalPoint™ filtration BMP designed by Ferguson Waterworks. Stormwater in this area will be treated by the FocalPoint™, stored in subsurface R-Tank™ chambers, and conveyed to the existing public drainage system within Holm Avenue. The remaining lawn area will continue to be sent to the existing 12" pipe via the existing catch basin in Holm Avenue. In total, the proposed project is anticipated to create approximately 8,326 SF of new impervious area, and no new developed area as the site is currently all developed.

Analysis

The project will meet the Basic, General, and Flooding Standards of MeDEP Ch. 500 to satisfy local stormwater requirements. The applicant has chosen to provide a FocalPoint™ to provide treatment to all area tributary to it. The project is also providing underground storage and detention of the peak flows for the 2-, 10-, and 25-year storm events. For each of the listed storms, the post-development flows at the Point of Analysis do not exceed the pre-development flows.

Stormwater Quality

The project is proposed to be treated utilizing a FocalPoint™ and R-Tank™ stormwater best management practices (BMP). These proprietary FocalPoint™ systems are approved by MaineDEP to provide stormwater treatment in more confined areas where traditional stormwater management approaches may not be feasible. As opposed to traditional systems, which require an area equal to roughly 5% of the subcatchment's impervious area (~2,200SF per acre), these proprietary systems only require 174 SF of area per acre of the subcatchment's impervious area. This is because the filter media within the FocalPoint™ is designed to permeate water quickly (100" per hour). The proposed FocalPoint™ provides storage between the mulch filter media surface and the domed overflow grate which is situated 6" above the mulch. Additional storage is provided beneath the FocalPoint™ by subsurface "R-Tank" chambers. Runoff from smaller storms is filtered down through the 21" of filter media and 6" of bedding stone, is stored in the R-Tanks™, withheld by an outlet control structure, and conveyed to the existing public drainage system within Holm Avenue. Runoff from larger storm events will follow the same process, however, the surface flows will be collected by both the FocalPoint™ and its overflow grate. The outlet control structure will detain the channel protection volume to be released within 24-48 hours of the storm event. The OCS will also detain stormwater volumes from the peak storm to keep the flows below pre-development levels. In total, the FocalPoint™ will provide treatment for approximately 11,589 SF of impervious area and 4,318 SF of landscaped area. This will be provided through a 55 SF filter basin area. The required minimum FocalPoint™ bed area is 53 SF.



Image 1: FocalPoint system



Image 2: R-Tank chamber

The following table presents the design information for the FocalPoint:

TABLE 2 - FOCALPOINT		
	REQUIRED	PROVIDED
Impervious Area		11,589 SF
Vegetated Developed Area		4,318 SF
Runoff 0.95-inch Type III Storm		0.02 CFS
FocalPoint mulch bed elevation		103.75
Max. stage over filter for 0.95" storm		101.50
Rim of overflow structure		104.25
Filter surface area	53 SF	55 SF
Filter media ratio	>1:5	>1:5
1-Year Storm Peak Flow		0.42 CFS

The proposed development will treat no less than 95% of the impervious area and no less than 80% of the developed area of these lots in accordance with the MaineDEP Chapter 500. As the site is currently entirely developed, there will be no new developed area created. Instead, the project will treat 80% of the area that is disturbed during this development.

The following table presents the treatment summary for this development.

TABLE 3 – OVERALL TREATMENT FOR DEVELOPMENT		
	IMPERVIOUS (SF)	DISTURBED DEVELOPED (SF) (Impervious + Landscaped)
Total Area Treated (FocalPoint)	11,589	15,907
Area Untreated	261	3,336
Total Area of Project	11,850	19,243
Percent Treated	97.8%	82.7%
Percent Required	95%	80%

Stormwater Quantity

The stormwater management study provides an analysis of predevelopment and post development stormwater runoff rates. The SCS TR-20 methodology, using the HydroCAD program, was employed by Gorrill Palmer to analyze pre-development and post-development conditions. A 24-hour, SCS Type III storm distribution for the two-, ten-, and twenty-five-year storm frequencies was used. The corresponding rainfall amounts for these storms are 3.1", 4.6", and 5.8", respectively.

Land use cover, delineations of watershed hydraulic flow paths, and hydrologic soils data were obtained using the following data:

- Boundary/Topographic Survey from Nadeau Land Surveys.
- Medium Intensity Soil Survey from the USGS Web Soil Survey.
- Aerial photography of the project site, obtained from the Maine Office of GIS.

Pre-Development Conditions

The drainage study analyzes the watersheds in the predevelopment condition as depicted on the Predevelopment Watershed Map W1.

Subcatchment 1S is made up of the entire site, which is approximately 1.2 acres and consists of soil type A. Approximately half of this area is impervious parking area while, the other half is maintained lawn. This runoff is conveyed to POI 1, which is an existing storm drain basin located northeast of the site at the intersection of Holm Avenue and City Hospital Drive.

Table 4 presents the peak flow rates at the point of interest in the predevelopment condition.

TABLE 4 – PREDEVELOPMENT PEAK FLOW RATES (TYPE III 24-HR)			
Point of Interest	Peak Flow (CFS)		
	2 Year	10 Year	25 Year
POI 1	0.58	1.52	2.38

The calculations for the predevelopment conditions are included as an attachment to this memo.

Post-Development Conditions

Analysis for the post-development condition consists of determining post-development peak flows and limiting the values to predevelopment levels. The post-development condition has been modeled as three subcatchments tributary to POI 1.

Subcatchment 1A consists of the untreated area onsite that will not be sent to either the FocalPoint™ or R-Tank™ chambers. This is approximately 0.25 acres of impervious and approximately 0.29 acres of pervious lawn area and is tributary to POI 1.

Subcatchment 1B consists of approximately 0.27 acres of impervious area and 0.1 acres of pervious lawn area. Runoff from this area is tributary to the FocalPoint™ and R-Tank™ subsurface chamber system and is tributary to POI 1.

Subcatchment 1C consists of approximately 0.28 acres of impervious surfaces and no pervious area. This area is comprised entirely of the proposed flat metal roof building. Runoff from this area is sent directly to the R-Tank™ subsurface chamber system for detention and is tributary to POI 1.

The following table demonstrates the results of the HydroCAD model for the pre- and post-development peak storm events.

TABLE 5 – PEAK FLOW COMPARISON WITH DETENTION			
	Peak Flow (CFS)		
	2 Year	10 Year	25 Year
POI 1			
Pre	0.58	1.52	2.38
Post	0.29	1.22	2.26

The peak post-development flows for POI 1 are below predevelopment levels. The calculations for the post-development conditions are included as an attachment to this memo.

City of Portland Standards

Technical Manual Section 3

Section 3 of the City's Technical Manual requires site plans to obtain a minimum of 80 points as noted on the LID scorecard Appendix 3A. The report includes the completed scorecard as an attachment, with a score greater than the minimum 80 points.

Technical Manual Section 5

5.2.2. Water quality treatment requirements:

The project is providing stormwater quality treatment as summarized in Table 3 of this report.

5.2.3. Flooding standard requirements:

The project complies with Chapter 500 Flooding Standard as shown in Table 5 above.

5.2.4. Minimum stormwater detention volume requirement:

This project proposes to connect into the City's separated storm drain system and therefore provides a minimum on-site storage detention volume of 1" of rainfall over the total impervious area within the project's disturbance limits. The total impervious area within the disturbance is 23,558 SF, which equates to a minimum detention volume of 1,964 CF. The R-Tank system provides a detention of 2,116 CF prior to stormwater entering the first orifice in the outlet control structure at an elevation of 100.01. Additionally, the stormwater discharge rate is controlled by a gate valve connected to the underdrain of the R-Tanks at 0.02 CFS until the detention system reaches its design capacity and activates the outlet control structure. These calculations are detailed further in the HydroCAD reports attached to this document.

5.2.4. Urban impaired stream requirements:

It is our understanding that the City's storm drain system in this area is tributary to Capisic Brook, which is classified as an Urban Impaired Stream (UIS). Therefore, the project will comply with the UIS standard by paying the in-lieu fee to the City.

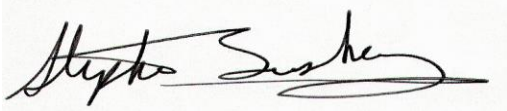
Conclusion

As described above, the proposed stormwater management plan for this project is anticipated to provide sufficient water quality treatment and water quantity detention to reduce post-development flows to below pre-development conditions. The FocalPoint™ BMP will provide treatment of approximately 11,589 SF of impervious area.

Based on the proposed design, the runoff from the proposed development will be captured and conveyed in a manner that will not have an adverse impact on the surrounding stormwater systems or the environment.

Regards,

GORRILL PALMER



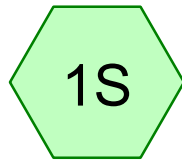
Stephen Bushey, PE

Senior Associate

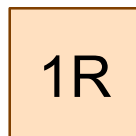
Phone: 207-772-2515 x286

sbushey@gorrillpalmer.com

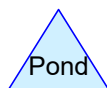
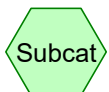
Attachments – HydroCAD Reports
Watershed Maps
City of Portland LID Scorecard



Subcatchment 1



POI 1



Routing Diagram for Barron Ctr SW

Prepared by LJB, Inc, Printed 7/10/2025

HydroCAD® 10.20-5c s/n 01265 © 2023 HydroCAD Software Solutions LLC

Barron Ctr SW*Type III 24-hr 2-Year Storm Rainfall=3.10"*

Prepared by LJB, Inc

Printed 7/10/2025

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Page 2

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 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: Subcatchment 1Runoff Area=51,196 sf 51.06% Impervious Runoff Depth=0.72"
Flow Length=293' Tc=19.3 min CN=69 Runoff=0.58 cfs 0.071 af**Reach 1R: POI 1**Inflow=0.58 cfs 0.071 af
Outflow=0.58 cfs 0.071 af**Total Runoff Area = 1.175 ac Runoff Volume = 0.071 af Average Runoff Depth = 0.72"**
48.94% Pervious = 0.575 ac 51.06% Impervious = 0.600 ac

Barron Ctr SW

Prepared by LJB, Inc

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Type III 24-hr 2-Year Storm Rainfall=3.10"

Printed 7/10/2025

Page 3

Summary for Subcatchment 1S: Subcatchment 1

Runoff = 0.58 cfs @ 12.31 hrs, Volume= 0.071 af, Depth= 0.72"
 Routed to Reach 1R : POI 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-Year Storm Rainfall=3.10"

Area (sf)	CN	Description
25,405	98	Paved parking, HSG A
737	98	Paved parking, HSG A
25,054	39	>75% Grass cover, Good, HSG A
51,196	69	Weighted Average
25,054		48.94% Pervious Area
26,142		51.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.5	150	0.0100	0.14		Sheet Flow, Lawn
					Grass: Short n= 0.150 P2= 3.00"
0.2	34	0.0440	3.15		Shallow Concentrated Flow, Lawn
					Grassed Waterway Kv= 15.0 fps
0.6	109	0.0250	3.21		Shallow Concentrated Flow, Street
					Paved Kv= 20.3 fps
19.3	293	Total			

Summary for Reach 1R: POI 1

Inflow Area = 1.175 ac, 51.06% Impervious, Inflow Depth = 0.72" for 2-Year Storm event
 Inflow = 0.58 cfs @ 12.31 hrs, Volume= 0.071 af
 Outflow = 0.58 cfs @ 12.31 hrs, Volume= 0.071 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Barron Ctr SW*Type III 24-hr 10-Year Storm Rainfall=4.60"*

Prepared by LJB, Inc

Printed 7/10/2025

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Page 4

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 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: Subcatchment 1Runoff Area=51,196 sf 51.06% Impervious Runoff Depth=1.67"
Flow Length=293' Tc=19.3 min CN=69 Runoff=1.52 cfs 0.164 af**Reach 1R: POI 1**Inflow=1.52 cfs 0.164 af
Outflow=1.52 cfs 0.164 af**Total Runoff Area = 1.175 ac Runoff Volume = 0.164 af Average Runoff Depth = 1.67"**
48.94% Pervious = 0.575 ac 51.06% Impervious = 0.600 ac

Barron Ctr SW

Prepared by LJB, Inc

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Type III 24-hr 10-Year Storm Rainfall=4.60"

Printed 7/10/2025

Page 5

Summary for Subcatchment 1S: Subcatchment 1

Runoff = 1.52 cfs @ 12.29 hrs, Volume= 0.164 af, Depth= 1.67"
 Routed to Reach 1R : POI 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-Year Storm Rainfall=4.60"

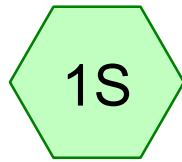
Area (sf)	CN	Description
25,405	98	Paved parking, HSG A
737	98	Paved parking, HSG A
25,054	39	>75% Grass cover, Good, HSG A
51,196	69	Weighted Average
25,054		48.94% Pervious Area
26,142		51.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.5	150	0.0100	0.14		Sheet Flow, Lawn
					Grass: Short n= 0.150 P2= 3.00"
0.2	34	0.0440	3.15		Shallow Concentrated Flow, Lawn
					Grassed Waterway Kv= 15.0 fps
0.6	109	0.0250	3.21		Shallow Concentrated Flow, Street
					Paved Kv= 20.3 fps
19.3	293	Total			

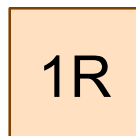
Summary for Reach 1R: POI 1

Inflow Area = 1.175 ac, 51.06% Impervious, Inflow Depth = 1.67" for 10-Year Storm event
 Inflow = 1.52 cfs @ 12.29 hrs, Volume= 0.164 af
 Outflow = 1.52 cfs @ 12.29 hrs, Volume= 0.164 af, Atten= 0%, Lag= 0.0 min

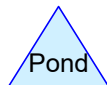
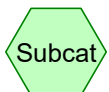
Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs



Subcatchment 1



POI 1



Routing Diagram for Barron Ctr SW

Prepared by LJB, Inc, Printed 7/10/2025

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Barron Ctr SW*Type III 24-hr 25-Year Storm Rainfall=5.80"*

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Page 2

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 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: Subcatchment 1Runoff Area=51,196 sf 51.06% Impervious Runoff Depth=2.56"
Flow Length=293' Tc=19.3 min CN=69 Runoff=2.38 cfs 0.250 af**Reach 1R: POI 1**Inflow=2.38 cfs 0.250 af
Outflow=2.38 cfs 0.250 af**Total Runoff Area = 1.175 ac Runoff Volume = 0.250 af Average Runoff Depth = 2.56"**
48.94% Pervious = 0.575 ac 51.06% Impervious = 0.600 ac

Barron Ctr SW

Prepared by LJB, Inc

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Type III 24-hr 25-Year Storm Rainfall=5.80"

Printed 7/10/2025

Page 3

Summary for Subcatchment 1S: Subcatchment 1

Runoff = 2.38 cfs @ 12.28 hrs, Volume= 0.250 af, Depth= 2.56"
 Routed to Reach 1R : POI 1

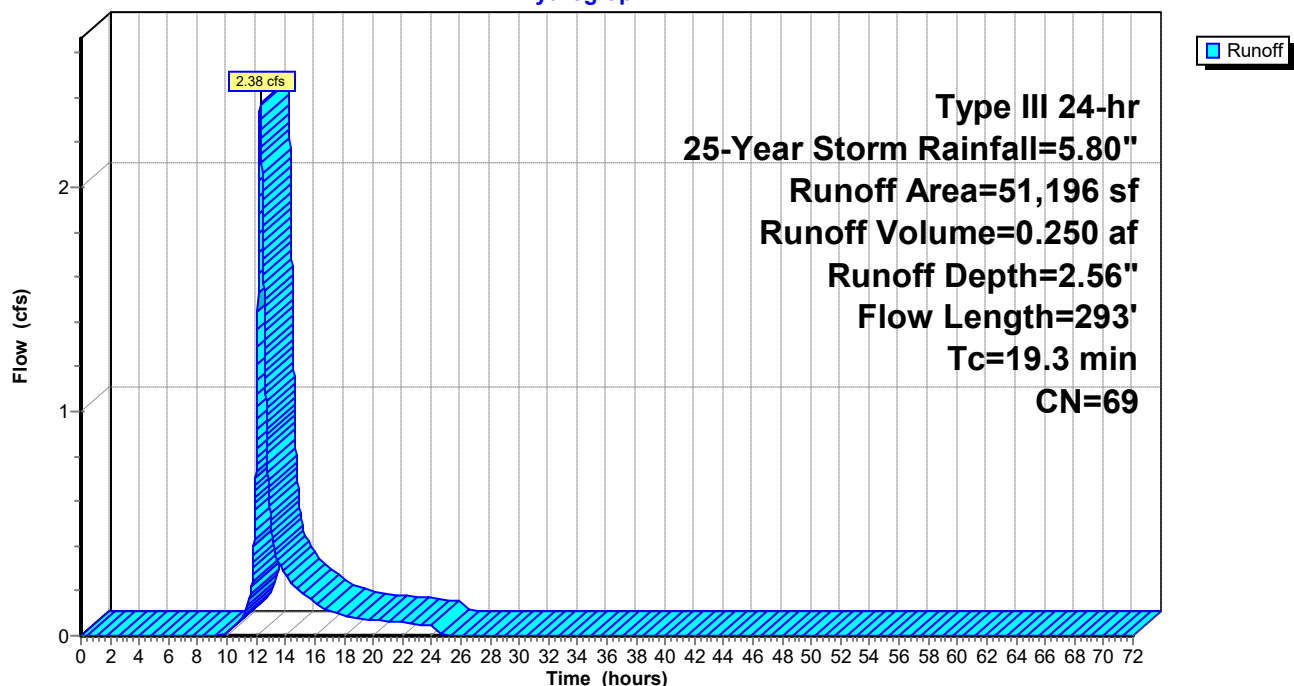
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Storm Rainfall=5.80"

Area (sf)	CN	Description
25,405	98	Paved parking, HSG A
737	98	Paved parking, HSG A
25,054	39	>75% Grass cover, Good, HSG A
51,196	69	Weighted Average
25,054		48.94% Pervious Area
26,142		51.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.5	150	0.0100	0.14		Sheet Flow, Lawn
					Grass: Short n= 0.150 P2= 3.00"
0.2	34	0.0440	3.15		Shallow Concentrated Flow, Lawn
					Grassed Waterway Kv= 15.0 fps
0.6	109	0.0250	3.21		Shallow Concentrated Flow, Street
					Paved Kv= 20.3 fps
19.3	293	Total			

Subcatchment 1S: Subcatchment 1

Hydrograph



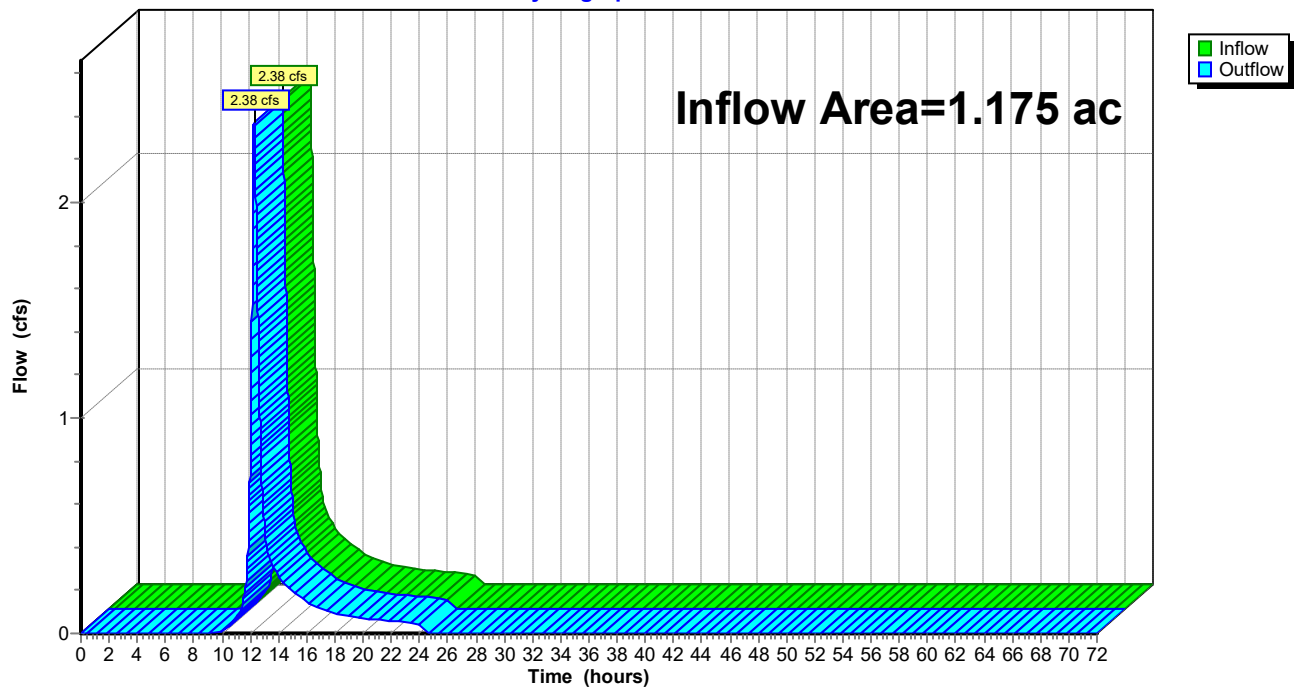
Summary for Reach 1R: POI 1

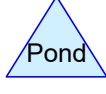
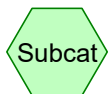
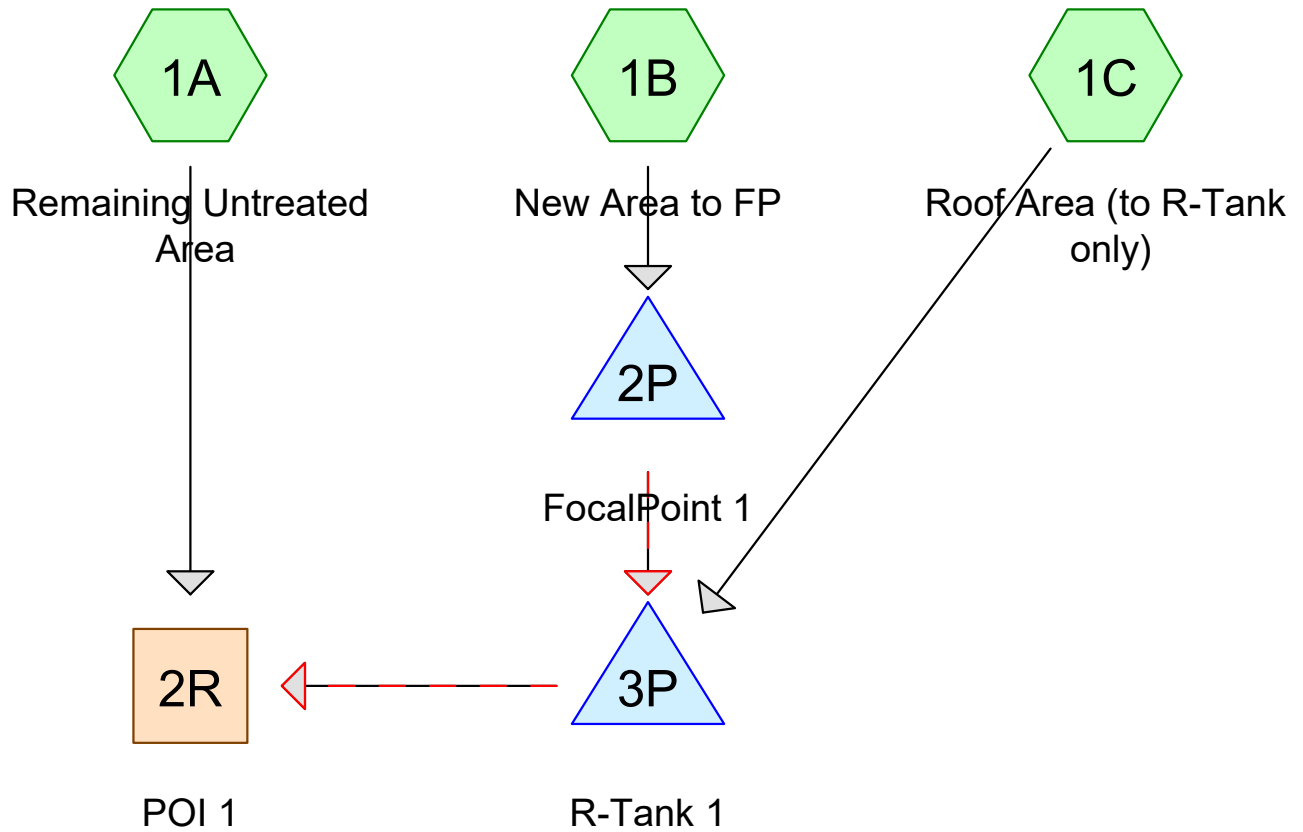
Inflow Area = 1.175 ac, 51.06% Impervious, Inflow Depth = 2.56" for 25-Year Storm event
Inflow = 2.38 cfs @ 12.28 hrs, Volume= 0.250 af
Outflow = 2.38 cfs @ 12.28 hrs, Volume= 0.250 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach 1R: POI 1

Hydrograph





Routing Diagram for Barron Ctr SW
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Barron Ctr SW

Type III 24-hr 2-Year Storm Rainfall=3.10"

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 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 1A: Remaining Untreated Runoff Area=23,328 sf 46.77% Impervious Runoff Depth=0.64"
Flow Length=236' Tc=11.0 min CN=67 Runoff=0.27 cfs 0.028 af

Subcatchment 1B: New Area to FP Runoff Area=15,907 sf 72.85% Impervious Runoff Depth=1.46"
Flow Length=200' Tc=8.2 min CN=82 Runoff=0.57 cfs 0.044 af

Subcatchment 1C: Roof Area (to R-Tank Runoff Area=11,969 sf 100.00% Impervious Runoff Depth=2.87"
Tc=6.0 min CN=98 Runoff=0.83 cfs 0.066 af

Reach 2R: POI 1 Inflow=0.29 cfs 0.138 af
Outflow=0.29 cfs 0.138 af

Pond 2P: FocalPoint 1 Peak Elev=104.37' Storage=82 cf Inflow=0.57 cfs 0.044 af
Primary=0.13 cfs 0.035 af Secondary=0.45 cfs 0.009 af Outflow=0.57 cfs 0.044 af

Pond 3P: R-Tank 1 Peak Elev=100.27' Storage=2,537 cf Inflow=1.36 cfs 0.110 af
Outflow=0.15 cfs 0.110 af

Total Runoff Area = 1.175 ac Runoff Volume = 0.138 af Average Runoff Depth = 1.41"
32.68% Pervious = 0.384 ac 67.32% Impervious = 0.791 ac

Barron Ctr SW

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Type III 24-hr 2-Year Storm Rainfall=3.10"

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Summary for Subcatchment 1A: Remaining Untreated Area

Runoff = 0.27 cfs @ 12.18 hrs, Volume= 0.028 af, Depth= 0.64"
 Routed to Reach 2R : POI 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-Year Storm Rainfall=3.10"

Area (sf)	CN	Description
10,910	98	Paved parking, HSG A
12,418	39	>75% Grass cover, Good, HSG A
23,328	67	Weighted Average
12,418		53.23% Pervious Area
10,910		46.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	127	0.0300	0.20		Sheet Flow, Lawn
					Grass: Short n= 0.150 P2= 3.00"
0.6	109	0.0250	3.21		Shallow Concentrated Flow, Street
					Paved Kv= 20.3 fps
11.0	236	Total			

Summary for Subcatchment 1B: New Area to FP

Runoff = 0.57 cfs @ 12.12 hrs, Volume= 0.044 af, Depth= 1.46"
 Routed to Pond 2P : FocalPoint 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-Year Storm Rainfall=3.10"

Area (sf)	CN	Description
11,589	98	Paved parking, HSG A
4,318	39	>75% Grass cover, Good, HSG A
15,907	82	Weighted Average
4,318		27.15% Pervious Area
11,589		72.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	30	0.0070	0.09		Sheet Flow,
					Grass: Short n= 0.150 P2= 3.00"
1.9	120	0.0100	1.05		Sheet Flow,
					Smooth surfaces n= 0.011 P2= 3.00"
0.4	50	0.0100	2.03		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps
8.2	200	Total			

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Type III 24-hr 2-Year Storm Rainfall=3.10"

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Summary for Subcatchment 1C: Roof Area (to R-Tank only)

Runoff = 0.83 cfs @ 12.08 hrs, Volume= 0.066 af, Depth= 2.87"
 Routed to Pond 3P : R-Tank 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 2-Year Storm Rainfall=3.10"

Area (sf)	CN	Description
11,969	98	Roofs, HSG A
11,969		100.00% Impervious Area

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

Summary for Reach 2R: POI 1

Inflow Area = 1.175 ac, 67.32% Impervious, Inflow Depth > 1.41" for 2-Year Storm event
 Inflow = 0.29 cfs @ 12.18 hrs, Volume= 0.138 af
 Outflow = 0.29 cfs @ 12.18 hrs, Volume= 0.138 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Pond 2P: FocalPoint 1

Inflow Area = 0.365 ac, 72.85% Impervious, Inflow Depth = 1.46" for 2-Year Storm event
 Inflow = 0.57 cfs @ 12.12 hrs, Volume= 0.044 af
 Outflow = 0.57 cfs @ 12.13 hrs, Volume= 0.044 af, Atten= 0%, Lag= 0.4 min
 Primary = 0.13 cfs @ 11.84 hrs, Volume= 0.035 af
 Routed to Pond 3P : R-Tank 1
 Secondary = 0.45 cfs @ 12.13 hrs, Volume= 0.009 af
 Routed to Pond 3P : R-Tank 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 104.37' @ 12.13 hrs Surf.Area= 55 sf Storage= 82 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 2.0 min (841.8 - 839.9)

Volume	Invert	Avail.Storage	Storage Description
#1	101.50'	25 cf	5.00'W x 11.00'L x 2.25'H Focal Point Filter Media 124 cf Overall x 20.0% Voids
#2	103.75'	114 cf	FocalPoint Basin (Prismatic) Listed below (Recalc) -Impervious
		138 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
103.75	55	0	0
104.75	172	114	114

Barron Ctr SW

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Type III 24-hr 2-Year Storm Rainfall=3.10"

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Device	Routing	Invert	Outlet Devices
#1	Primary	101.50'	100.000 in/hr Exfiltration FP Media over Surface area Phase-In= 0.01'
#2	Secondary	104.25'	12.0" Horiz. Overflow Pipe C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.13 cfs @ 11.84 hrs HW=101.56' TW=99.11' (Dynamic Tailwater)↑**1=Exfiltration FP Media** (Exfiltration Controls 0.13 cfs)**Secondary OutFlow** Max=0.45 cfs @ 12.13 hrs HW=104.37' TW=99.58' (Dynamic Tailwater)↑**2=Overflow Pipe** (Weir Controls 0.45 cfs @ 1.15 fps)**Summary for Pond 3P: R-Tank 1**

Inflow Area = 0.640 ac, 84.51% Impervious, Inflow Depth = 2.06" for 2-Year Storm event
 Inflow = 1.36 cfs @ 12.10 hrs, Volume= 0.110 af
 Outflow = 0.15 cfs @ 13.03 hrs, Volume= 0.110 af, Atten= 89%, Lag= 56.0 min
 Primary = 0.15 cfs @ 13.03 hrs, Volume= 0.110 af
 Routed to Reach 2R : POI 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 100.27' @ 13.03 hrs Surf.Area= 1,888 sf Storage= 2,537 cf

Plug-Flow detention time= 752.7 min calculated for 0.110 af (100% of inflow)

Center-of-Mass det. time= 752.2 min (1,543.5 - 791.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	98.55'	1,245 cf	27.62'W x 67.34'L x 3.42'H Field A 6,352 cf Overall - 3,240 cf Embedded = 3,113 cf x 40.0% Voids
#2A	98.80'	3,078 cf	Ferguson R-Tank HD 1.5 x 486 Inside #1 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 486 Chambers in 18 Rows
#3	98.80'	133 cf	6.00'D x 4.69'H Vertical Cone/Cylinder
		4,455 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	98.55'	12.0" Round 12" out of OCS L= 90.0' Ke= 0.900 Inlet / Outlet Invert= 98.55' / 98.08' S= 0.0052 ' / Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Device 1	98.55'	0.02 cfs Exfiltration at all elevations
#3	Device 1	101.72'	3.0' long x 0.5' breadth Weir-25 yr peak Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#4	Device 1	100.01'	4.0" Vert. Orifice/Grate-wqv C= 0.600 Limited to weir flow at low heads
#5	Device 1	100.27'	4.0" Vert. Orifice/Grate-2yr peak C= 0.600 Limited to weir flow at low heads

Barron Ctr SW

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Type III 24-hr 2-Year Storm Rainfall=3.10"

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#6 Device 1 100.87' **3.0" Vert. Orifice/Grate-10 yr peak** C= 0.600
Limited to weir flow at low heads

Primary OutFlow Max=0.15 cfs @ 13.03 hrs HW=100.27' TW=0.00' (Dynamic Tailwater)

- ↑ 1=12" out of OCS (Passes 0.15 cfs of 3.17 cfs potential flow)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)
- 3=Weir-25 yr peak (Controls 0.00 cfs)
- 4=Orifice/Grate-wqv (Orifice Controls 0.13 cfs @ 1.75 fps)
- 5=Orifice/Grate-2yr peak (Orifice Controls 0.00 cfs @ 0.20 fps)
- 6=Orifice/Grate-10 yr peak (Controls 0.00 cfs)

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Type III 24-hr 10-Year Storm Rainfall=4.60"

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 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 1A: Remaining Untreated Runoff Area=23,328 sf 46.77% Impervious Runoff Depth=1.53"
Flow Length=236' Tc=11.0 min CN=67 Runoff=0.77 cfs 0.068 af

Subcatchment 1B: New Area to FP Runoff Area=15,907 sf 72.85% Impervious Runoff Depth=2.72"
Flow Length=200' Tc=8.2 min CN=82 Runoff=1.08 cfs 0.083 af

Subcatchment 1C: Roof Area (to R-Tank Runoff Area=11,969 sf 100.00% Impervious Runoff Depth=4.36"
Tc=6.0 min CN=98 Runoff=1.24 cfs 0.100 af

Reach 2R: POI 1 Inflow=1.22 cfs 0.251 af
Outflow=1.22 cfs 0.251 af

Pond 2P: FocalPoint 1 Peak Elev=104.45' Storage=93 cf Inflow=1.08 cfs 0.083 af
Primary=0.13 cfs 0.056 af Secondary=0.95 cfs 0.027 af Outflow=1.08 cfs 0.083 af

Pond 3P: R-Tank 1 Peak Elev=100.87' Storage=3,482 cf Inflow=2.26 cfs 0.183 af
Outflow=0.64 cfs 0.183 af

Total Runoff Area = 1.175 ac Runoff Volume = 0.251 af Average Runoff Depth = 2.56"
32.68% Pervious = 0.384 ac 67.32% Impervious = 0.791 ac

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Type III 24-hr 10-Year Storm Rainfall=4.60"

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Summary for Subcatchment 1A: Remaining Untreated Area

Runoff = 0.77 cfs @ 12.16 hrs, Volume= 0.068 af, Depth= 1.53"
 Routed to Reach 2R : POI 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-Year Storm Rainfall=4.60"

Area (sf)	CN	Description
10,910	98	Paved parking, HSG A
12,418	39	>75% Grass cover, Good, HSG A
23,328	67	Weighted Average
12,418		53.23% Pervious Area
10,910		46.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	127	0.0300	0.20		Sheet Flow, Lawn
					Grass: Short n= 0.150 P2= 3.00"
0.6	109	0.0250	3.21		Shallow Concentrated Flow, Street
					Paved Kv= 20.3 fps
11.0	236	Total			

Summary for Subcatchment 1B: New Area to FP

Runoff = 1.08 cfs @ 12.12 hrs, Volume= 0.083 af, Depth= 2.72"
 Routed to Pond 2P : FocalPoint 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-Year Storm Rainfall=4.60"

Area (sf)	CN	Description
11,589	98	Paved parking, HSG A
4,318	39	>75% Grass cover, Good, HSG A
15,907	82	Weighted Average
4,318		27.15% Pervious Area
11,589		72.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	30	0.0070	0.09		Sheet Flow,
					Grass: Short n= 0.150 P2= 3.00"
1.9	120	0.0100	1.05		Sheet Flow,
					Smooth surfaces n= 0.011 P2= 3.00"
0.4	50	0.0100	2.03		Shallow Concentrated Flow,
					Paved Kv= 20.3 fps
8.2	200	Total			

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Type III 24-hr 10-Year Storm Rainfall=4.60"

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Summary for Subcatchment 1C: Roof Area (to R-Tank only)

Runoff = 1.24 cfs @ 12.08 hrs, Volume= 0.100 af, Depth= 4.36"
 Routed to Pond 3P : R-Tank 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 10-Year Storm Rainfall=4.60"

Area (sf)	CN	Description
11,969	98	Roofs, HSG A
11,969		100.00% Impervious Area

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

Summary for Reach 2R: POI 1

Inflow Area = 1.175 ac, 67.32% Impervious, Inflow Depth = 2.56" for 10-Year Storm event
 Inflow = 1.22 cfs @ 12.21 hrs, Volume= 0.251 af
 Outflow = 1.22 cfs @ 12.21 hrs, Volume= 0.251 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Pond 2P: FocalPoint 1

Inflow Area = 0.365 ac, 72.85% Impervious, Inflow Depth = 2.72" for 10-Year Storm event
 Inflow = 1.08 cfs @ 12.12 hrs, Volume= 0.083 af
 Outflow = 1.08 cfs @ 12.12 hrs, Volume= 0.083 af, Atten= 0%, Lag= 0.4 min
 Primary = 0.13 cfs @ 11.66 hrs, Volume= 0.056 af
 Routed to Pond 3P : R-Tank 1
 Secondary = 0.95 cfs @ 12.12 hrs, Volume= 0.027 af
 Routed to Pond 3P : R-Tank 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 104.45' @ 12.12 hrs Surf.Area= 55 sf Storage= 93 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 1.9 min (823.8 - 821.8)

Volume	Invert	Avail.Storage	Storage Description
#1	101.50'	25 cf	5.00'W x 11.00'L x 2.25'H Focal Point Filter Media 124 cf Overall x 20.0% Voids
#2	103.75'	114 cf	FocalPoint Basin (Prismatic) Listed below (Recalc) -Impervious
		138 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
103.75	55	0	0
104.75	172	114	114

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Type III 24-hr 10-Year Storm Rainfall=4.60"

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Device	Routing	Invert	Outlet Devices
#1	Primary	101.50'	100.000 in/hr Exfiltration FP Media over Surface area Phase-In= 0.01'
#2	Secondary	104.25'	12.0" Horiz. Overflow Pipe C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.13 cfs @ 11.66 hrs HW=101.54' TW=99.36' (Dynamic Tailwater)↑**1=Exfiltration FP Media** (Exfiltration Controls 0.13 cfs)**Secondary OutFlow** Max=0.95 cfs @ 12.12 hrs HW=104.45' TW=100.36' (Dynamic Tailwater)↑**2=Overflow Pipe** (Weir Controls 0.95 cfs @ 1.48 fps)**Summary for Pond 3P: R-Tank 1**

Inflow Area = 0.640 ac, 84.51% Impervious, Inflow Depth = 3.43" for 10-Year Storm event
 Inflow = 2.26 cfs @ 12.10 hrs, Volume= 0.183 af
 Outflow = 0.64 cfs @ 12.47 hrs, Volume= 0.183 af, Atten= 71%, Lag= 22.2 min
 Primary = 0.64 cfs @ 12.47 hrs, Volume= 0.183 af
 Routed to Reach 2R : POI 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 100.87' @ 12.47 hrs Surf.Area= 1,888 sf Storage= 3,482 cf

Plug-Flow detention time= 490.2 min calculated for 0.183 af (100% of inflow)

Center-of-Mass det. time= 490.2 min (1,273.3 - 783.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	98.55'	1,245 cf	27.62'W x 67.34'L x 3.42'H Field A 6,352 cf Overall - 3,240 cf Embedded = 3,113 cf x 40.0% Voids
#2A	98.80'	3,078 cf	Ferguson R-Tank HD 1.5 x 486 Inside #1 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 486 Chambers in 18 Rows
#3	98.80'	133 cf	6.00'D x 4.69'H Vertical Cone/Cylinder
		4,455 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	98.55'	12.0" Round 12" out of OCS L= 90.0' Ke= 0.900 Inlet / Outlet Invert= 98.55' / 98.08' S= 0.0052 ' / Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Device 1	98.55'	0.02 cfs Exfiltration at all elevations
#3	Device 1	101.72'	3.0' long x 0.5' breadth Weir-25 yr peak Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#4	Device 1	100.01'	4.0" Vert. Orifice/Grate-wqv C= 0.600 Limited to weir flow at low heads
#5	Device 1	100.27'	4.0" Vert. Orifice/Grate-2yr peak C= 0.600 Limited to weir flow at low heads

Barron Ctr SW

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Type III 24-hr 10-Year Storm Rainfall=4.60"

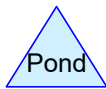
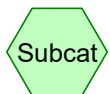
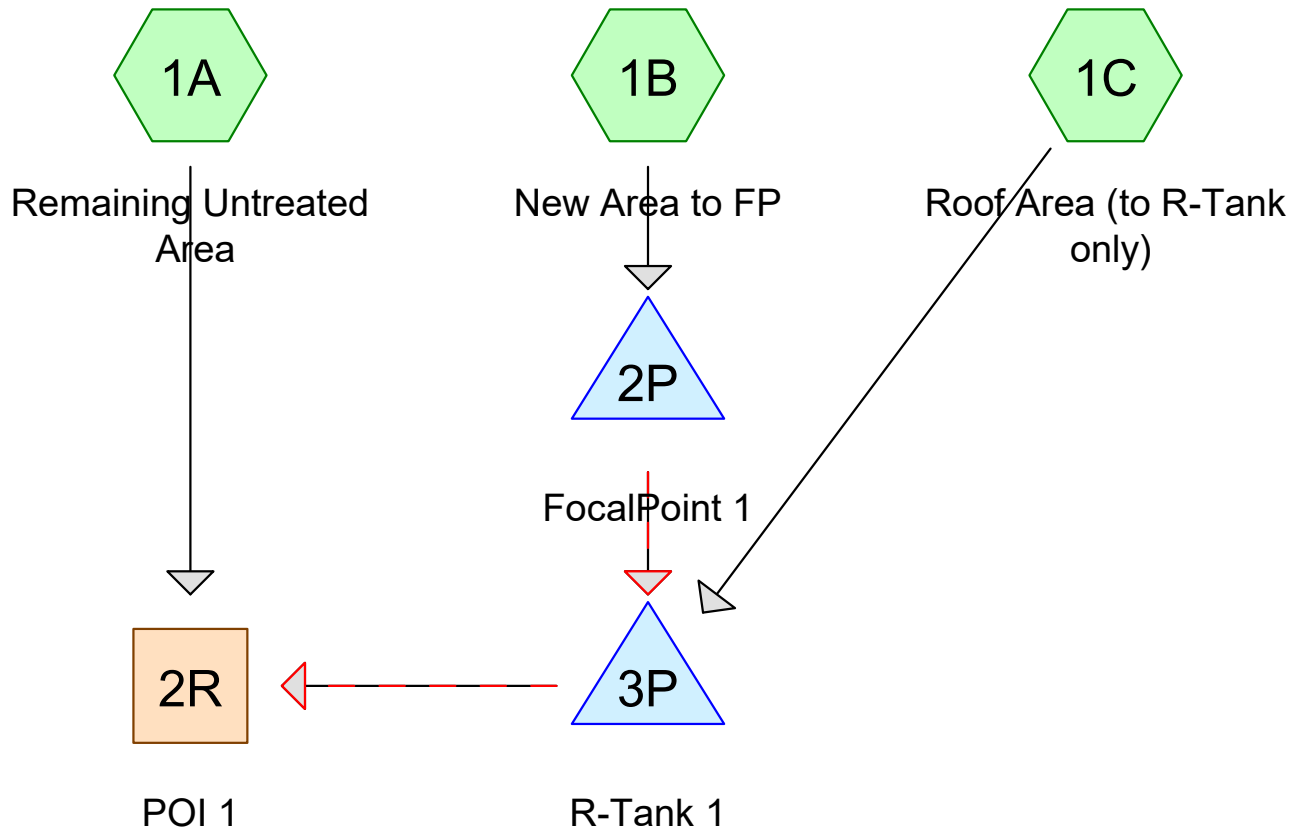
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#6 Device 1 100.87' **3.0" Vert. Orifice/Grate-10 yr peak** C= 0.600
Limited to weir flow at low heads

Primary OutFlow Max=0.64 cfs @ 12.47 hrs HW=100.87' TW=0.00' (Dynamic Tailwater)

- ↑ 1=12" out of OCS (Passes 0.64 cfs of 3.87 cfs potential flow)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)
- 3=Weir-25 yr peak (Controls 0.00 cfs)
- 4=Orifice/Grate-wqv (Orifice Controls 0.35 cfs @ 4.00 fps)
- 5=Orifice/Grate-2yr peak (Orifice Controls 0.28 cfs @ 3.16 fps)
- 6=Orifice/Grate-10 yr peak (Controls 0.00 cfs)



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Barron Ctr SW

Type III 24-hr 25-Year Storm Rainfall=5.80"

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 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 1A: Remaining Untreated Runoff Area=23,328 sf 46.77% Impervious Runoff Depth=2.38"
Flow Length=236' Tc=11.0 min CN=67 Runoff=1.24 cfs 0.106 af

Subcatchment 1B: New Area to FP Runoff Area=15,907 sf 72.85% Impervious Runoff Depth=3.80"
Flow Length=200' Tc=8.2 min CN=82 Runoff=1.50 cfs 0.116 af

Subcatchment 1C: Roof Area (to R-Tank Runoff Area=11,969 sf 100.00% Impervious Runoff Depth=5.56"
Tc=6.0 min CN=98 Runoff=1.56 cfs 0.127 af

Reach 2R: POI 1 Inflow=2.26 cfs 0.349 af
Outflow=2.26 cfs 0.349 af

Pond 2P: FocalPoint 1 Peak Elev=104.51' Storage=100 cf Inflow=1.50 cfs 0.116 af
Primary=0.13 cfs 0.071 af Secondary=1.37 cfs 0.045 af Outflow=1.50 cfs 0.116 af

Pond 3P: R-Tank 1 Peak Elev=101.72' Storage=4,226 cf Inflow=2.99 cfs 0.243 af
Outflow=1.22 cfs 0.243 af

Total Runoff Area = 1.175 ac Runoff Volume = 0.349 af Average Runoff Depth = 3.57"
32.68% Pervious = 0.384 ac 67.32% Impervious = 0.791 ac

Barron Ctr SW

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Type III 24-hr 25-Year Storm Rainfall=5.80"

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Page 3

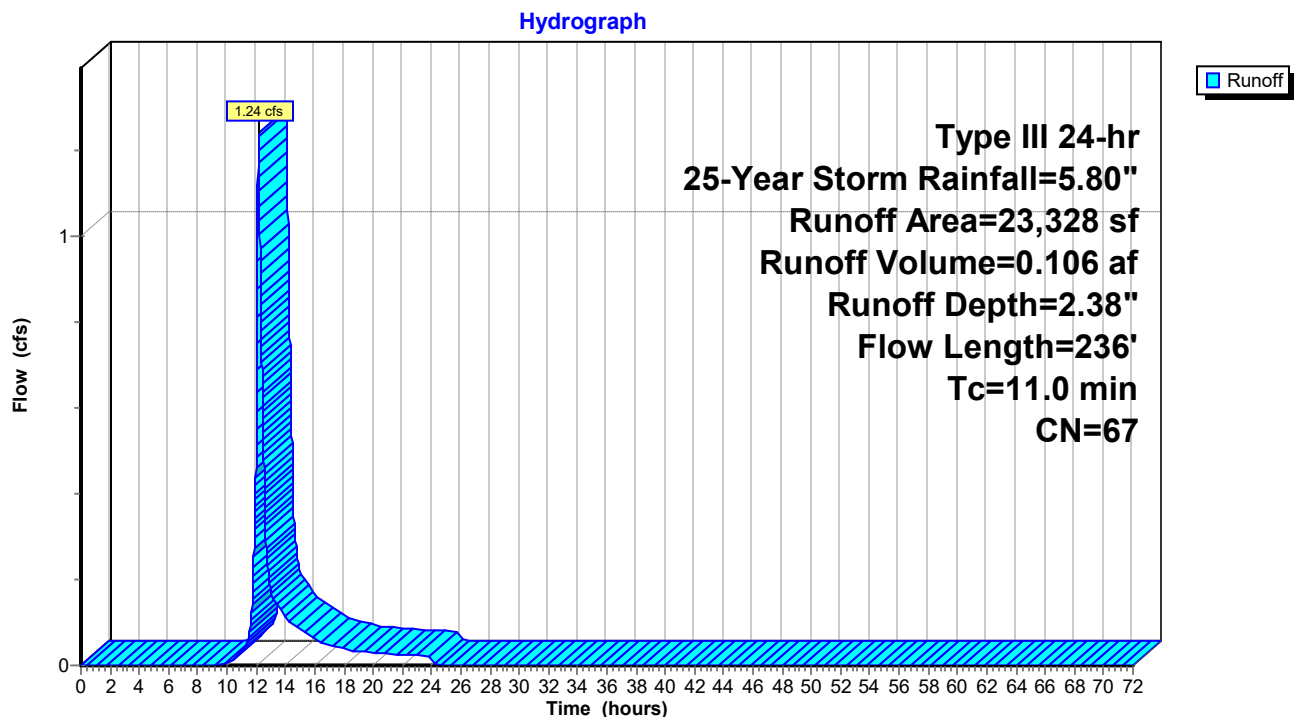
Summary for Subcatchment 1A: Remaining Untreated Area

Runoff = 1.24 cfs @ 12.16 hrs, Volume= 0.106 af, Depth= 2.38"
Routed to Reach 2R : POI 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Storm Rainfall=5.80"

Area (sf)	CN	Description
10,910	98	Paved parking, HSG A
12,418	39	>75% Grass cover, Good, HSG A
23,328	67	Weighted Average
12,418		53.23% Pervious Area
10,910		46.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	127	0.0300	0.20		Sheet Flow, Lawn
					Grass: Short n= 0.150 P2= 3.00"
0.6	109	0.0250	3.21		Shallow Concentrated Flow, Street
					Paved Kv= 20.3 fps
11.0	236	Total			

Subcatchment 1A: Remaining Untreated Area

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Type III 24-hr 25-Year Storm Rainfall=5.80"

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Summary for Subcatchment 1B: New Area to FP

Runoff = 1.50 cfs @ 12.11 hrs, Volume= 0.116 af, Depth= 3.80"
 Routed to Pond 2P : FocalPoint 1

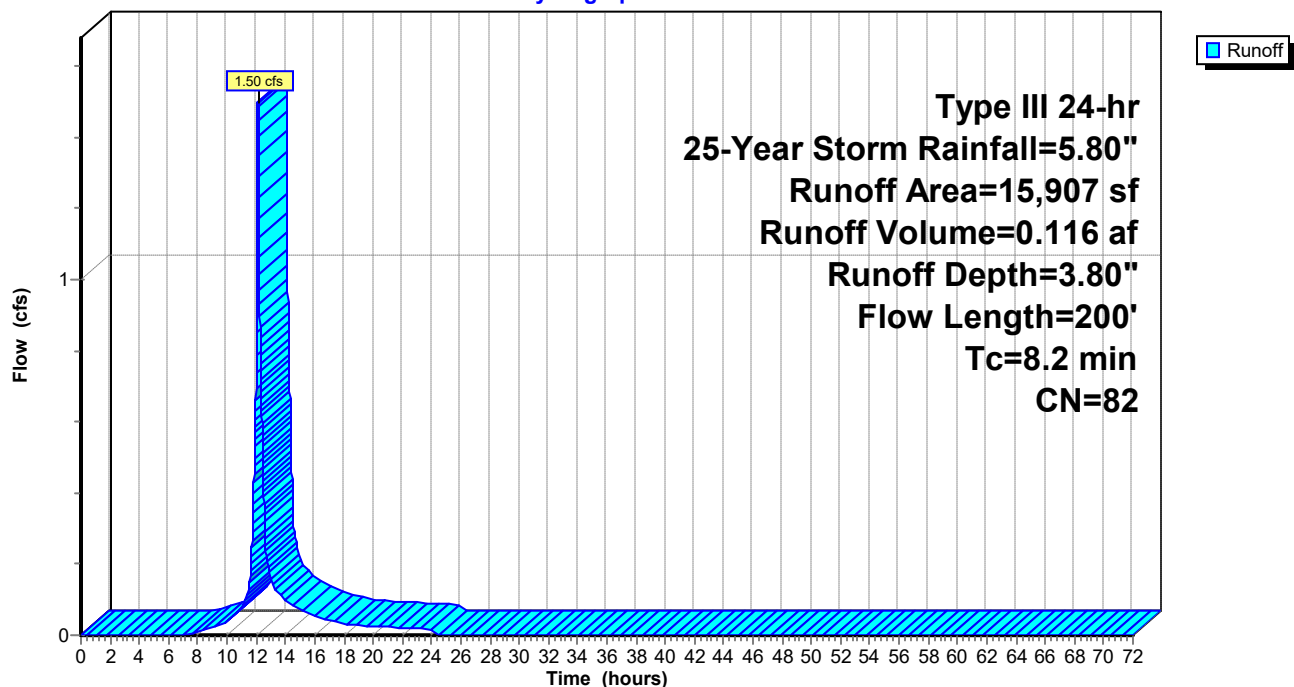
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Storm Rainfall=5.80"

Area (sf)	CN	Description
11,589	98	Paved parking, HSG A
4,318	39	>75% Grass cover, Good, HSG A
15,907	82	Weighted Average
4,318		27.15% Pervious Area
11,589		72.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	30	0.0070	0.09		Sheet Flow, Grass: Short n= 0.150 P2= 3.00"
1.9	120	0.0100	1.05		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.00"
0.4	50	0.0100	2.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps
8.2	200	Total			

Subcatchment 1B: New Area to FP

Hydrograph



Summary for Subcatchment 1C: Roof Area (to R-Tank only)

Runoff = 1.56 cfs @ 12.08 hrs, Volume= 0.127 af, Depth= 5.56"
 Routed to Pond 3P : R-Tank 1

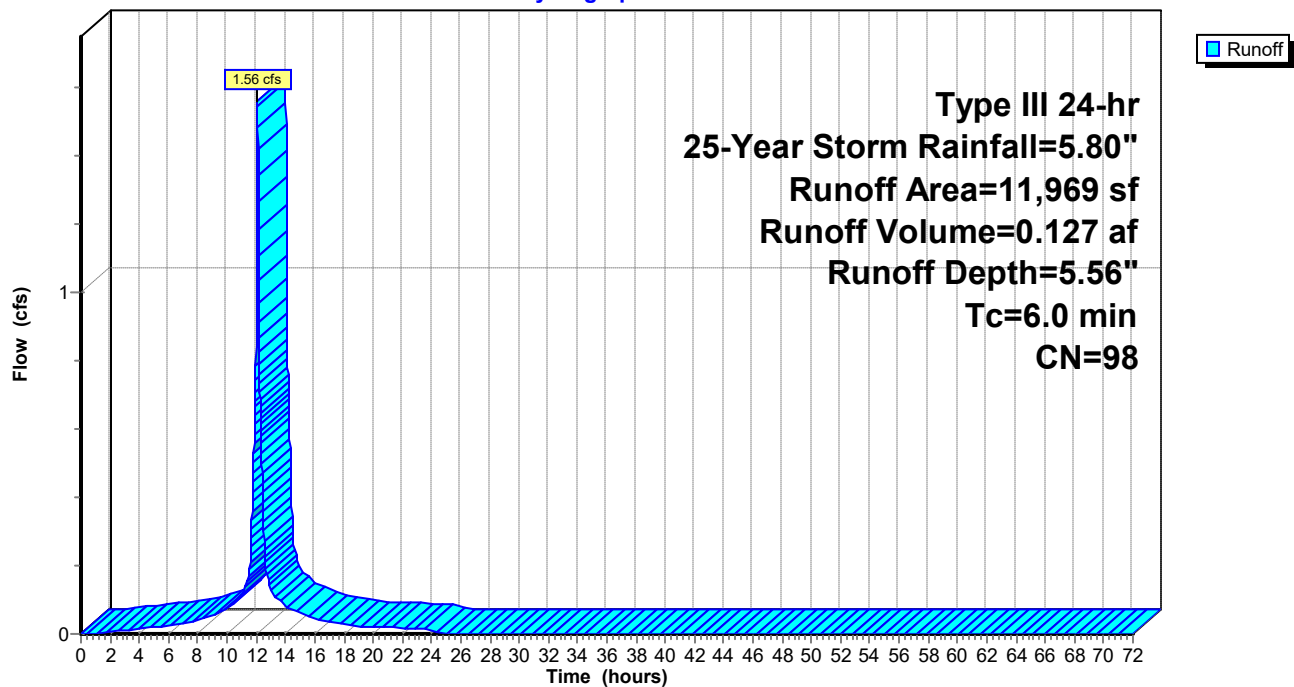
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 25-Year Storm Rainfall=5.80"

Area (sf)	CN	Description
11,969	98	Roofs, HSG A
11,969		100.00% Impervious Area

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

Subcatchment 1C: Roof Area (to R-Tank only)

Hydrograph



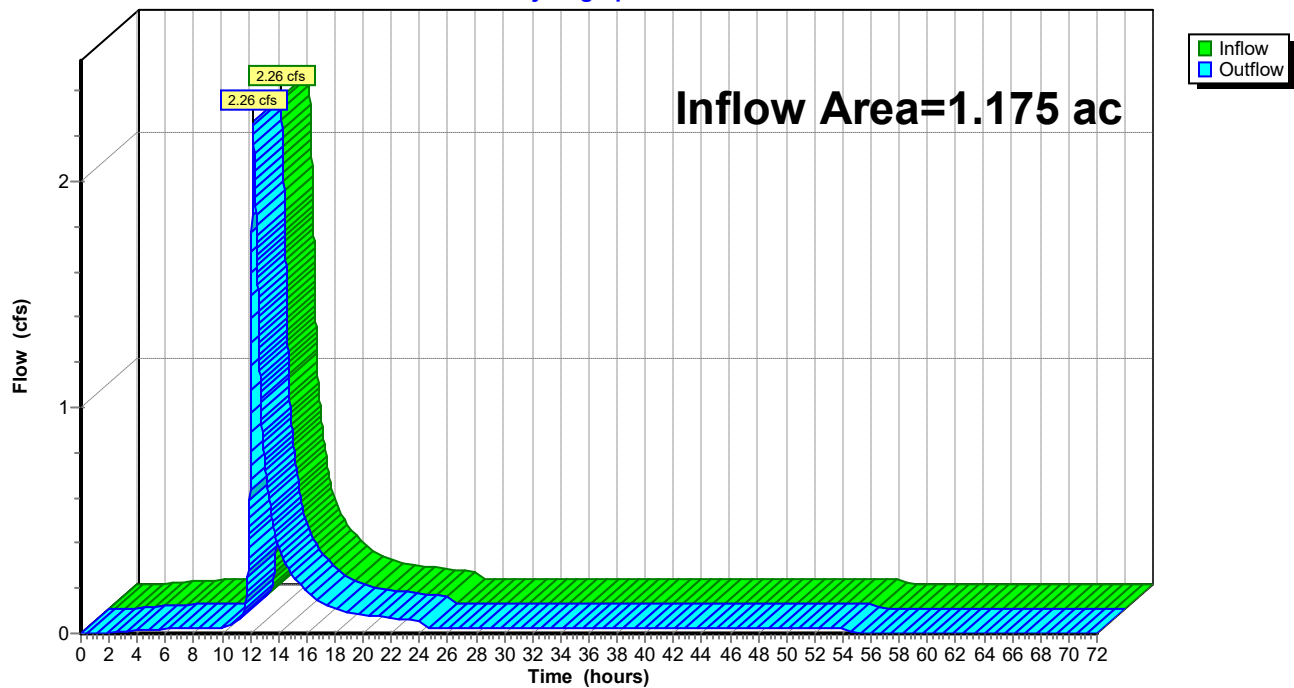
Summary for Reach 2R: POI 1

Inflow Area = 1.175 ac, 67.32% Impervious, Inflow Depth = 3.57" for 25-Year Storm event
Inflow = 2.26 cfs @ 12.19 hrs, Volume= 0.349 af
Outflow = 2.26 cfs @ 12.19 hrs, Volume= 0.349 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach 2R: POI 1

Hydrograph



Barron Ctr SW

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Type III 24-hr 25-Year Storm Rainfall=5.80"

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Page 7

Summary for Pond 2P: FocalPoint 1

Inflow Area = 0.365 ac, 72.85% Impervious, Inflow Depth = 3.80" for 25-Year Storm event
 Inflow = 1.50 cfs @ 12.11 hrs, Volume= 0.116 af
 Outflow = 1.50 cfs @ 12.12 hrs, Volume= 0.116 af, Atten= 0%, Lag= 0.3 min
 Primary = 0.13 cfs @ 11.49 hrs, Volume= 0.071 af
 Routed to Pond 3P : R-Tank 1
 Secondary = 1.37 cfs @ 12.12 hrs, Volume= 0.045 af
 Routed to Pond 3P : R-Tank 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 104.51' @ 12.12 hrs Surf.Area= 55 sf Storage= 100 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 2.0 min (814.3 - 812.3)

Volume	Invert	Avail.Storage	Storage Description
#1	101.50'	25 cf	5.00'W x 11.00'L x 2.25'H Focal Point Filter Media 124 cf Overall x 20.0% Voids
#2	103.75'	114 cf	FocalPoint Basin (Prismatic) Listed below (Recalc) -Impervious
		138 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
103.75	55	0	0
104.75	172	114	114

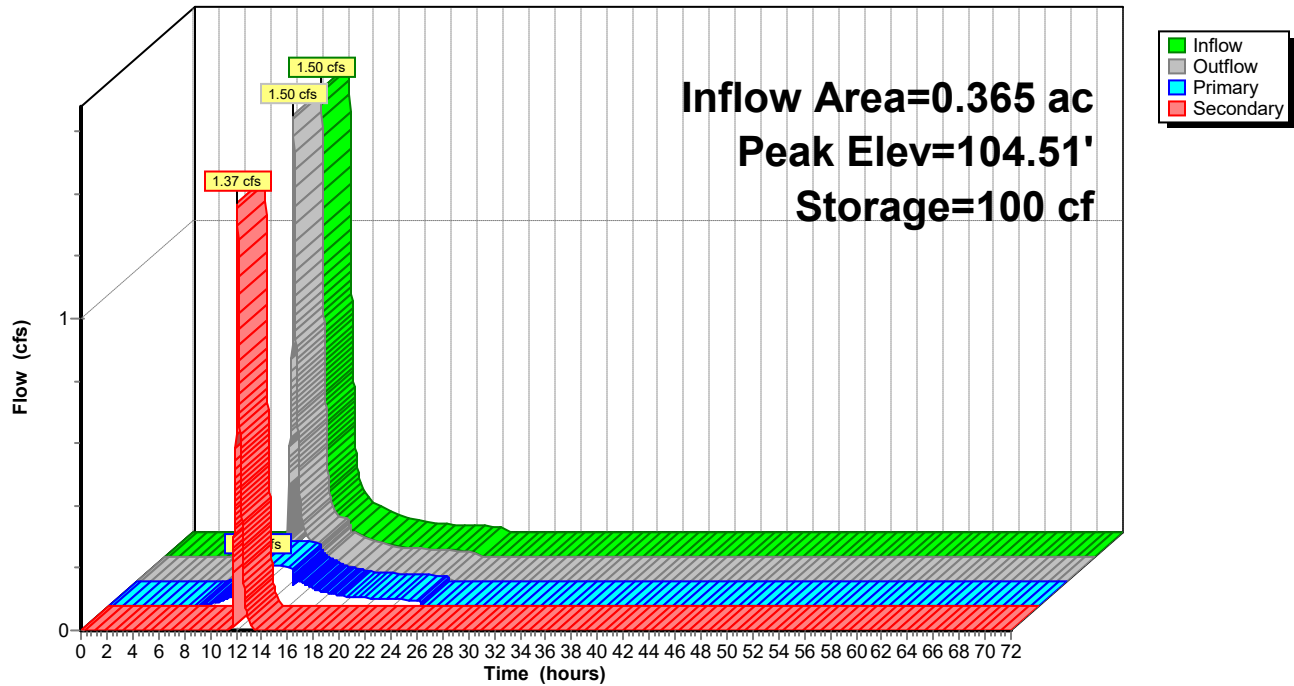
Device	Routing	Invert	Outlet Devices
#1	Primary	101.50'	100.000 in/hr Exfiltration FP Media over Surface area Phase-In= 0.01'
#2	Secondary	104.25'	12.0" Horiz. Overflow Pipe C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.13 cfs @ 11.49 hrs HW=101.54' TW=99.58' (Dynamic Tailwater)
 ↑ **1=Exfiltration FP Media** (Exfiltration Controls 0.13 cfs)

Secondary OutFlow Max=1.37 cfs @ 12.12 hrs HW=104.51' TW=100.94' (Dynamic Tailwater)
 ↑ **2=Overflow Pipe** (Weir Controls 1.37 cfs @ 1.67 fps)

Pond 2P: FocalPoint 1

Hydrograph



Barron Ctr SW

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Type III 24-hr 25-Year Storm Rainfall=5.80"

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Summary for Pond 3P: R-Tank 1

Inflow Area = 0.640 ac, 84.51% Impervious, Inflow Depth = 4.56" for 25-Year Storm event
 Inflow = 2.99 cfs @ 12.10 hrs, Volume= 0.243 af
 Outflow = 1.22 cfs @ 12.35 hrs, Volume= 0.243 af, Atten= 59%, Lag= 14.8 min
 Primary = 1.22 cfs @ 12.35 hrs, Volume= 0.243 af
 Routed to Reach 2R : POI 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 101.72' @ 12.35 hrs Surf.Area= 1,888 sf Storage= 4,226 cf

Plug-Flow detention time= 386.8 min calculated for 0.243 af (100% of inflow)
 Center-of-Mass det. time= 386.9 min (1,165.3 - 778.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	98.55'	1,245 cf	27.62'W x 67.34'L x 3.42'H Field A 6,352 cf Overall - 3,240 cf Embedded = 3,113 cf x 40.0% Voids
#2A	98.80'	3,078 cf	Ferguson R-Tank HD 1.5 x 486 Inside #1 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 486 Chambers in 18 Rows
#3	98.80'	133 cf	6.00'D x 4.69'H Vertical Cone/Cylinder
		4,455 cf	Total Available Storage

Storage Group A created with Chamber Wizard

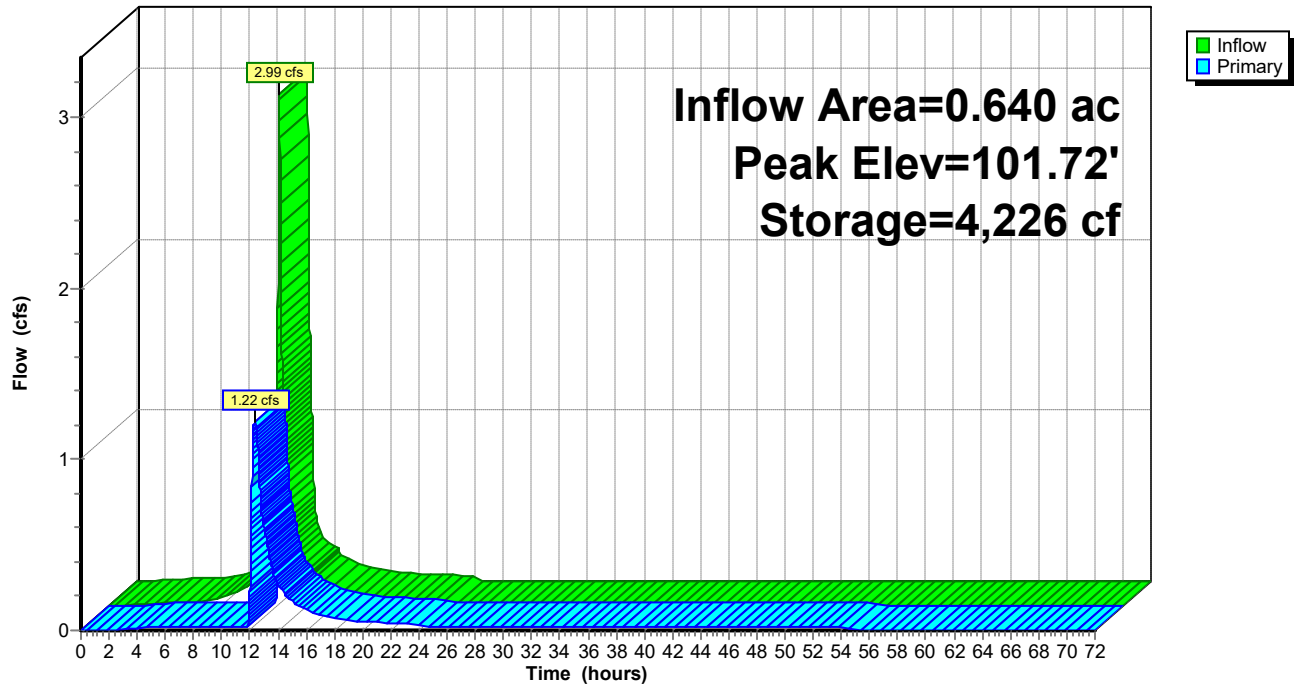
Device	Routing	Invert	Outlet Devices
#1	Primary	98.55'	12.0" Round 12" out of OCS L= 90.0' Ke= 0.900 Inlet / Outlet Invert= 98.55' / 98.08' S= 0.0052 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Device 1	98.55'	0.02 cfs Exfiltration at all elevations
#3	Device 1	101.72'	3.0' long x 0.5' breadth Weir-25 yr peak Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#4	Device 1	100.01'	4.0" Vert. Orifice/Grate-wqv C= 0.600 Limited to weir flow at low heads
#5	Device 1	100.27'	4.0" Vert. Orifice/Grate-2yr peak C= 0.600 Limited to weir flow at low heads
#6	Device 1	100.87'	3.0" Vert. Orifice/Grate-10 yr peak C= 0.600 Limited to weir flow at low heads

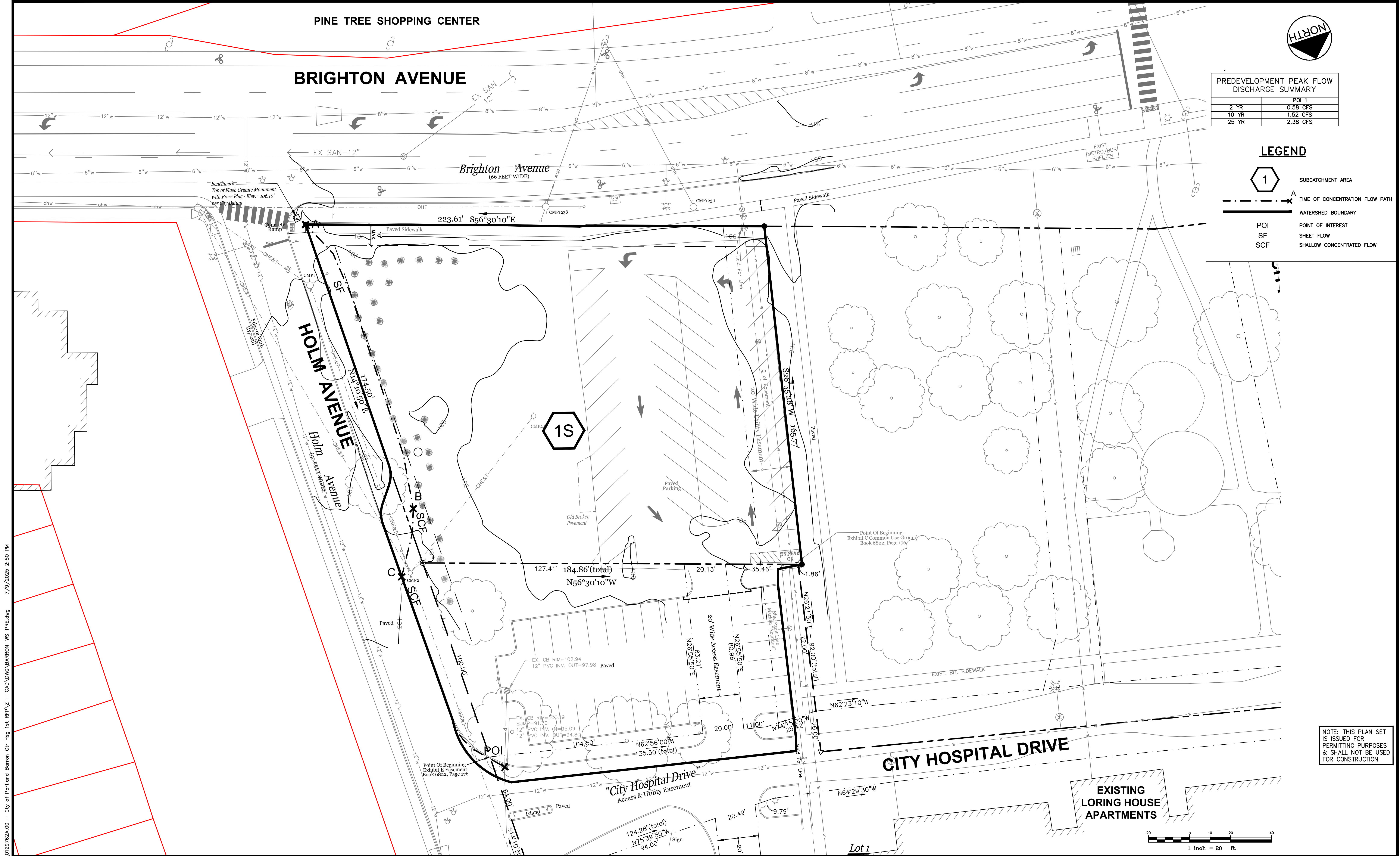
Primary OutFlow Max=1.22 cfs @ 12.35 hrs HW=101.72' TW=0.00' (Dynamic Tailwater)

- 1=12" out of OCS (Passes 1.22 cfs of 4.71 cfs potential flow)
- 2=Exfiltration (Exfiltration Controls 0.02 cfs)
- 3=Weir-25 yr peak (Weir Controls 0.00 cfs @ 0.17 fps)
- 4=Orifice/Grate-wqv (Orifice Controls 0.52 cfs @ 5.99 fps)
- 5=Orifice/Grate-2yr peak (Orifice Controls 0.48 cfs @ 5.46 fps)
- 6=Orifice/Grate-10 yr peak (Orifice Controls 0.20 cfs @ 4.11 fps)

Pond 3P: R-Tank 1

Hydrograph

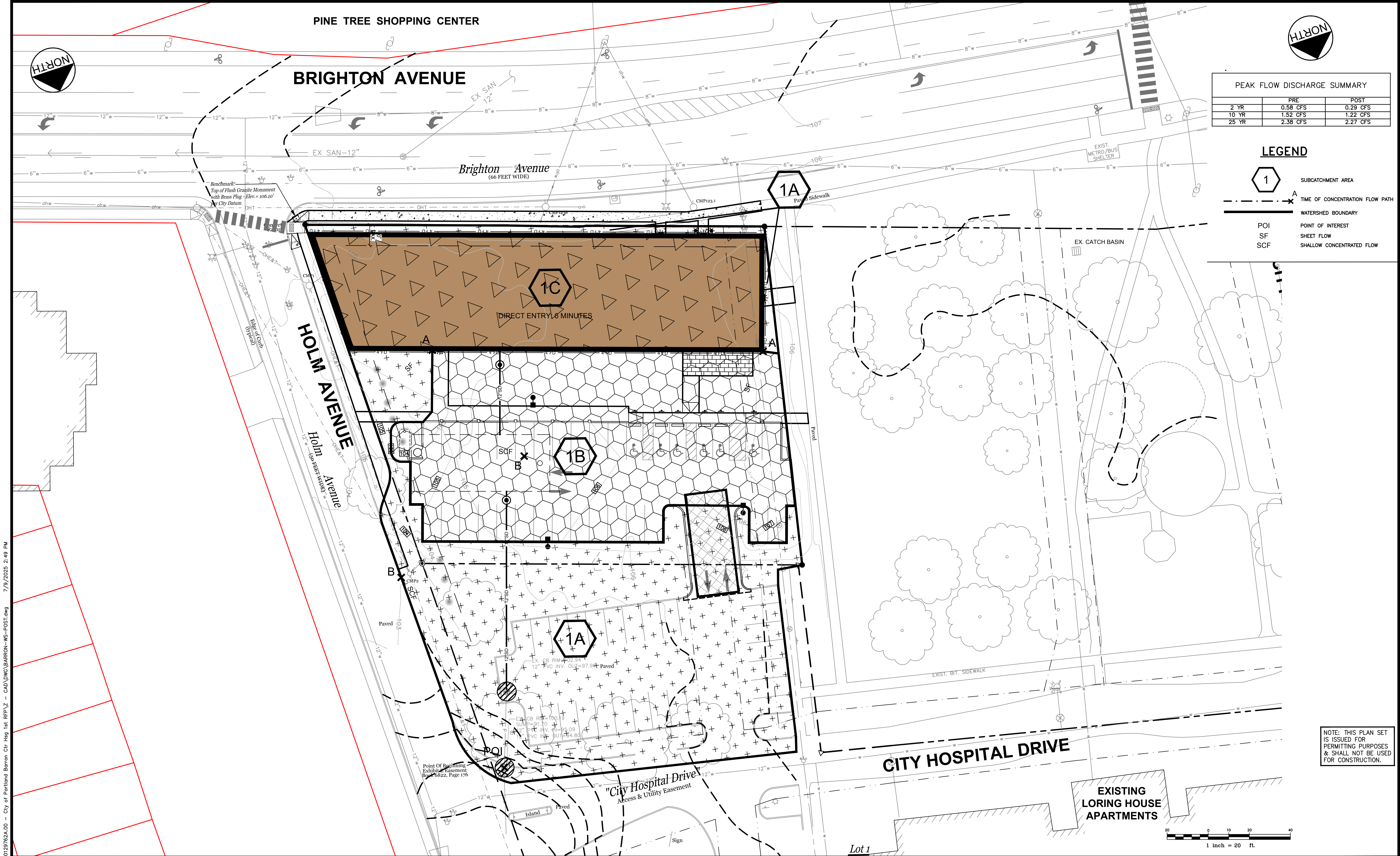




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Rev.	Date	Revision	Design: SRB Checked: SRB File Name: BARRON-WS-PRE.dwg	Draft: CDD Scale: AS NOTED Job No.: 0129762A.00	Date: JUNE 2025	GORRILL PALMER An LJB Engineering Company Gorrill Palmer, an LJB Engineering Company GorrillPalmer.com (207) 772-2515 300 Southborough Drive - Suite 200 South Portland, ME 04106	Drawing Name: PREDEVELOPMENT WATERSHED MAP	Drawing No. W1
2	7/8/2025	REVISED PER STAFF COMMENTS	This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.				Project: CITY OF PORTLAND - BARRON CENTER - SITE 1 HOUSING 1125 Brighton Avenue, Portland, Maine	Client: DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC/PROSPERITY ME 175 Lancaster Street, Suite 216A, Portland, Maine 04101
1	6/6/2025	MAJOR SITE PLAN APPLICATION						

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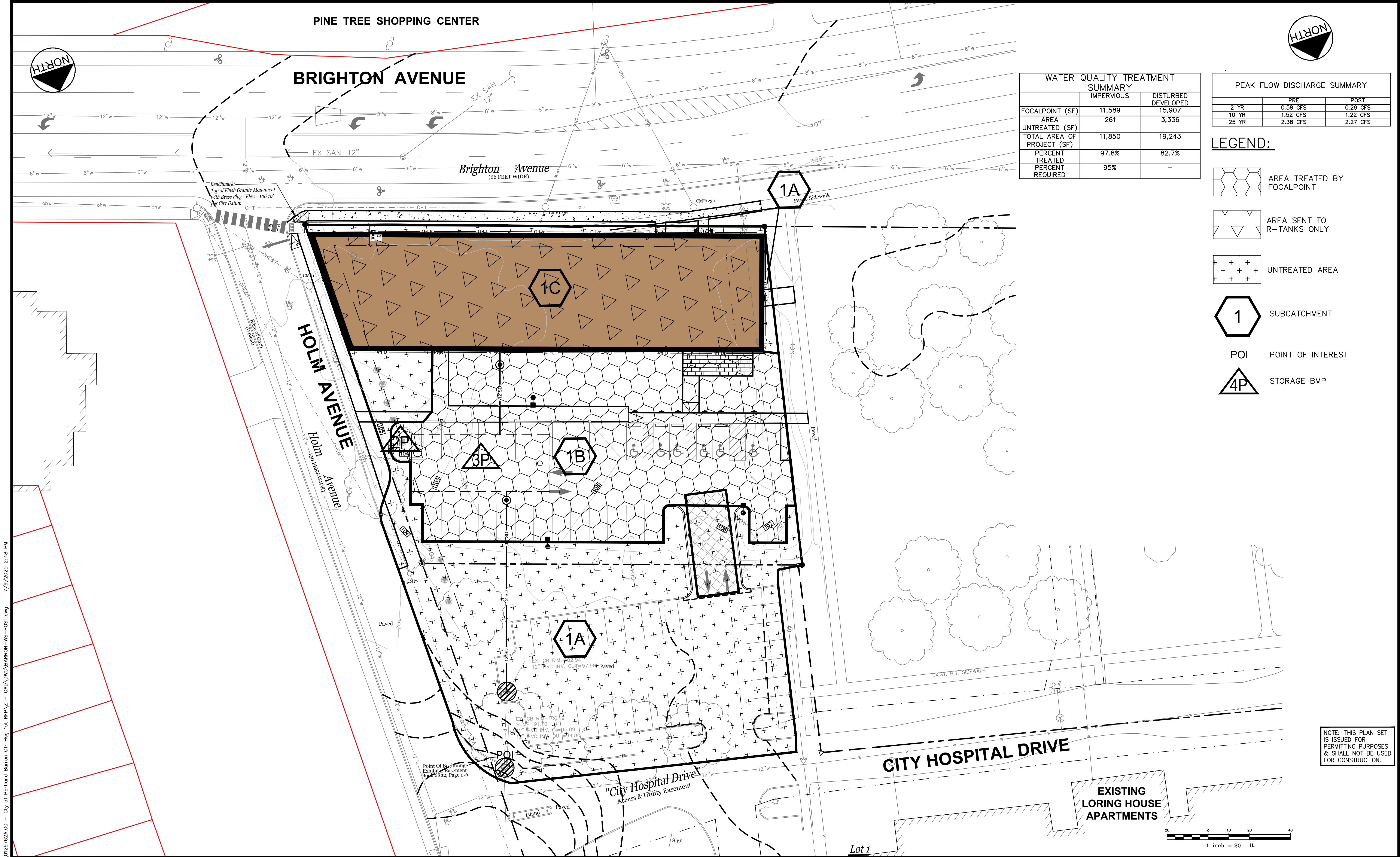


PEAK FLOW DISCHARGE SUMMARY		
	PRE	POST
2 YR	0.58 CFS	0.29 CFS
10 YR	1.52 CFS	1.22 CFS
25 YR	2.38 CFS	2.27 CFS

LEGEND	
	SUBCATCHMENT AREA
	TIME OF CONCENTRATION FLOW PATH
	WATERSHED BOUNDARY
	POINT OF INTEREST
	SHEET FLOW
	SHALLOW CONCENTRATED FLOW

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

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Rev.

Date

Revision

2

7/8/2025

REVISED PER STAFF COMMENTS

1

6/6/2025

MAJOR SITE PLAN APPLICATION

Design: SRB

Draft: CDD

Date: JUNE 2025

Checked: SRB

Scale: AS NOTED

Job No.: 0129762A.00

File Name: BARRON-WS-POST.dwg

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GorriilPalmer.com

(207) 772-2515

300 Southborough Drive - Suite 200

South Portland, ME 04106

Drawing Name:

WATER QUALITY MAP

Project:

CITY OF PORTLAND - BARRON CENTER - SITE 1 HOUSING

1125 Brighton Avenue, Portland, Maine

Client:

DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC/PROSPERITY ME

175 Lancaster Street, Suite 216A, Portland, Maine 04101

Drawing No.

WQ

City of Portland ME: Low-Impact Design Requirements				
Owner / applicant name:		Developers Collaborative		
Representative name:		Stephen Bushey, PE - Gorriill Palmer (Agent)		
Project address:		Barron Ctr - Brighton Ave		
Project CBL:		269 B 041		
Application ID (if known):				
	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)		
Protect 30% of trees over 10" DBH		Required (Tree survey required)		
Protect intact, contiguous forests and native trees over 10" DBH	8	Select one option	8	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	5	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
			8	New development disturbs less than 50% of existing undeveloped site area = 8pts
				New development disturbs less than 75% of existing undeveloped site area = 6pts
				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
				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	6	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	4	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			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			Treatment for 1.5 times the required water quality volume = 6pts
	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 88	Minimum points required for approval of LID strategies and techniques 80



300 Southborough Drive, Suite 200, South Portland, ME 04106
(207) 772-2515 | GorillPalmer.com

July 14, 2025

Mr. Andrew Graminski
City of Portland Planning
City Hall Congress Street
Portland, Maine 04101

RE: Barron Ctr – Prosperity Place PL-003379 - 2025
Letter of Response #1

Dear Andrew,

We offer the following supporting information and responses that address the design review comments and Department staff comments we have received thus far for the proposed Prosperity Place at 1125 Brighton Avenue. We offer each of the relevant staff comments warranting a response (in *Italic* font) followed by our supporting information in **Bold** font.

Site Plan Review Standards (Sec. 13.6)

(§13.6.1) Transportation Standards

Impact on Surrounding Street Systems

Updates requested

- *The Applicant must provide an updated site plan with notes that shows a flashing yellow arrow signal head configuration for the outbound Brighton Avenue left turn entering the existing retail driveway.*
- *The applicant must confirm that the proposed project has rights to use the Barron Center driveway.*

Applicant's response

The updated site plans include a note referencing the requirement for the applicant to coordinate with the City DPW and Traffic division for the installation of the yellow arrow signal head for the Brighton Ave traffic signal at the intersection of City Hospital Drive. We ask that the City provide the basis of this condition since, as we understand it, the left turn movement is not related to the small volume of traffic associated with the proposed development but is more related to the existing conditions in Brighton at this location. Further, if the City's goal is simply for a



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contribution to the installation costs of the left turn signal head, we'd respectfully ask City staff or peer review consultants for their opinion of costs associated with this offsite improvement. The applicant is not supportive of a condition whereby the development team is tasked to be responsible for the actual signal work including hiring a contractor and procuring the equipment, particularly for an offsite improvement that yields little value to the development, but solves an apparent offsite issue associated with a nearby property.

Regarding use of the Barron Center drives, including specifically the so-called City Hospital Drive, to the best of our understanding the City of Portland retains the ownership of the land and rights of use, including specifically the access drive from Holm Avenue all the way to the Brighton Ave intersection. As described in the original lease agreement and Quitclaim deed transferring ownership of the former hospital building, easement rights were granted by the CITY, to the grantee, formerly City Hospital Housing Associates and now Loring House Associates LP (see CCRD Book 32935 page 37). The City, as owner, is now negotiating a lease agreement for the proposed development with the Applicant, so we assume that the rights of access via City Hospital Drive will be made part of any executed agreement since the City can grant those rights in the first place.

Access and Circulation

Updates requested

- *Brighton Avenue is in the concrete sidewalk district. The applicant must replace the proposed asphalt sidewalk along the property's frontage with a concrete sidewalk. Concrete details will need to be added to the plans.*

Response: The site plan has been updated to include a 5' wide concrete sidewalk on the Brighton Avenue street frontage and a 5' wide bituminous sidewalk on the Holm Avenue street frontage.

- *Revise asphalt detail pavement.*

Response: The asphalt section detail has been updated as requested to reference 12.5 mm HMA.

- *A sidewalk must be provided along the property's frontage along Holm Avenue.*

Response: The site plan includes a new 5' bituminous sidewalk on Holm Avenue.

- *The applicant's plan does not show the existing receiving ramp. The applicant must verify that both ramps meet the ADA requirements and if necessary, realign and update the ramps to meet those requirements.*

Response: The existing sidewalk ramp at the corner of Holm Ave and Brighton

Avenue was measured and found to be compliant for ADA access.

- *The applicant must revise plans to show concrete site walks, not asphalt. Details must be updated to reflect this.*

Response: The development team customarily uses asphalt sidewalks within the site due to budget considerations. We are not aware of any site plan standards requiring the use of concrete sidewalks on private property. The use of bituminous asphalt sidewalks is common for many projects. Concrete sidewalks, while desirable, can only be considered if supported by the available budget.



- *Revise plans to shift the planned CMP pull box out of the sidewalk.*

Response: The CMP pull box has been realigned out of the sidewalk.

Parking

Updates requested

- *There is one parking space that is designated for delivery vehicles. The applicant must provide a vehicle turning template for that space.*

Response: The updated site plan no longer includes a delivery space as it is expected that delivery vehicles will temporarily park on Holm Avenue as they would customarily for deliveries to residential properties on the street, or another option will be for delivery vehicles i.e. FedEx/UPS to enter the proposed parking lot and simply reverse course in the 22' wide drive aisle, as would any vehicle entering into the parking lot. Finally, delivery vehicles can also use City Hospital Drive and exit the property via the traffic signal as is customarily done for the existing Loring House residential housing.

- *The applicant should provide a copy of the parking study mentioned in their cover letter to staff for review.*

Response: The development team conducted AM and PM parking counts in the various parking lots on the property. The results are summarized below:

Portland - Barron Center - Parking Recon. Project												
	Lot											
Veh. Count	Capacity											
Date & Time	P-Lot East #1		P-Lot East #2		P-Lot East #3		P-Lot West #1		P-Lot West #2		P-Lot West #3	
Available spaces	46		26		36		40		30		40	
	Actual	% of supply	Actual	% of supply	Actual	% of supply	Actual	% of supply	Actual	% of supply	Actual	% of supply
2/19 @ 9:00 AM	22	47.83%	9	34.62%	16	44.44%	20	50.00%	29	96.67%	19	47.50%
2/24 @ 2:00 PM	25	54.35%	6	23.08%	19	52.78%	22	55.00%	23	76.67%	13	32.50%
2/26 @ 2:30 PM	25	54.35%	7	26.92%	19	52.78%	18	45.00%	26	86.67%	18	45.00%
3/3 @ 4:50 PM	4	8.70%	4	15.38%	19	52.78%	22	55.00%	20	66.67%	1	2.50%
3/10 @ 2:45 PM	21	45.65%	6	23.08%	18	50.00%	24	60.00%	22	73.33%	11	27.50%
3/18 @ 1:30 PM	23	50.00%	5	19.23%	19	52.78%	25	62.50%	28	93.33%	14	35.00%
3/24 @ 9:40 AM	25	54.35%	5	19.23%	21	58.33%	16	40.00%	26	86.67%	9	22.50%
	Avg.	45.03%		23.08%		51.98%		52.50%		82.86%		30.36%

- *The applicant must provide a vehicular turning template for the parking spot designated for delivery vehicles.*

Response: A delivery space is no longer shown on the plan. Delivery vehicles will service the site as previously described.

(§13.6.2) Environmental Quality Standards

Preservation of Significant Natural Features

Updates requested

- *The applicant should contact the City Arborist Mark Reiland regarding the existing deciduous tree along Holm Avenue and confirm with him if the tree should be preserved and protected. If necessary, plans should be updated to reflect this.*

Response: The arborist has advised we should aim to protect the Elm tree along Holm avenue. With the current plan, it is just to the right of the parking lot, and there are no utilities to be added to the site that would interfere with that tree, thus it will get a full tree protection zone as close to the proposed parking lot as possible.

Landscape Preservation

Updates requested

- *The applicant should reach out to the City Arborist Mark Reiland to discuss tree plantings in greater detail and determine the applicant's path forward with either providing street trees along Brighton Avenue or a payment in-lieu.*

Response: The arborist said this comment is contingent on the Elm tree. If we can preserve the elm tree, he wants all resources to be put towards its protection, and we don't need to add street trees along Brighton. If we can't save the elm, he would like structural soils to be added under the sidewalk parallel to Brighton and some

small stature trees added. The landscape plans have a note added based on this response.

Site Landscaping and Buffers

Updates requested

- *The applicant in their documents mention the possibility of a play structure in the lawn area. Staff would like more information on this possibility with the next submission.*

Response: The play structure element has been taken off the discussion for the current time. No further information is available.

Water Quality, Stormwater Management and Erosion Control

Updates requested

- *The applicant has not provided a stormwater management report. The project will need to meet the thresholds to require stormwater management per Section 5 and 14 of the City's Technical Manual. In general, this project will be required to treat 95% of new impervious areas and 95% of non-roof developed impervious areas.*

Response: See the accompanying Stormwater report for further information on compliance with the City's stormwater management standards.

- *The project will be required to provide detention to meet the flooding standards and DPW's minimum detention volume and flow control requirements listed in Section 5 of the technical manual.*

Response: The design includes underground stormwater runoff storage to achieve quantity control of the site's peak discharge to at or below predevelopment rates. See the stormwater report for further information.

- *Drawings C-40 (Grading, Drainage & Erosion Control Plan) do not show proposed topography or elevation information for the proposed drainage infrastructure.*

Response: The information for existing and proposed topography and contours has been added to be plans based on the existing conditions survey from Nadeau Land Survey. This includes proposed drainage infrastructure.

- *Drawings C-3.0 (Site & Utility Plan) do not show surface restoration including roadway trench paving, sidewalk reconstruction, curb resetting, and loam and seed.*

Response: Additional information is now shown on the plans related to these improvements.

- *Survey information for the existing sewer manhole being used as a connection point for the private 8-inch sewer line should be provided and added to the plans. The utility plan should also be updated to include the inverts for the proposed private sewer infrastructure in general.*

Response: This information is now represented on the Utility plan based on information contained in the survey as well as the City record plans.

- *Details and further design information should be provided for the site's stormwater management system including survey information at the proposed existing catch basin connection point.*

Response: See the updated plans and stormwater management report for further information.

- *The applicant should review the tech manual standard 6.6.10 and determine whether or not a backflow preventer is required for the private sewer line.*

Response: A backflow preventer in the site sewer will be added to the plan as we believe this is a practical and good measure to prevent accidental backups into the building's plumbing.

- *SMH-1 should either be placed on the applicant's property or a revocable license agreement will be required to be granted by the City to authorize the installation of the privately owned manhole in the City right-of-way. The applicant should reach out to DPW Engineering if the applicant wishes to pursue a license agreement for this structure.*

Response: The applicant will seek a revocable license agreement for the sanitary manhole as the Site conditions don't really allow for the manhole to be positioned onsite based on the desire to have the building facades placed as close as possible to the ROW lines on both Holm and Brighton Ave.

- *The applicant must provide a description and calculations (in the form of a stormwater management report) to show how the project will meet the City of Portland's current stormwater standards as detailed in Section 5 of the Technical Manual. At this time the City does not have enough information to review the proposed stormwater design.*

Response: See the accompanying SWM report now also uploaded to Eplan.

- *The applicant must provide an LID scorecard. Please review Section 3 of the Technical Manual. A score of 80 or more must be met.*

Response: See the SWM report for the scorecard results showing a score of 88 which satisfies the standard.

- *The applicant must update survey information to show sewer line connection (see note above).*

Response: See the utility plan for this information.

- *The applicant must update the utility plan to show inverts for the proposed private sewer infrastructure.*

Response: See the utility plan for this information.

(§13.6.3) Public Infrastructure and Community Safety Standards

Public Safety and Fire Prevention

Updates requested

- *The applicant must provide turn radius for emergency access lanes. No inside turning radius shall be less than 25 feet. No outside turning radius shall be less than 100 feet.*

Response: A site circulation plan has been added to the plan set to show the turning movement of emergency vehicles. The proposed building will be clearly accessible for emergencies from both Brighton Ave and Holm Avenue. Access from City Hospital Drive will also be available, although emergency vehicles may require a reverse movement out of the parking lot, if the lot is filled at the time.

Public Utilities

Updates requested

- *The applicant should provide an affidavit from the Water District that states that they no longer are using this easement and do not intend to utilize this easement in the future. The applicant should also confirm that there are no other utilities that are utilizing this easement.*

Response: Communications with the Portland Water District have contained confirmation that a water service line in the easement from Brighton Ave for the former City Hospital was abandoned when the PWD installed a new 12" water main through the Barron Center property in 2023. The PWD has provided the attached DRAFT affidavit for City review before they execute it. We will await Staff concurrence that this document will be acceptable for completion by PWD.

Based on our review of historical plans and a field review of site conditions we believe there are no other utilities located within the easement. Our review of the recorded deeds and recorded Subdivision plans, point to the easement as being established solely on the basis that the original City Hospital water service ran through it and the City established the easement as part of establishing the recorded Plan and ultimately the lease transfer of the former City Hospital into a Housing Development.

- *The proposed plans have a note regarding architectural columns. More information is needed.*

Response: The revised architectural plans have eliminated the columns as a major design feature.

(§13.6.4) Site Design Standards

Design Standards

Updates requested

- *Staff finds the proposed building location lacks an active presence at the corner and recommends the Elle-shape portion of the building orient towards the corner and include a secondary building entrance either at the building's corner or along Holm Ave to be directly accessible from a new sidewalk.*

Response: Per our discussion with City staff, we revised the building design from an L-shape to a single bar along Brighton Avenue. This change was made in direct response to the 100% Build-to-Percentage Zoning comment regarding Holm Street.

We also discussed the location of the building entrance, and staff indicated that it would be acceptable to have a single main entrance off Brighton Avenue. In response, we shifted the entrance to be centered on the four-story brick volume, clearly marking its importance with an eight-foot-high door and a canopy, consistent with the B-2b standard for entrances being oriented to and directly accessible from the public sidewalk.

We believe the current design appropriately emphasizes the Brighton Avenue frontage and provides a clear, well-defined entrance, while maintaining a strong street wall and activated sidewalk.

- *Staff requests the communal spaces, including the entrances and community room located at the ground level include windows with a visible transmittance of .7 or greater.*

Response: All proposed glazing on the building, including at the ground level communal spaces, entrances, and the community room—will meet the required visible transmittance (VT) of 0.7 or greater to ensure transparency and visibility into the building from the street.

- *Staff finds that the proposed building does not create appropriate variation along the length of each building façade, particularly along the Brighton Ave street frontage. Staff recommends a continuous pronounced cornice above the third level at each façade and to incorporate a building projection at the Brighton Ave principal building entry and above second-third floors. Staff observes the adjacent Loring House front-facing facade, which is anchored by a prominent and centralized building entry and flanked by recessed façade*

elements that express the building's wings or annexes to visually break up the building massing.

Response: In response to staff comments, we redesigned the building to enhance variation and articulation along the Brighton Avenue frontage. The revised design includes a four-story brick volume that projects forward by approximately one foot at the principal entrance, emphasizing the building's entry and anchoring the street-facing façade.

To further break down the massing, we incorporated material changes and vertical elements that create visual separation between building segments and establish a continuous rhythm of façade articulation. Additionally, a continuous cornice runs above the third floor, as recommended, helping to define the building's proportions and reinforce a strong horizontal datum.

These design strategies and material choices are intended to create a varied and active street presence and reinterpret some of the architectural characteristics of the nearby Loring House in a more contemporary fashion.

- *Staff recommends that the proposed building placement occupy and orient towards the corner of Brighton and Holm Ave to define the street wall within the build-to zone. In addition, Staff finds that the current building arrangement with the Elle-shape facing the existing landscape area creates a separation between the proposed open space and the existing open space located at the adjacent Loring House campus.*

Response: In response to staff comments, we revised the building layout from an L-shape to a single bar configuration oriented along Brighton Avenue. This change allows for a more cohesive relationship with the surrounding context by opening up the site and creating visual and physical continuity between the proposed open space and the existing park in front of the Loring House.

Rather than enclosing or fragmenting the adjacent open space, the new configuration intentionally preserves and enhances that openness, supporting a more unified landscape experience across both properties. This design approach also helps maintain a clear street wall along Brighton Avenue while contributing to the compatibility of the new building with its residential and institutional neighbors.

- *Staff request the Applicant to resubmit elevations that indicate all proposed façade materials and eliminate any materials from the material schedule list not envisioned for the new building design.*

In addition, Staff requests the Applicant explore an alternative to the proposed building arrangement of fibercement panels and pronounced cornice detail that undulates along the building façade. Staff recommends a continuous pronounced cornice above the third level to distinguish the upper floor façade material of fibercement panel. Staff also recommends incorporating projections and recessions along the brick portions of the façade to express building entrances and break up the building massing

along Brighton Avenue.

Response: We've refined the façade design to respond to staff feedback, with particular attention to material compatibility, articulation, and hierarchy. The updated elevations will clarify all proposed materials and remove any that are no longer part of the final design.

The primary façade now features a four-story brick volume that projects forward at the main entry to create a stronger street presence and emphasize the entrance. In addition to the brick and precast detailing—which reference nearby structures such as the Loring House and Barron Center—we've used fiber cement panels on the upper floor to create a clear visual break and reduce the apparent height of the building. A continuous, pronounced cornice at the top of the third floor reinforces this transition and introduces a strong horizontal line across the façade.

We've subtle projections and vertical shifts within the brick areas to provide depth, highlight key architectural elements like the entry, and help break down the building's overall massing along Brighton Avenue. Together, these refinements contribute to a more coherent and contextually responsive design that reflects the surrounding neighborhood while expressing a contemporary architectural language.

- *Staff recommends that the applicant explore a building orientation that occupies more of the property corner to create a more visible presence at the intersection, and specifically referenced in the B-2 Commercial Business Zone design standards above.*

Response: In response to staff comments and to better align with the B-2 design standards, we revised the building configuration from an L-shape to a single bar form oriented along Brighton Avenue. This adjustment was made to reinforce the street wall, enhance visibility from the public way, and create a more consistent relationship between the building and the street. The updated design strengthens the building's presence along Brighton Avenue while maintaining openness at the corner to visually connect with the adjacent Loring House landscape and preserve a sense of continuity in the public realm.

- *Staff recommends an orientation of the building to occupy more of the property corner at Holm Street to effectively allow more permeability to the existing campus open space that includes pathways, mature trees, vegetation and seating for residents. In addition, Staff recommends a variety of outdoor seating options that enhance communal gathering spaces with opportunities for shade and passive outdoor recreation.*

Response: In response to staff comments and to better integrate open space into the overall site design, we revised the building layout to a single bar shape oriented along Brighton Avenue. This configuration helps reinforce the street wall while also allowing for a more open and connected relationship with the existing campus landscape.

To further support this connection and enhance outdoor communal use, we've added a patio with seating adjacent to the existing campus lawn space. This patio creates an intentional gathering area for residents, offering opportunities for passive recreation and informal interaction. Pathways and landscape elements continue to link the building with the broader site, supporting both visual and physical permeability and encouraging a more

cohesive campus environment.

- *Staff has concerns about car headlights and light glare into the residential units located at the ground level facing the parking area. Staff recommends additional screening between the head-in parking spaces and residential units directly adjacent to the parking area.*

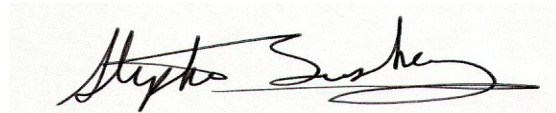
Response: To address staff concerns and align with the intent of the standard, we have located the parking area as far from the building as possible to maximize the landscape buffer between vehicles and the residential units. This placement helps reduce the visual and physical impact of parking on the building and adjacent properties.

We will also incorporate additional landscape screening between the head-in parking spaces and the ground-level residential units to further mitigate potential headlight glare and provide a greater sense of privacy for residents. These adjustments are intended to create a more comfortable and visually buffered environment while maintaining functionality and access.

We trust the substantial changes to the site plans now satisfactorily address the staff comments and initial design review findings. We look forward to presenting to the Planning Board at the July 22, 2025, workshop meeting to go over these updates more thoroughly.

Sincerely,

GORRILL-PALMER



Stephen Bushey, PE

Senior Associate

Phone: 207-772-2515 x286

sbushey@gorrillpalmer.com

Attachments See Eplan for

- Stormwater Management Report
- Updated Civil Plans
- Updated Landscape Plans
- Updated Architectural Plans
- Draft PWD affidavit

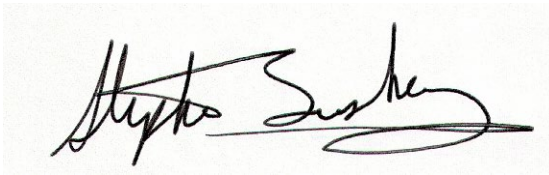
c: Robby Perkins-High ProsperityME
Laura Reading, DC Predevelopment LLC

I, Stephen Bushey, of Gorrill Palmer, hereby certify that a Neighborhood Meeting was held on Wednesday June 25, 2025, at 6:00 P.M. at the Rowe Elementary School in Portland, ME.

I also certify that on June 10, 2025 (which is at least ten (10) days prior to the Neighborhood Meeting) 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 or within 1,000 feet of a proposed industrial subdivision or industrial zone change.
2. Residents on the "interested parties" list.

Signed,



Stephen Bushey, Sr. Associate

July 10, 2025

Date

Attached to this certification are:

1. Copy of the Invitation Sent
2. Meeting Minutes

June 10, 2025

Dear Neighbor:

Please join us for a Neighborhood Meeting to discuss the proposed Major Site Plan application for a 50-unit affordable housing project at 1125 Brighton Avenue in Portland, ME. The project will create 50 affordable family apartments and supporting parking on a 0.77 acre lease site at the corner of Holm Avenue and Brighton Avenue, on the City of Portland Barron Center Campus.

Meeting Location: **Amanda C. Rowe Elementary School Cafeteria– see signs for meeting room**
 23 Orono Road
 Portland, ME 04103

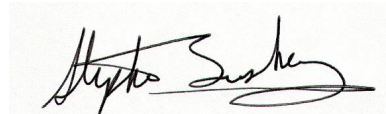
Meeting Date: **Wednesday June 25, 2025**

Meeting Time: **6:00 PM – 7:00 PM**

The City Code requires that property owners within 500 feet (except notices must be sent to property owners within 1,000 feet for industrial zoning map amendments and industrial subdivisions) of the proposed development and residents on an “interested parties list”, be invited to participate in a neighborhood meeting. We will take attendance and submit a sign-in sheet to the Planning Board. The meeting will last no more than 60 minutes. If you have any questions, please feel free to contact Stephen Bushey 207.772.2515 x286.

Sincerely,

GORRILL PALMER



Stephen Bushey, PE

Senior Associate

sbushey@gorrillpalmer.com/Sbushey@ljbinc.com

207-772-2515 ext. 286

Note: Under the City of Portland land use code, an applicant for a major site 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

UH\Developers Collaborative\0129762A00 - City of Portland Barron Ctr Hsg 1st RFP\G A Butters\public notice



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TRANSPORTATION



SITE DESIGN
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SURVEY



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Neighborhood Meeting June 25, 2025 – Rowe Elementary School

[illegible]

Developers Collaborative/ProsperityME
Neighborhood Meeting- 1125 Brighton Ave Residential Housing
Rowe Elementary School Cafeteria
June 25, 2025 at 5:30 PM

MEETING MINUTES

1. ATTENDEES

Presenters

Steve Bushey (SRB), Gorrill Palmer
Kevin Bunker (KB) Developers Collaborative
Robby Perkins-High (RPH) – ProsperityME

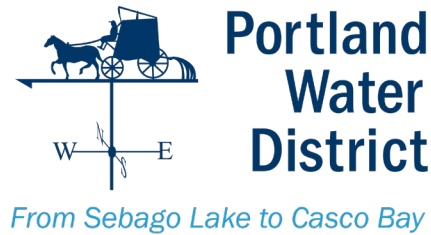
Neighbors/Interested parties

See attached list

2. MINUTES

- Attendee introductions
- KB and RPH provided an overview of the project including introduction of DC and Prosperity Maine as to who they are and what they do. KB noted DC's role/involvement in many successful affordable housing projects in Maine. Development and property management. Assisting ProsperityME towards their own development activity in the future.
- The proposed 50 unit project will include a 30% set aside for Family housing associated with the existing Bayside family shelter and a 70% set aside for qualifying families based on income
- KB provided overview of the site and the process the City used to procure a development partner.
- Project is a Housing First priority project.
- SRB explained City PB process and opportunity for more public comment at upcoming workshop and public hearing.
- Discussion of zoning, setbacks, ROW lines etc for Site 1 at the corner of Holm and Brighton Ave.
- A general discussion on traffic ensued with one or more residents stating concerns about traffic volumes on Holm Ave including challenges for left turns onto Brighton Ave and motorists not obeying Stop Signs and related issues. Some perception that there may be a traffic issue at the Brighton/Holm intersection.
- Public comment that the building is too large for the site although the team explained how the development is nonetheless code compliant.
- Public comment that local residents will sneak thru the neighborhood to access the traffic signals at Taft or City Hospital Drive onto Brighton.
- Andrea Cesario and Brenda Martin offered various concerns and questions. Is the building only for "New Mainers". KB replied that there will be no discrimination allowed.
- More discussion as to who will live at the project.

- Public comment about the City's Daycare proposal. RPH offered that the Daycare proposal is separate and as of the meeting might be "off the table" for Council Discussion for the moment
- Public comment regarding playground. Will one be provided? KB discussed recreational space in front of Loring House/Barron Center.
- RPH offered information on the mix of units and bed counts.
- Comment on snow removal on sidewalks etc. City or developer?
- SRB discussed utilities including drainage. Wendy Marsh talked about flooding issues further down Holm Ave near her property. SB explained the project will provide SWM compliant with local requirements.
- Overview of parking. Project will displace 46 spaces. Public comment about ban of onstreet parking on Holm.
- KB indicated person count in the building can be as high as 146 persons based on bed count.
- Residents support parking ban on Holm between Brighton to City Hospital Drive.
- KB outlined schedule including Sept 25 MSHA submission and tentative opening 2028/
- Public comment about foot traffic by residents to Sagamore Village and whether trails would be created and what about pedestrian access in the neighborhood? Where will the kids living in this building walk to and how will it impact the neighborhood?
- Michael Decker had various comments and concerns about tenants, access to Sagamore Village and impacts to the neighborhood.
- Public comment regarding future unit purchase opportunity. KB replied in 15 years.
- Public comment about who will resident questions go to? Who's is managing?
- Sam Rosenthal – OK with family housing. Was against Homeless Shelter. Site 2 is a big problem.
- The meeting ended after about 90 minutes of discussion.



July 11, 2025
City of Portland, Planning Department

Re: 1125 Riverside Street, Portland

The Portland Water District (hereinafter “PWD”) acknowledges and confirms there are no PWD rights, facilities, property, mains or services, or interests within the 20’ wide utility easement (hereinafter “Utility Easement”) located on or near the proposed Site 1, as shown on Exhibit A and as more formally identified on the Recording Plat of City Hospital Housing for Elderly, Portland, Maine, for City Hospital Housing Assoc. prepared by Owen Haskell, Inc. and recorded in the Cumberland County Registry of Deeds (“CCRD”) Plan Book 148, page 67 and more formally referenced within the Quitclaim Deed with Covenant CCRD Book 6822 page 186, between The City of Portland and City Hospital Housing Associates, and also as Exhibit D of the Memorandum of Lease and Easements CCRD Book 6822 page 176 between the same parties.

The basis of the “Utility Easement” is understood to be for an original private water service line from the Street (Brighton Ave) into the former City Hospital. The service line was abandoned in 2023 when the PWD installed a new 12” public water main through the Barron Center property, at which time the services lines for the former City Hospital, now the Loring House, were modified and connected to the new 12” water main. The PWD now requests the developer of Site 1 retire the unused 6” water service line in Brighton Avenue to include cutting the abandoned tee connection and sleeving in a new repair pipe on the mainline public water main as part of the Site 1 development.

PWD does maintain a 30’ wide easement for the 12” water main installed in 2023 that extends from Holm Avenue to the Maine Turnpike through the Barron Center property, as evidenced in CCRD Book 40040Page 190 This easement does not cross or otherwise encumber the proposed Site 1 residential development area. PWD cannot comment of the location of any other utilities within the 20’ wide Utility Easement as previously identified.

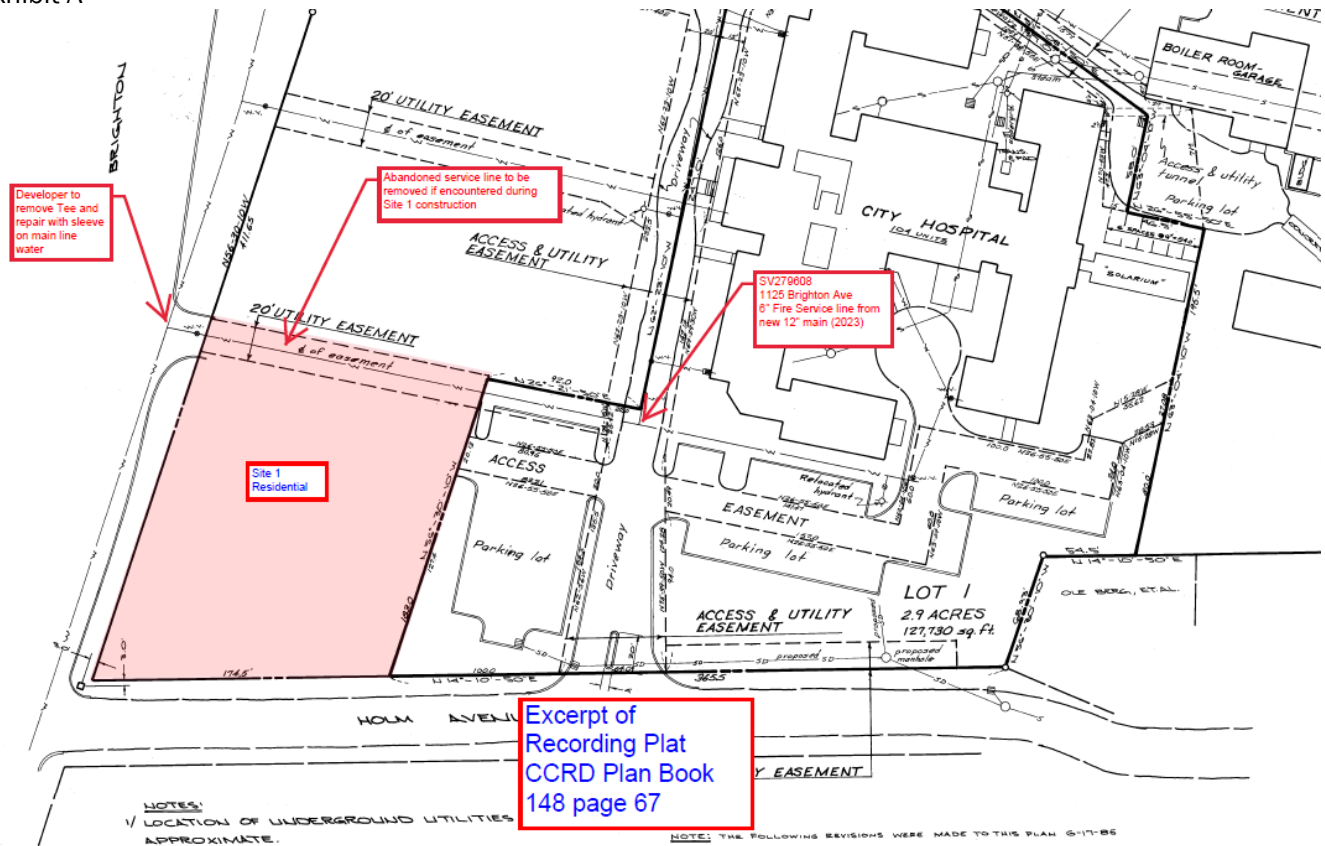
Signed

Scott Firmin

General Manager, Portland Water District

Date _____

Exhibit A



Wendy Marsh <wmarsh57@aol.com> Thu, Jul 17, 2025 at 5:32 PM

To: "rperkinshigh@prosperityme.org" <rperkinshigh@prosperityme.org>, "bunker.kevin@gmail.com" <bunker.kevin@gmail.com>, "agraminski@portlandmaine.gov" <agraminski@portlandmaine.gov>, "council@portlandmaine.gov" <council@portlandmaine.gov>

Cc: Ann Eagan <annmeagan@icloud.com>

Hello,

I am sending this to all of you because I'm not sure who handles what. This is in regards to the low income housing that that may be built at the Baron Center.

I do not understand why you want to put this large unit in the space that is too small for it. You already had to redo the design for the unit. It is going to create a big impact on our tranquil, peaceful, and quiet neighborhood.

I spoke to someone that lives at Loring house and they did not know anything about this project. I thought there was a meeting with them and the Barron Center staff.

We have enough traffic on the street. I was under the impression that a traffic survey was going to be done. I have not seen that. Speeding is another big issue. We did have a solar powered warning sign however it has been taken down. It would be nice to have one like what they have on Capisic St and Frost St. The sign is solar powered, shows the speed that you are going and flashes too fast if you are going too fast.

Parking is another concern. People park on the street as it is and some days it's like a gauntlet to get through. From the design that I saw I do not think there's going to be enough parking for the residences. That means more parking on our street.

A couple of weeks ago they were two sets of people that went to every front yard and was detecting where the water and sewer lines were. What is that all about? We were told that the housing project would link into Brighton Avenue. But don't we already drain there? Several of my neighbors, including myself, have had flooding issues in our backyards. I did send a video to one of you.

I see that Portland just bought a piece of land, that was a failed housing development, in Bayside that was sold for 2.5 million yet it was bought back for 15 million. It looks like that makes the criteria for what you are looking for. Near schools, near bus line, also it is near some of the services. It appears that it is more developed than the Baron Center, which will have trees ripped down and a respite area destroyed.

I do understand our desperate need for affordable housing. However, our neighborhood cannot absorb another development. We have Sagamore, the rehab clinics, and the halfway houses.

Thank you,

Wendy Marsh

U:\Developers Collaborative\0129762A.00 - City of Portland Barron Ctr Hsg 1st RFP\Z - CAD\DWG\BARRON-COVER.dwg 7/8/2025 10:17 AM

PROJECT PARCEL SITE		
ZONING: MIXED-USE ZONE B-2		
PORTLAND TAX ASSESSOR'S MAP AND LOT NUMBERS		
MAP	BLOCK	LOT
269	B	01

CURRENT LAND OWNER:
CITY OF PORTLAND
389 CONGRESS STREET
PORTLAND, ME 04101

C.C.R.D. BOOK 716, PAGE 17

DEVELOPER / CO-APPLICANTS:
Developers Collaborative Predevelopment LLC
631 STEVENS AVE, SUITE 203
PORTLAND, ME 04103
CONTACT: KEVIN BUNKER/LAURA READING
207.772.7673
bunker.kevin@gmail.com

Prosperity ME
175 LANCASTER STREET, SUITE 216A
PORTLAND, ME 04101
ATTN: ROBBY PERKINS-HIGH
rperkinshigh@prosperityme.org

INDEX

- C-1.0 COVER SHEET
- C-1.1 GENERAL NOTES & LEGEND
- C-1.2 BOUNDARY SURVEY (BY NADEAU LAND SURVEY)
- C-1.3 PREVIOUS RECORDING PLAN (BY OWEN HASKELL, INC)
- C-1.4 OVERALL CAMPUS EXISTING CONDITIONS AERIAL
- C-1.5 PEDESTRIAN ACCESS & SITE CIRCULATION PLAN
- C-2.0 EXISTING CONDITIONS & REMOVALS PLAN
- C-3.0 SITE LAYOUT & UTILITY PLAN
- C-4.0 GRADING, DRAINAGE & EROSION CONTROL PLAN
- C-5.0 SITE DETAILS
- C-5.1 SITE DETAILS
- C-5.2 SITE DETAILS
- C-5.3 STORMWATER MANAGEMENT DETAILS
- C-6.0 SITE LIGHTING-PHOTOMETRICS PLAN (BY EXPOSURE LIGHTING)

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.

Stephen R. Bushey

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.

UTILITIES

WATER:
PORTLAND WATER DISTRICT
225 DOUGLASS STREET
P.O. BOX 3553
PORTLAND, MAINE 04103
207.761.8310
CONTACT: ROBERT BARTELS
rbartels@pwd.org

SEWER:
CITY OF PORTLAND
PUBLIC SERVICES DIVISION
212 CANCO ROAD
PORTLAND, MAINE 04103
207.874.8840
CONTACT: KEITH GRAY / BRAD ROLAND

ELECTRIC:
CENTRAL MAINE POWER
162 CANCO ROAD
PORTLAND, MAINE 04103
207.842.2367
CONTACT: JAMIE COUGH / KATHERINE DUMONT

TELEPHONE:
CONSOLIDATED COMMUNICATIONS
5 DAVIS HILL FARM ROAD
PORTLAND, MAINE 04103
207.797.1866
CONTACT: PATRICK MORRISON

NATURAL GAS:
NORTHERN UTILITIES / UNITIL
376 RIVERSIDE INDUSTRIAL PARKWAY
PORTLAND, MAINE 04103
207.541.2536
CONTACT: SCOTT CARPENTER
carpenters@unitil.com

CABLE TV:
TIME WARNER CABLE / SPECTRUM
115 JOHNSON ROAD
PORTLAND, MAINE 04102
207.253.2324
CONTACT: MARK PELLETIER

DIG SAFE:
CALL BEFORE YOU DIG
DIAL 811 (AT LEAST 72 HRS IN ADVANCE)

LOCAL

MAJOR SITE PLAN APPLICATION:

BUILDING PERMIT:

UTILITY OPENING PERMITS:

STREET OPENING PERMIT:

GOVERNING BODY

CITY OF PORTLAND PLANNING AUTHORITY
CITY HALL, CONGRESS STREET
PORTLAND, MAINE 04103
207.874.8608
CONTACT: KEVIN KRAFT - DIRECTOR

CITY OF PORTLAND CODE ENFORCEMENT OFFICE
CITY HALL, CONGRESS STREET
PORTLAND, MAINE 04103
207.874.8900

CITY OF PORTLAND PUBLIC SERVICES DIVISION
212 CANCO ROAD
PORTLAND, MAINE 04103

CITY OF PORTLAND PUBLIC SERVICES DIVISION
212 CANCO ROAD
PORTLAND, MAINE 04103

STATUS

MAJOR SITE PLAN APPLICATION: JUNE 06, 2025
RESUBMISSION: JULY 8, 2025
WORKSHOP: JULY 22, 2025

BY OWNER/ARCHITECT

BY CONTRACTOR

BY CONTRACTOR

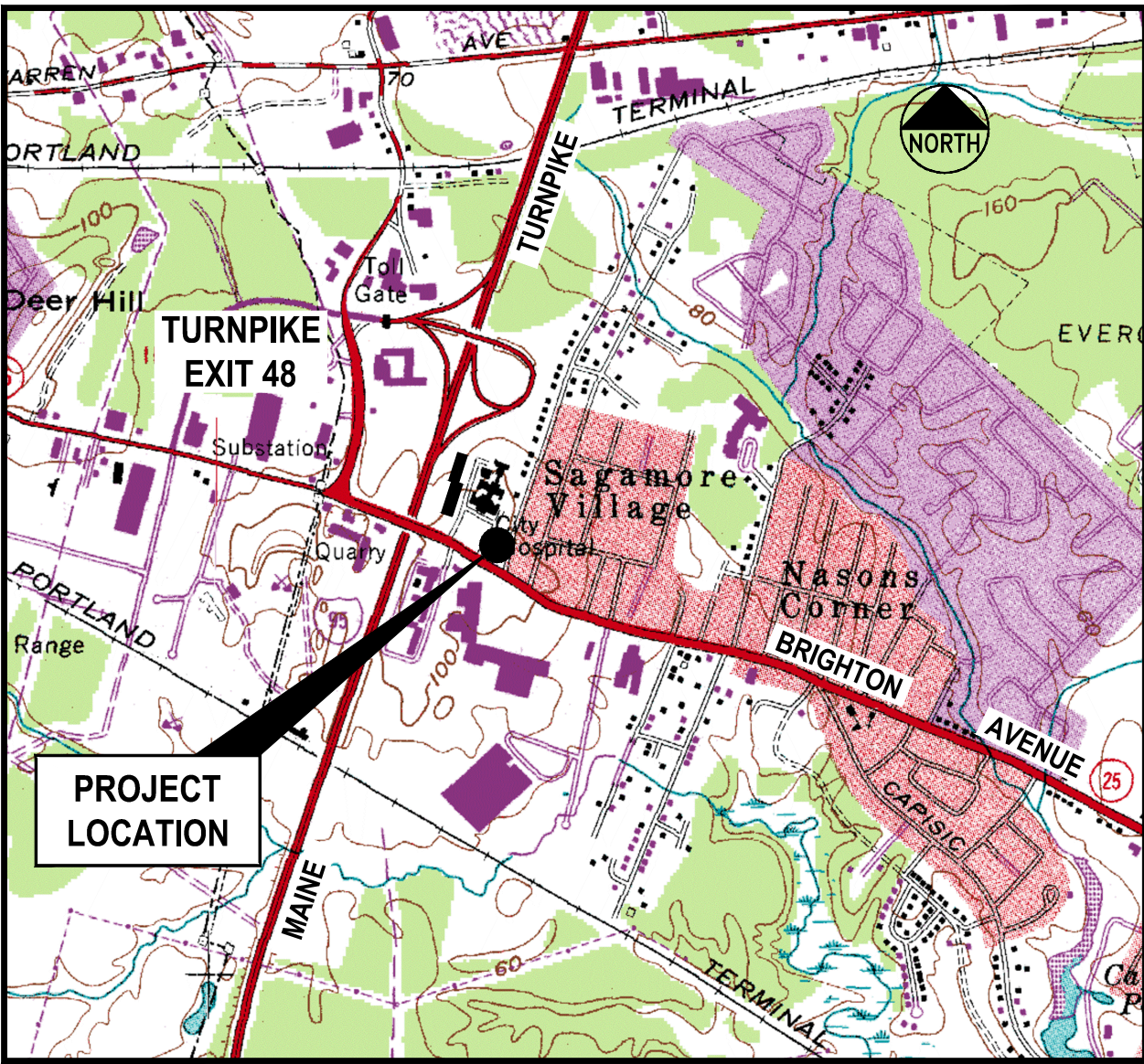
CONSULTANT LIST

CIVIL ENGINEER:
Gorrill Palmer Consulting Engineers Inc.
300 SOUTHBOROUGH DRIVE, SUITE 200
SOUTH PORTLAND, MAINE 04106
207.772.2515
ATTN: STEPHEN BUSHEY
sbushey@gorrillpalmer.com

LANDSCAPE ARCHITECT:
Aceto Kimball Landscape Architecture
424 FORE STREET
PORTLAND, ME 04101
207.939.7602
ATTN: GRACE McNEIL
207.221.3390

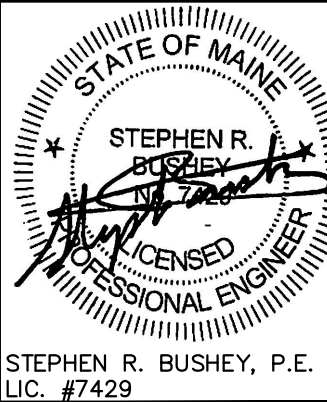
SURVEYOR:
Nadeau Land Survey
91B BRIGHTON AVE
PORTLAND, ME 04102
207.878.7870
ATTN: JIM NADEAU, PLS
jim@nadeaulandsurveys.com.com

ARCHITECT:
Invid Architecture
631 STEVENS AVE, SUITE 200
PORTLAND, ME 04103
207.939.7602
ATTN: VIRGINIA STANLEY AIA
virginia@invidarchitecture.com



LOCATION MAP
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.



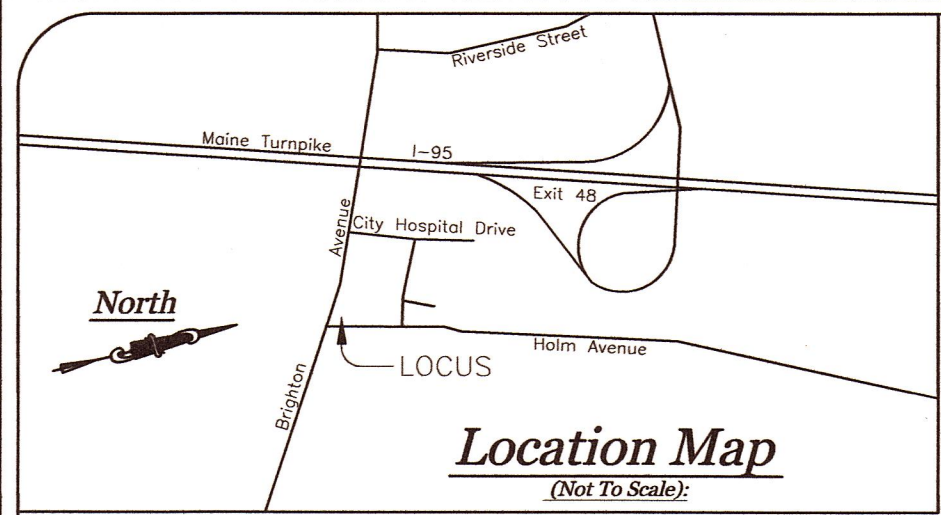
Design: SRB	Draft: CDD	Date: JUNE 2025
Checked: SRB	Scale: AS NOTED	Job No.: 0129762A.00
File Name: BARRON-COVER.dwg		
This plan shall not be modified without written permission from Gorrill Palmer. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Gorrill Palmer.		



Gorrill Palmer, an LJB Engineering Company
GorrillPalmer.com
(207) 772-2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	COVER SHEET
Project:	CITY OF PORTLAND - BARRON CENTER - SITE 1 HOUSING 1125 Brighton Avenue, Portland, Maine
Client:	DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC/PROSPERITY ME 175 Lancaster Street, Suite 216A, Portland, Maine 04101

Drawing No.	C-1.0
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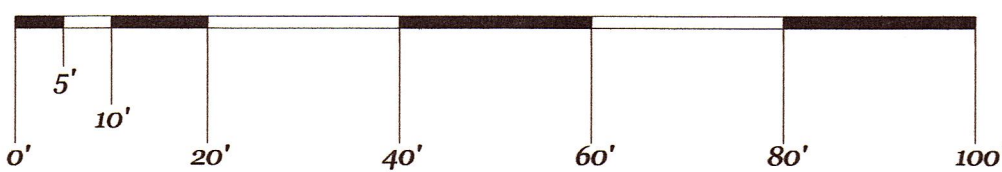
General Notes:

- This plan is intended show the location and boundaries of the subject property, not depict the limits or extent of fee title ownership. An opinion of title should be rendered by a title attorney.
- This office reserves the right to be held harmless by all parties who are not specifically identified in the below Surveyor's Statement.
- This survey does not purport to reflect any of the following:
 - easements other than those that are visible or specifically stated in the referenced documents, or provided to this office.
 - restrictive covenants
 - zoning or other land use regulations
 - the location of all underground utilities or structures, except as provided in Note 17 and shown on the plan.
- This office reserves the right to be held harmless for unknown or unobtainable private records which could affect the results of this survey.
- Reference is made to "Letter Of Agreement/Qualification" dated May 23, 2025, between Nadeau Land Surveys and the below listed client(s), which shall be considered an integral part of this survey.
- N/P is an abbreviation for Now or Formerly.
- All deeds referenced on this plan are recorded at the Cumberland County Registry of Deeds (CCRD).
- This office does not accept any liability for any errors which may exist in the plans listed in the Plan References hereon, except Plan Reference 13.
- Locus Parcel is located on the City of Portland Assessor's Map 269, Block B, part of Lot 1 & part of Lot 41, and is listed as 1125 Brighton Avenue.
- Area of Proposed Lease Area is 33,632.5 square feet (0.77 acre).
- The apparent right of way lines depicted on this plan are based on the Plan References listed hereon, monumentation found in the field, and City of Portland Engineering Street Notes.
- The Locus Parcel is not located in a Special Flood Hazard Area per FEMA Flood Insurance Rate Map County-Panel Number 23005C0687F, dated June 20, 2024. The parcel falls in Zone X.
- The sidelines of the 20' Wide Utility Easement have been revised from what is shown on Plan Reference 13 as they were not centered on the apparent location of the depicted underground water line.
- Call 1-888-DIGSAFE at least three business days before performing ANY excavation.
- Per City of Portland Street Record Book 2, Page 95, this section of Holm Avenue was accepted by Order of the City Council, passed December 3, 1930, in City of Portland Records Vol. 56, Page 393, as fifty (50') feet wide.
- Per City of Portland Street Record Book 2, Page 138, this section of Brighton Avenue was accepted March 10, 1752, in Falmouth Records, Vol. 2, Page 329, as four rods (66 feet) wide. Per City of Portland Street Record Book 2, Page 17, the last relocation of this section of "Brighton Street" was accepted June 5, 1892, per Cumberland County Commissioners Records Vol. 16, Page 567. Per City of Portland Street Record Book 2, Page 112, "Brighton Street" was changed to "Brighton Avenue" by Order of the City Council and approved by the Mayor, September 5, 1899, per City of Portland Records Vol. 28, Page 493.
- The underground utilities shown have been located from field survey information and existing drawings. This office make no guarantees that the underground utilities shown comprise all such utilities in the area, either in-service or abandoned. The underground utilities shown are approximate location and are located as accurately as possible from information available. This office has not physically located the underground utilities.
- Apparent encroachment - No record easement has been found.
- This section of Portland was part of Deering from 1871 to 1899, was part of Westbrook from 1814 to 1871, and was part of Falmouth prior to 1814. Prior to 1820, this area was part of Massachusetts.
- See CCRD Book 40040, Page 190, dated March 22, 2023, for Easement Deed from City of Portland to Portland Water District.
- Elevations are based on City Datum. Benchmark is top of a flush 3' offset granite monument with brass plug (elev.=106.10') per city bluesheets.

Locus Deed References:

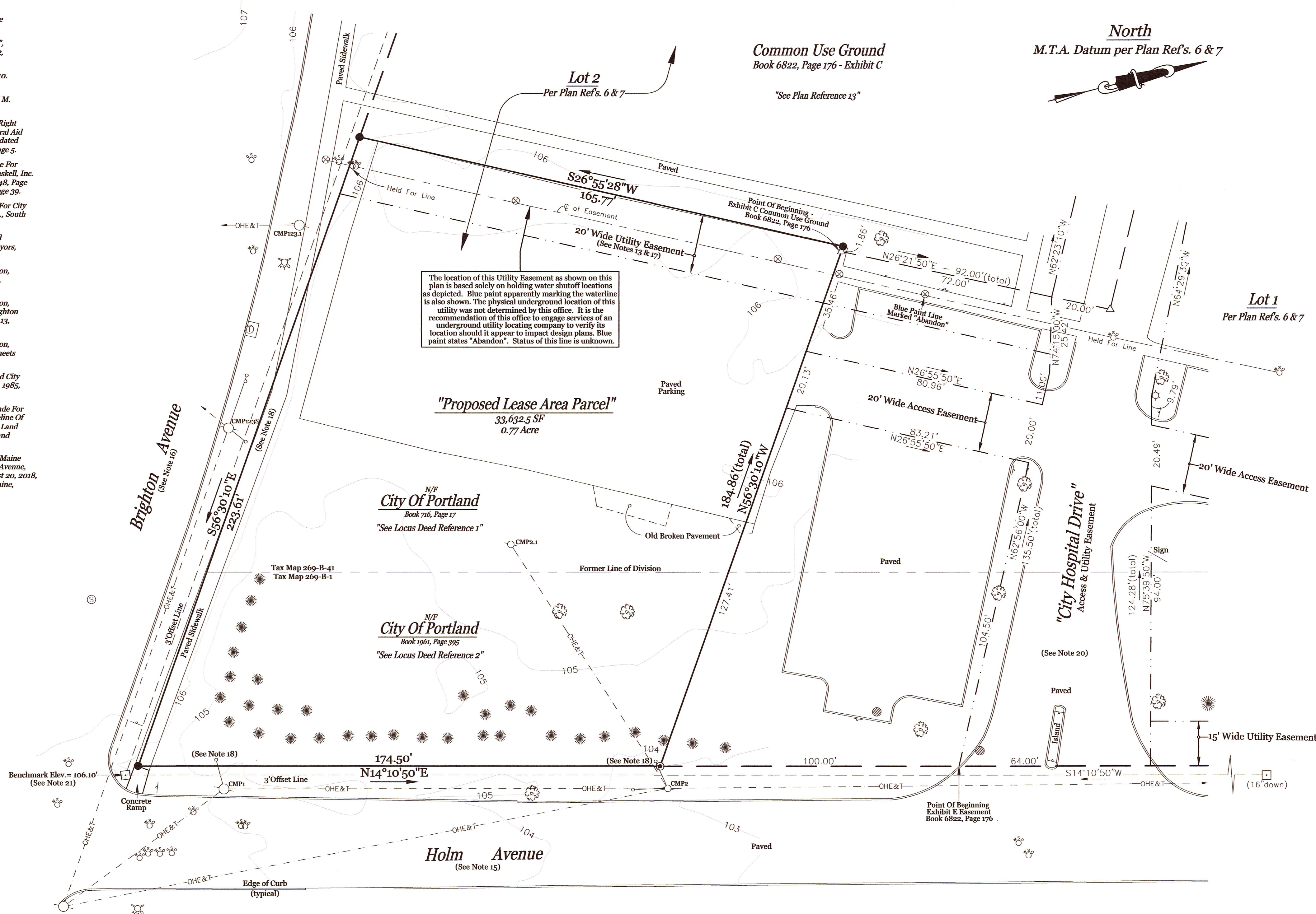
- Charles E. Goold
To
City of Portland
dated March 11, 1902, and recorded March 3, 1902, at the
Cumberland County Registry of Deeds in Book 716, Page 17.
- Ameido M. Martelle
To
City of Portland
dated and recorded July 15, 1949, at the
Cumberland County Registry of Deeds in Book 1961, Page 395.

Graphic Scale:



Plan References:

- "Insurance Maps Of Portland, Maine, Volume Two", dated 1909 by the Sanborn Map Company, last revised 1951, Plate 42.
- "Portland Gardens In City Of Portland, Maine Owned By J.W. Wilbur", dated July 1, 1912, by A.L. Elliot, C.E., Boston, Mass., recorded July 12, 1912, in CCRD Plan Book 12, Page 23.
- "Richards Standard Atlas Of The City Of Portland", dated 1914, Plate 10.
- "City Of Portland, Maine Department Of Public Works, Holm Avenue, Brighton Ave. To Dale St.", approved November 19, 1930, by Edward M. Hunt, City Engineer, City Plan 225/4.
- "State Of Maine Department Of Transportation Bureau Of Highways Right Of Way Map, State Highway '12', Portland, Cumberland County Federal Aid Project No. M-0830(1) Sect.(4), D.O.T. File No. 3-245", Sheet 7 of 9, dated June 1977, recorded September 25, 1980, in CCRD Plan Book 128, Page 5.
- "Recording Plat Of City Hospital Housing For Elderly, Portland, Maine For City Hospital Housing Assoc.", dated November 8, 1984, by Owen Haskell, Inc. South Portland, Maine, recorded July 11, 1985, in CCRD Plan Book 148, Page 67, revised May 1991 and recorded July 12, 1991, in Plan Book 191, Page 39.
- "As-Built Plat Of City Hospital Housing For Elderly, Portland, Maine For City Hospital Housing Assoc.", dated June 11, 1986, by Owen Haskell, Inc., South Portland, Maine, City Plan 1002/25.
- "Plan Of Property In Portland, Maine Made For Lee Mosher, Standard Boundary Survey", dated July 15, 1986, by H.L. & E.C. Jordan - Surveyors, Portland, Maine, City Plan 1002/27.
- "City Of Portland, Maine Public Works Department Engineering Section, Worksheet Showing Apparent Boundary Lines @ #50 Holm Avenue", dated August 17, 2001, City Plan 924/14.
- "City Of Portland, Maine Public Works Department Engineering Section, Rand Road Sideline Survey From Portland Terminal Railroad To Brighton Ave. And A Portion Of Brighton Ave.", Sheet 2 of 3, dated November 13, 2003, City Plan 882/10.
- "City Of Portland, Maine Public Works Department Engineering Section, Holm Avenue Drainage & Reconstruction As-Built Plan & Profile", Sheets 1 & 2 of 6, dated May 26, 2010, City Plan 915/6C.
- "Site Plan, Site Grading And Utilities, Profiles - Storm Drains, Portland City Hospital Housing For Elderly", Sheets SP1, SP2, SP3, issued June 18, 1985, by Architects Four, Manchester, NH.
- "Plan Depicting The Results Of An ALTA/ACSM Land Title Survey Made For Wishrock Housing Partners & Investment Group, Northwestern Sideline Of Holm Avenue, Portland, Maine", dated February 8, 2016, by Nadeau Land Surveys, recorded March 8, 2016, in CCRD Plan Book 210, Page 56, and revised June 26, 2017, to show As-Built and monumentation set.
- "ALTA/NSPS Land Title Survey Of: 1085 Brighton Avenue, Portland, Maine 04102, For Record Owner: 1085 Brighton Ave., LLC, 1085 Brighton Avenue, Portland, Maine 04102", Project No. 18340, Sheet 1 of 1, dated August 20, 2018, last revised October 5, 2018, by Sebago Technics, South Portland, Maine, recorded October 9, 2018, in CCRD Plan Book 218, Page 442.



Legend:

- | | |
|--|---|
| | Found 3' Offset 6" x 6" Granite Monument w/Brass Plug |
| | #5 Steel Rebar w/Survey Cap |
| | #2124, MagNail w/Survey Washer |
| | #2124, or Drill Hole To Be Set |
| | Steel Rebar w/Survey Cap #2124 Set 1/17/2017 |
| | MagNail w/Survey Washer #2124 Set 1/17/2017 |
| | Light Pole |
| | Sign |
| | Deciduous Tree |
| | Conifer Tree |
| | Easement Sideline |
| | Blue Paint For Underground Water Line |
| | Telephone Manhole |
| | Sanitary Manhole |
| | Catch Basin |
| | Gas Shutoff |
| | Water Shutoff |
| | Utility Pole w/Guy Wire |
| | Fire Hydrant |
| | Overhead Utility Line |

STATE OF MAINE

Cumberland County, ss.

Registry of Deeds

Received _____, 20__

At _____ h _____ m _____ M,

and recorded in

Plan Book _____, Page _____

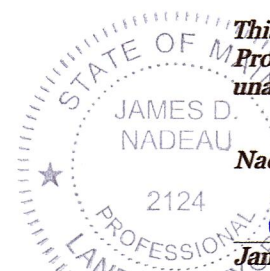
Attest: _____

Register

Surveyor's Statement:

Nadeau Land Surveys hereby states exclusively to the client listed hereon 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 Maine Board of Licensure rules and regulations for Professional Land Surveyors.

This plan is not valid without the signature and stamp of the below listed Professional Land Surveyor who prepared this plan as it may contain unauthorized alterations unknown to this office.



Nadeau Land Surveys

James D. Nadeau, P.L.S. #2124 (agent)

Date:

6-6-2025

Plan Depicting The Results Of A Boundary & Topographic Survey
Of A Proposed Lease Area Parcel Made For
Developers Collaborative
Intersection Of The Northeasterly Sideline Of Brighton Avenue
& Northwestern Sideline Of Holm Avenue
Portland, Maine

PREPARED BY:



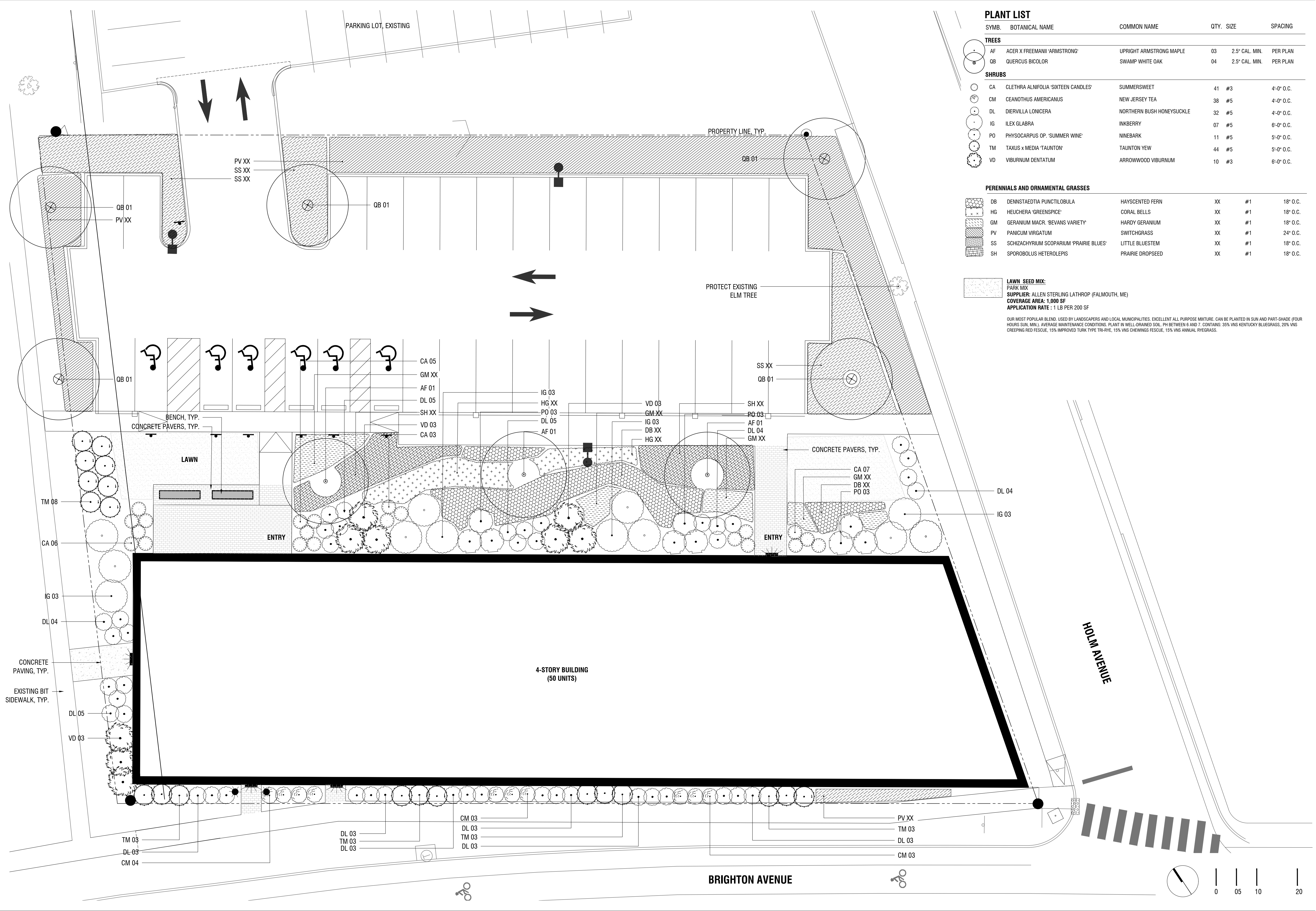
Nadeau Land Surveys

Professional Land Surveyors
Certified Floodplain Managers

918 BRIGHTON AVENUE
PORTLAND, ME 04102

PH. (207) 878-7870
FAX (207) 878-7871

RECORD OWNER: City of Portland 399 Congress Street Portland, Maine 04101	DRAWN BY: TPB	PLAN DATE: 6/6/2025
CHECKED BY: JDN	SURVEY DATE: May - June 2025	
INSTR.: Topcon GT-505 & Topcon HIPer II GPS	SCALE: 1" = 20'	
FIELD BOOK: FB 417 & Topcon Tesla	JOB No: 2252411B1	SHEET No: 1 of 1



PLANT LIST

SYMB.	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING
TREES					
AF	ACER X FREEMANII 'ARMSTRONG'	UPRIGHT ARMSTRONG MAPLE	03	2.5" CAL. MIN.	PER PLAN
QB	QUERCUS BICOLOR	SWAMP WHITE OAK	04	2.5" CAL. MIN.	PER PLAN
SHRUBS					
CA	CLETHRA ALNIFOLIA 'SIXTEEN CANDLES'	SUMMERSWEET	41	#3	4'-0" O.C.
CM	CEANOTHUS AMERICANUS	NEW JERSEY TEA	38	#5	4'-0" O.C.
DL	DIERVILLA LONICERA	NORTHERN BUSH HONEYSUCKLE	32	#5	4'-0" O.C.
IG	ILEX GLABRA	INKBERRY	07	#5	6'-0" O.C.
PO	PHYSOCARPUS OP. 'SUMMER WINE'	NINEBARK	11	#5	5'-0" O.C.
TM	TAXUS x MEDIA 'TAUNTON'	TAUNTON YEW	44	#5	5'-0" O.C.
VD	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	10	#3	6'-0" O.C.

PERENNIALS AND ORNAMENTAL GRASSES

DB	DENNSTAEDTIA PUNCTILOBULA	HAYSCENTED FERN	XX	#1	18" O.C.
HG	HEUCHERA 'GREENSPICE'	CORAL BELLS	XX	#1	18" O.C.
GM	GERANIUM MACR. 'BEVANS VARIETY'	HARDY GERANIUM	XX	#1	18" O.C.
PV	PANICUM VIRGATUM	SWITCHGRASS	XX	#1	24" O.C.
SS	SCHIZACHYRIUM SCOPARIUM 'PRAIRIE BLUES'	LITTLE BLUESTEM	XX	#1	18" O.C.
SH	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSIDE	XX	#1	18" O.C.

LAWN SEED MIX:
PARK MIX
SUPPLIER: ALLEN STERLING LATHROP (FALMOUTH, ME)
COVERAGE AREA: 1,000 SF
APPLICATION RATE : 1 LB PER 200 SF

OUR MOST POPULAR BLEND. USED BY LANDSCAPERS AND LOCAL MUNICIPALITIES. EXCELLENT ALL PURPOSE MIXTURE. CAN BE PLANTED IN SUN AND PART-SHADE (FOUR HOURS SUN, MIN.). AVERAGE MAINTENANCE CONDITIONS. PLANT IN WELL-DRAINED SOIL. PH BETWEEN 6 AND 7. CONTAINS: 35% VNS KENTUCKY BLUEGRASS, 20% VNS CREEPING RED FESCUE, 15% IMPROVED TURK TYPE TRI-RYE, 15% VNS CHEWINGS FESCUE, 15% VNS ANNUAL RYEGRASS.

Aceto Kimball
Landscape Architecture
207 221 3390 | acetokimball.com

SEAL

PROJECT TITLE
BARRON CENTER
PORTLAND, MAINE

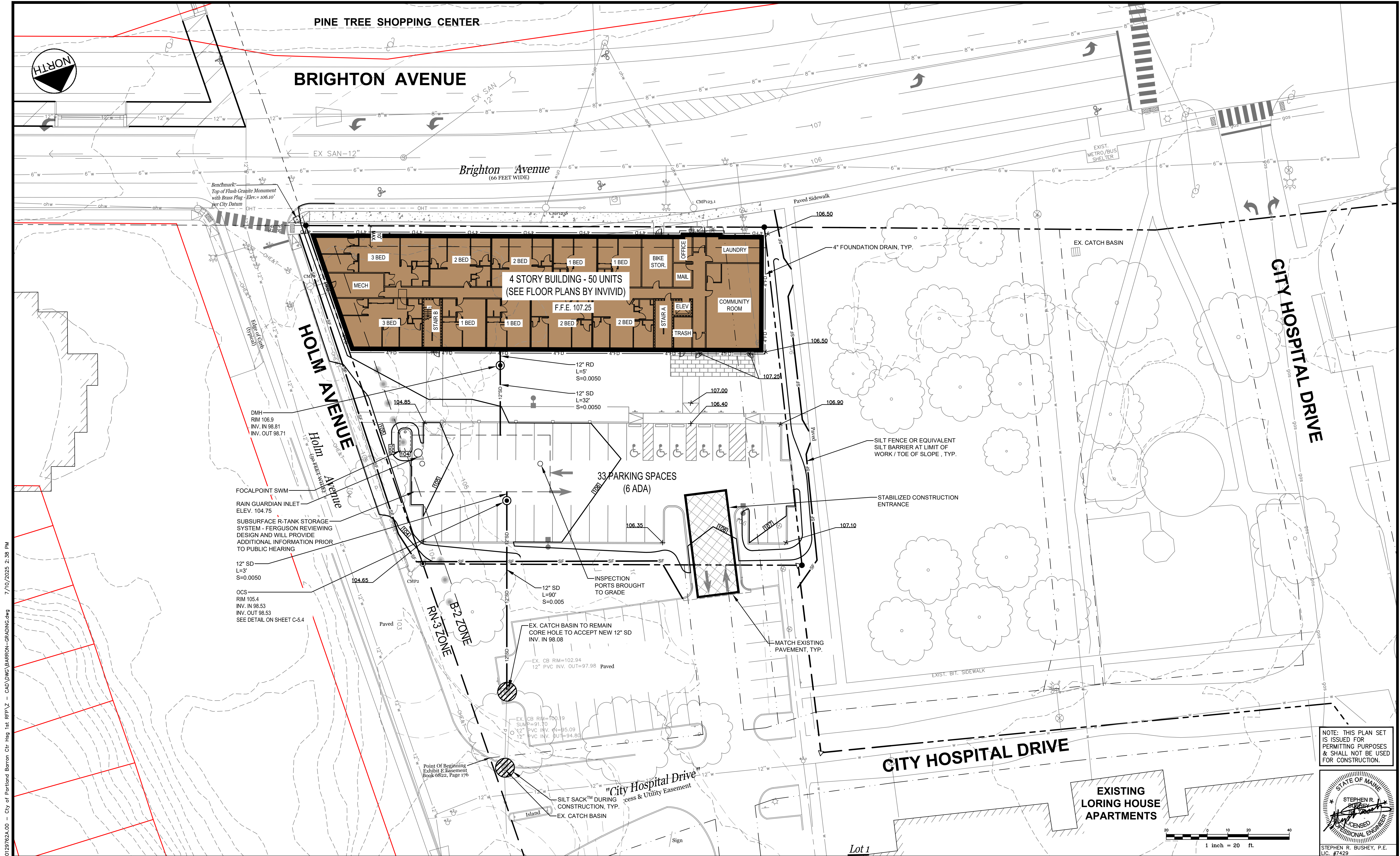
PREPARED FOR
DC - DEVELOPERS
COLLABORATIVE

REVISIONS
DATE

ISSUE DATE
JULY 11, 2025

SHEET TITLE
LANDSCAPE PLAN

SHEET INFORMATION
L 1-00
NOT FOR CONSTRUCTION



U:\Developers Collaborative\0129762A.00 - City of Portland Barron Ctr Hsg 1st RFP\Z - CAD\DWG BARRON-GRADING.dwg 7/10/2025 2:38 PM

Rev.	Date	Revision

Rev.	Date	Revision
2	7/8/2025	REVISED PER STAFF COMMENTS
1	6/6/2025	MAJOR SITE PLAN APPLICATION

Design: SRB Draft: CDD Date: JUNE 2025
Checked: SRB Scale: AS NOTED Job No.: 0129762A.00
File Name: BARRON-GRADING.dwg
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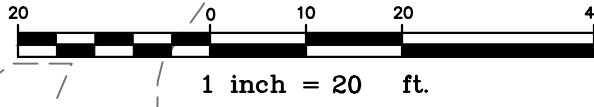
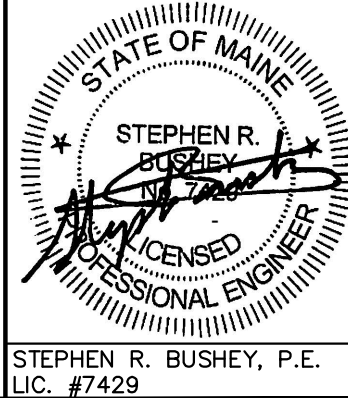
GORRIIL PALMER
An LJB Engineering Company

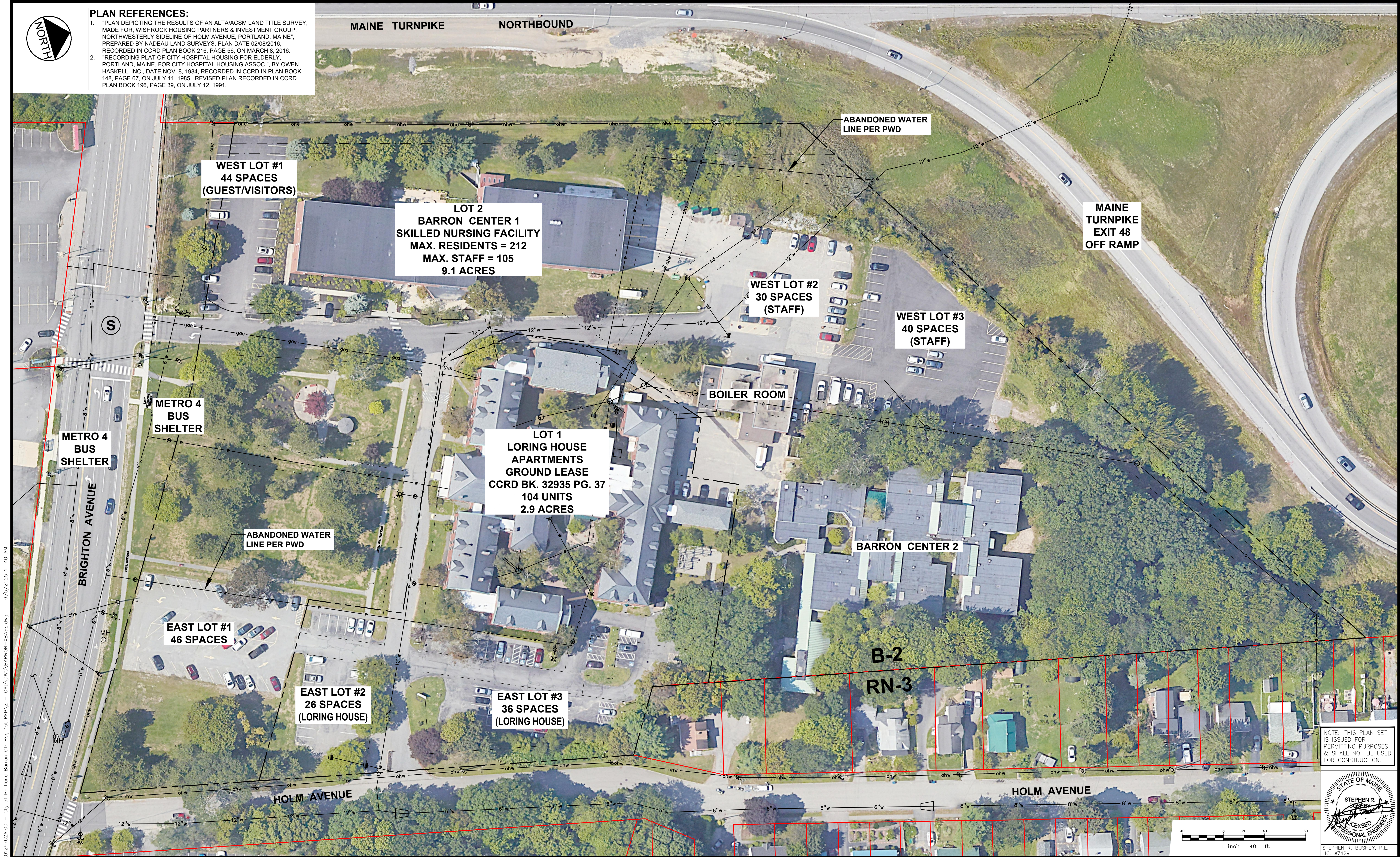
Gorriil Palmer, an LJB Engineering Company
GorriilPalmer.com
(207) 772-2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	GRADING, DRAINAGE & EROSION CONTROL PLAN
Project:	CITY OF PORTLAND - BARRON CENTER - SITE 1 HOUSING 1125 Brighton Avenue, Portland, Maine
Client:	DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC/PROSPERITY ME 175 Lancaster Street, Suite 216A, Portland, Maine 04101

Drawing No.
C-4.0

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.





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- PLAN REFERENCES:**
1. "PLAN DEPICTING THE RESULTS OF AN ALTA/ACSM LAND TITLE SURVEY, MADE FOR, WISHROCK HOUSING PARTNERS & INVESTMENT GROUP, NORTHWESTERLY SIDELINE OF HOLM AVENUE, PORTLAND, MAINE", PREPARED BY NADEAU LAND SURVEYS, PLAN DATE 02/08/2016, RECORDED IN CCRD PLAN BOOK 216, PAGE 56, ON MARCH 8, 2016.
 2. "RECORDING PLAT OF CITY HOSPITAL HOUSING FOR ELDERLY, PORTLAND, MAINE, FOR CITY HOSPITAL HOUSING ASSOC.", BY OWEN HASKELL, INC., DATE NOV. 8, 1984, RECORDED IN PLAN BOOK 148, PAGE 67, ON JULY 11, 1985, REVISED PLAN RECORDED IN CCRD PLAN BOOK 196, PAGE 39, ON JULY 12, 1991.

Rev.	Date	Revision

Rev.	Date	Revision
1	6/6/2025	MAJOR SITE PLAN APPLICATION

Design: SRB Draft: CDD Date: JUNE 2025
Checked: SRB Scale: AS NOTED Job No.: 0129762A.00
File Name: BARRON-XBASE.dwg
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GORRIIL PALMER
An LJB Engineering Company

Gorriil Palmer, an LJB Engineering Company
GorriilPalmer.com
(207) 772-2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	OVERALL CAMPUS EXISTING CONDITIONS AERIAL
Project:	CITY OF PORTLAND - BARRON CENTER - SITE 1 HOUSING 1125 Brighton Avenue, Portland, Maine
Client:	DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC/PROSPERITY ME 175 Lancaster Street, Suite 216A, Portland, Maine 04101

Drawing No.
C-1.4

LEGEND

Existing water line
Existing sewer
Existing gas line
Existing electric line
Existing telephone line (buried)
Storm drain
Water valve
Catch basin
Existing manhole
Existing utility pole
Hydrant
Iron pipe
Center line

State of Maine, Cumberland Co.
Registry of Deeds
Received Nov 27 1984
at 2:44 PM and recorded in
Plan Book 148 Page 67
Attest: [Signature]
Register

CITY OF PORTLAND
LOT 2 9.1 ACRES

Existing 15' sewer
easement to Holm
Avenue

APPROVED BY THE CITY OF PORTLAND
PLANNING BOARD

[Signature]
[Signature]
DATE: Nov. 27, 1984

[Signature]
CODES ENFORCEMENT OFFICER
DATE: 6-20-85

APPROVED BY THE PLANNING AUTHORITY PURSUANT
TO § 14-496(3) PORTLAND CITY CODE

[Signature]
JOSEPH E. GRAY, DIR. OF PLANNING
AND URBAN DEVELOPMENT

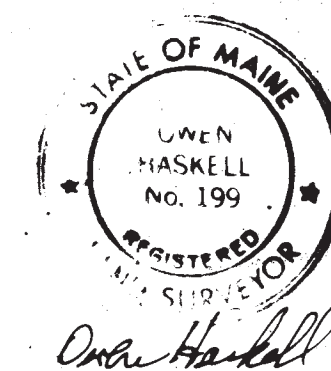
Recorded C.C.R. of D. July 11, 1985 Plan Book 148 Page 67 (Revised PLW Copy, May 1991)

REVISION: Δ

MAY 1991 - REVISION TO
ACCESS EASEMENTS BY
CITY OF PORTLAND

RECORDING PLAT OF CITY HOSPITAL
HOUSING FOR ELDERLY
PORTLAND, MAINE
FOR
CITY HOSPITAL HOUSING ASSOC.

Owen Haskell, Inc.
Civil Engineers South Portland, Maine Land Surveyors
Drawn By M.M.H.O.W. Date NOV. 8, 1984 Job No. 8416 P
Trace By M.M.H.O.W. Check By O.W. Scale 1" = 40' Drwg. No. 1
Bk No 255, 256, 257



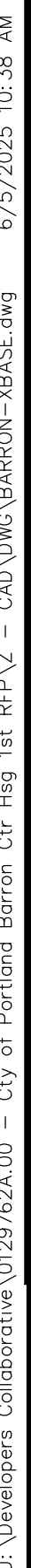
NOTES:

- 1/ LOCATION OF UNDERGROUND UTILITIES IS APPROXIMATE.
- 2/ UTILITIES SHOWN ON THIS PLAN ARE EXISTING UNLESS LABELED OTHERWISE.
- 3/ ONLY UTILITIES THAT AFFECT THE USE AND OCCUPATION OF BOTH LOTS 1 AND 2 ARE SHOWN.

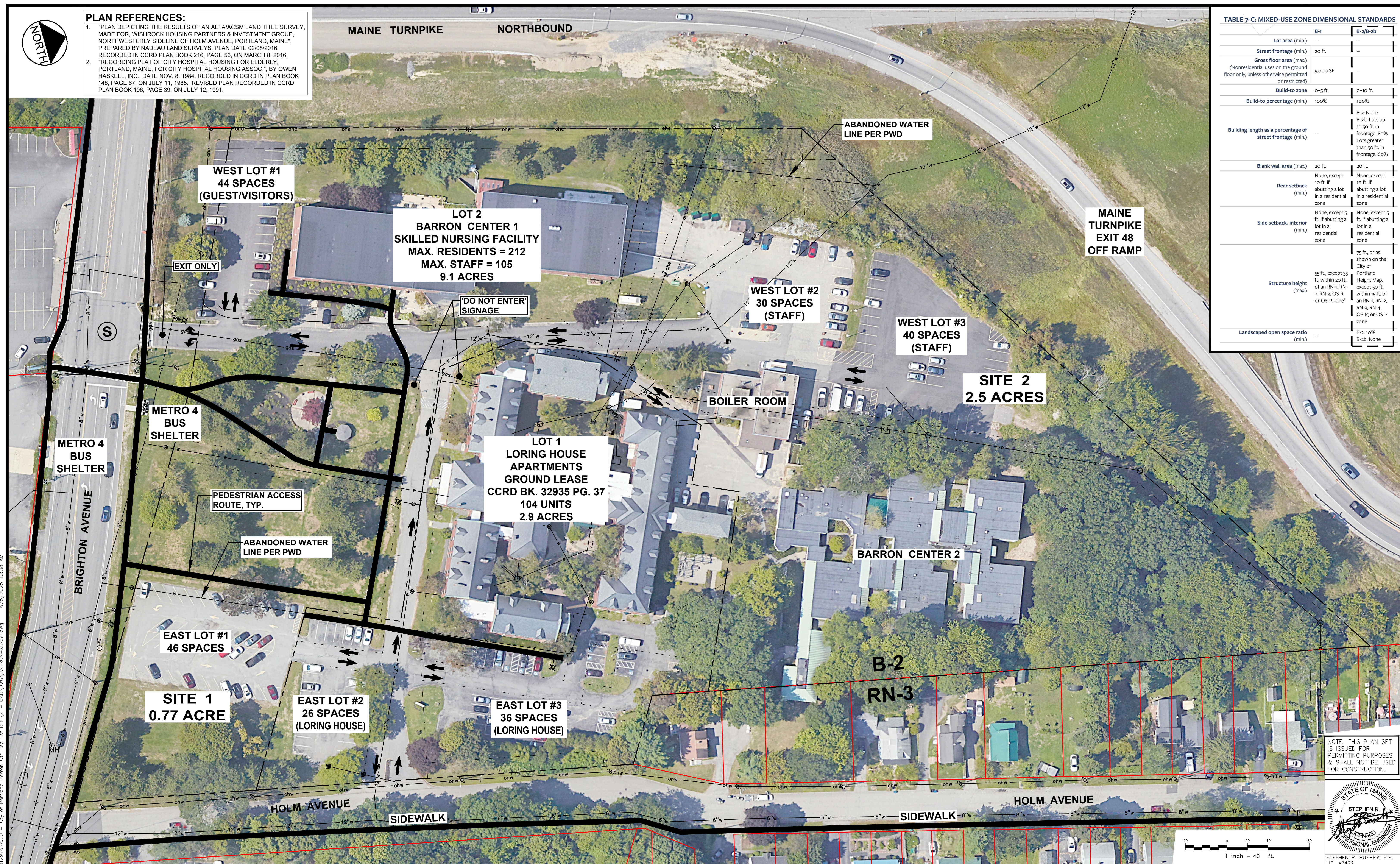
NOTE: THE FOLLOWING REVISIONS WERE MADE TO THIS PLAN 6-17-85

- 1 ADDED PROPOSED "SOLARIUM"
- 2 ADDED NOTATION OF 104 UNITS
- 3 ADDED 6 PROPOSED PARKING SPACES BEHIND "SOLARIUM"

191 37

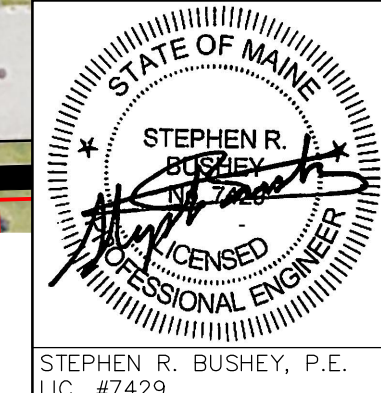


1. "PLAN DEPICTING THE RESULTS OF AN ALTA/CASM LAND TITLE SURVEY, MADE FOR, WISHROCK HOUSING PARTNERS & INVESTMENT GROUP, NORTHWESTERLY SIDELINE OF HOLM AVENUE, PORTLAND, MAINE", PREPARED BY NADEAU LAND SURVEYS, PLAN DATE 02/08/2016, RECORDED IN CCRD PLAN BOOK 216, PAGE 56, ON MARCH 8, 2016.
2. "RECORDING PLAT OF CITY HOSPITAL HOUSING FOR ELDERLY, PORTLAND, MAINE, FOR CITY HOSPITAL HOUSING ASSOC.", BY OWEN HASSELL, INC. DATE NOV. 8, 1984, RECORDED IN CCRD IN PLAN BOOK 148, PAGE 67, ON JULY 11, 1985. REVISED PLAN RECORDED IN CCRD PLAN BOOK 196, PAGE 39, ON JULY 12, 1991.



	B-1	B-2/B-2b
Lot area (min.)	--	--
Street frontage (min.)	20 ft.	--
Gross floor area (max.) (Nonresidential uses on the ground floor only, unless otherwise permitted or restricted)	5,000 SF	--
Build-to zone	0-5 ft.	0-10 ft.
Build-to percentage (min.)	100%	100%
Building length as a percentage of street frontage (min.)	--	B-2: None B-2b: Lots ups to 50 ft. in frontage; 80% Lots greater than 50 ft. in frontage; 60%
Blank wall area (max.)	20 ft.	20 ft.
Rear setback (min.)	None, except 10 ft. if abutting a lot in a residential zone	None, except 10 ft. if abutting a lot in a residential zone
Side setback, interior (min.)	None, except 5 ft. if abutting a lot in a residential zone	None, except 5 ft. if abutting a lot in a residential zone
Structure height (max.)	55 ft., except 35 ft. within 20 ft. of an RN-1, RN-2, RN-3, OS-R, or OS-P zone ²	75 ft., or as shown on the City of Portland Height Map, except 50 ft. within 15 ft. of an RN-1, RN-2, RN-3, RN-4, OS-R, or OS-P zone ²
Landscaped open space ratio (min.)	--	B-2: 10% B-2b: None

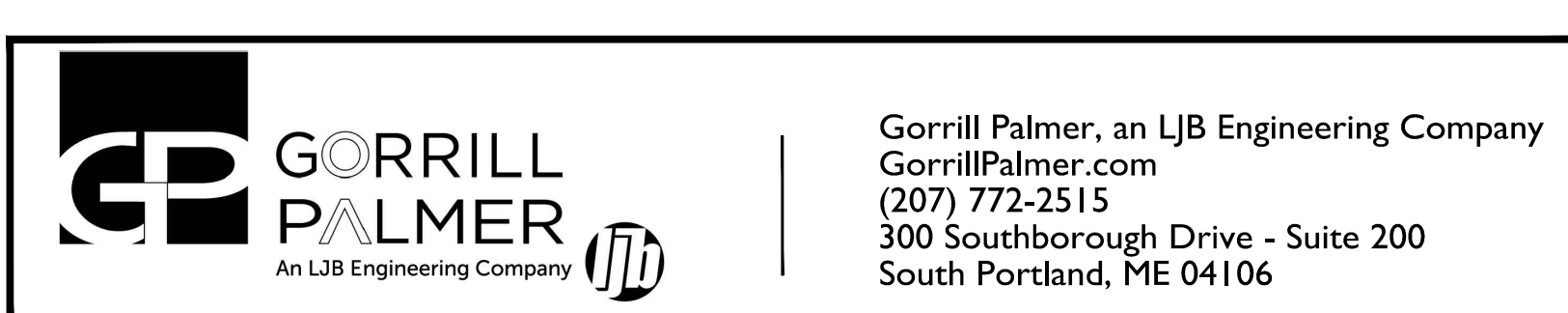
NOTE: THIS PLAN SET
IS ISSUED FOR
PERMITTING PURPOSES
& SHALL NOT BE USED
FOR CONSTRUCTION.



Rev.	Date	Revision	1	6/6/2025	MAJOR SITE PLAN APPLICATION
			Rev.	Date	Revision

Design: SRB	Draft: CDD	Date: JUNE 2025
Checked: SRB	Scale: AS NOTED	Job No.: 0129762A.00
File Name: BARRON-XBASE.dwg		

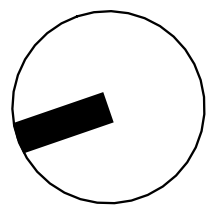
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Drawing Name:		PEDESTRIAN ACCESS & SITE CIRCULATION PLAN	
Project:		CITY OF PORTLAND - BARRON CENTER - SITE 1 HOUSING 1125 Brighton Avenue, Portland, Maine	
Client:		DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC/PROSPERITY ME 175 Lancaster Street, Suite 216A, Portland, Maine 04101	

Drawing No.

C-1.5



Project:

1145 Brighton Ave

1145 Brighton Ave,
Portland, ME 04102

Owner/Client:

INPUT CLIENT

INPUT CLIENT ADDRESS

Stamp:

Consultant:

Issuance:

PLANNING BOARD

Revisions:

1ST FLOOR PLAN

Scale: 1/8" = 1'-0"

05/28/2025

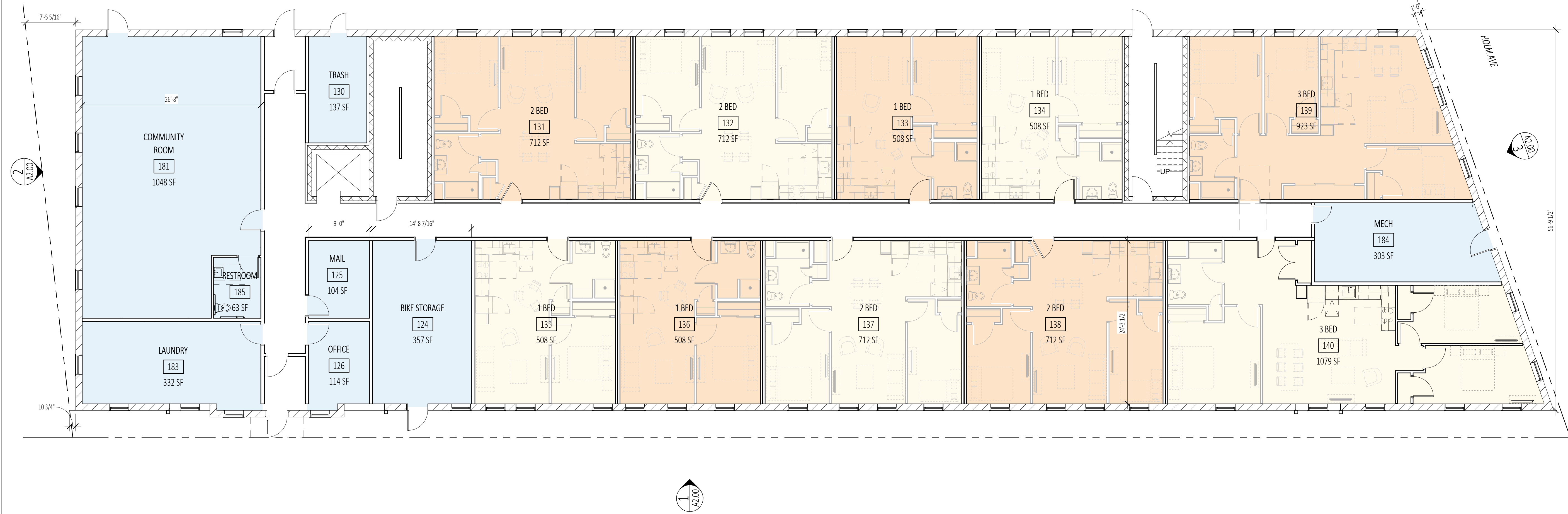
A1.00

GROSS BUILDING AREA		BEDROOM - UNIT MIX			BEDROOM - UNIT MIX BY LEVEL		
LEVEL	GSF	UNIT TYPE	COUNT	UNIT MIX	UNIT TYPE	Level	COUNT
1ST FLOOR	11975 SF	1 BED	15	30%	1 BED	1ST FLOOR	4
2ND FLOOR	11975 SF	2 BED	25	50%	2 BED	1ST FLOOR	4
3RD FLOOR	11975 SF	3 BED	8	16%	3 BED	1ST FLOOR	2
4TH FLOOR	11975 SF	4 BED	2	4%			10
TOTAL	47899 SF		50	100%			

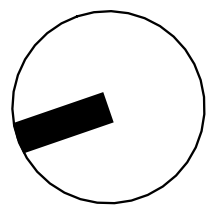
1 BED	2ND FLOOR	5
2 BED	2ND FLOOR	7
3 BED	2ND FLOOR	2
		14

1 BED	3RD FLOOR	3
2 BED	3RD FLOOR	7
3 BED	3RD FLOOR	2
4 BED	3RD FLOOR	1
		13

1 BED	4TH FLOOR	3
2 BED	4TH FLOOR	7
3 BED	4TH FLOOR	2
4 BED	4TH FLOOR	1
		13
		50



1	1ST FLOOR PLAN
	1/8" = 1'-0"



Project:

1145 Brighton Ave

1145 Brighton Ave,
Portland, ME 04102

Owner/Client:

INPUT CLIENT

INPUT CLIENT ADDRESS

Stamp:

Consultant:

Issuance:

PLANNING BOARD

Revisions:

2ND FLOOR PLAN

Scale: 1/8" = 1'-0"

05/28/2025

A1.01

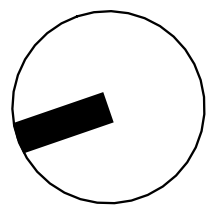
GROSS BUILDING AREA		BEDROOM - UNIT MIX			BEDROOM - UNIT MIX BY LEVEL		
LEVEL	GSF	UNIT TYPE	COUNT	UNIT MIX	UNIT TYPE	Level	COUNT
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3RD FLOOR	11975 SF	3 BED	8	16%	3 BED	1ST FLOOR	2
4TH FLOOR	11975 SF	4 BED	2	4%			10
TOTAL	47899 SF		50	100%			

1 BED	2ND FLOOR	5
2 BED	2ND FLOOR	7
3 BED	2ND FLOOR	2
		14

1 BED	3RD FLOOR	3
2 BED	3RD FLOOR	7
3 BED	3RD FLOOR	2
4 BED	3RD FLOOR	1
		13

1 BED	4TH FLOOR	3
2 BED	4TH FLOOR	7
3 BED	4TH FLOOR	2
4 BED	4TH FLOOR	1
		13
		50





Project:

1145 Brighton Ave

1145 Brighton Ave,
Portland, ME 04102

Owner/Client:

INPUT CLIENT

INPUT CLIENT ADDRESS

Stamp:

Consultant:

Issuance:

PLANNING BOARD

Revisions:

3RD FLOOR PLAN

Scale: 1/8" = 1'-0"

05/28/2025

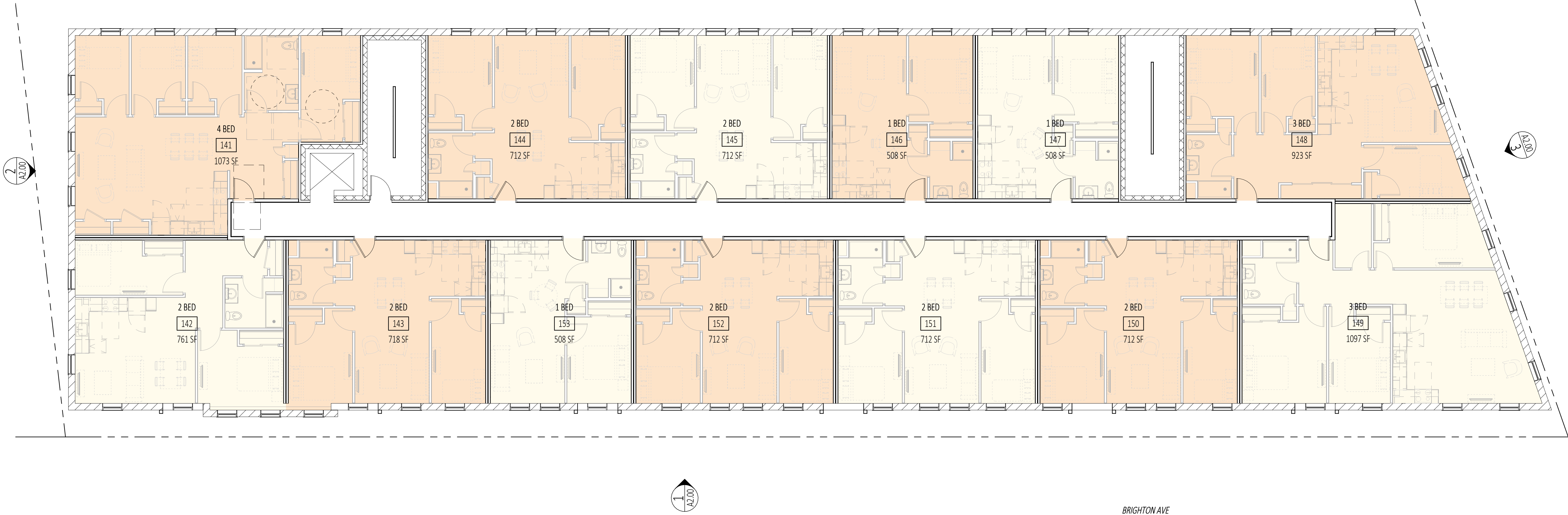
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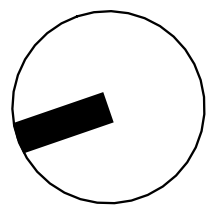
GROSS BUILDING AREA		BEDROOM - UNIT MIX			BEDROOM - UNIT MIX BY LEVEL		
LEVEL	GSF	UNIT TYPE	COUNT	UNIT MIX	UNIT TYPE	Level	COUNT
1ST FLOOR	11975 SF	1 BED	15	30%	1 BED	1ST FLOOR	4
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3RD FLOOR	11975 SF	3 BED	8	16%	3 BED	1ST FLOOR	2
4TH FLOOR	11975 SF	4 BED	2	4%			10
TOTAL	47899 SF		50	100%			

1 BED	2ND FLOOR	5
2 BED	2ND FLOOR	7
3 BED	2ND FLOOR	2
		14

1 BED	3RD FLOOR	3
2 BED	3RD FLOOR	7
3 BED	3RD FLOOR	2
4 BED	3RD FLOOR	1
		13

1 BED	4TH FLOOR	3
2 BED	4TH FLOOR	7
3 BED	4TH FLOOR	2
4 BED	4TH FLOOR	1
		13
		50





Project:

1145 Brighton Ave

1145 Brighton Ave,
Portland, ME 04102

Owner/Client:

INPUT CLIENT

INPUT CLIENT ADDRESS

Stamp:

Consultant:

Issuance:

PLANNING BOARD

Revisions:

4TH FLOOR PLAN

Scale: 1/8" = 1'-0"

05/28/2025

A1.03

GROSS BUILDING AREA		BEDROOM - UNIT MIX			BEDROOM - UNIT MIX BY LEVEL		
LEVEL	GSF	UNIT TYPE	COUNT	UNIT MIX	UNIT TYPE	Level	COUNT
1ST FLOOR	11975 SF	1 BED	15	30%	1 BED	1ST FLOOR	4
2ND FLOOR	11975 SF	2 BED	25	50%	2 BED	1ST FLOOR	4
3RD FLOOR	11975 SF	3 BED	8	16%	3 BED	1ST FLOOR	2
4TH FLOOR	11975 SF	4 BED	2	4%			10
TOTAL	47899 SF		50	100%			

1 BED	2ND FLOOR	5
2 BED	2ND FLOOR	7
3 BED	2ND FLOOR	2
		14

1 BED	3RD FLOOR	3
2 BED	3RD FLOOR	7
3 BED	3RD FLOOR	2
4 BED	3RD FLOOR	1
		13

1 BED	4TH FLOOR	3
2 BED	4TH FLOOR	7
3 BED	4TH FLOOR	2
4 BED	4TH FLOOR	1
		13
		50



Project:

1145 Brighton Ave

1145 Brighton Ave,
Portland, ME 04102

Owner/Client:

INPUT CLIENT

INPUT CLIENT ADDRESS

Stamp:

Consultant:

Issuance:

PLANNING BOARD

Revisions:

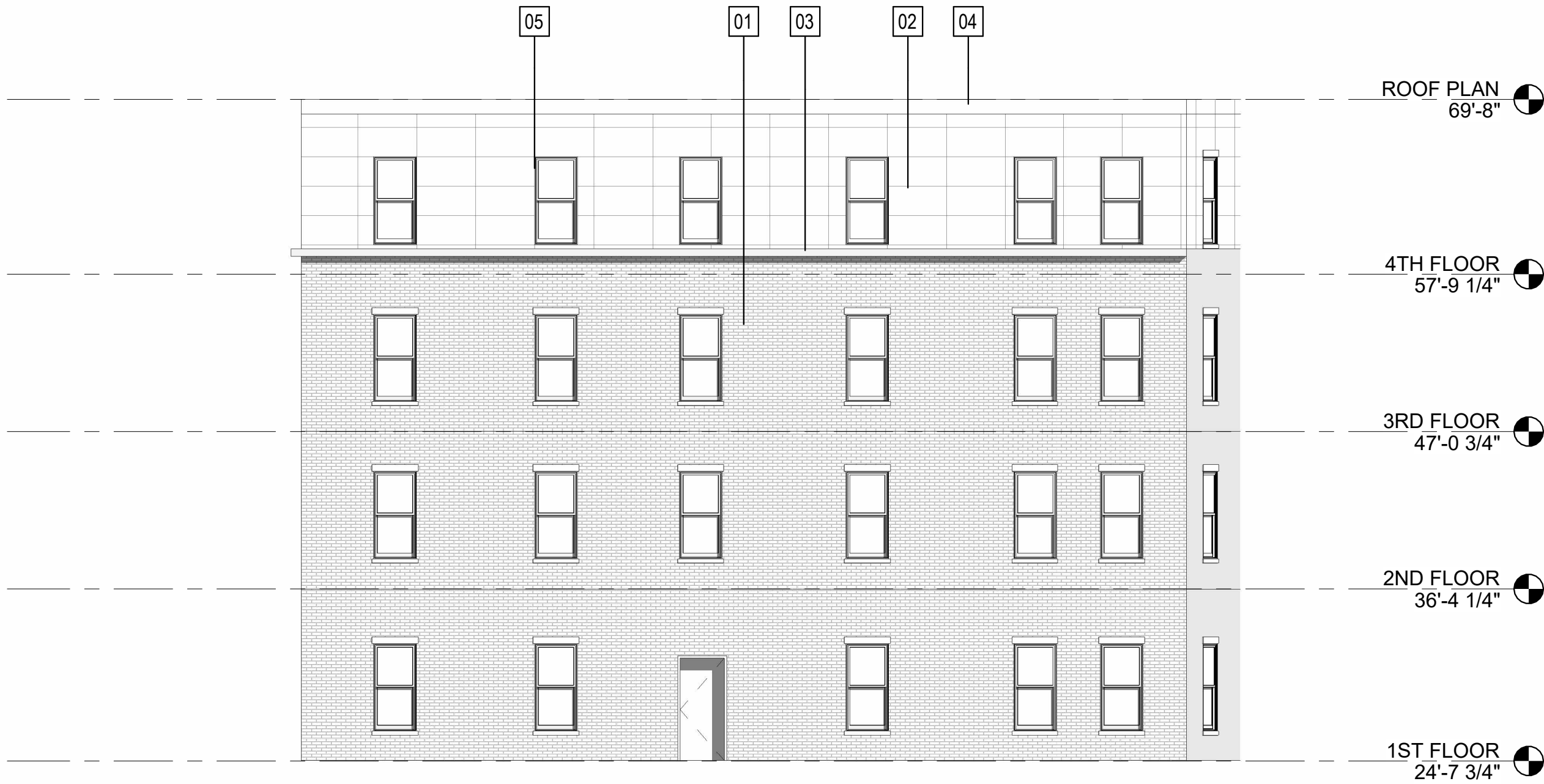
EXTERIOR ELEVATIONS

Scale: As indicated

05/28/2025

A2.00

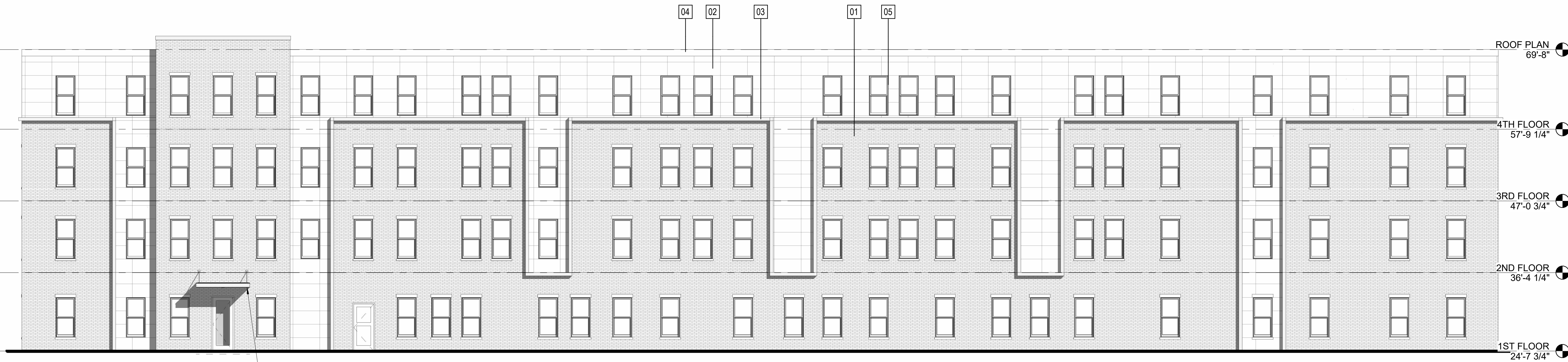
MATERIAL SCHEDULE					
TAG/TYPE	DESCRIPTION	MANUFACTURER	PRODUCT	COLOR	REMARKS
01	BRICK			MATCH TO BARRON CENTER	
02	FIBER CEMENT PANEL			CHARCOAL GREY	
03	METAL PAINTED			CHARCOAL GREY	
04	METAL CAP			CHARCOAL GREY	
05	VINYL WINDOW			BLACK	



3 HOLM AVE
1/8" = 1'-0"

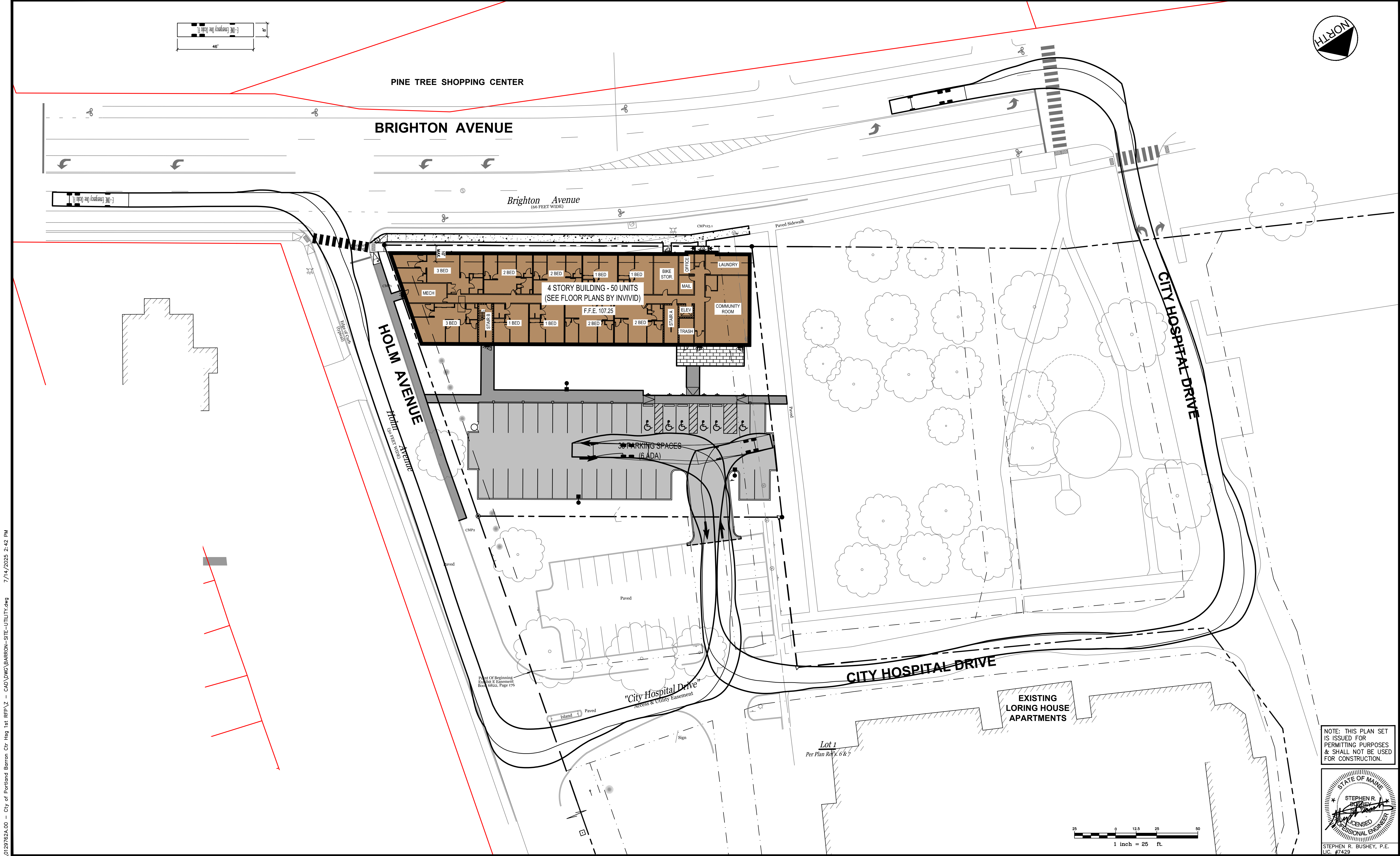


2 PARK SIDE
1/8" = 1'-0"



METAL CANOPY, BLACK

1 BRIGHTON AVE
1/8" = 1'-0"



U:\Developers Collaborative\0129762A.00 - City of Portland Barron Ctr Hsg 1st RFP V - CAD\DWG\BARRON-SITE-UTILITY.dwg 7/14/2025 2:42 PM

Rev.	Date	Revision
2	7/8/2025	REVISED PER STAFF COMMENTS
1	6/6/2025	MAJOR SITE PLAN APPLICATION

Rev.	Date	Revision
2	7/8/2025	REVISED PER STAFF COMMENTS
1	6/6/2025	MAJOR SITE PLAN APPLICATION

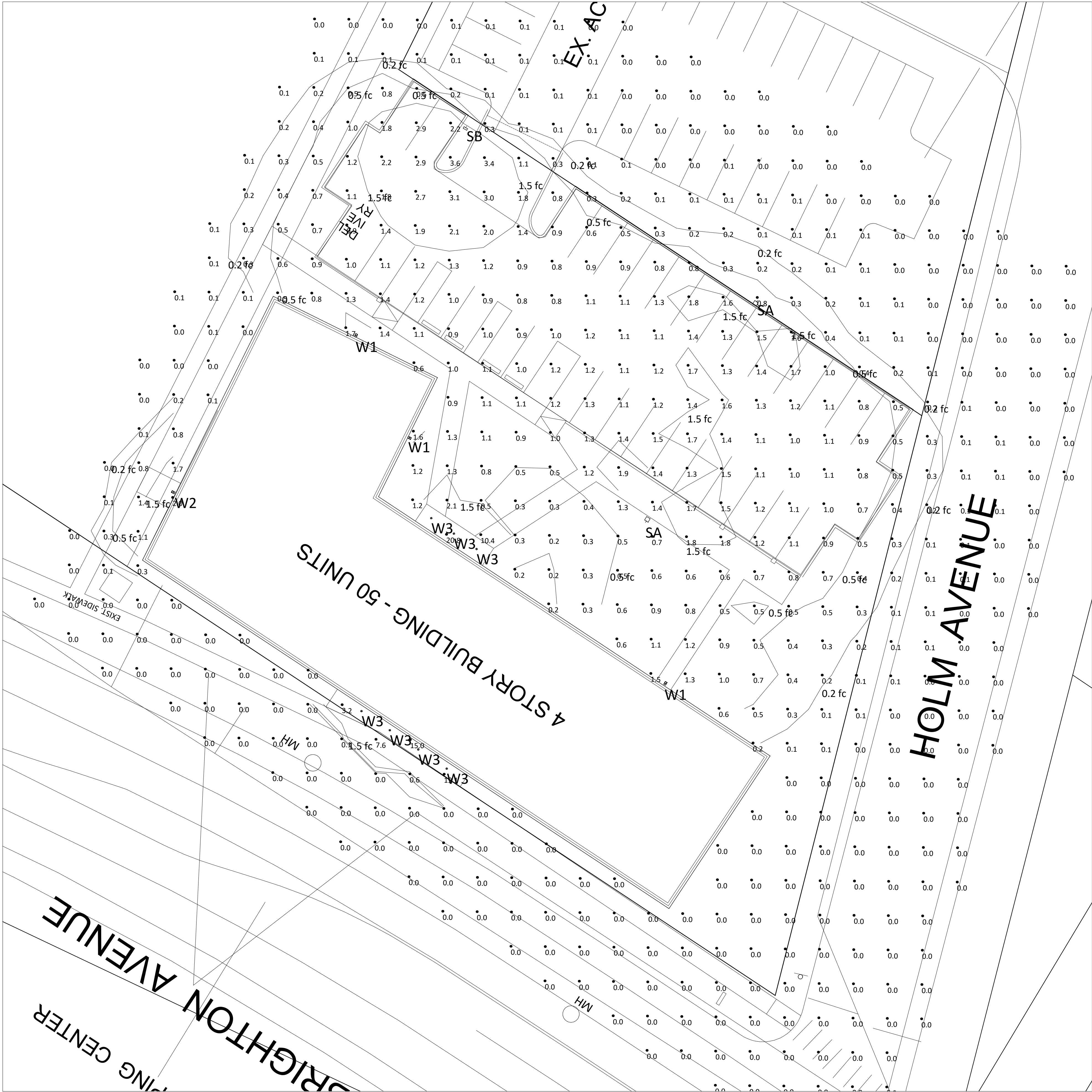
Design: SRB	Draft: CDD	Date: JUNE 2025
Checked: SRB	Scale: AS NOTED	Job No.: 0129762A.00
File Name: BARRON-SITE-UTILITY.dwg		
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Gorrell Palmer, an LJB Engineering Company
GorrellPalmer.com
(207) 772-2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	FIRE TRUCK PLAN
Project:	CITY OF PORTLAND - BARRON CENTER - SITE 1 HOUSING 1125 Brighton Avenue, Portland, Maine
Client:	DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC/PROSPERITY ME 175 Lancaster Street, Suite 216A, Portland, Maine 04101

Drawing No.	-
-------------	---



PLAN VIEW

- NOTES:
- 1) EXACT MOUNTING DETAILS TO BE DETERMINED AT JOBSITE BY OTHERS.
 - 2) CALCULATIONS MAY or MAY NOT SHOW THE EFFECT OF SHADOWING CAUSED BY BUILDINGS AND OBJECTS WITHIN THE CALCULATED SPACE OR IN THE SITE AREA.
 - 3) READINGS SHOWN ARE INITIAL HORIZONTAL FOOTCANDLES ON A FLAT SITE WITHOUT REFLECTIONS OR OBSTRUCTIONS UNLESS OTHERWISE INDICATED.
 - 4) THIS CALCULATION IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO EXPOSURE/ESS AND STANDARD ASSUMPTIONS OF THE SPACE AND/OR SITE.
 - 5) CONFORMANCE TO CODES AND OTHER LOCAL REQUIREMENTS AS DETERMINED BY THE AHJ ARE THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.
 - 6) THIS LAYOUT DRAWING MUST BE COORDINATED WITH THE SITE LOCATION FOR CORRECT FIXTURE ORIENTATION.
 - 7) DOCUMENTS PRINTED OR PLOTTED FROM ELECTRONIC FILES MAY APPEAR AT OTHER THAN THE DESIRED OR ASSUMED GRAPHIC SCALES. IT IS THE RESPONSIBILITY OF THE RECIPIENT TO VERIFY THAT THE PRINTED OR PLOTTED-TO-SCALE DRAWING IS PRINTED TO SCALE.

Calculation Summary					
Label	Avg	Max	Min	Avg/Min	Max/Min
SITE	0.54	20.8	0.0	N.A.	N.A.
PARKING	1.26	3.1	0.5	2.52	6.20

Luminaire Schedule (note fixture catalogue numbers are not complete)						
Type	Qty	Lum. Lumens	LLF	Lum. Watts	Description	Mounting Height
SA	2	6328	0.900	54	VALS-09L-4W-30K8	18
SB	1	7267	0.900	54	VALS-09L-4M-30K8	18
W1	3	2822	0.900	19	XWS-LED-03L-SIL-FT-30-70CRI	15
W2	1	1430	0.900	10	XWS-LED-01L-SIL-2-30-70CRI	10
W3	7	1559	0.900	20	PB4RA-20L3M-30KH-T55-S-WH-MOD	10

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GENERATED FOR:
CORRILL PALMER
SCALE NOT TO SCALE

TITLE
BARRON CENTER - SITE 1
PORTLAND, ME
SITE LIGHTING LAYOUT
Date: 6/4/2025
Page 1 of 1

GENERATED BY EXPOSURE/ESS, PORTSMOUTH, NH - 603-601-8080 - exposure2lighting.com

site l.tg 6-4-25.AGI

1. "PLAN DEPICTING THE RESULTS OF AN ALTA/ACSM LAND TITLE SURVEY, MADE FOR, WISHROCK HOUSING PARTNERS & INVESTMENT GROUP, NORTHWESTERLY SIDELINE OF HOLM AVENUE, PORTLAND, MAINE", PREPARED BY NADEAU LAND SURVEYS, PLAN DATE 02/28/2016, RECORDED IN CCRD PLAN BOOK 216, PAGE 56, ON MARCH 8, 2016.
2. "RECORDING PLAT OF CITY HOSPITAL HOUSING FOR ELDERLY, PORTLAND, MAINE, FOR CITY HOSPITAL HOUSING ASSOC.", BY OWEN HASKELL, INC., DATE NOV. 8, 1984, RECORDED IN CCRD IN PLAN BOOK 148, PAGE 67, ON JULY 11, 1985. REVISED PLAN RECORDED IN CCRD PLAN BOOK 196, PAGE 39, ON JULY 12, 1991.

BRIGHTON AVENUE

HOLM AVENUE

CITY HOSPITAL DRIVE

gts gts gts

**EXISTING
LORING HOUSE
APARTMENTS**

NOTE: THIS PLAN SET
IS ISSUED FOR
PERMITTING PURPOSES
& SHALL NOT BE USED
FOR CONSTRUCTION.

STATE OF MAINE

STEPHEN R. BUSHEY

NO. 7838

LICENSED

PROFESSIONAL ENGINEER

STEPHEN R. BUSHEY, P.E.
J.C. 17220

Drawing No.

C-2.0

Rev.	Date	Revision
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1	6/6/2025	MAJOR SITE PLAN APPLICATION
Rev.	Date	Revision

Design: SRB	Draft: CDD	Date: JUNE 2025
Checked: SRB	Scale: AS NOTED	Job No.: 0129762A.00
File Name: BARRON-EX & DEMO.dwg		

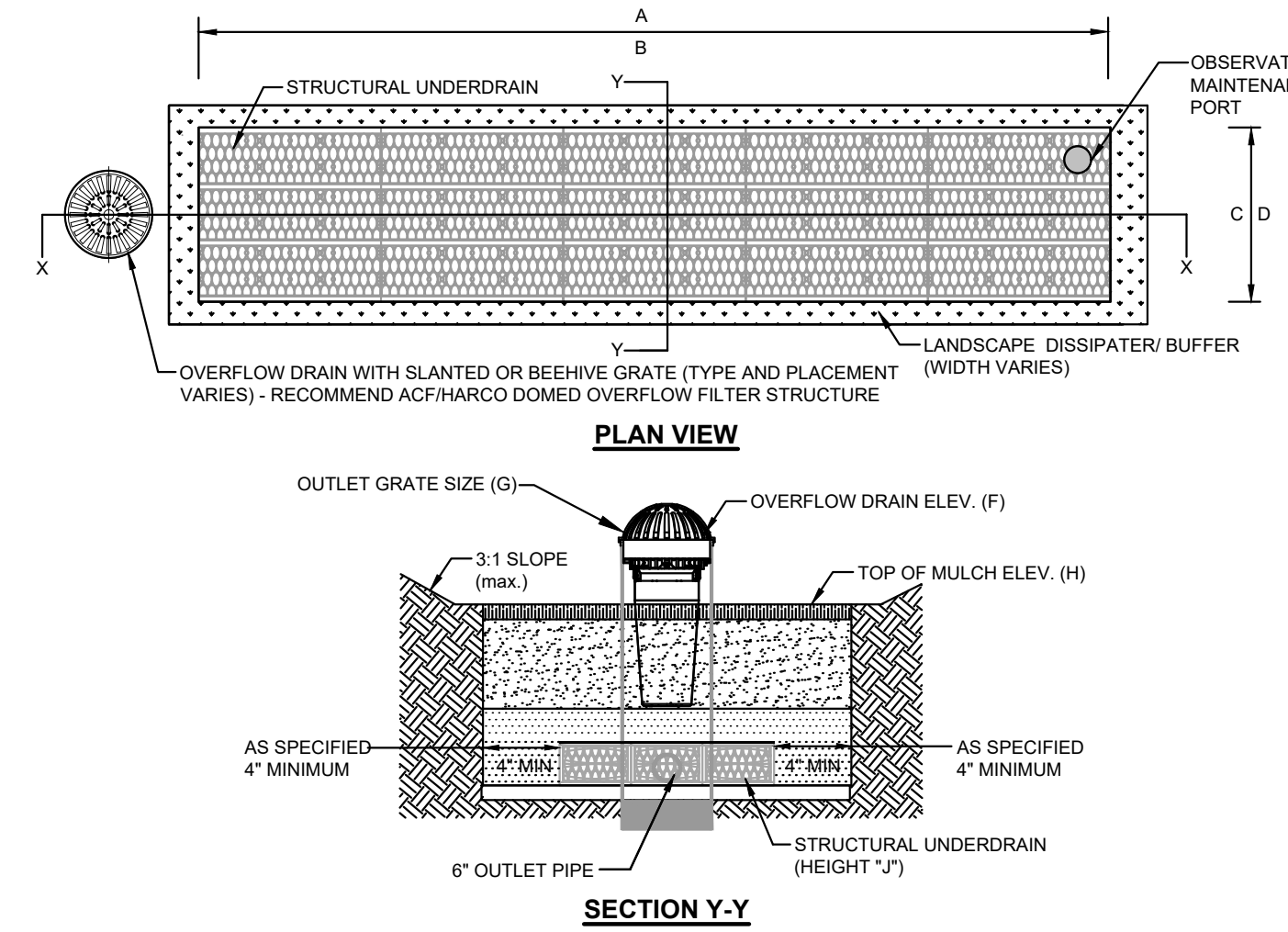
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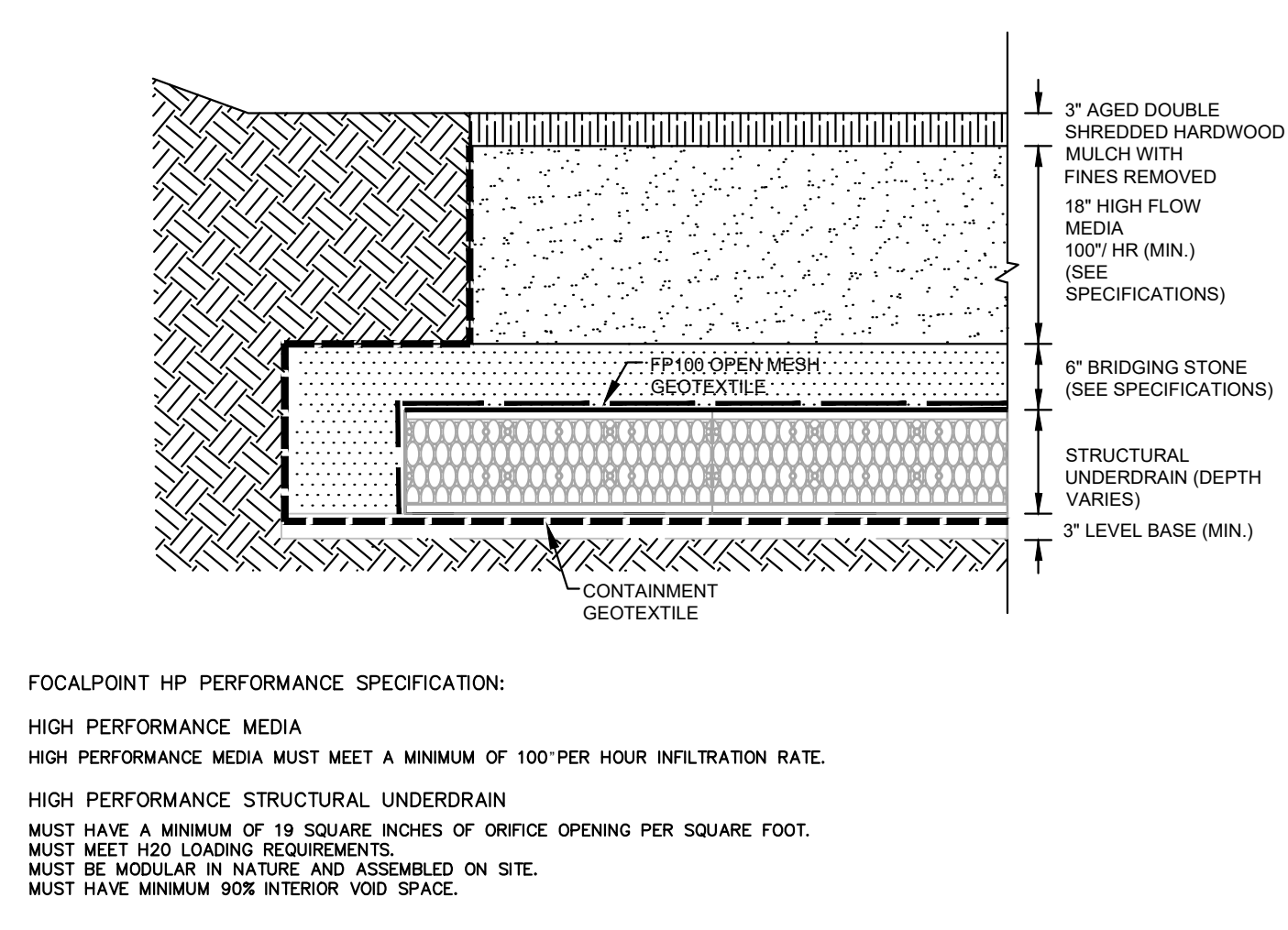
Gorrill Palmer, an LJB Engineering Company
GorrillPalmer.com
(207) 772-2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	EXISTING CONDITIONS & REMOVALS PLAN
Project:	CITY OF PORTLAND - BARRON CENTER - SITE 1 HOUSING 1125 Brighton Avenue, Portland, Maine
Client:	DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC/PROSPERITY ME 175 Lancaster Street, Suite 216A, Portland, Maine 04101

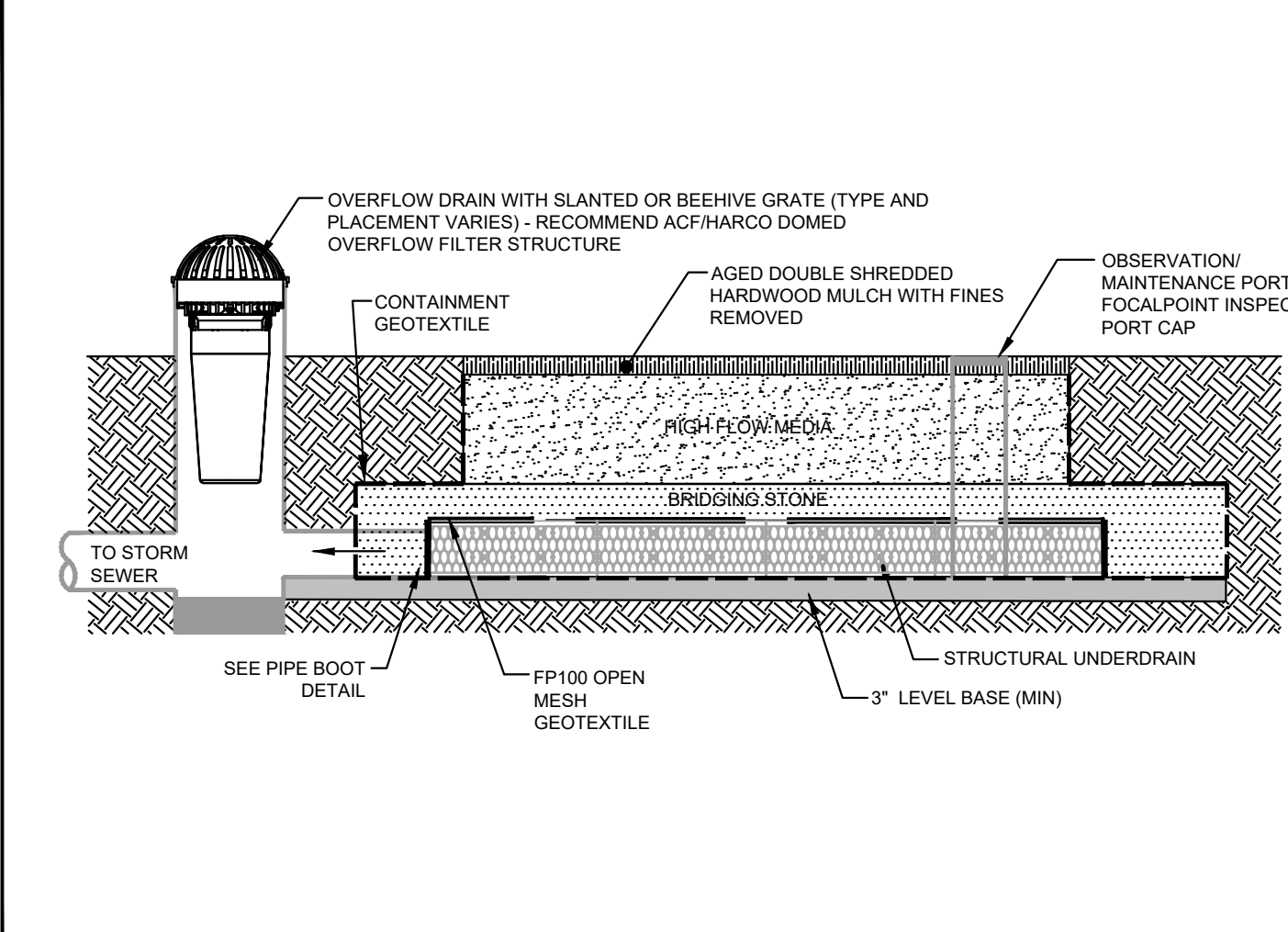
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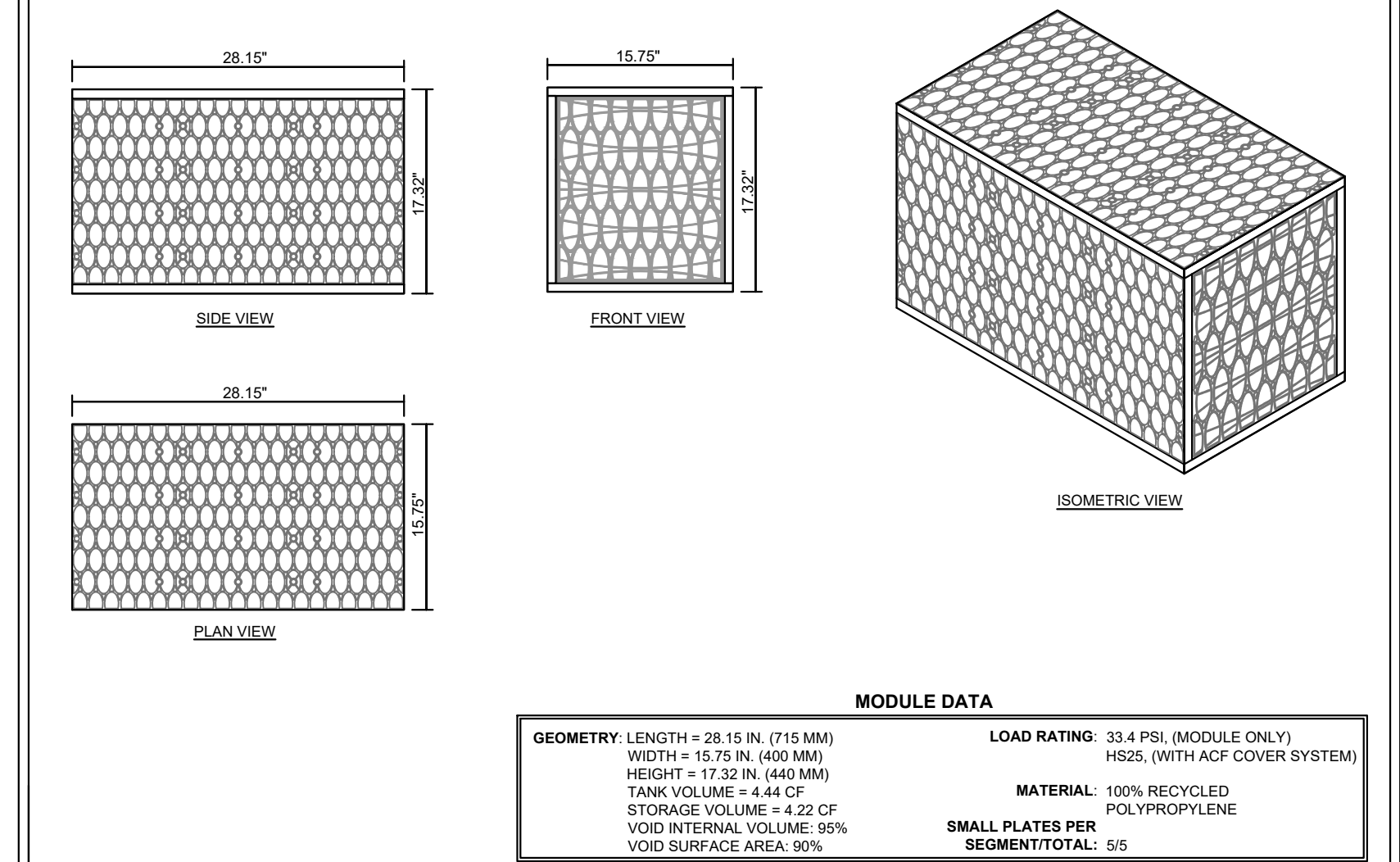
A FOCALPOINT CONSTRUCTION GUIDE
N.T.S.



D FOCALPOINT DETAILED CROSS SECTION
N.T.S.



G FOCALPOINT SECTION X-X
N.T.S.



MODULE DATA	
GEOMETRY: LENGTH = 28.15 IN. (715 MM) WIDTH = 15.75 IN. (400 MM) HEIGHT = 17.32 IN. (440 MM) TANK VOLUME = 4.44 CF STORAGE VOLUME = 4.22 CF VOID INTERNAL VOLUME: 95% VOID SURFACE AREA: 90%	LOAD RATING: 33.4 PSI (MODULE ONLY) HS25, (WITH ACF COVER SYSTEM) MATERIAL: 100% RECYCLED POLYPROPYLENE SMALL PLATES PER SEGMENT/TOTAL: 5/5



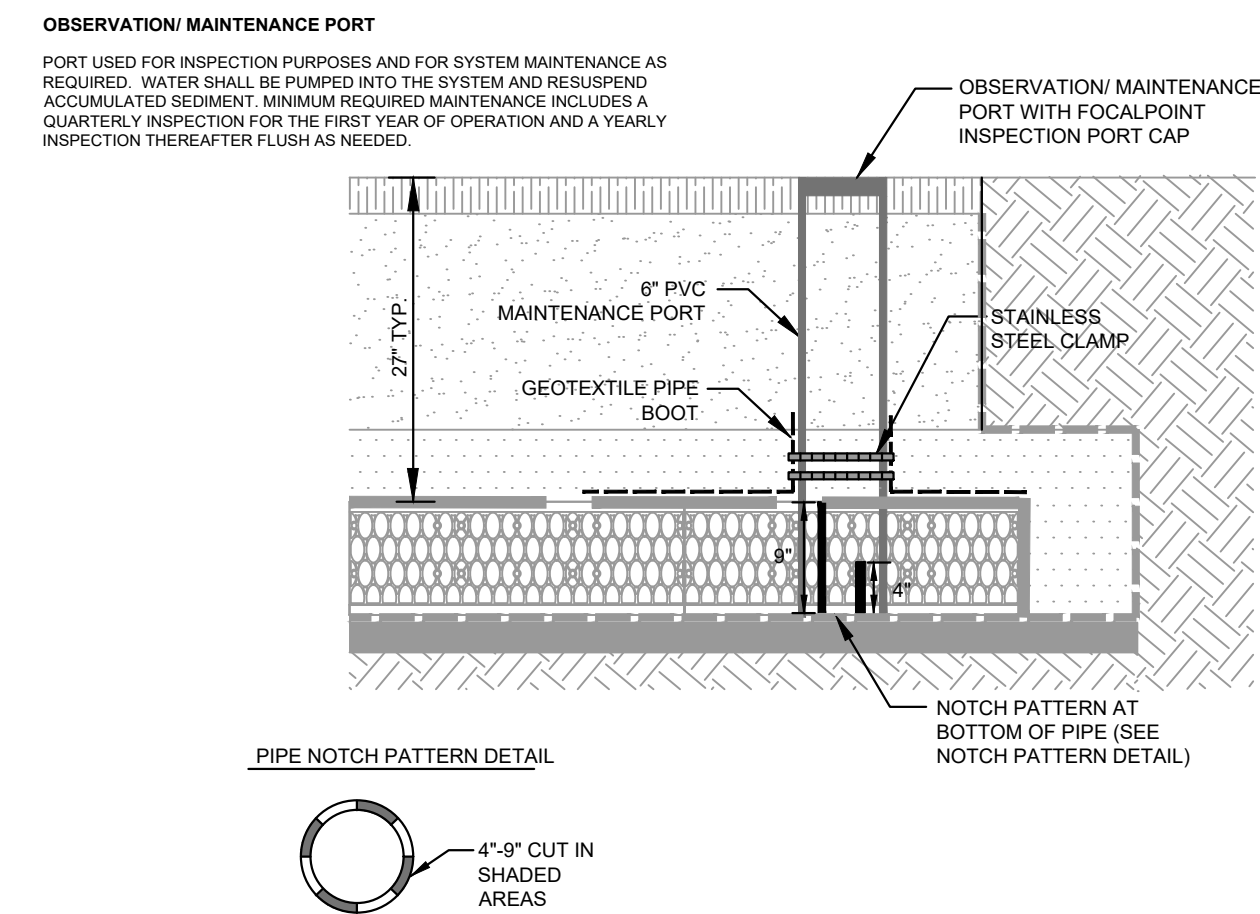
R-TANK^{HD} - SINGLE MODULE

FOR ADDITIONAL INFORMATION PLEASE CONTACT: ACF ENVIRONMENTAL, 1-800-448-3636, www.acfenvironmental.com

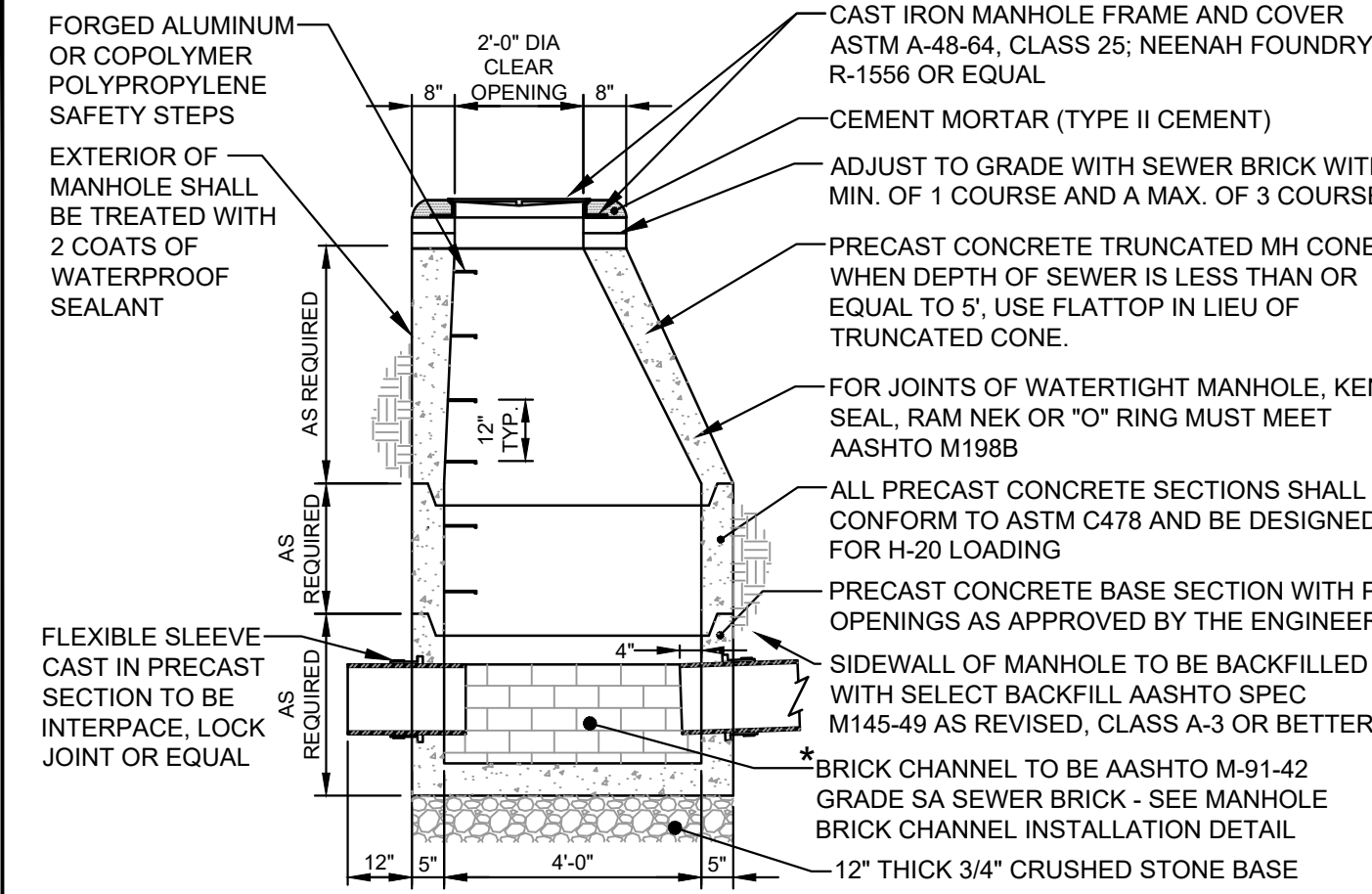
5/16

FOCALPOINT KEY DIMENSIONAL DATA					
FOCALPOINT ID	FP-1A	FP-1B	FP-2A	FP-2B	FP-3
A FOCALPOINT LENGTH	5	5	9.33	14	9.50
B # UNDERDRAIN LONG	1	1	1	1	1
C FOCALPOINT WIDTH	8	8	6	4	9.50
D # UNDERDRAIN WIDE	1	1	1	1	1
E WATER QUALITY VOLUME	868 CF	747 CF	1,049 CF	1,115 CF	1,012 CF
F OVERFLOW ELEVATION	72.20	72.20	69.78	69.79	72.50
G OUTLET GRATE SIZE	12" DIA	12" DIA	12" DIA	12" DIA	12" DIA
H TOP OF MULCH	71.30	71.30	69.28	69.29	72.00
J UNDERDRAIN HEIGHT	SINGLE	SINGLE	SINGLE	SINGLE	DOUBLE

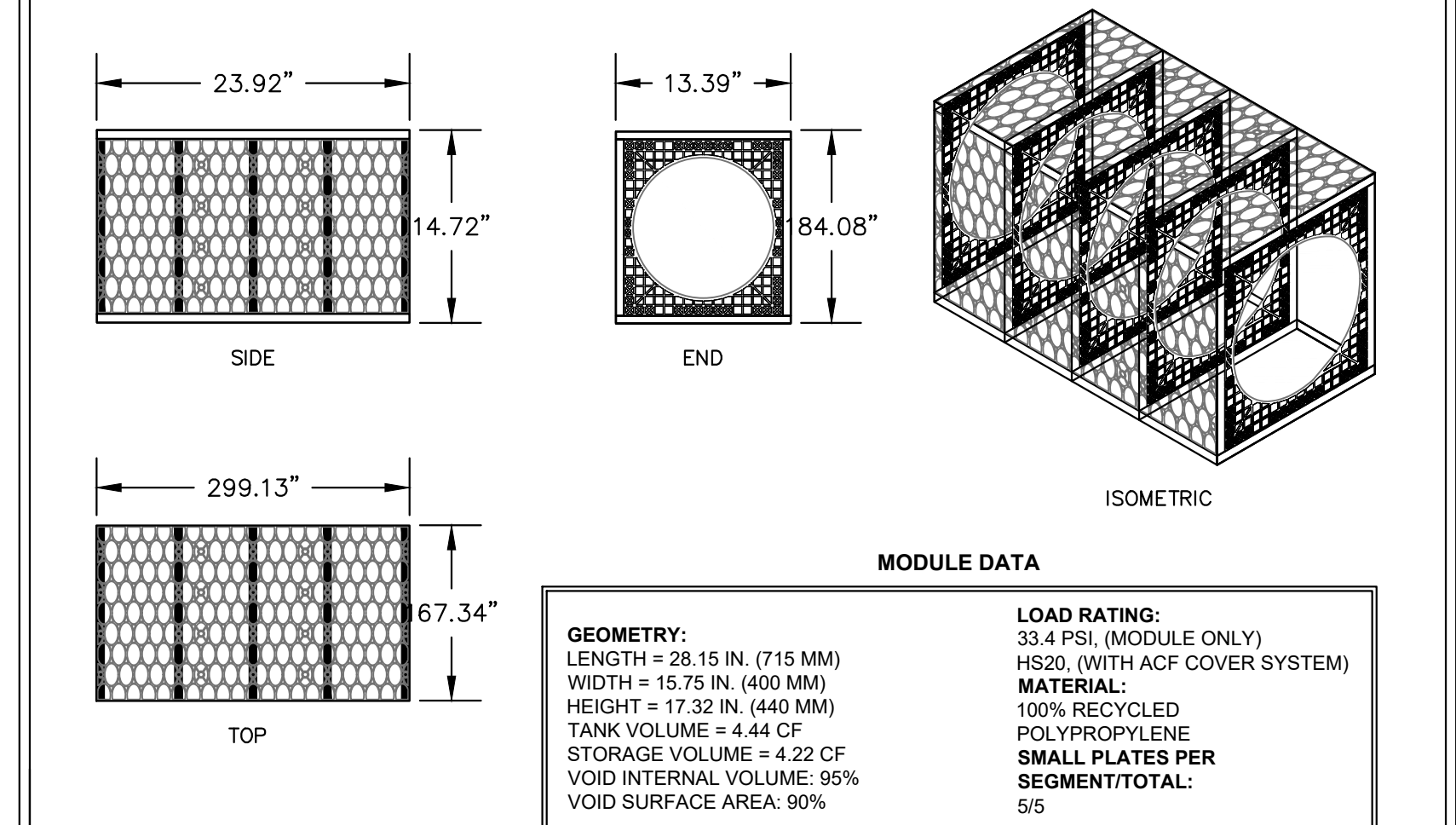
B FOCALPOINT KEY DIMENSIONAL DATA
N.T.S.



E FOCALPOINT OBSERVATION PORT DETAIL
N.T.S.



A 4'-0" DIA. PRECAST SEWER & STORM DRAIN MANHOLE DETAIL
N.T.S.



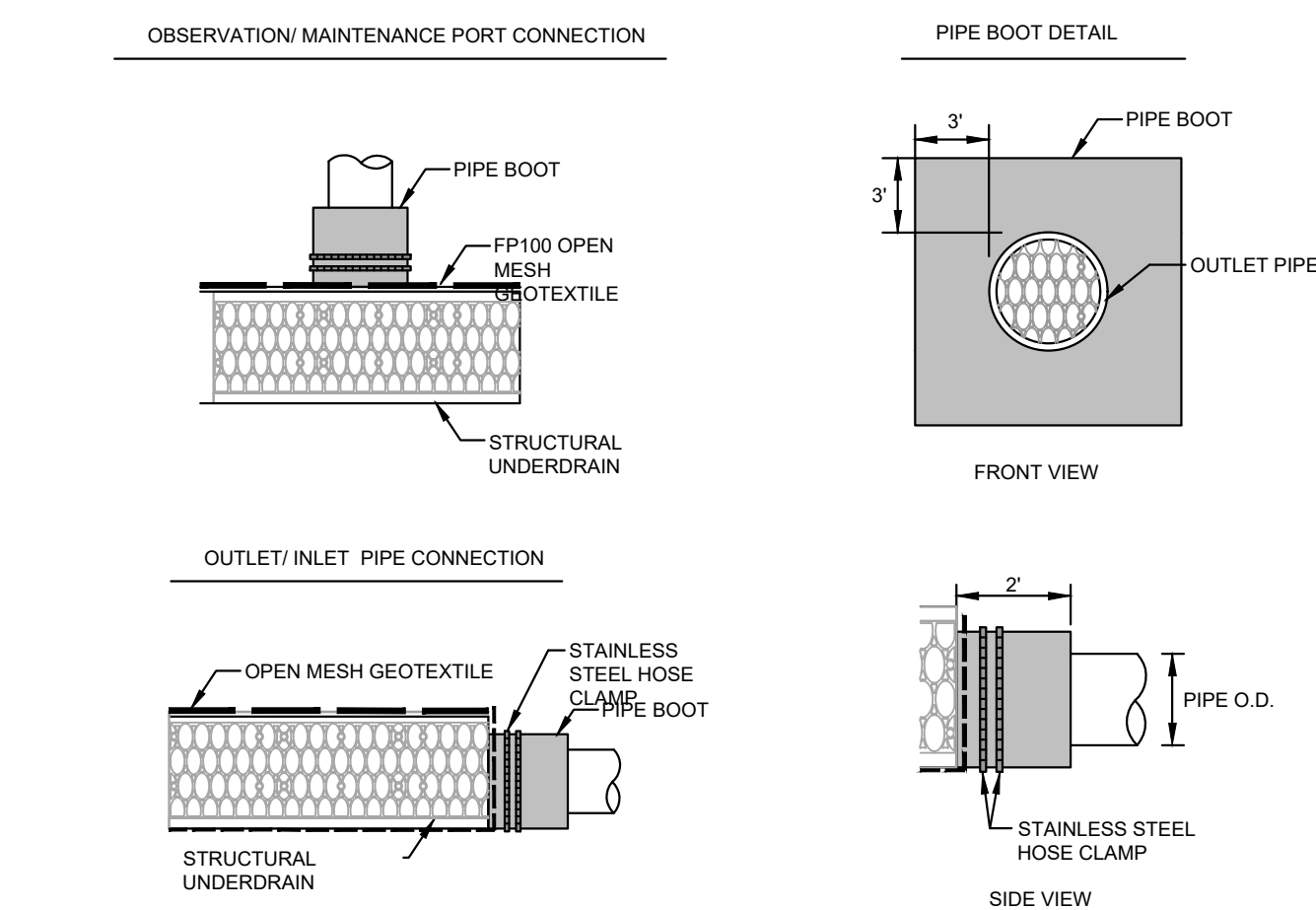
MODULE DATA	
GEOMETRY: LENGTH = 28.15 IN. (715 MM) WIDTH = 15.75 IN. (400 MM) HEIGHT = 17.32 IN. (440 MM) TANK VOLUME = 4.44 CF STORAGE VOLUME = 4.22 CF VOID INTERNAL VOLUME: 95% VOID SURFACE AREA: 90%	LOAD RATING: 33.4 PSI (MODULE ONLY) HS20, (WITH ACF COVER SYSTEM) MATERIAL: 100% RECYCLED POLYPROPYLENE SMALL PLATES PER SEGMENT/TOTAL: 5/5



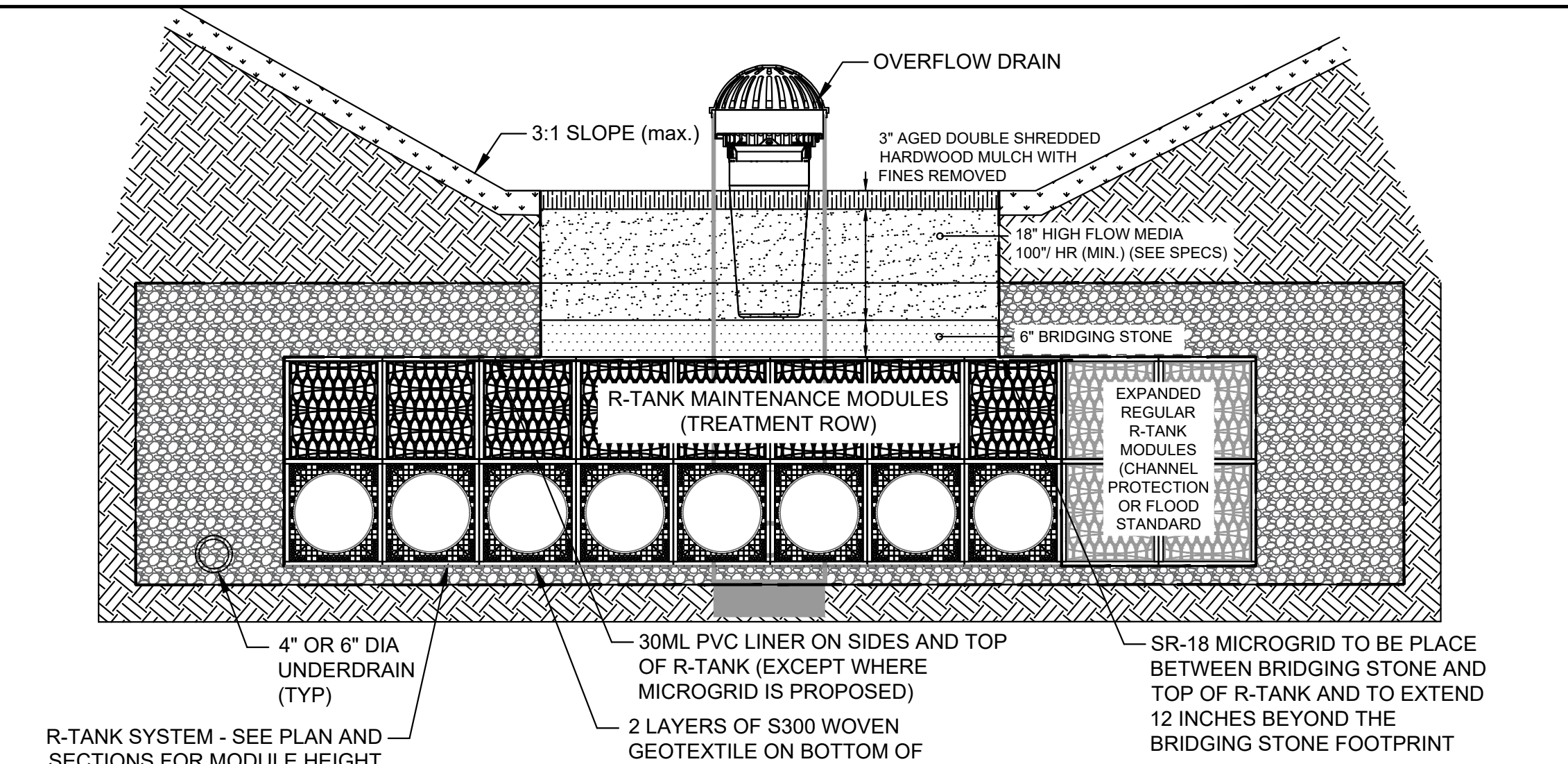
R-TANK^{HD} - SINGLE MAINTENANCE MODULE

FOR ADDITIONAL INFORMATION PLEASE CONTACT: ACF ENVIRONMENTAL, 1-800-448-3636, www.acfenvironmental.com

09/25/2017

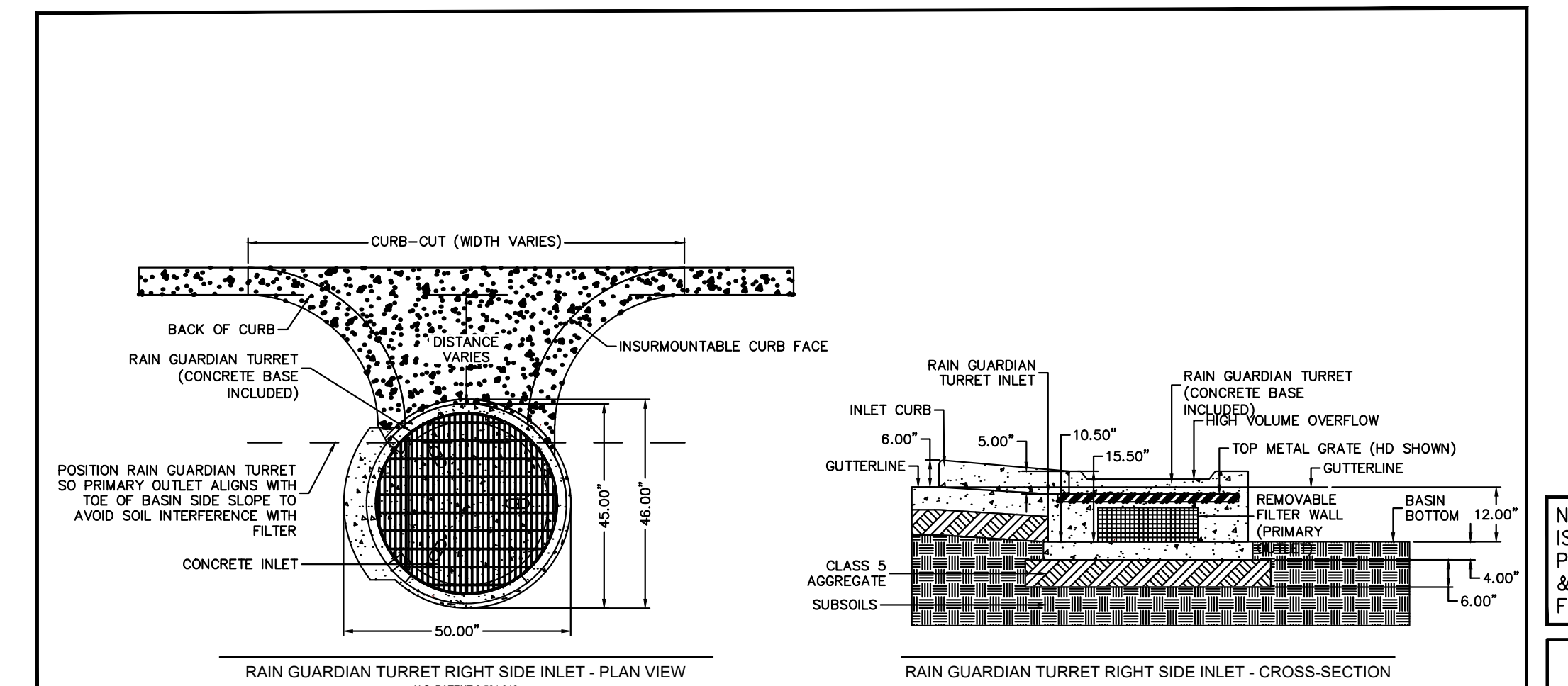


C FOCALPOINT PIPE CONNECTION DETAIL
N.T.S.



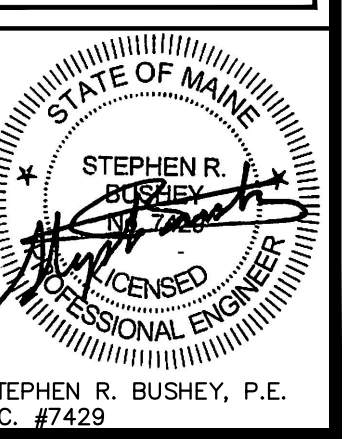
FOCALPOINT WITH R-TANK TREATMENT ROW

N.T.S.



J RAIN GUARDIAN TURRET
N.T.S.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.



Design: SRB	Draft: CDD	Date: JUNE 2025
Checked: SRB	Scale: AS NOTED	Job No.: 0129762A.00
File Name: BARRON-DETAILS.dwg		
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Rev.	Date	Revision
2	7/8/2025	REVISED PER STAFF COMMENTS
1	6/6/2025	MAJOR SITE PLAN APPLICATION

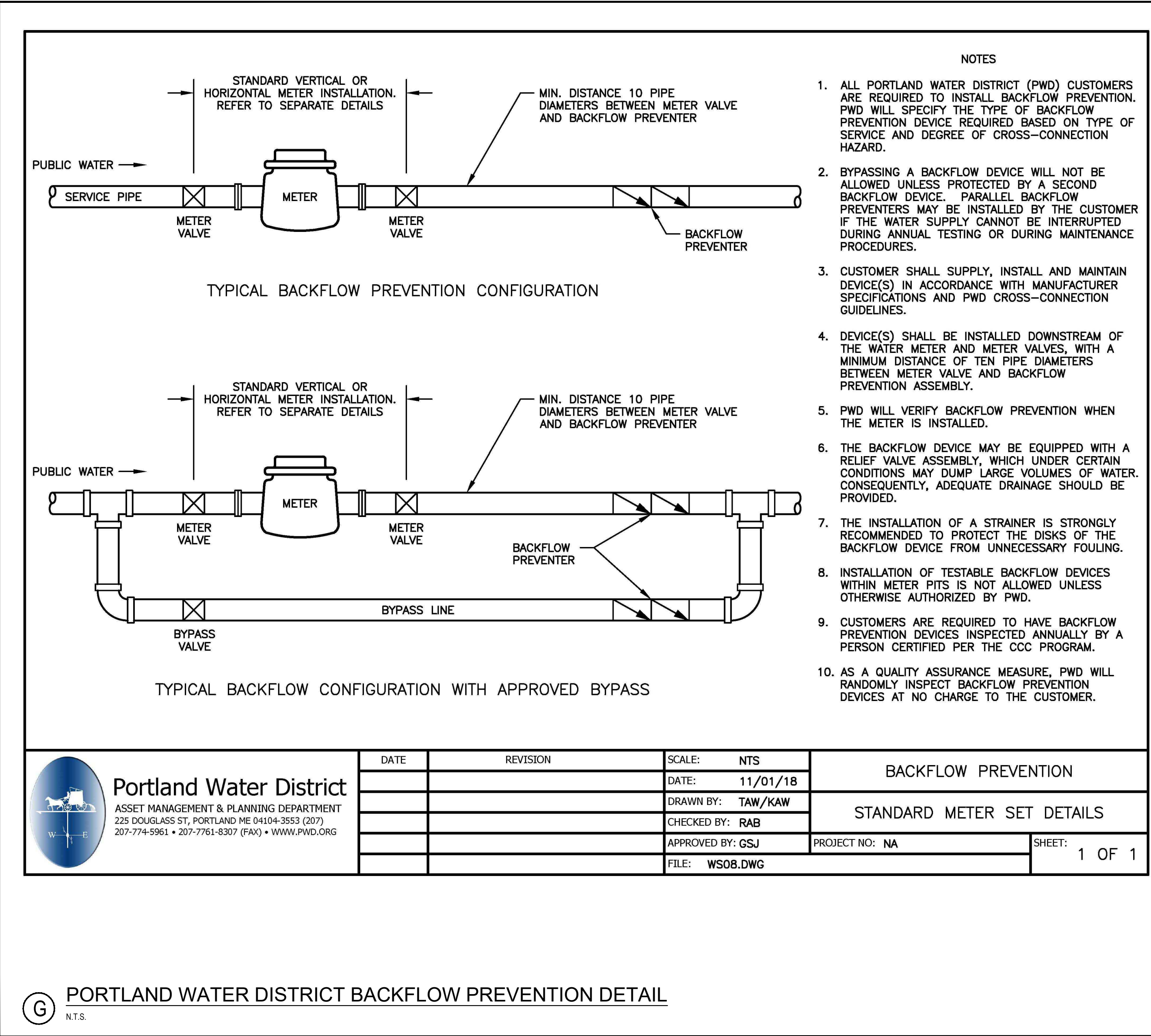
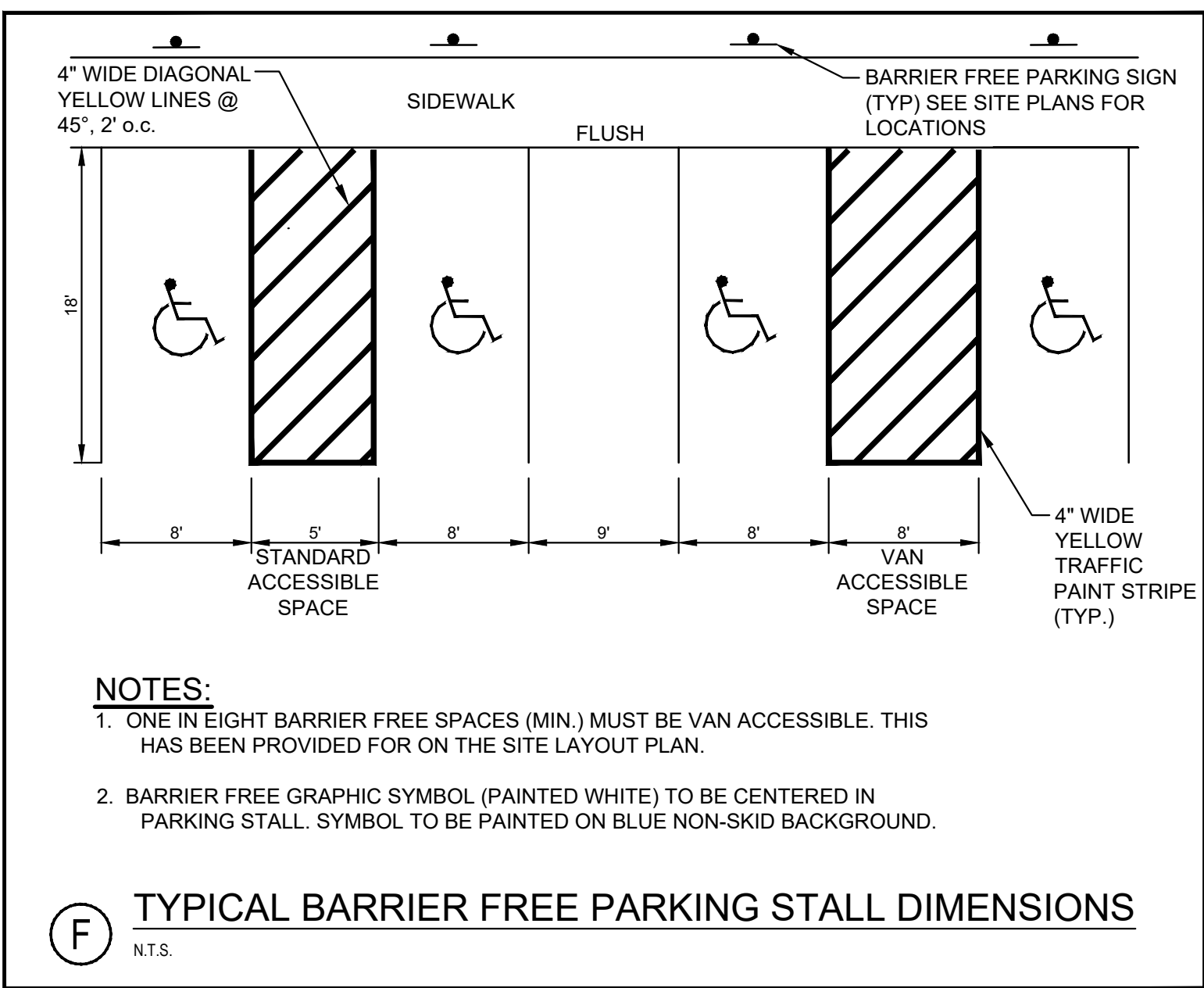
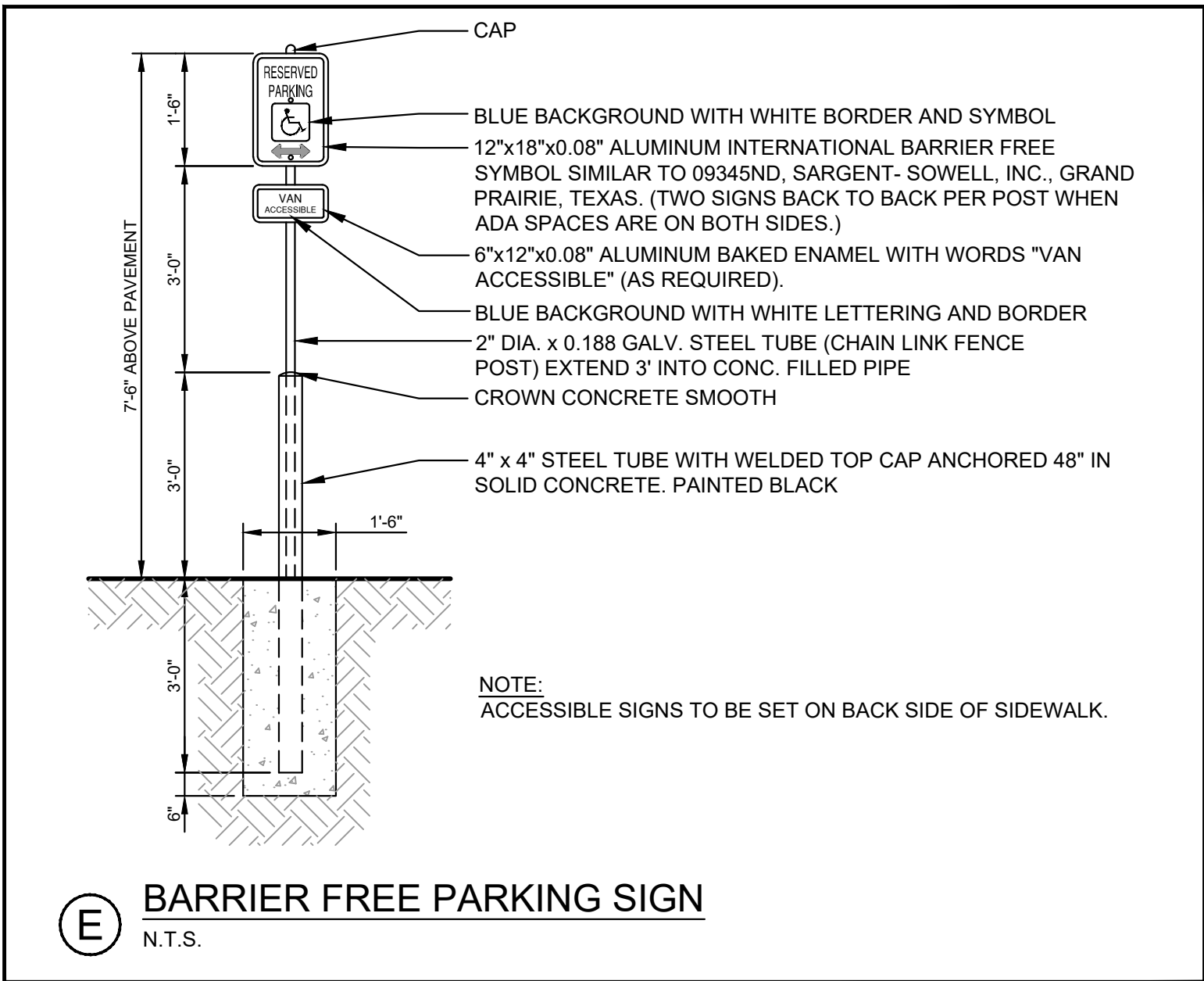
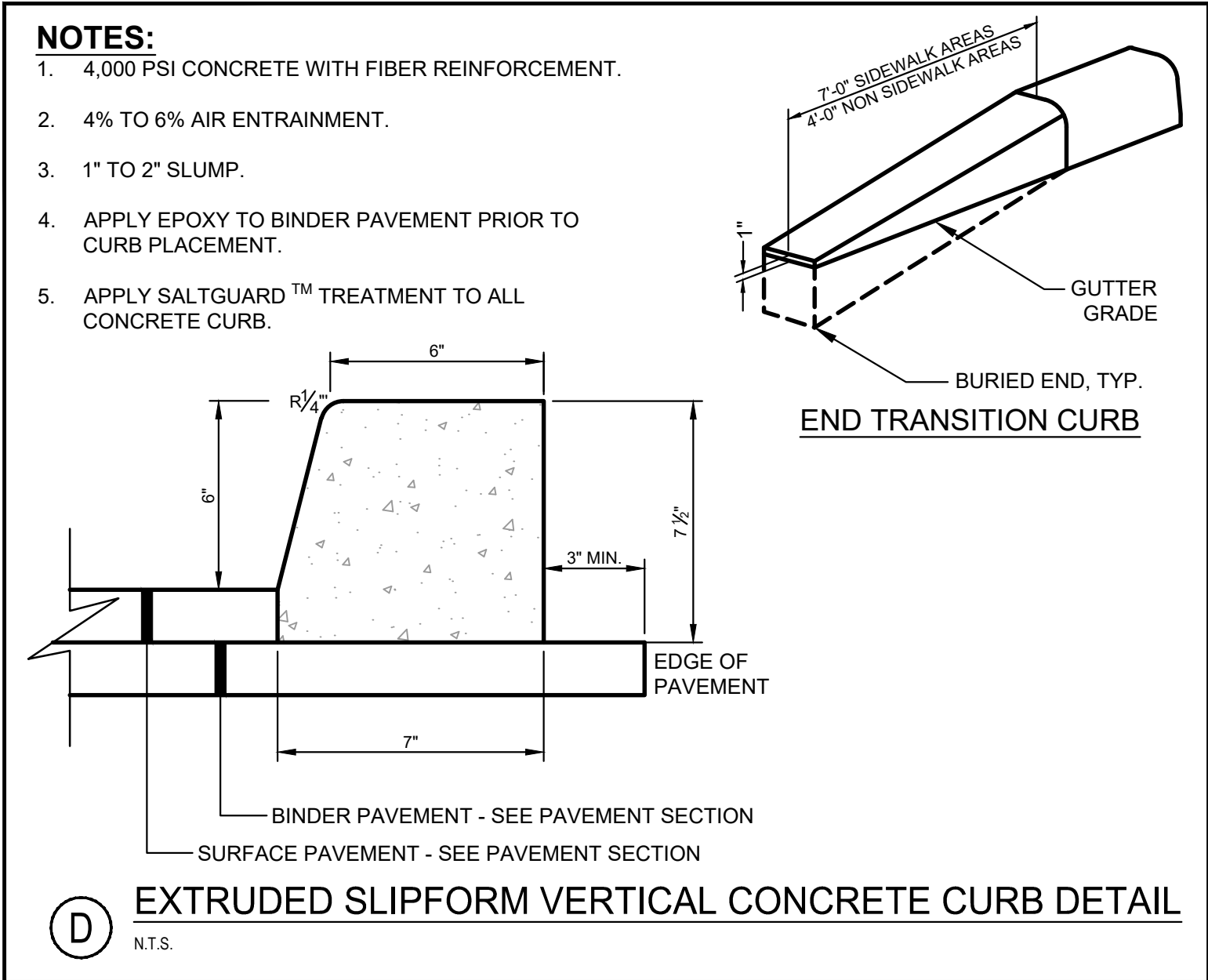
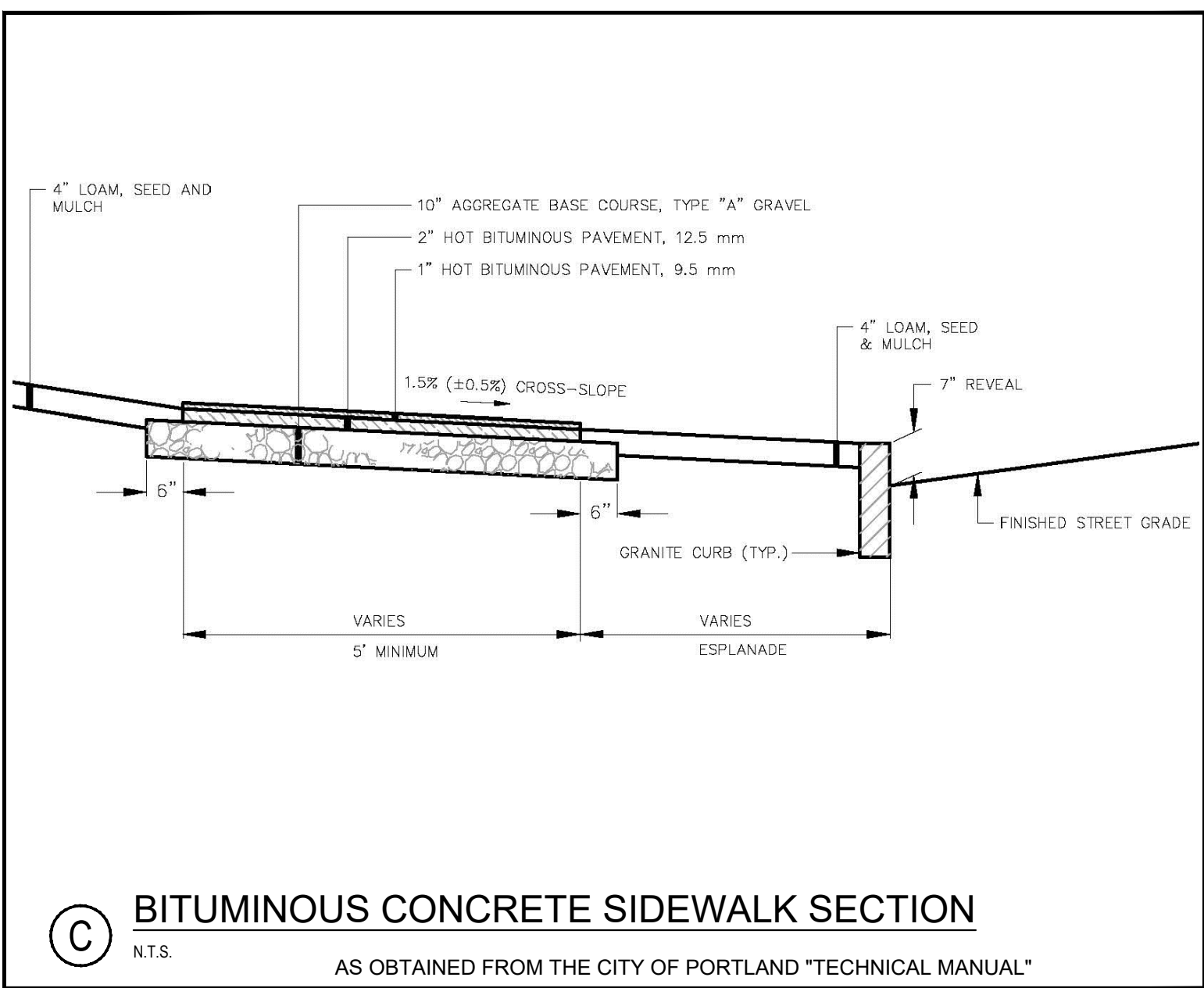
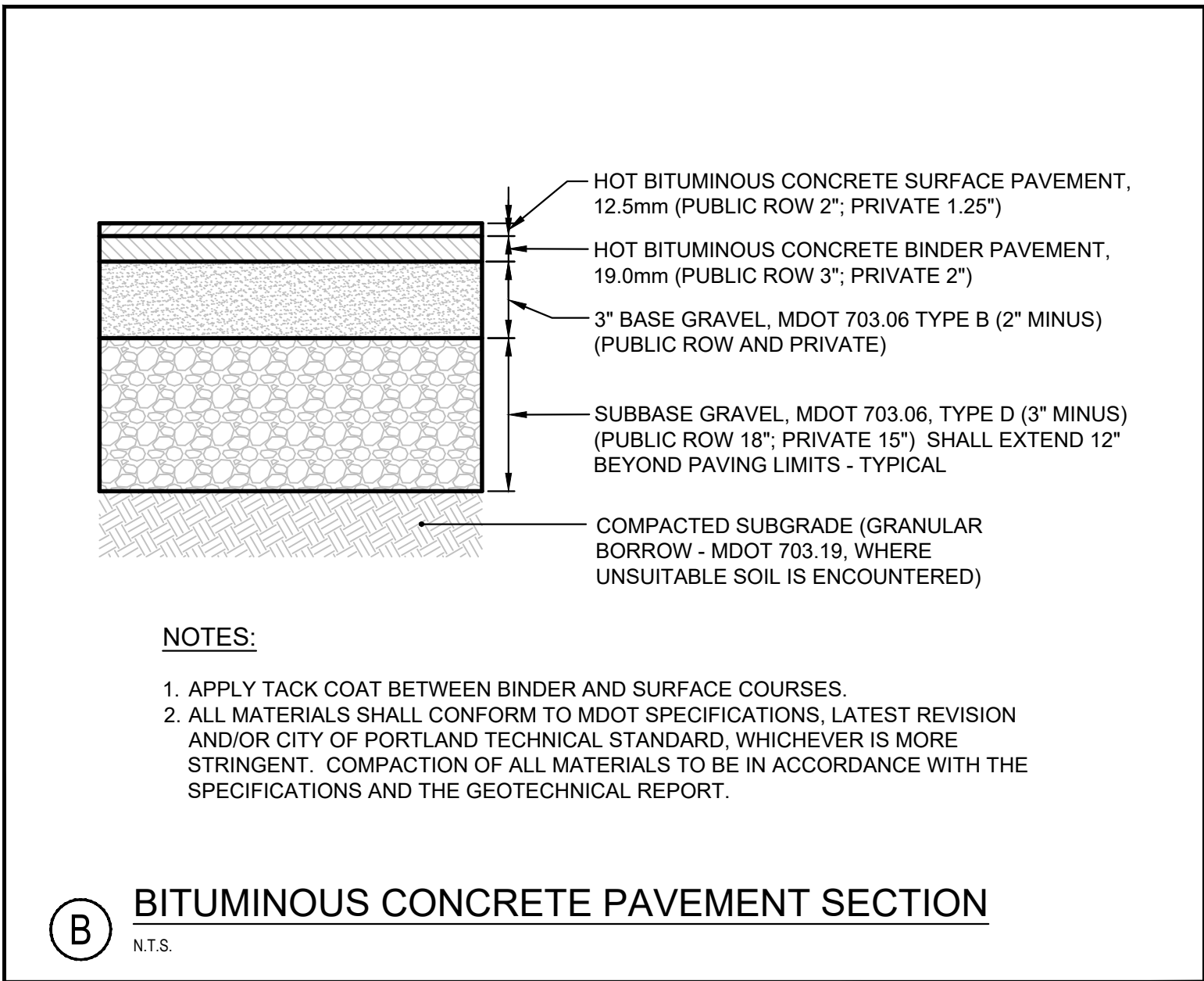
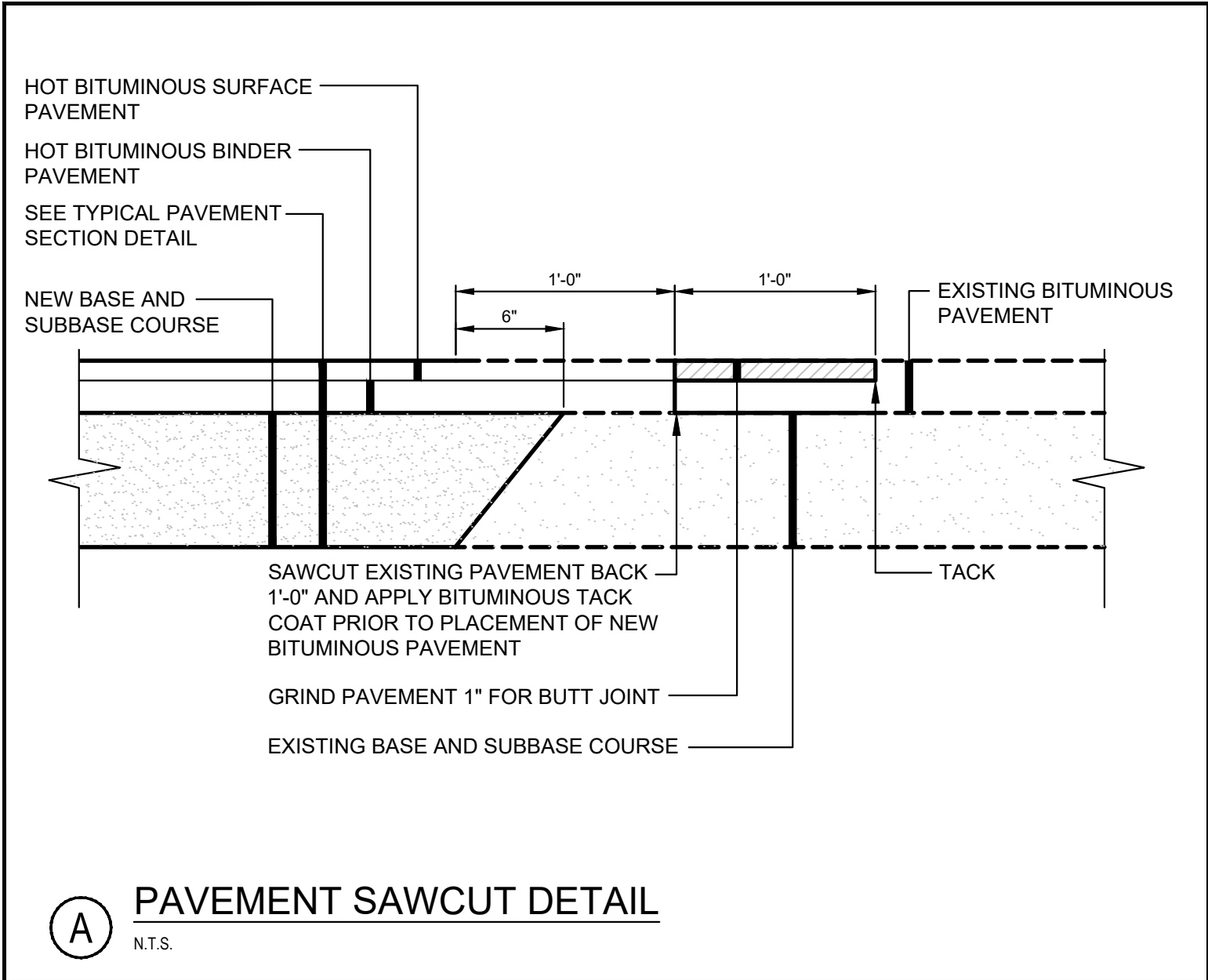


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GorriilPalmer.com
(207) 772-2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	STORM WATER MANAGEMENT DETAILS
Project:	CITY OF PORTLAND - BARRON CENTER - SITE 1 HOUSING 1125 Brighton Avenue, Portland, Maine
Client:	DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC/PROSPERITY ME 175 Lancaster Street, Suite 216A, Portland, Maine 04101

Drawing No.
C-5.3

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Specifications for Item 116-1039

Locking Bike To Bike Trac (Item 116-1039)

In most cases the locking cable is long enough to thread through your seat, frame, front and rear wheel. Thread cable through desired parts of the bicycle and then pass the metal end of the cable through the hole punched into the Bike Trac. Note: Locking cable is only a intended to be a theft deterrent. Loss of bicycle is not covered under warranty.

Qty	Description
1	Bike Trac Assembly
2	5/16" Washer
2	1" Slotted Pan Head Screw
1	Wheel Hook Rubber Sleeve

WARRANTY

We warrant this product to the first consumer to be free from defect in material and workmanship for a period of one year from date of purchase. (Please retain your sales slip for your records.) Any product or part thereof found to be defective within that period will be replaced without charge provided that: (1) the product was not misused; (2) no alterations or modifications were made; (3) its failure resulted from a defect in material or workmanship and not from normal wear expected in the use of the product; (4) the product or part is delivered, freight prepaid, to Manufactures only obligation shall be to replace such products or parts proved to be defective. Damage to mounting surface is not covered under warranty.

Bike Trac Parking System
Item 116-1039 Mounting Instructions

Mounting Bike Trac

Bike Trac can be mounted to any wall, corner, pillar, or post strong enough to hold the bikes. Each unit comes with two pan head screws which work for mounting the Bike Trac to wooden studs. If mounting to any other surface consult your local hardware store for applicable hardware. Use mounting holes as shown in illustration. Note: To protect wheels, slide rubber sleeves onto wheel hook of Bike Trac.

Bike Trac Placement

Option 1: Stagger tops of the Bike Tracs (High, Low, High). Approx. space between each 12-15".
Option 2: Level tops of Bike Tracs, hanging every other bike by rear tire. Approx. space between each 15-18".
Option 3: Level tops of Bike Tracs, hanging all bikes by front tire. Approx. space between each 18-21".

Note: Be sure to leave enough room between each Bike Trac so that the bike's handlebars do not interfere with each other. Optimum distance between Tracs will depend on make and model of bike.

NOTE: THIS PLAN SET IS ISSUED FOR PERMITTING PURPOSES & SHALL NOT BE USED FOR CONSTRUCTION.

STEPHEN R. BUSHEY, P.E.
LIC. #7429

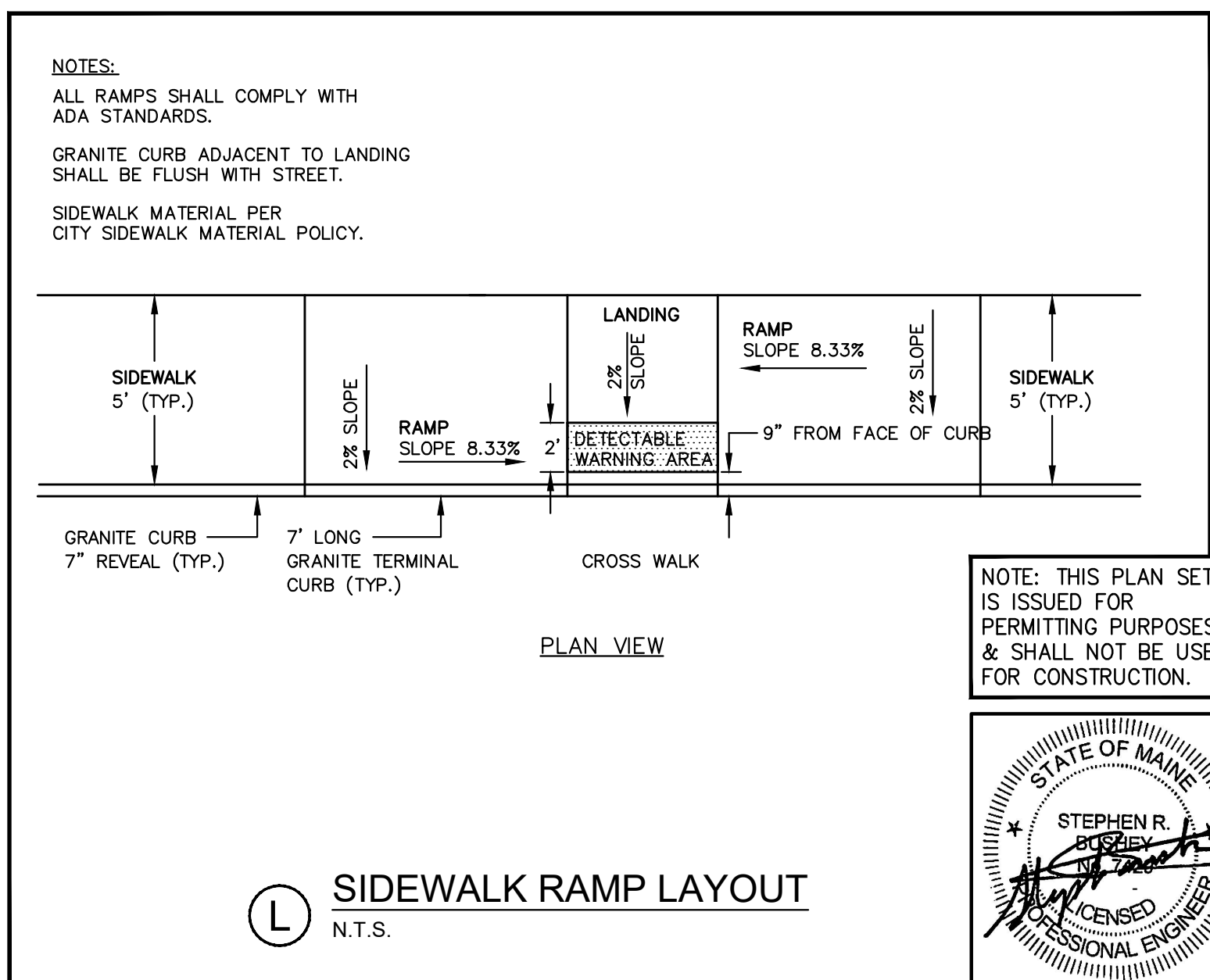
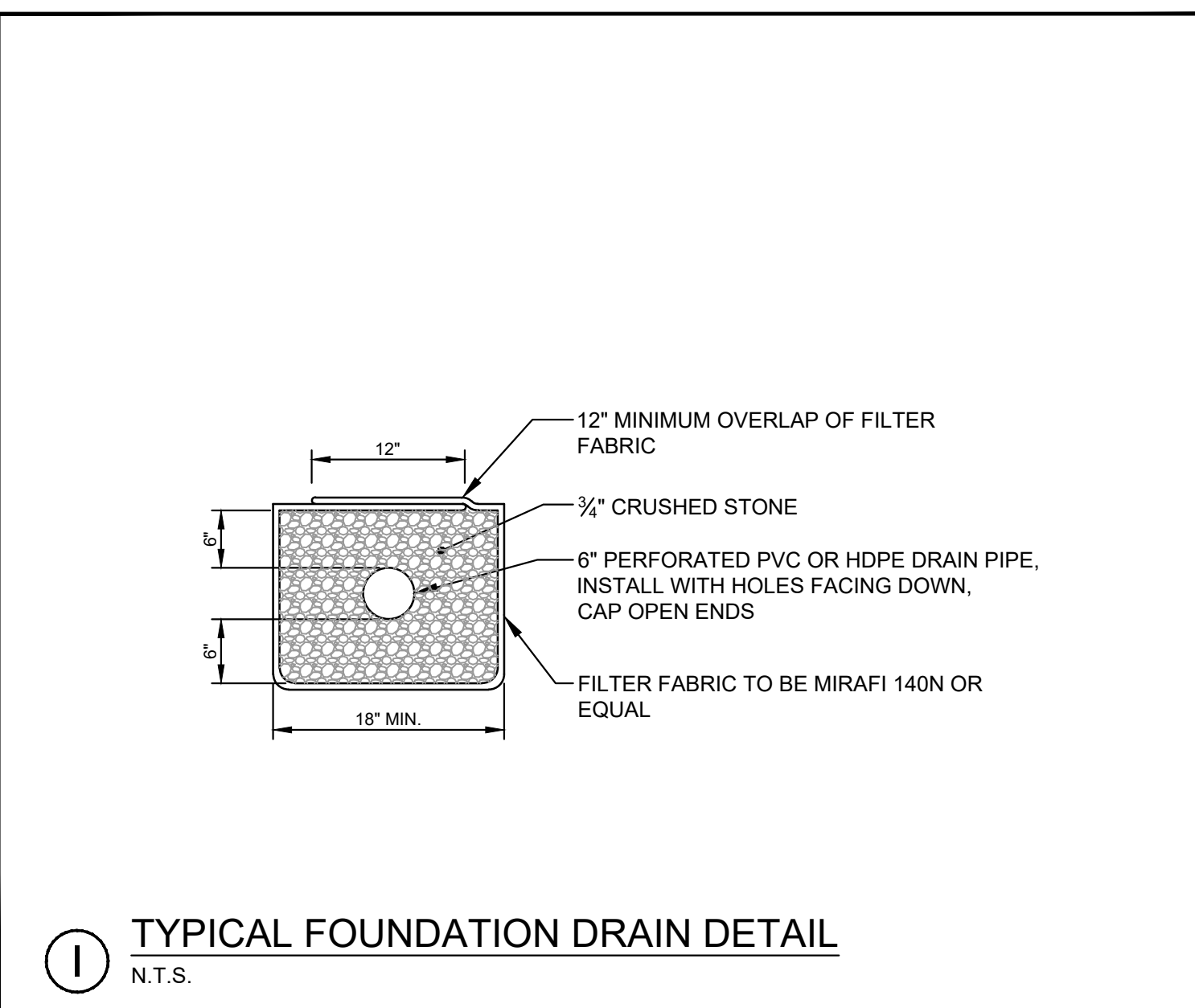
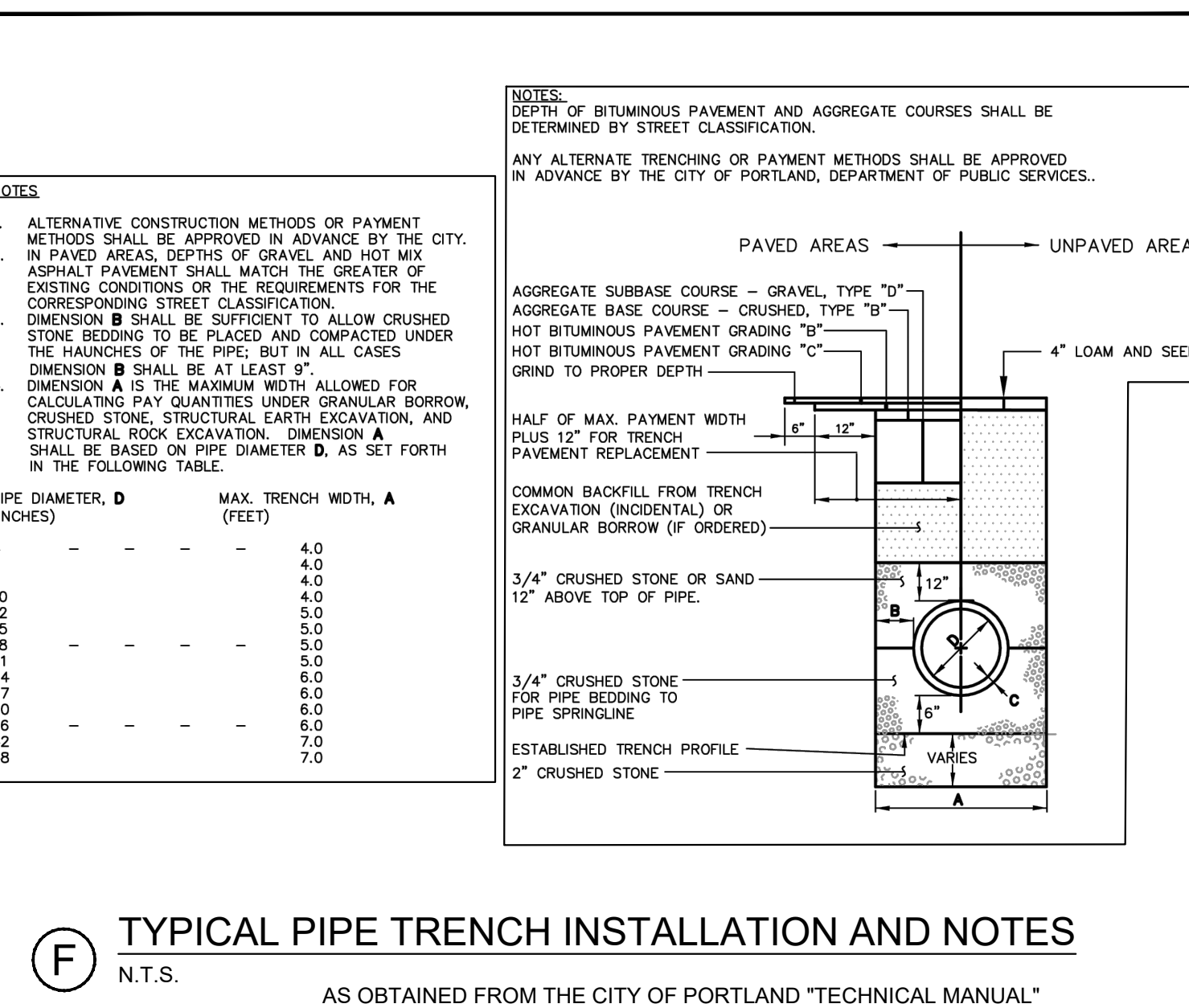
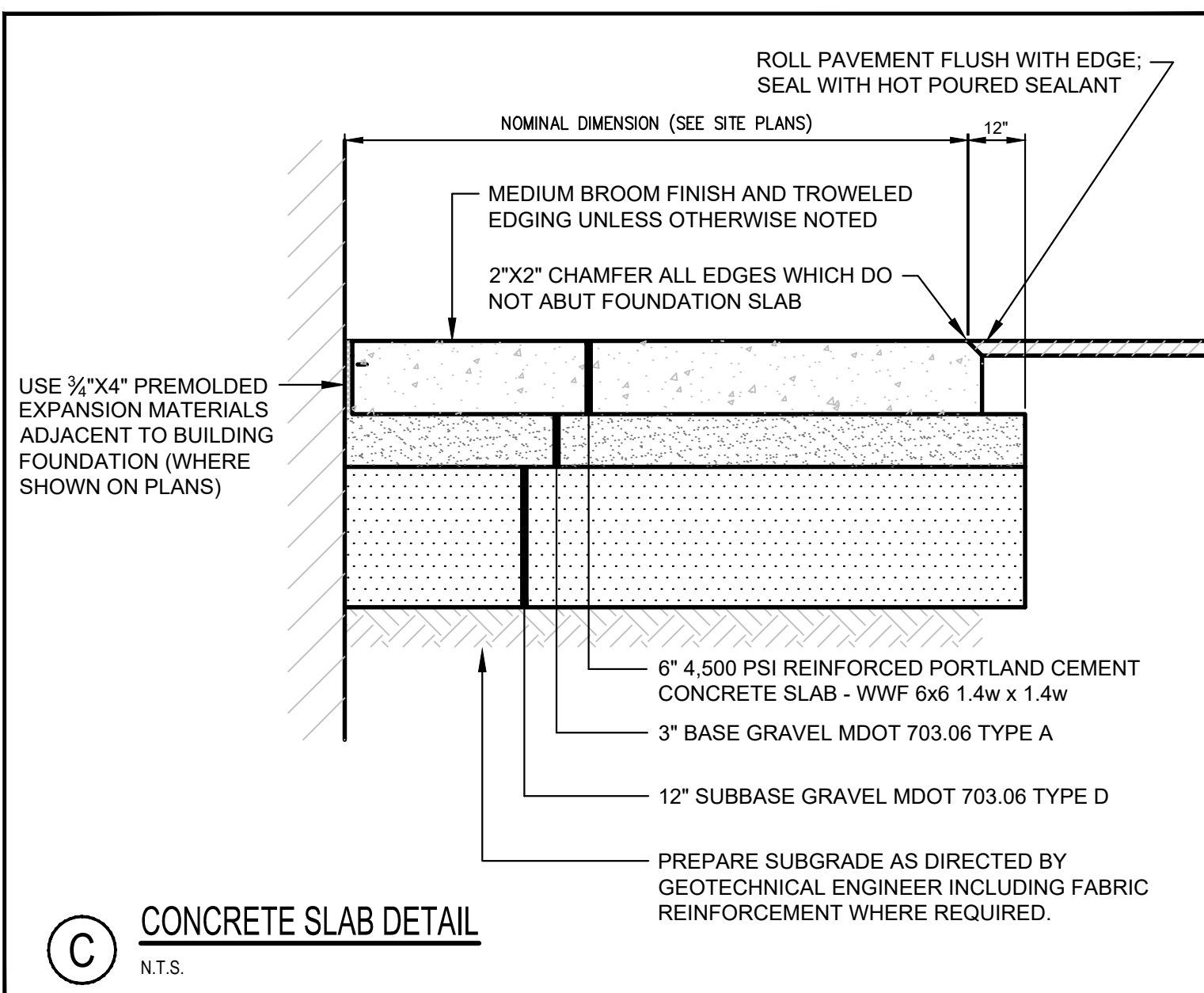
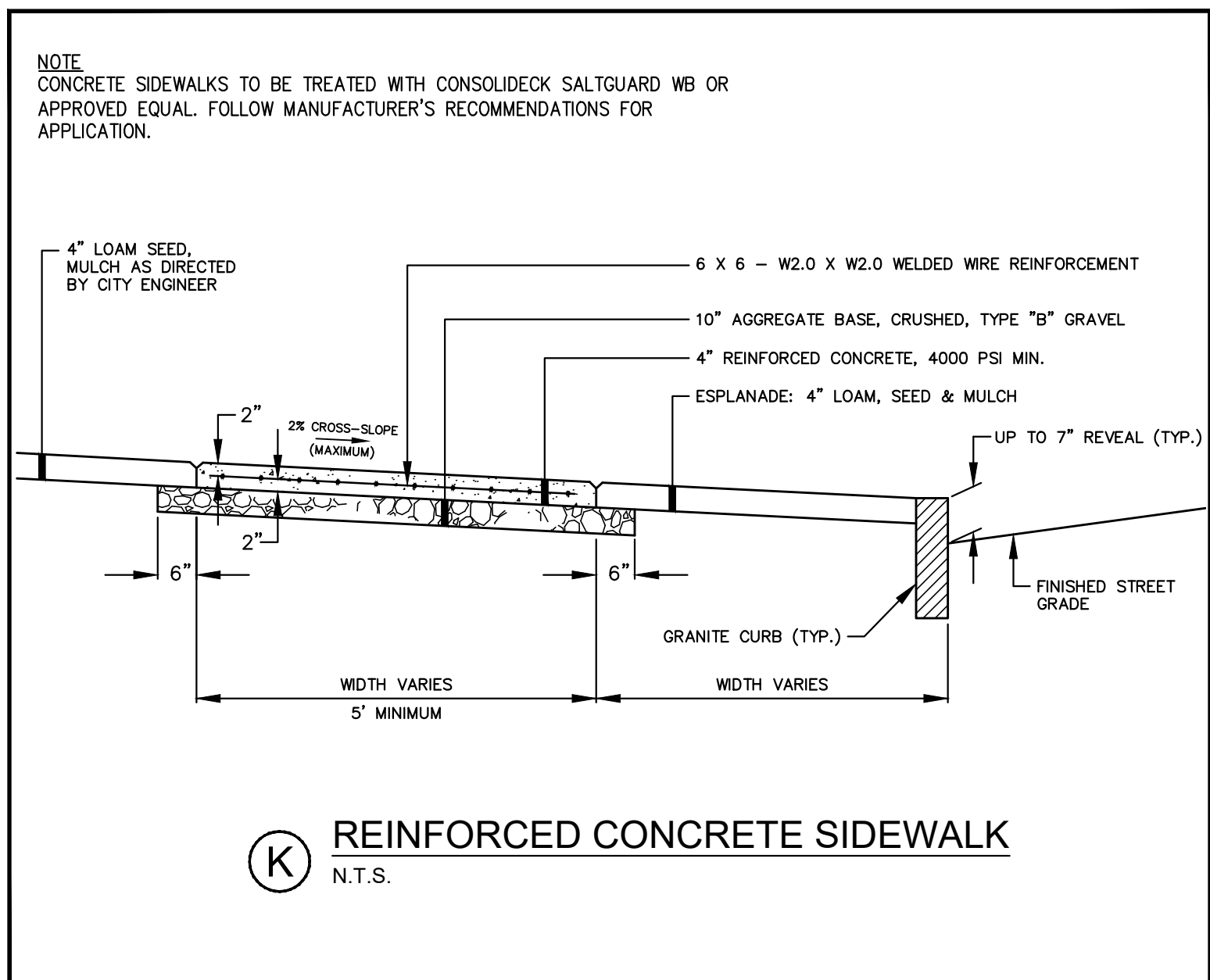
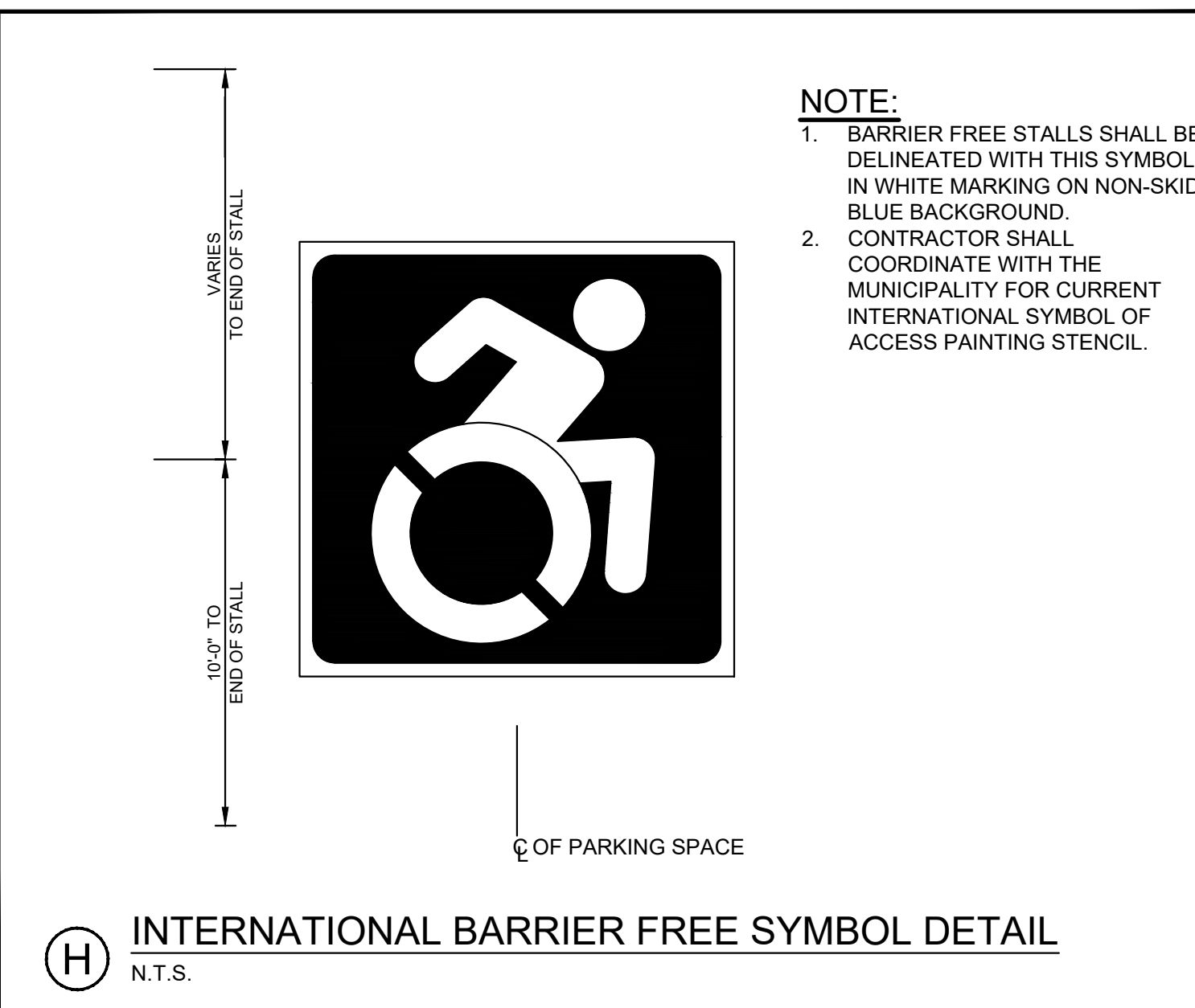
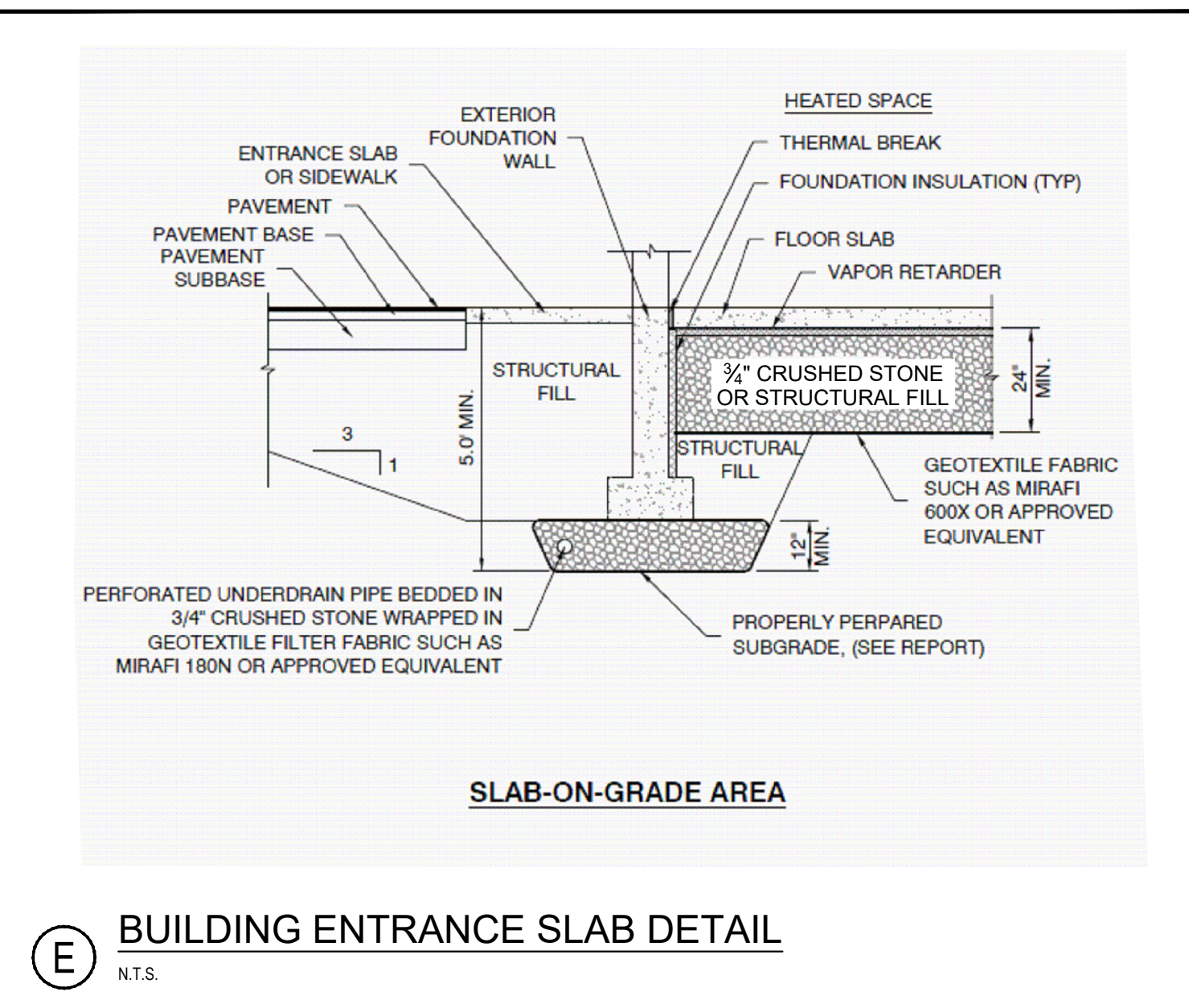
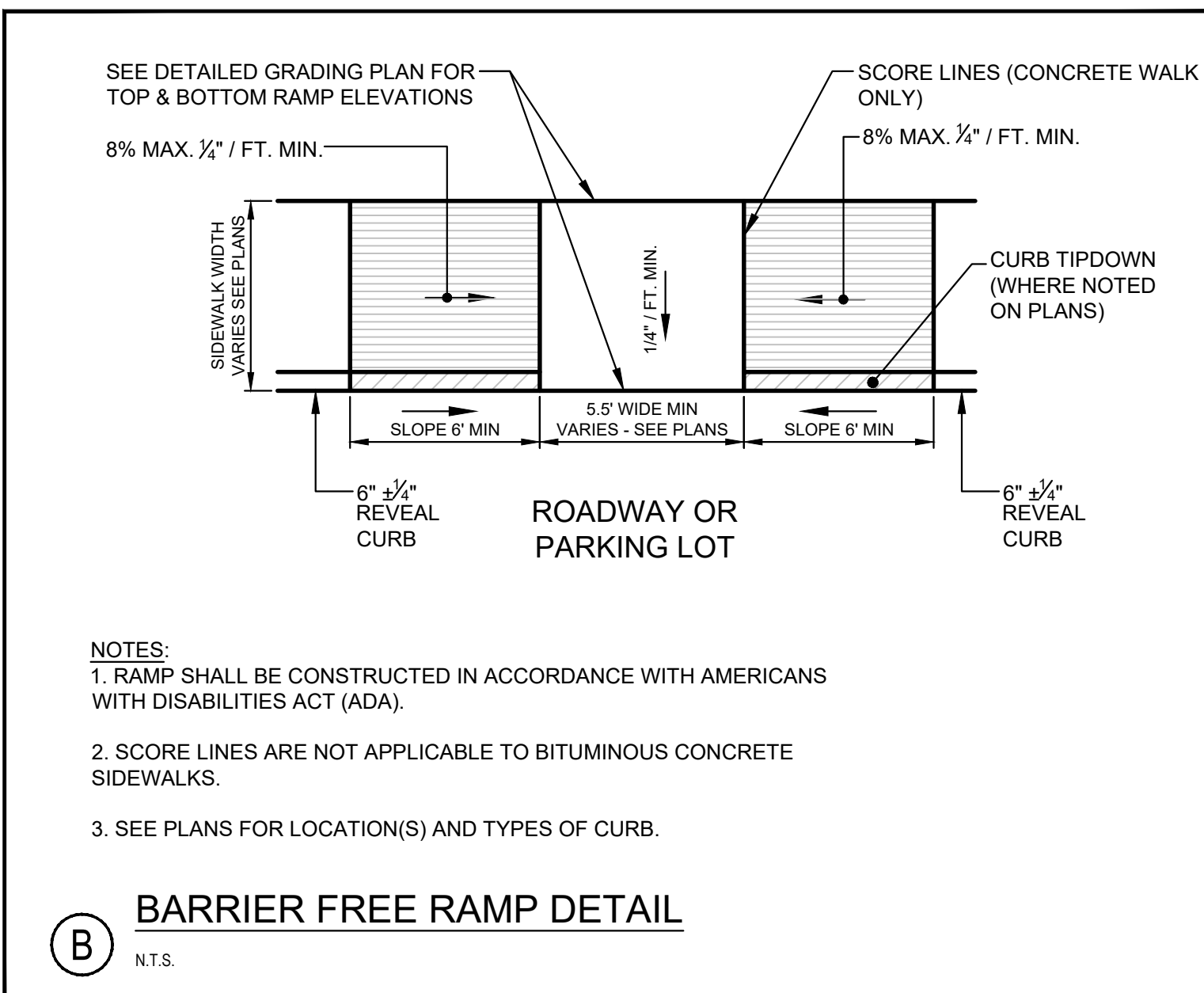
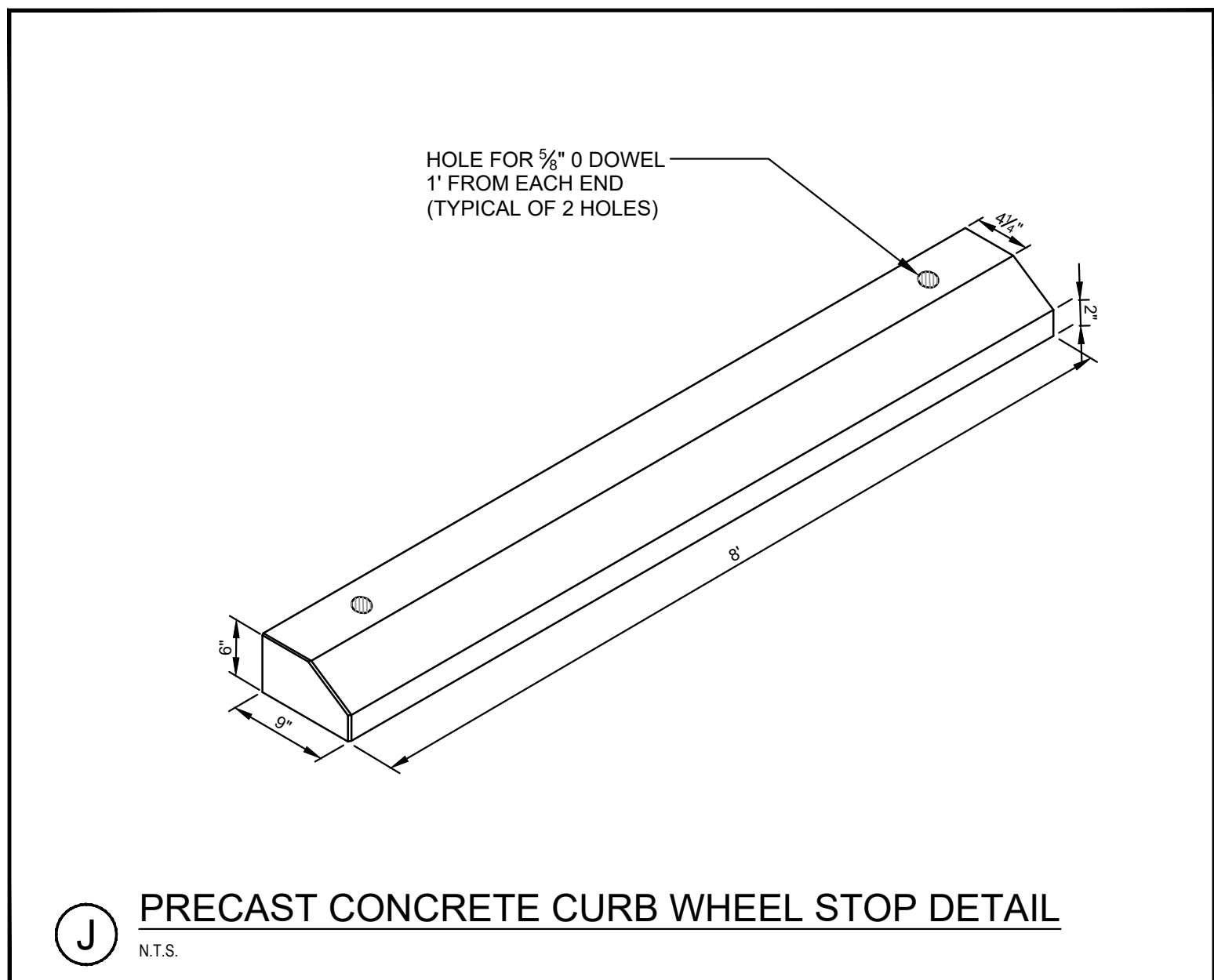
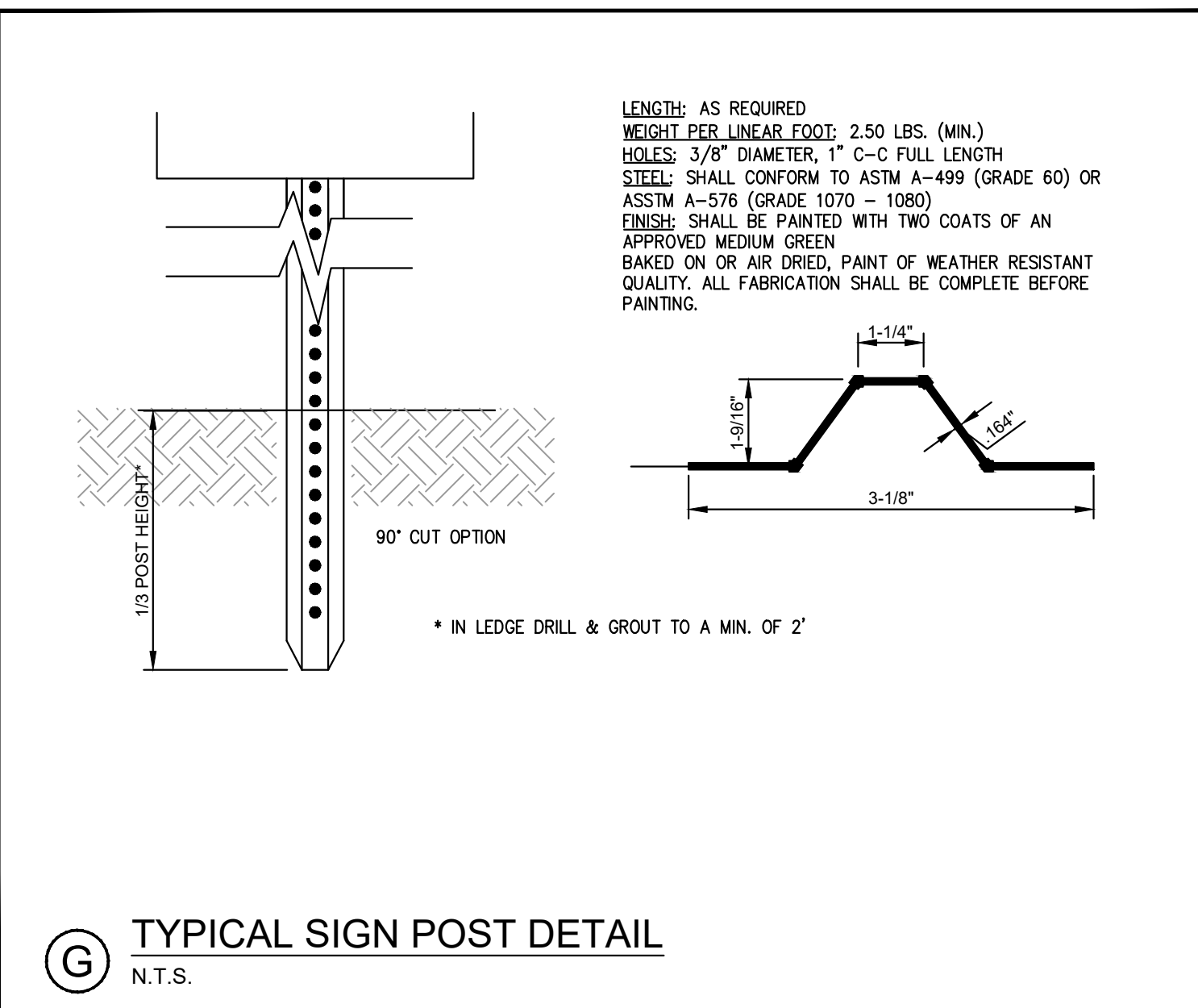
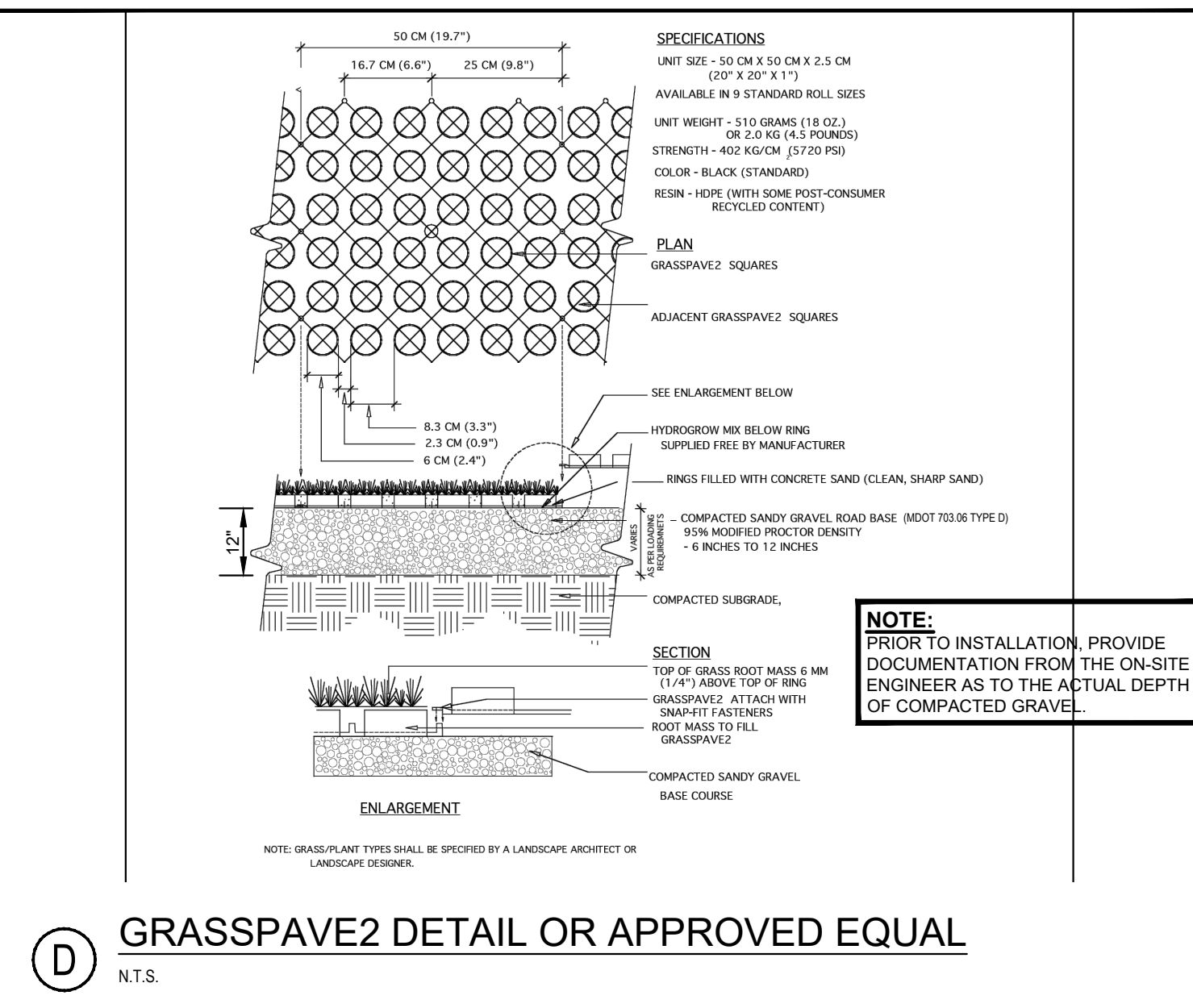
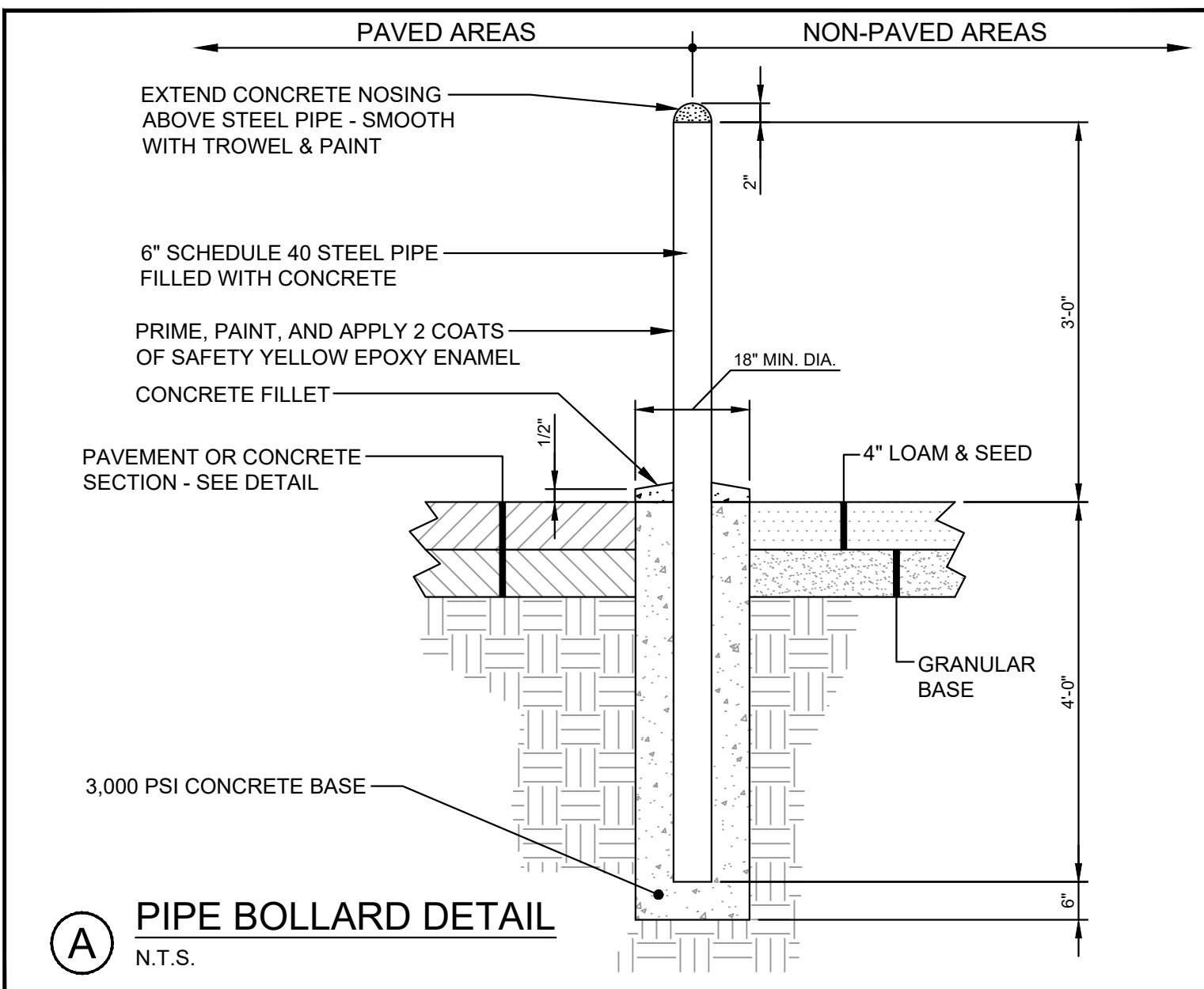
Design: SRB	Draft: CDD	Date: JUNE 2025
Checked: SRB	Scale: AS NOTED	Job No.: 0129762A.00
File Name: BARRON-DETAILS.dwg		
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GorriilPalmer.com
(207) 772-2515
300 Southborough Drive - Suite 200
South Portland, ME 04106

Drawing Name:	SITE DETAILS
Project:	CITY OF PORTLAND - BARRON CENTER - SITE 1 HOUSING 1125 Brighton Avenue, Portland, Maine
Client:	DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC/PROSPERITY ME 175 Lancaster Street, Suite 216A, Portland, Maine 04101

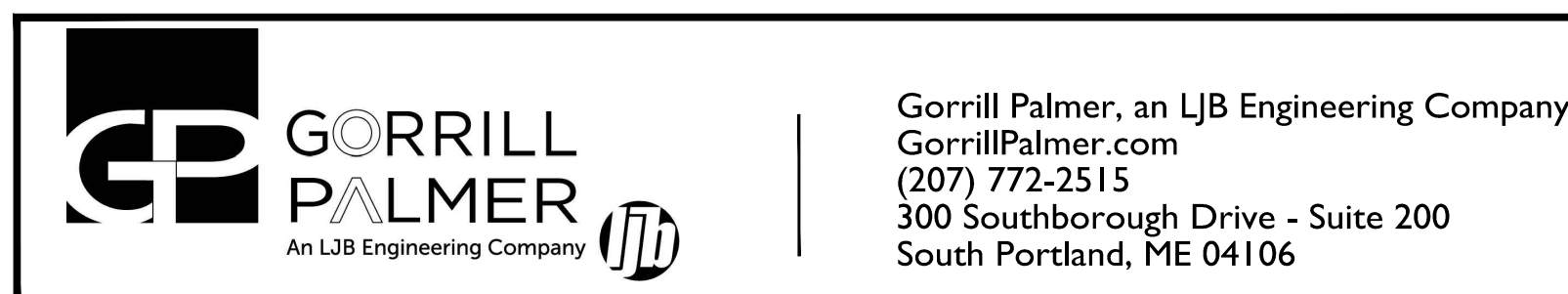
Drawing No.
C-5.0



Rev.	Date	Revision

2	7/8/2025	REVISED PER STAFF COMMENTS
1	6/6/2025	MAJOR SITE PLAN APPLICATION
Rev.	Date	Revision

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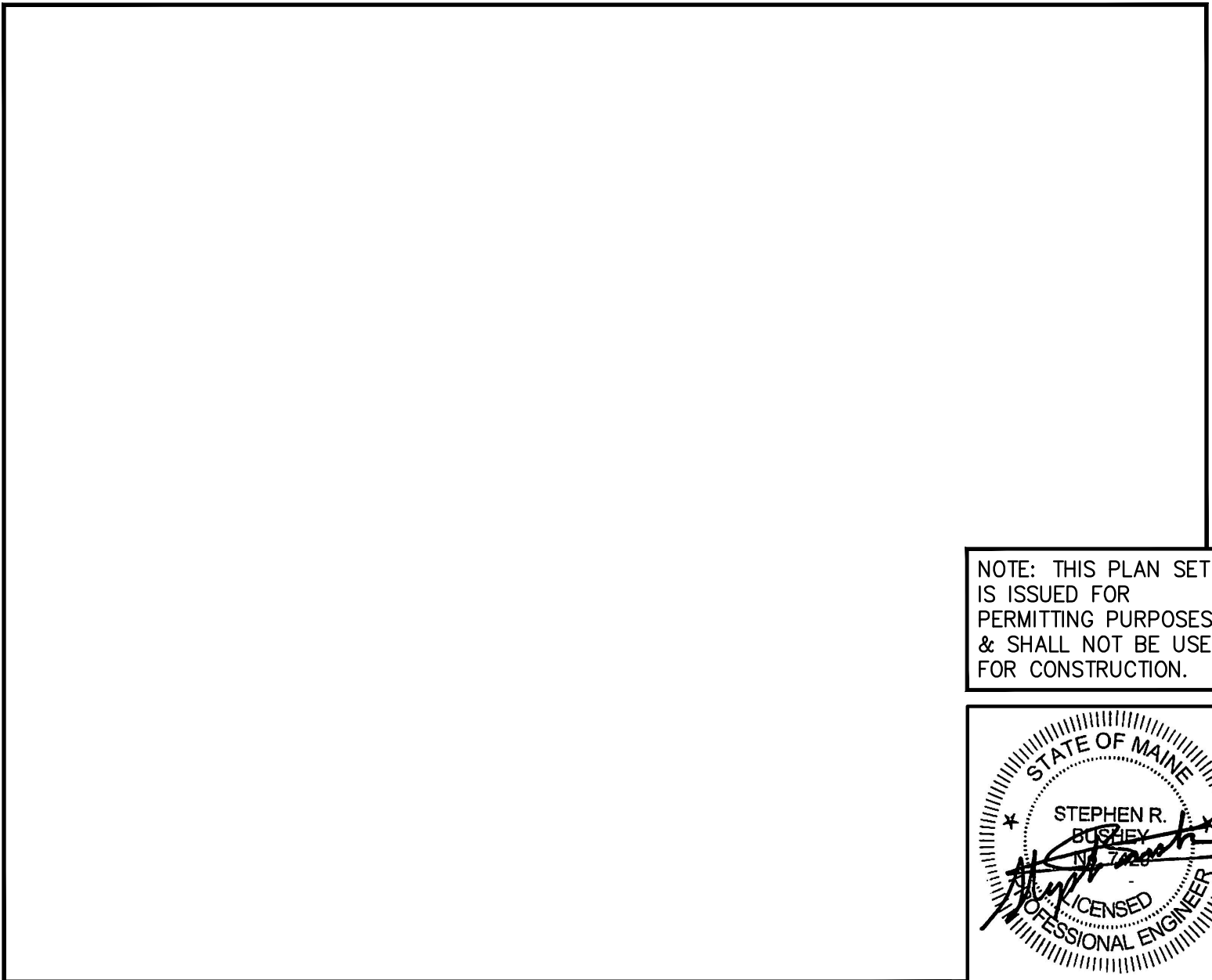
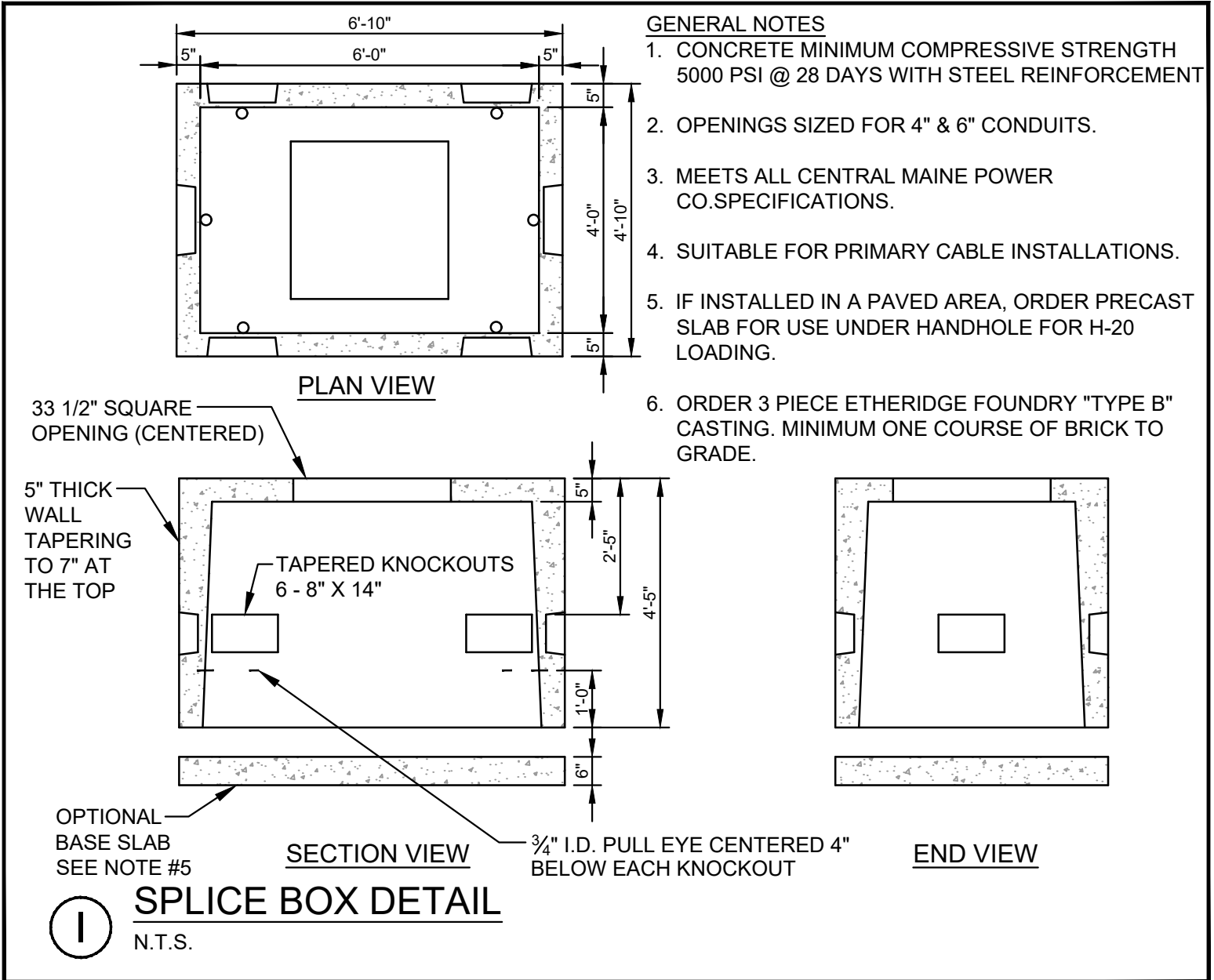
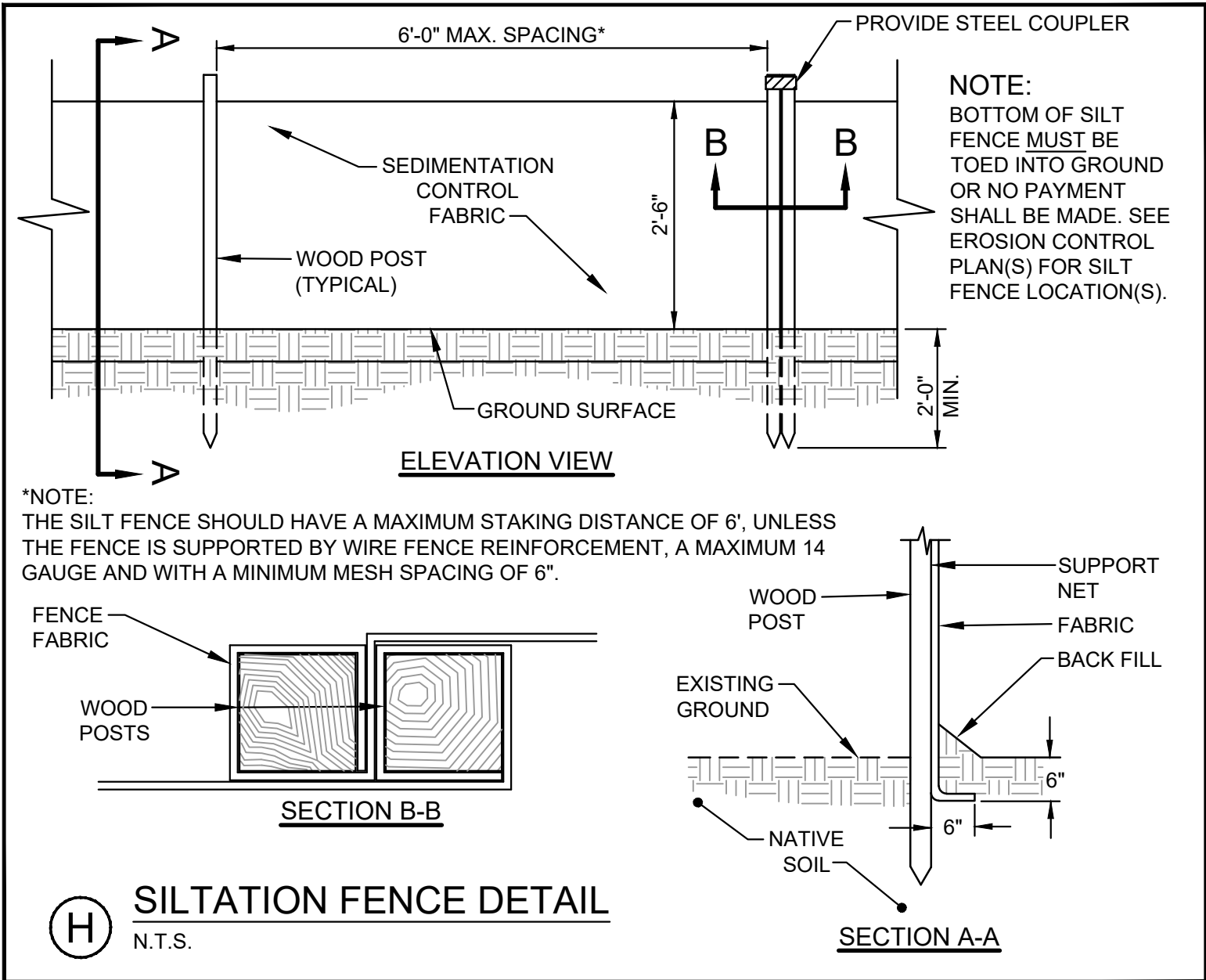
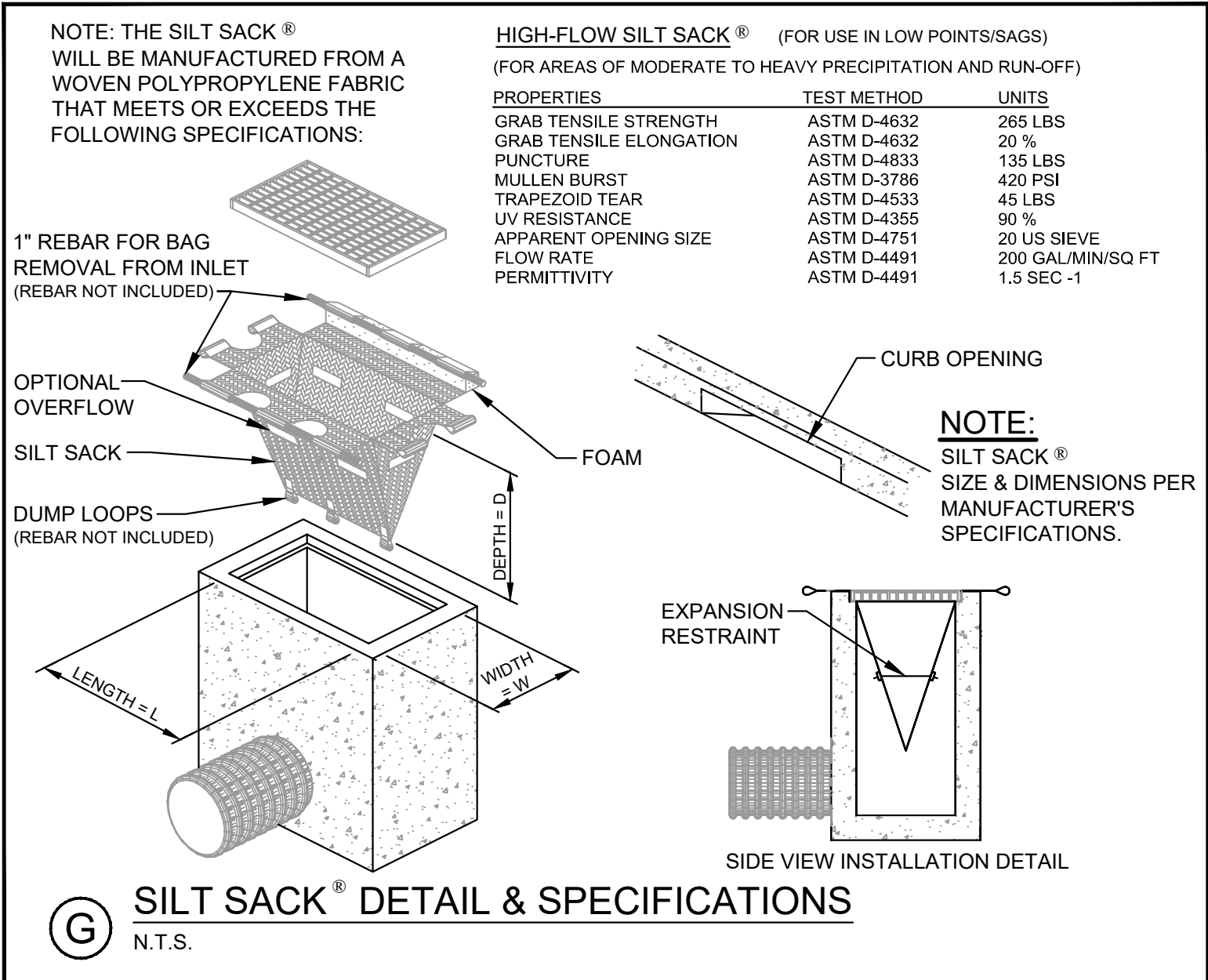
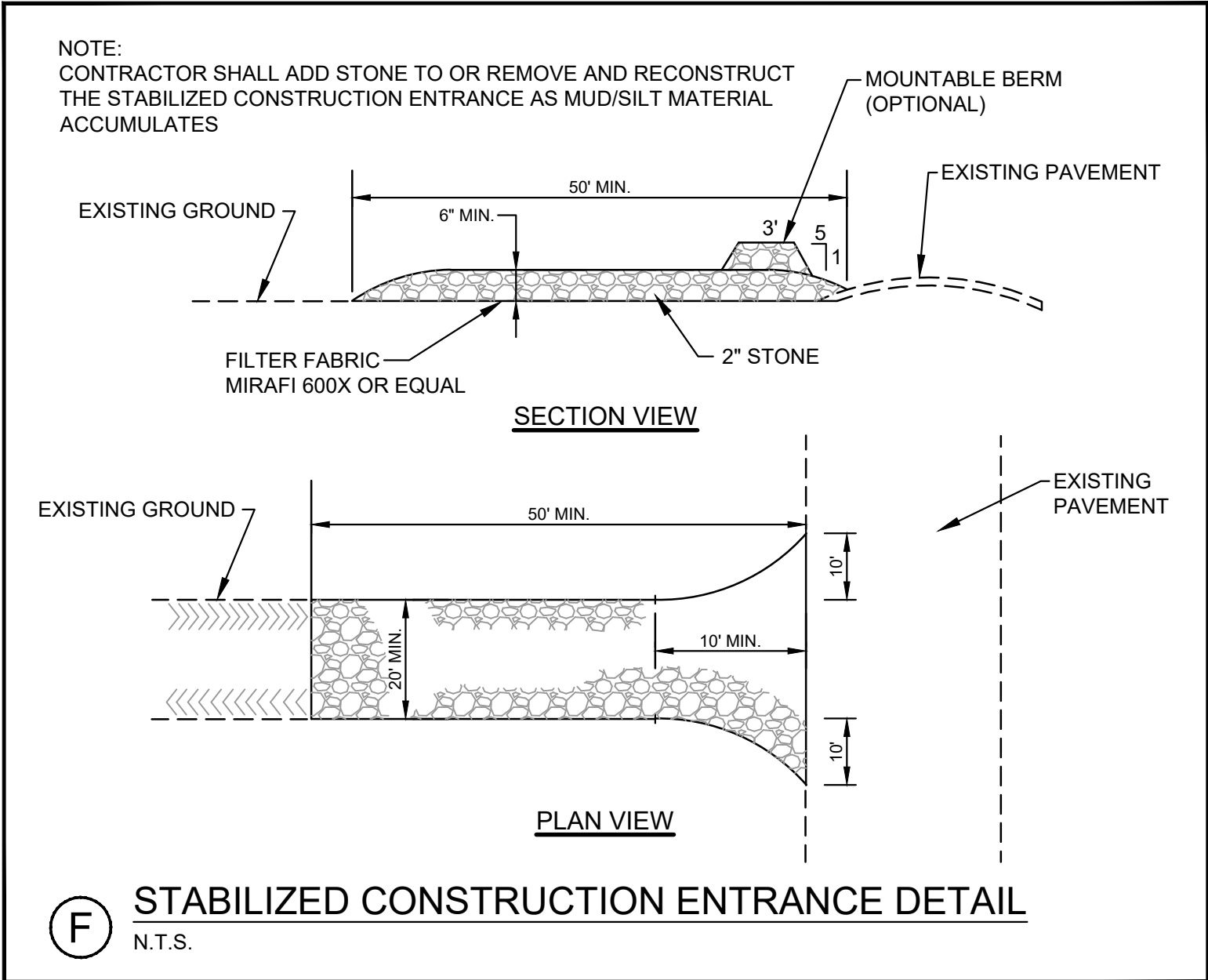
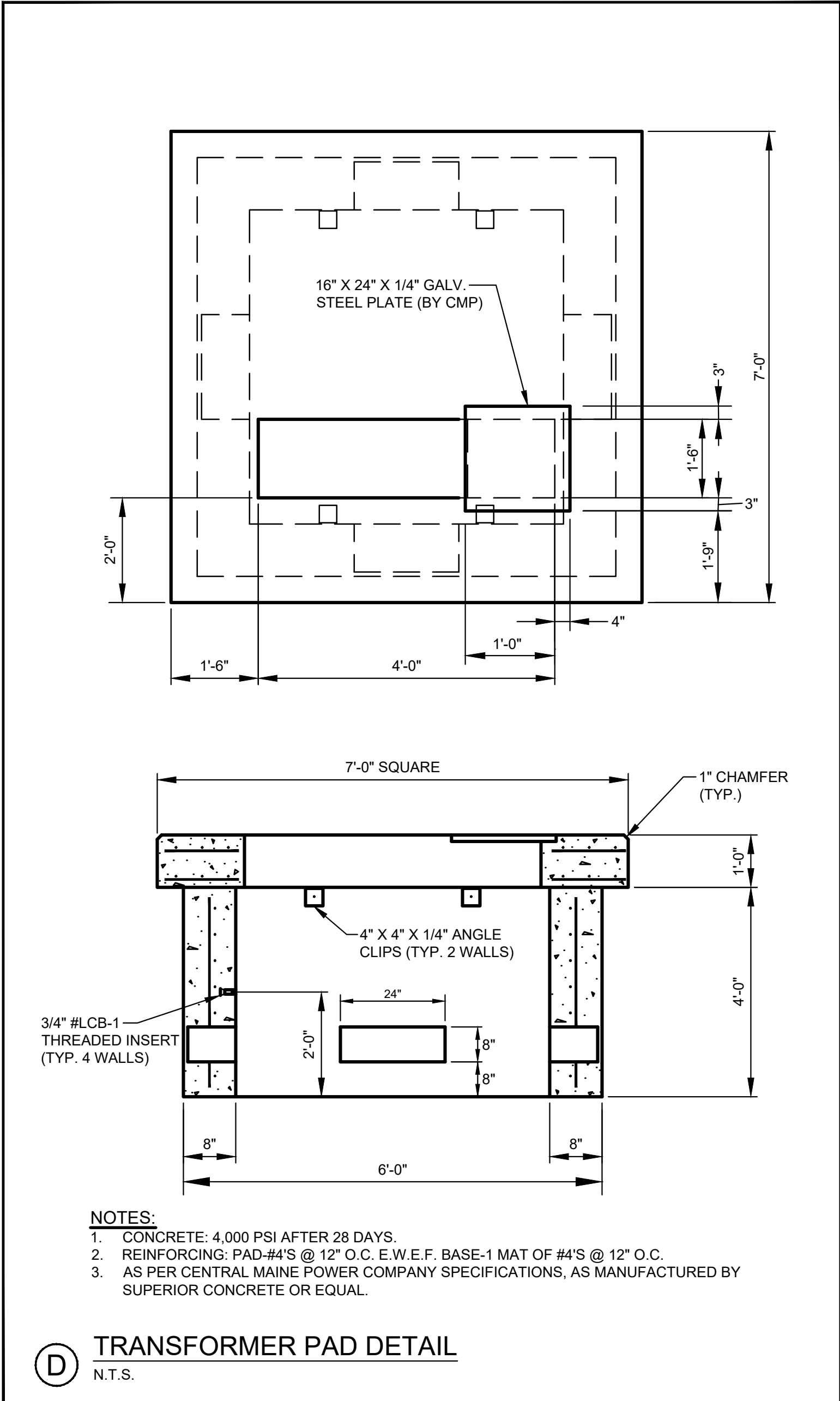
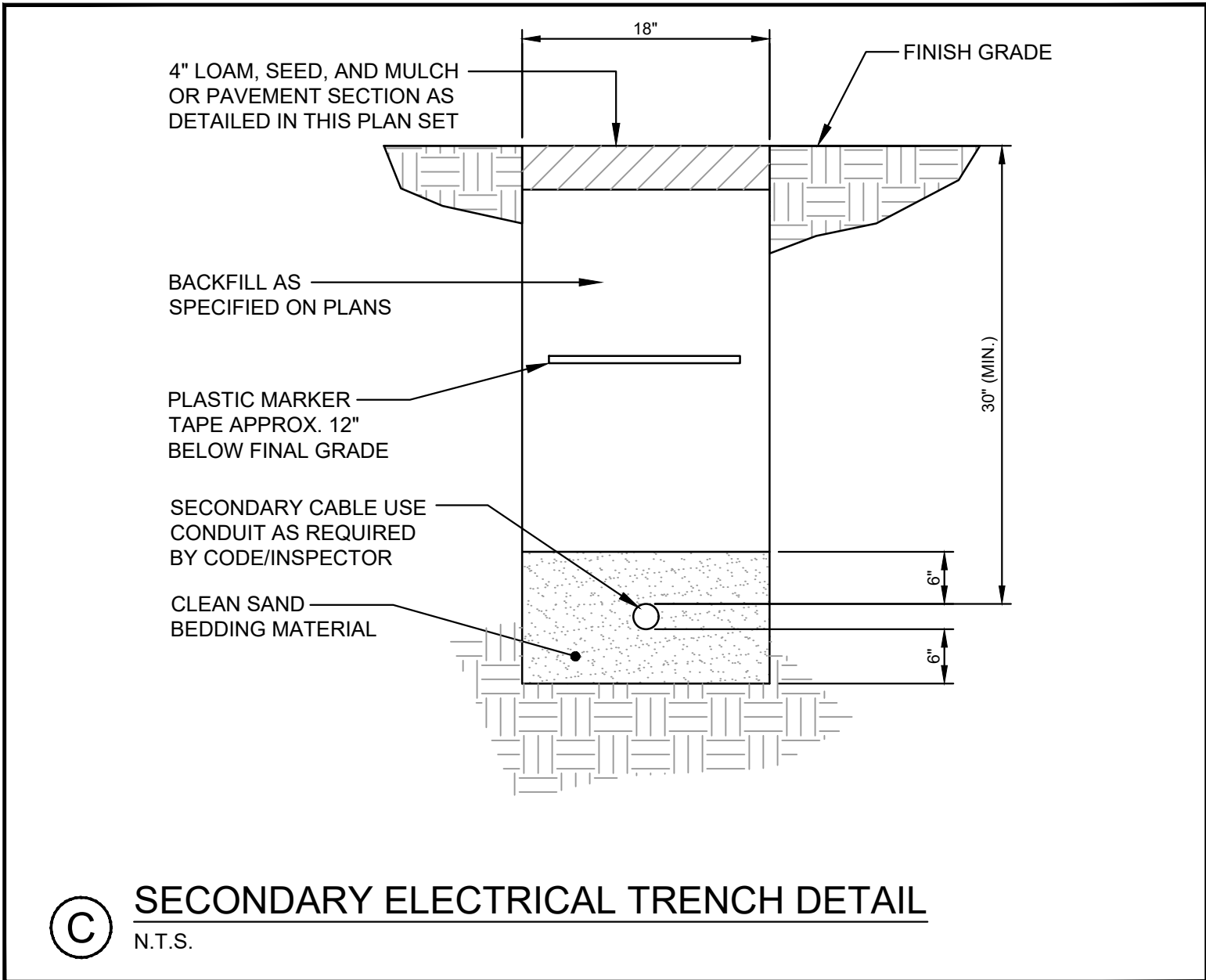
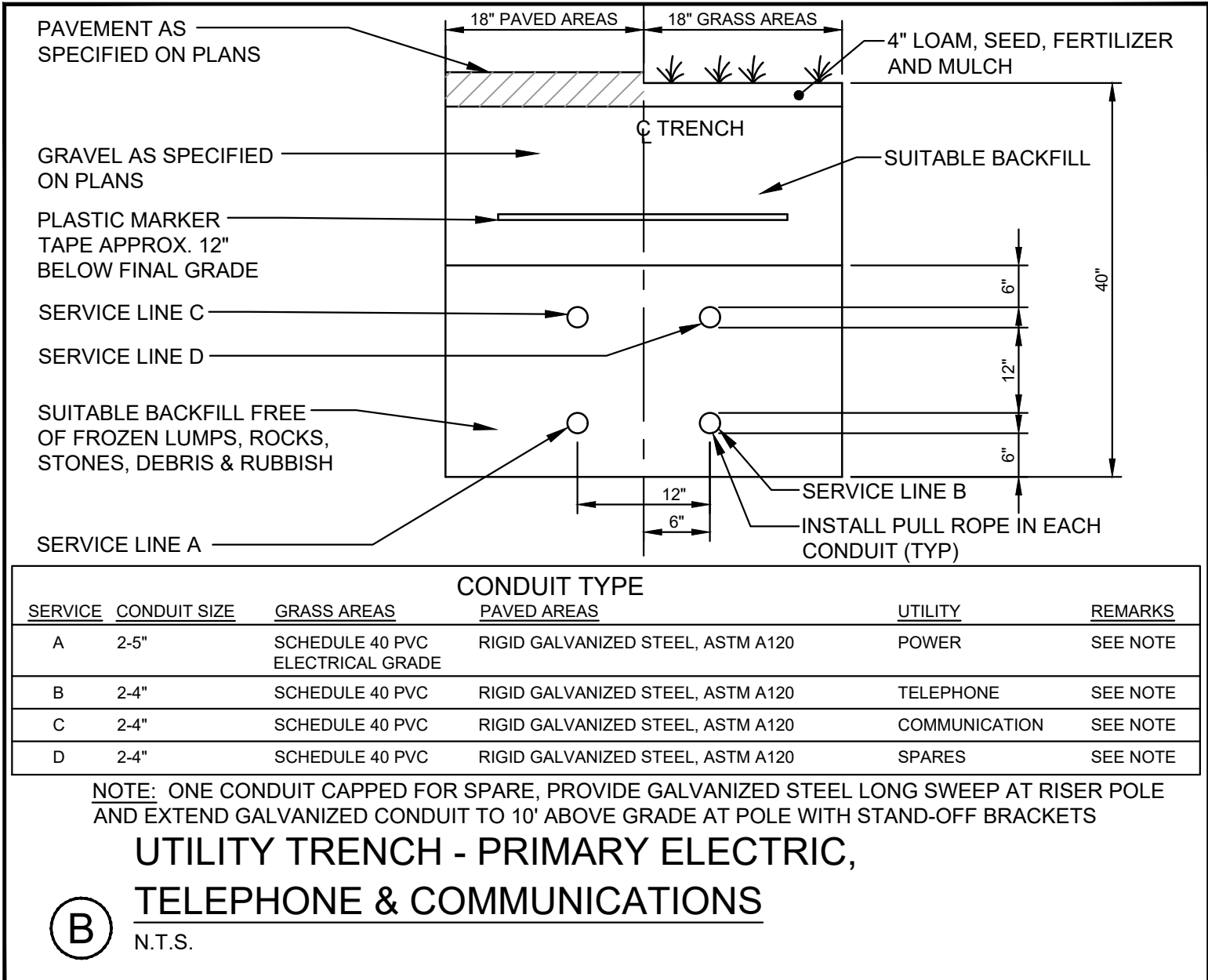
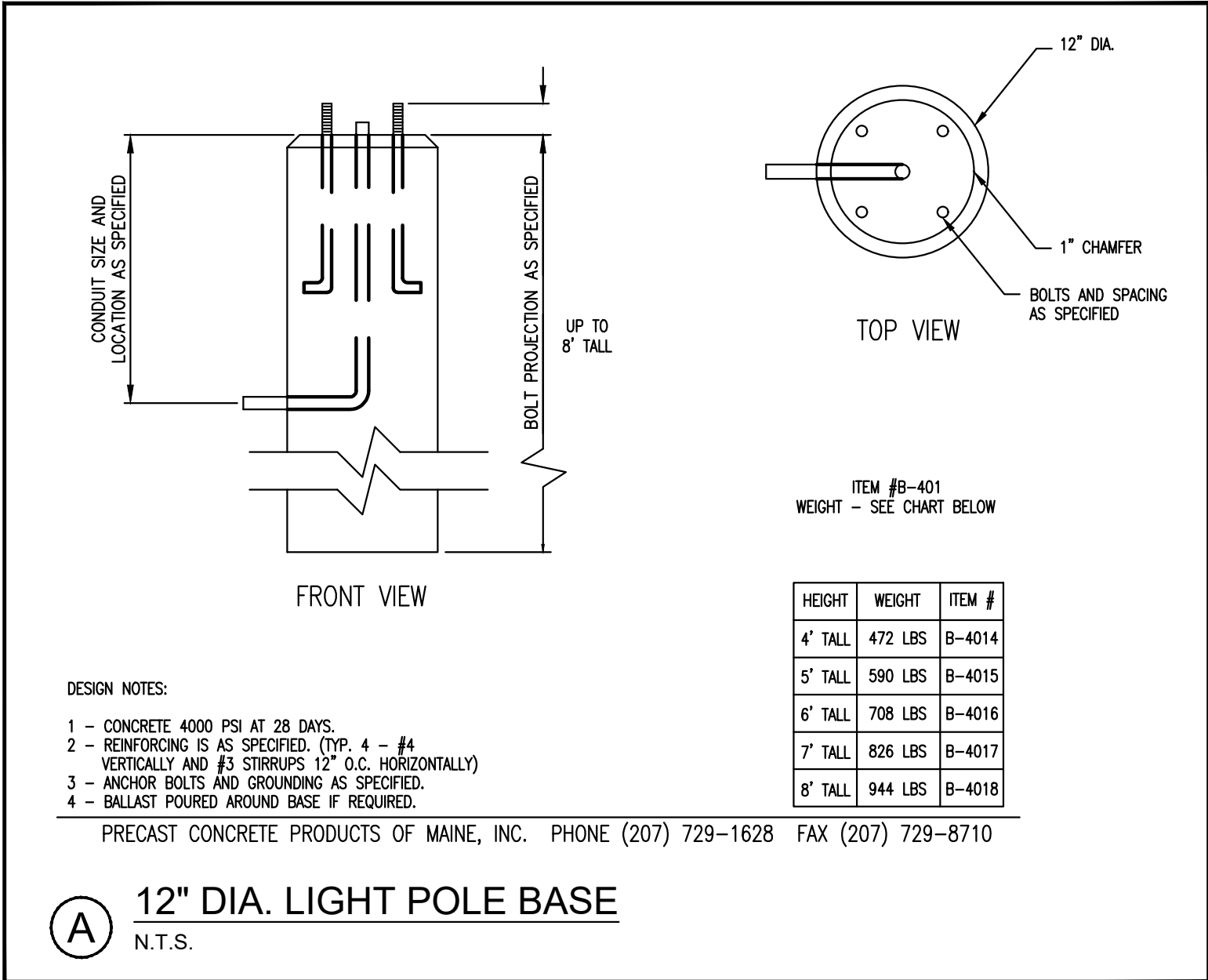


Drawing Name:		SITE DETAILS	
Project:		CITY OF PORTLAND - BARRON CENTER - SITE 1 HOUSING 1125 Brighton Avenue, Portland, Maine	
Client:		DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC/PROSPERITY ME 175 Lancaster Street, Suite 216A, Portland, Maine 04101	

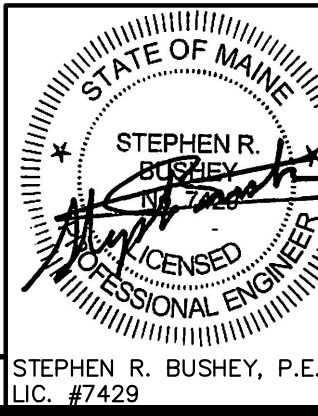
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C-5.1

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Rev.	Date	Revision

Rev.	Date	Revision
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Client:	DEVELOPERS COLLABORATIVE PREDEVELOPMENT LLC/PROSPERITY ME 175 Lancaster Street, Suite 216A, Portland, Maine 04101

Drawing No.
C-5.2







(Not To Scale)

1. *This plan is intended show the location and boundaries of the subject property, not depict the limits or extent of fee title ownership. An opinion of title should be rendered by a title attorney.*
2. *This office reserves the right to be held harmless by all parties who are not specifically identified in the below Surveyor's Statement.*
3. *This survey does not purport to reflect any of the following:*
 - a. *easements other than those that are visible or specifically stated in the referenced documents, or provided to this office.*
 - b. *restrictive covenants.*
 - c. *zoning or other land use regulations*
 - d. *the location of all underground utilities or structures, except as provided in Note 17 and shown on the plan.*
4. *This office reserves the right to be held harmless for unknown or unobtainable private records which could affect the results of this survey.*
5. *Reference is made to "Letter Of Agreement/Qualification" dated May 23, 2025, between Nadeau Land Surveys and the below listed client(s), which shall be considered an integral part of this survey.*
6. *N/F is an abbreviation for Now or Formerly.*
7. *All deeds referenced on this plan are recorded at the Cumberland County Registry of Deeds (CCRD).*
8. *This office does not accept any liability for any errors which may exist in the plans listed in the Plan References hereon, except Plan Reference 13.*
9. *Locus Parcel is located on the City of Portland Assessor's Map 269, Block B, part of Lot 1 & part of Lot 41, and is listed as 1125 Brighton Avenue.*
10. *Area of Proposed Lease Area is 33,632.5 square feet (0.77 acre).*
11. *The apparent right of way lines depicted on this plan are based on the Plan References listed hereon, nomenclature found in the field, and City of Portland Engineering Street Notes.*
12. *The Locus Parcel is not located in a Special Flood Hazard Area per FEMA Flood Insurance Rate Map County-Panel Number 23005C0687F, dated June 20, 2024. The parcel falls in Zone X.*
13. *The sidelines of the 20' Wide Utility Easement have been revised from what is shown on Plan Reference 13 as they were not centered on the apparent location of the depicted underground water line.*
14. *Call 1-888-DIGSAFE at least three business days before performing ANY excavation.*
15. *Per City of Portland Street Record Book 2, Page 95, this section of Holm Avenue was accepted by Order of the City Council, passed December 3, 1939, in City of Portland Records Vol. 56, Page 393, as fifty (50') feet wide.*
16. *Per City of Portland Street Record Book 2, Page 136, this section of Brighton Avenue was accepted March 17, 1892, in City of Portland Records Vol. 23, as four rods (66 feet) wide. Per City of Portland Street Record Book 2, Page 17, the last relocation of this section of "Brighton Street" was accepted June 5, 1892, per Cumberland County Commissioners Records Vol. 16, Page 567.*
17. *Per City of Portland Street Record Book 2, Page 121, "Brighton Street" was changed to "Brighton Avenue" by Order of the City Council and approved by the Mayor, September 5, 1899, per City of Portland Records Vol. 28, Page 493.*
18. *The underground utilities shown have been located from field survey information and existing drawings. This office make no guarantees that the underground utilities shown comprise all such utilities in the area, either in-service or abandoned. The underground utilities shown are approximate location and are located as accurately as possible from information available. This office has not physically located the underground utilities.*
19. *Apparent encroachment - No record easement has been found.*
20. *This section of Portland was part of Deering from 1871 to 1899, was part of Westbrook from 1814 to 1871, and was part of Falmouth prior to 1814. Prior to 1820, this area was part of Massachusetts.*
21. *See CCRD Book 40404, Page 190, dated March 22, 2023, for Easement Deed from City of Portland to Portland Water District.*
22. *Elevations are based on City Datum. Benchmark is top of a flush 3" offset granite monument with brass plug (elev.=106.10') per city blueprints.*

1. Charles E. Goold
To
City of Portland
dated March 11, 1902, and recorded March 3, 1902, at the
Cumberland County Registry of Deeds in Book 716, Page 17.

2. Ameido M. Martelle
To
City of Portland
dated and recorded July 15, 1949, at the
Cumberland County Registry of Deeds in Book 1961, Page 392.

A horizontal line representing a 100-foot distance. Vertical lines are drawn at 0', 10', 20', 40', 60', 80', and 100'. A bracket above the line from 0' to 10' is labeled 5'.

1. "Insurance Maps of Portland, Maine, Volume Two", dated 1909 by the Sanborn Map Company, last revised 1957, Plate 42.
2. "Portland Gardens in City of Portland, Maine Owned By J.W. Willbur", dated July 1, 1912, by A.L. Eliot, C.E. Boston, Mass., recorded July 12, 1912, in CCRD Plan Book 12, Page 23.
3. "Richards Standard Atlas of The City of Portland", dated 1914, Plate 10.
4. "City of Portland, Maine Department of Public Works, Holm Avenue, Brighton Ave. To Dale St.", approved November 9, 1930, by Edward M. Hunt, City Engineer, City Plan 225/4.
5. "State of Maine Department of Transportation Bureau of Highways Right of Way Map, State Highway 17", Portland, Cumberland County Federal Aid Project No. M-0830(y) Sect.(4), D.O.T. File No. 3-947, Sheet 7 of 9, dated June 1977, recorded September 25, 1980, in CCRD Plan Book 128, Page 5.
6. "Recording Plat of City Hospital Housing For Elderly, Portland, Maine For City of Portland Housing Department, NEI, November 3, 1984, by Owen Haskell, Inc. South Portland, Maine, recorded July 11, 1985, in CCRD Plan Book 148, Page 67, revised May 1991 and recorded July 12, 1991, in Plan Book 191, Page 39.
7. "As-Built Plat of City Hospital Housing For Elderly, Portland, Maine For City Hospital Housing Assoc.", dated June 11, 1986, by Owen Haskell, Inc., South Portland, Maine, City Plan 1002/25.
8. "Plan of Property In Portland, Maine Made For Lee Mosher, Standard Boundary Survey", dated July 15, 1986, by H.L. & E.C. Jordan - Surveyors, Portland, Maine, City Plan 1002/27.
9. "City of Portland, Maine Public Works Department Engineering Section, Worksheet Showing Apparent Boundary Lines @ #50 Holm Avenue", dated August 17, 2001, City Plan 1015/41.
10. "City of Portland, Maine Public Works Department Engineering Section, Railroad Sideline Survey From Portland Terminal Railroad To Brighton Ave. And A Portion of Brighton Ave.", Sheet 2 of 3, dated November 13, 2003, City Plan 882/10.
11. "City of Portland, Maine Public Works Department Engineering Section, Holm Avenue Drainage & Reconstruction As-Built Plan & Profile", Sheets 1 & 2 of 6, dated May 26, 2010, City Plan 915/6C.
12. "Site Plan, Site Grading And Utilities, Profiles - Storm Drains, Portland City Hospital Housing For Elderly", Sheets SP1, SP2, SP3, issued June 18, 1985, by Architects Four, Manchester, NH.
13. "Plan Depicting The Results Of An ALTA/ACSM Land Title Survey Made For Portland City Hospital Housing Department, NEI, November 3, 1984, by Sideline Of Holm Avenue, Portland, Maine", dated February 8, 2016, by Nadeau Land Surveys, recorded March 8, 2016, in CCRD Plan Book 216, Page 56, and revised June 26, 2017, to show As-Built and monumentation set.
14. "ALTA/NSPS Land Title Survey Of: 1085 Brighton Avenue, Portland, Maine 04102, For Record Owner: 1085 Brighton Avenue, LLC, 1085 Brighton Avenue, Portland, Maine 04107", Project No. 18340, Sheet 1 of 1, dated August 20, 2018 last revised October 5, 2018, by Seago Techs. South Portland, Maine, recorded October 9, 2018, in CCRD Plan Book 218, Page 442.

	Found 3' Offset 6"x 6" Granite Monument w/ Brass Plug
	#5 Steel Rebar w/ Survey Cap
	#2124, MagNail w/ Survey Washer
	#2124, or Drill Hole To Be Set
	Steel Rebar w/ Survey Cap #2124 Set 1/17/2017
	MagNail w/ Survey Washer #2124 Set 1/17/2017
	Light Pole
	Sign
	Deciduous Tree
	Conifer Tree
	Easement Sideline
	Blue Point For Underground Water Line
	Telephone Manhole
	Sanitary Manhole
	Catch Basin
	Gas Shutoff
	Water Shutoff
	Utility Pole w/ Guy Wire
	Fire Hydrant
	Overhead Utility Line

Cumberland County, ss.
Registry of Deeds
Received _____, 20____
At _____ h _____ m _____ M,
and recorded in
Plan Book _____, Page _____
Attest: _____
Register

Nadeau Land Surveys hereby states exclusively to the client listed hereon 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 Maine Board of Licensure rules and regulations for Professional Land Surveyors.

This plan is not valid without the signature and stamp of the below listed Professional Land Surveyor who prepared this plan as it may contain unauthorized alterations unknown to this office.

Nadeau Land Surveys

James D. Nadeau, P.L.S. #2124 (agent)
Date: 6-6-2025

Common Use Ground
Book 6822, Page 176 - Exhibit C

"See Plan Reference 13"

North

M.T.A. Datum per Plan Ref's. 6 & 7

Lot 1
Per Plan Refs. 6 & 7

The location of this Utility Easement as shown on this plan is based solely on holding water shutoff locations depicted. Blue paint apparently marking the waterline also shown. The physical underground location of this utility was not determined by this office. It is the recommendation of this office to engage services of an underground utility locating company to verify if location should it appear to impact design plans. Blue paint states "Abandon". Status of this line is unknown.

"Proposed Lease Area Parcel"
33,632.5 SF
0.77 Acre

N/F
City Of Portland

Book 716, Page 17

"See Locus Deed Reference 1

N/F
City Of Portland

Book 1961, Page 395

"See Locus Deed Reference 2"

Holm Avenue
(See Note 15)

"See Plan Reference 14"

Design Review

Planning and Urban Development Department



Subject: 1125 Brighton Avenue
Zone: B-2
Date of Review: Friday, June 20, 2025
Reviewer(s): Sean King (Urban Designer), Andrew Graminski (Planning & Development Review Manager), Eric Freeman (Planner), Evan Schueckler (Historic Preservation Program Manager),
Project ID: PL-003379-2025

I. INTRODUCTION

The proposed development project at 1125 Brighton Avenue is subject to design review under the City's Land Use Code section 13.6.4.I Design. The property location at 1125 Brighton Avenue is located in the B-2 Community Business zone, and is subject to the design standards and guidelines of the City of Portland *Design Manual* – **(d) B-2 Commercial Business Zone, Appendix 2** and **(i) Two-family, special needs independent living units, multi-family, lodging houses, bed and breakfasts and emergency shelters.**

II. REQUEST FOR ADDITIONAL MATERIALS:

Staff requests additional information for the proposed mechanical equipment, appurtenances and roof area under Land Use Code 13.4.6. The Applicant is requested to submit the following:

1. A roof plan to indicate proposed location of mechanical equipment and other rooftop appurtenances for Staff review.

III. DESIGN REVIEW COMMENTS: bold text denotes recent updates met, red text denotes standards not met and require resubmission.

(d) B-2b STANDARDS

- c. *Building entrances: In the B-1, **B-2** and B-2b zone building entrances shall be oriented toward, located adjacent to, and directly accessible from, a sidewalk in a public right-of-way.*

Staff comment: The proposed building creates a prominent building entrance along the Brighton Avenue frontage that is oriented, clearly identified with large storefront windows and an integrated canopy, and is directly accessible from the existing sidewalk that Staff finds appropriate.

The property site is located at the corner of Brighton Ave and Holm, **Staff finds the proposed building location lacks an active presence at the corner and recommends the Elle-shape portion of the building orient towards the corner and include a secondary building entrance either at the building's corner or along Holm Ave to be directly accessible from a new sidewalk.**

- d. *Windows: In the B-1, **B-2**, B-2b zones windows shall be required along the street frontage of a building. Windows shall be transparent (with visible transmittance (VT) of .7 or greater) and installed at a height to allow views into the building by passerby.*

Staff comment: The proposed building includes storefront-scaled windows at the ground level of the primary building entrance on Brighton Ave and arrangement of windows along each façade for the residential units and communal spaces that Staff finds appropriate.

Staff requests the communal spaces, including the entrances and community room located at the ground level include windows with a visible transmittance of .7 or greater.

- e. *Façade character: In the B-1, **B-2**, B-2b zones, active and public portions of the buildings (e.g. doors, windows, entries retail displays) shall be oriented to and, where possible, be located adjacent to the public sidewalk to create an active presence along the sidewalk.*

Staff comment: The proposed building is located within close proximity to Brighton Avenue with a principal building entry, articulated with an overhead canopy, and is accessible from the public sidewalk, which Staff finds to create an active frontage along a portion of the street facing facade.

Staff finds that the proposed building does not create appropriate variation along the length of each building façade, particularly along the Brighton Ave street frontage. Staff recommends a continuous pronounced cornice above the third level at each façade and to incorporate a building projection at the Brighton Ave principal building entry and above second-third floors. Staff observes the adjacent Loring House front-facing facade, which is anchored by a prominent and centralized building entry and flanked by recessed façade elements that express the building's wings or annexes to visually break up the building massing.

- f. *Building design: B-1, **B-2** and B-2b commercial buildings shall be designed to be compatible with their residential and commercial neighbors.*

Staff comment: The proposed building design is four-storied with a flat roof configured in an Elle-shape layout with principal building entries along the front and rear facades. The building is comprised of a central corridor with residential units occupying each floor.

Staff recommends that the proposed building placement occupy and orient towards the corner of Brighton and Holm Ave to define the street wall within the build-to zone. In addition, Staff finds that the current building arrangement with the Elle-shape facing the existing landscape area creates a separation between the proposed open space and the existing open space located at the adjacent Loring House campus.

- g. *Building materials: Façade materials of buildings located in the B-1, **B-2** and B-2b zones shall be compatible with those materials of surrounding residential and commercial use.*

Staff comment: The proposed building design identifies façade materials that Staff finds are compatible with adjacent structures of the Loring House historic landmark and the Barron Center. These façade materials include brick and precast concrete for detailing at the windows,

along with a delineation of the upper floor in dark fibercement panel that Staff finds appropriate.

Staff request the Applicant to resubmit elevations that indicate all proposed façade materials and eliminate any materials from the material schedule list not envisioned for the new building design.

In addition, Staff requests the Applicant explore an alternative to the proposed building arrangement of fibercement panels and pronounced cornice detail that undulates along the building façade. Staff recommends a continuous pronounced cornice above the third level to distinguish the upper floor façade material of fibercement panel. Staff also recommends incorporating projections and recessions along the brick portions of the façade to express building entrances and break up the building massing along Brighton Avenue.

- i. *Landscaping and buffers: In the B-1, B-2 and B-2b zones buildings and associated parking areas must be screened to buffer abutting properties. A densely planted landscape buffer and/or fencing will be required to protect neighboring properties from the impacts associated with the development, including lighting, parking, traffic, noise, odor, smoke, or other incompatible uses. Where buildings are setback from the street, a landscaped area must be planted along the front yard street line.*

Staff comment: The surface parking areas are located at the rear of the property and screened with landscaping from abutting properties that Staff finds appropriate.

(d) B-2b GUIDELINES

Please refer to Appendix 2 of this manual, The B-1, B-2, **B-2b** Design Guidelines, for applicable design guidelines for the B-1 and B-2 zones.

B-2b DESIGN GUIDELINES (Appendix 2 of the Design Manual)

Building location and form

Buildings shall be located near the street so as to create an urban street wall.

Staff comment: The proposed development locates the new building along Brighton Avenue to create an urban street wall that Staff finds appropriate. However, Staff recommends that the applicant explore a building orientation that occupies more of the property corner to create a more visible presence at the intersection.

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.

Staff comment: The proposed development includes one building entrance oriented toward the street, with secondary entrances at the community room and rear of the property to access the parking area. Staff recommends greater activation at the property's corner to include a

secondary building entrance either at the building's corner or along Holm Ave to be directly accessible from a new sidewalk.

(i) MULTI-FAMILY STANDARDS

Multiple-family shall meet the following standards:

a. Proposed structures and related site improvements shall meet the following standards:

1. *The exterior design of the proposed structure, shall be designed to complement and enhance the nearest residential neighborhood.*

Staff comment: The property site is owned by the City of Portland for operation of the Barron Center, Loring House residence and ancillary facilities building that are organized as a campus with no adjacent relationship to the nearest residential neighborhood. The exterior design of the proposed structure complements the adjacent Barron Center and Loring House in materiality through the use of brick at the lower floor facades and articulated building entrances that Staff finds appropriate.

2. *The proposed development shall respect the existing relationship of buildings to public streets.*

Staff comment: The proposed development locates the new building within close proximity to Brighton Avenue, which creates a more active street wall than the surrounding context. **Staff recommends that the applicant explore a building orientation that occupies more of the property corner to create a more visible presence at the intersection, and specifically referenced in the B-2 Commercial Business Zone design standards above.**

3. *Open space on the site for all multiple-family development shall be integrated into the development site.*

Staff comment: The proposed development locates the new building within close proximity to Brighton Avenue with an arrangement of proposed open space at the sides and rear of the property. Perimeter planting around the building, pathways to connect to the existing campus and lawn space are provided as open space that Staff finds appropriate.

Staff recommends an orientation of the building to occupy more of the property corner at Holm Street to effectively allow more permeability to the existing campus open space that includes pathways, mature trees, vegetation and seating for residents. In addition, Staff recommends a variety of outdoor seating options that enhance communal gathering spaces with opportunities for shade and passive outdoor recreation.

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 building includes ample windows and sufficient interior storage areas for each residential unit.

5. *The scale and surface area of parking and driveways and paved areas are arranged and landscape to properly screen vehicles from adjacent properties and streets.*

Staff comment: The surface parking areas are located at the rear of the property and screened with landscaping from abutting properties and streets that Staff finds appropriate. Staff has concerns about car headlights and light glare into the residential units located at the ground level facing the parking area. Staff recommends additional screening between the head-in parking spaces and residential units directly adjacent to the parking area.



Dear Applicant,

We have completed our review of your application (PL-003379-2025) proposing to develop 50 affordable residential units and 31 off-street parking spaces, at 1125 Brighton Avenue in the B-2 zone. This development triggers major site plan review and is subject to the following regulations:

- Site Plan – Article 13.6
- Zoning –Table 7C

An overview of the City’s review can be viewed in the attached project review worksheets and peer review comments.

Next Steps

Please review all feedback and reach out to the project review manager if you have any questions or would like to discuss this feedback in more detail. In order to proceed, the applicant shall prepare a written response to all feedback, and shall update plans, documents and other materials as necessary to address the above listed comments. The applicant shall notify the project review manager when a resubmission is uploaded to ProjectDox. Once received, the project review manager will notify the applicant of their scheduled review timeline for this resubmission.

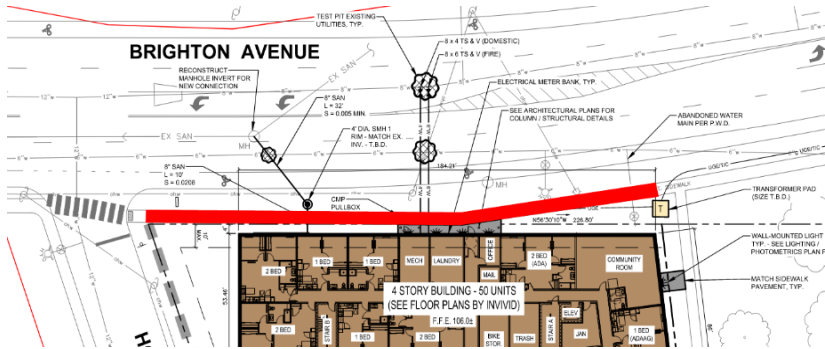
We be in touch with you regarding a Planning Board workshop/or public hearing date following the submission of updated materials.

Sincerely,

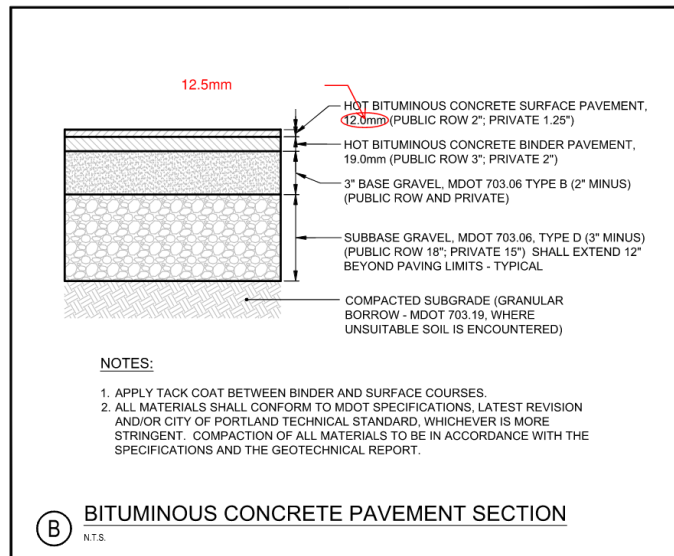
Andrew Graminski, AICP
Planning & Development Review Manager

Attachments

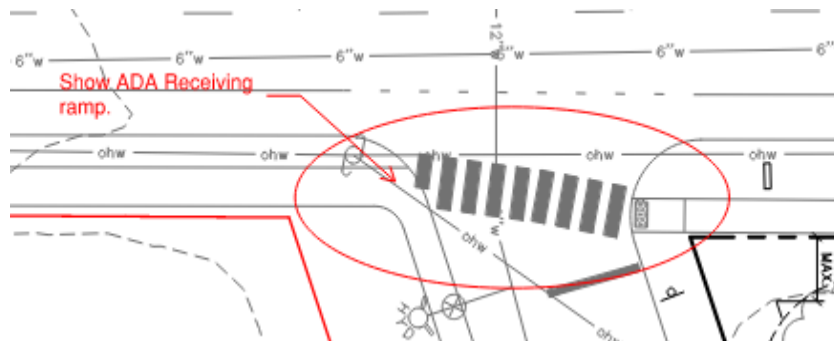
1. Site Plan Worksheet
2. Zoning Worksheet
3. Peer Review Comments
4. Design Review Memo

Site Plan Review Standards (Sec. 13.6)		
Transportation Standards (Sec. 13.6.1)		
Standard	Discussion	Finding
Impact on Surrounding Street Systems	Overview: This project is not expected to create any major impacts on the surrounding street system. The residential use is not expected to create or aggravate any existing or proposed safety concerns for the surrounding street network. - Based on the trip generation estimate for the project, the project is not expected to add significant peak hour traffic volumes and a Traffic Movement Permit is not required. - Given the low traffic volumes estimated, a traffics study is not recommended. - To account for the increased demand and desire to have site trips use the Barron Center traffic signal, the applicant will be responsible for the implementation of a flashing yellow arrow signal head configuration for the outbound Brighton Avenue left turn entering the existing retail driveway. - Access and egress movements to the site are either from the STOP controlled Brighton Venue/Holm Avenue intersection or via the signalized Brighton Avenue/Barron Center Driveway. Given the heavy traffic volumes on Brighton Avenue, site users should be encouraged to utilize the signalized intersection. Updates Requested - The applicant must provide an updated site plan with notes that shows a flashing yellow arrow signal head configuration for the outbound Brighton Avenue left turn entering the existing retail driveway. - The applicant must confirm that the proposed project has rights to use the Barron Center driveway.	More Information Required
Access and Circulation	Overview: The first floor of the building will have entrances on the Brighton Avenue side and the parking lot side. The Brighton Ave entrance will be level with the sidewalk. The building will have an elevator for emergencies and will be built above the flood zone. There will be a sidewalk leading to the trash room. Brighton Avenue is in the concrete sidewalk district. The applicant must replace the proposed asphalt sidewalk along the property's frontage with a concrete sidewalk. Concrete detail will need to be added to plans. 	More Information Required

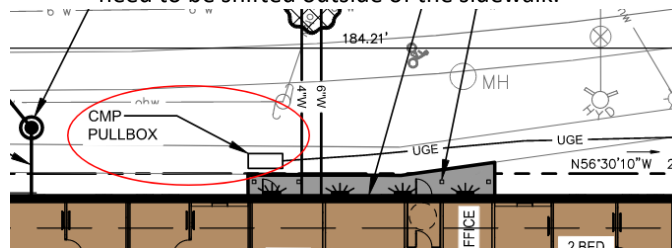
- Revise asphalt detail pavement. See image:



- A sidewalk must be provided along the property's frontage along Holm Avenue.
- The applicant's plan does not show existing receiving ramp. The applicant must verify that both ramps meet the ADA requirements and if necessary, realign and update the ramps to meet those requirements.



- The plans show a planned CMP pullbox in the sidewalk. This will need to be shifted outside of the sidewalk.



Updates Requested

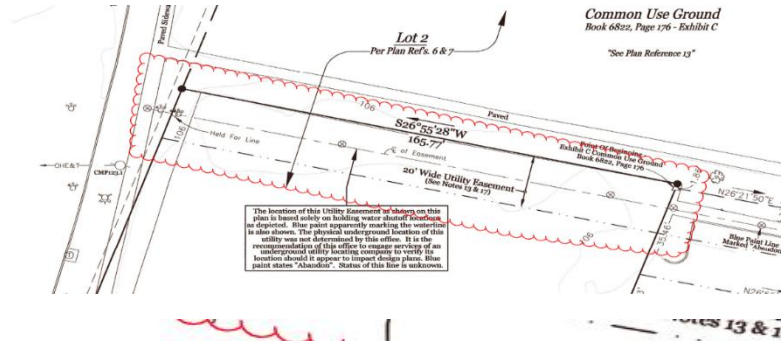
- The applicant must revise plans to show concrete site walks, not asphalt. Details must be updated to reflect this.
- Update plans to show a sidewalk along Holm Avenue.

	- Update plans to show existing receiving ramp. The applicant must verify that both ramps meet ADA requirements and if necessary, realign and update the ramps to meet those requirements. - Revise plans to shift the planned CMP pullbox out of the sidewalk.	
Public Transit Access	Overview: A bus shelter is located on both sides of Brighton Avenue within 500 feet of the site. METRO route 4 runs along Brighton Avenue. Updates Requested No further action required.	Met
Parking	Overview: 31 off-street parking spaces are proposed as part of this project. In their application documents, the applicant notes that a parking study has been performed to evaluate parking use for Barron Center Staff and the applicant is discussing options for the construction of new Barron Center site parking to offset the loss of the 46 parking spaces on the site. The applicant is requesting a waiver for parking aisle width from 24 feet to 22 feet. Based upon low vehicle turnover and review of other parking lots with 22-foot aisles, Staff support this waiver. - There is one parking space that is designated for delivery vehicles. The applicant must provide a vehicle turning template for that space. Updates Requested: - The applicant should provide a copy of the parking study mentioned in their cover letter to staff for review. - The applicant must provide vehicular turning template for the parking spot designated for delivery vehicles.	More Information Required
Transportation Demand Management	Overview: This standard is not applicable to the project. Updates Requested No further action required.	Not applicable
Environmental Quality Standards (Sec. 13.6.2)		
Standard	Discussion	Finding
Preservation of Significant Natural Features	Overview: There are no significant natural features such as wetlands, streams, or ponds on the property. There are existing mature pine trees on a portion of the property that will be removed. The design currently contemplates protecting a single large deciduous tree along Holm Avenue based on its size and screening benefit. Updates Requested The applicant should contact the City Arborist Mark Reiland regarding the existing deciduous tree along Holm Avenue and confirm with him if the tree should be preserved and protected. If necessary, plans should be updated to reflect this.	More Information Required
Landscape Preservation	Overview: The current site has an existing parking lot and a patch of land with trees. The existing pine trees are planned to be removed to make way for the new building. New plantings are proposed to offset the loss of the existing trees. The applicant intends to coordinate with Parks and Recreation on the planting of new trees and/or provide payment of the in-lieu fee for trees based on 50 dwelling units. The applicant should reach out the City Arborist Mark Reiland to discuss tree plantings in greater detail and determine the applicant's path forward with either providing street trees along Brighton Avenue or a payment in-lieu. Updates Requested	More Information Required

	The applicant should contact the City Arborist Mark Reiland regarding street tree plantings along Brighton Avenue and confirm with Staff prior to approval what their path will be.	
Site Landscaping and Buffers	Overview: The applicant is proposing site landscaping through the incorporation of a mix of shrubs, perennials, and trees. The proposal includes a rear lawn area between the building and the rear parking.	Met* but please respond to the update request
	Updates Requested The applicant in their documents mention the possibility of a play structure in the lawn area. Staff would like more information on this possibility with the next submission.	
Water Quality, Stormwater Management and Erosion Control	Overview: The site has 15,947 SF of impervious surface in its current condition and no onsite stormwater management measures. The site's impervious will increase to 24,48 SF (including roof and new pavement) as part of this project. The proposed design includes stormwater collection and treatment of parking lot runoff as well as collection and storage of both roof and parking lot runoff before tying into the existing drain on the Loring House site. Underground stormwater infrastructure is planned to be installed. Exact design details are still being worked on. - The applicant has not provided a stormwater management report. The project will need to meet the thresholds to require stormwater management per Section 5 and 14 of the City's Technical Manual. In general, this project will be required to treat 95% of new impervious areas and 95% of non-roof developed impervious areas. - The project will be required to provide detention to meet the flooding standards and DPW's minimum detention volume and flow control requirements listed in Section 5 of the technical manual. - Drawings C-40 (Grading, Drainage & Erosion Control Plan) do not show proposed topography or elevation information for the proposed drainage infrastructure. - Drawings C-30 (Site & Utility Plan) do not show surface restoration including roadway trench paving, sidewalk reconstruction, curb resetting, and loam and seed. - This project is required to meet the City's Low Impact Development standards. A LID scorecard has not been provided. - Survey information for the existing sewer manhole being used as a connection point for the private 8-inch sewer line should be provided and added to the plans. The utility plan should also be updated to include the inverts for the proposed private sewer infrastructure in general. - Details and further design information should be provided for the site's stormwater management system including survey information at the proposed existing catch basin connection point. - The applicant should review the tech manual standard 6.6.10 and determine whether or not a backflow preventer is required for the private sewer line. - SMH-1 should either be placed on the applicant's property or a revocable license agreement will be required to be granted by the City to authorize the installation of the privately owned manhole in the City right-of-way. The applicant should reach out to DPW Engineering if the applicant wishes to pursue a license agreement for this structure.	More Information Required

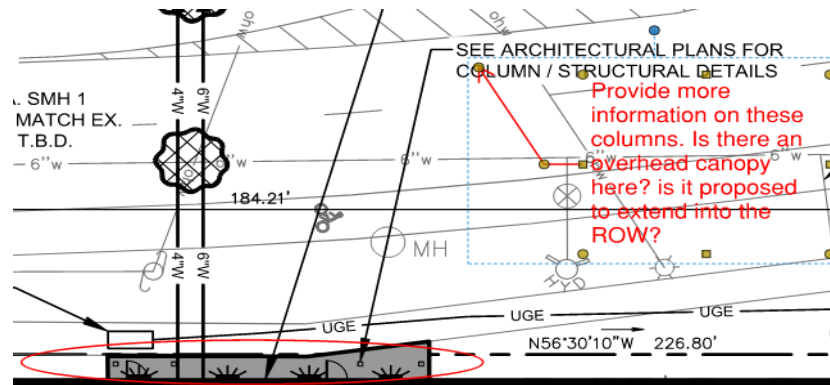
	Updates Requested - The applicant must provide a description and calculations (in the form of a stormwater management report) to show how the project will meet the City of Portland's current stormwater standards as detailed in Section 5 of the Technical Manual. At this time the City does not have enough information to review the proposed stormwater design. - Drawings C-40 need to be updated to show proposed topography and elevation information (e.g., spot grades and slopes) for the proposed drainage infrastructure. Details on the proposed subsurface stormwater systems must also be provided as part of that plan. - Drawings C-30 need to be updated to show the surface restoration including roadway trench paving, sidewalk reconstruction, curb resetting, and loam and seed. - The applicant must provide a LID scorecard. Please review Section 3 of the Technical Manual. A score of 80 or more must be met. - The applicant must update survey information to show sewer line connection (see note above). - The applicant must update the utility plan to show inverts for the proposed private sewer infrastructure. - The applicant must provide information on whether they will need to provide a backflow preventer for the private sewer line (see note above).	
Public Infrastructure and Community Safety Standards (Sec. 13.6.3)		
Standard	Discussion	Finding
<i>Consistency with City Master Plans</i>	Overview: The proposal for 50 new dwelling units is in line with Portland Plan 2030 especially relating to the creation of new affordable housing.	Met
	Updates Requested No further action is required.	
<i>Public Safety and Fire Prevention</i>	Overview: The proposed plans generally meet the requirements for public safety and fire prevention. However, more information is needed to determine emergency vehicle access to the site.	More Information Required
	Updates Requested The applicant must provide turn radius for emergency access lanes. No inside turning radius shall be less than 25 feet. No outside turning radius shall be less than 100 feet.	
<i>Public Utilities</i>	Overview: For water, both the sprinkler system and domestic water supply will connect to an existing 8-inch water main on Brighton Avenue, with the fire department connection located on the building's south side facing Brighton Avenue. Wastewater will tie into an existing 12-inch sewer line on Brighton Avenue, and a request for capacity authorization has been submitted for review. Natural gas from a nearby source is an option, however the final decision on gas needs will depend on further design of the mechanical, electrical, and plumbing (MEP) systems. All HVAC will be placed on the roof. For electricity, the building will connect to the three-phase overhead power on Brighton Avenue, likely involving a new riser pole and underground service, pending coordination with Central Maine Power.	More Information Required
	In their application documents, the applicant notes that the initial plan for the area was 0.87 acres, but a survey reveal that this would intrude on a "Common Use Ground." The proposed lease area is now defined by the western edge of a 20-foot utility easement. The applicant notes that this is	

no longer needed due to a new water main installation. The applicant is asking the City to have the Loring House release its rights to this easement.



The location of this Utility Easement as shown on this plan is based solely on holding water shutoff locations as depicted. Blue paint apparently marking the waterline is also shown. The physical underground location of this utility was not determined by this office. It is the recommendation of this office to engage services of an underground utility locating company to verify its location should it appear to impact design plans. Blue paint states "Abandon". Status of this line is unknown.

- The applicant should provide an affidavit from the Water District that states that they no longer are using this easement and do not intend to utilize this easement in the future. The applicant should also confirm that there are no other utilities that are utilizing this easement.
- The proposed plans have a note regarding architectural columns. More information is needed. See image below.



Updates Requested

- The applicant must reach out to the Water District for an affidavit that states that the easement is no longer being utilized.
- The applicant must provide more information on the columns as noted in the plans. Is there an overhead canopy there Are they proposed to extend into the ROW?

Site Design Standards (Sec. 13.6.4)

Standard	Discussion	Finding
Massing, Ventilation and Wind Impact	Overview: The proposed development is not anticipated to have adverse massing, ventilation, wind, or heat impacts. Updates Requested No further action is required.	Met
Shadow	Overview: The proposed building is less than 65 feet tall. This standard is not applicable to the project. Updates Requested No further action is required.	Not applicable
Snow and Ice Loading	Overview: The proposed development is designed with a flat roof and will not distribute snow and ice onto adjacent properties. Updates Requested No further action is required.	Met
View Corridors	Overview: This project is not located in a view corridor and is not applicable Updates Requested No further action is required.	Not applicable
Historic Resources	Overview: This site is not a designated historic location but it is located adjacent to other City designated historic sites such as the Loring House. However, as the site itself is not historic, this standard is not applicable. Updates Requested No further action is required.	Not applicable
Exterior Lighting	Overview: The applicant has provided a lighting plan for the proposed exterior lighting. The proposed lighting is not anticipated to have any adverse impacts on abutting properties. Updates Requested No further action is required.	Met
Noise and Vibration	Overview: Rooftop equipment will be screened and dampened to mitigate any noises and vibrations to abutting properties. Updates Requested No further action is required.	Met
Signage and Wayfinding	Overview: The applicant has not indicated any signage on building elevations. Updates Requested No further action is required.	Not applicable
Design Standards	Overview: The City has provided the applicant with a design review memo. Please review that document for all information and follow-up requests by Staff. Updates Requested See design review memo for details and requested revisions.	More information Required

Zoning Use Review (Article 6)

Use Permissions (Table 6-A – Table 6-F)

Proposed Use	Permitted, Conditional or Accessory Use	Zone	Use Std
Multi-Family	Permitted	B-2	6.4.12

Zoning Dimensional Review (Article 7)

Dimensional Standards (Table 7-C)

Standard	Requirement 1	Requirement 2	Proposed	Finding
Lot Area (SF)	--	--	33,775 SF	N/A
Street Frontage	--	--	226 +/-	N/A
Gross Floor Area	--	--	--	N/A
Build-to-Percentage	100%	--	Met on Brighton Avenue, not met on Holm Street.	Not Met
Building length as a percentage of street frontage	60%	--	Unknown	More Information Needed
Front Setback (Min)	--	--	3.5 ft	N/A
Front Setback (Max)	--	--	--	N/A
Rear Setback	--	--	--	N/A
Side Setback	--	--	--	N/A
Building Height	75 ft	--	45 ft	Met
Blank Wall Area	20 ft	--	Unknown	More Information Needed
Landscaped open space ratio	10%	--	Looking at the site using GIS maps, it appears the development exceeds the 10% requirement but need that calculation to be provided.	Appears to be met but need more information

Please review attached staff review comments attached in the email provided 6/27/2025 with zoning information from Zoning Review Specialists Matthew Coldwell regarding dimensional standards. For more information regarding zoning compliance, please reach out to Matthew at mcoldwell@portlandmaine.gov



Andrew Graminski <agraminski@portlandmaine.gov>

1125 Brighton Ave Review

Lauren Swett <lswett@woodardcurran.com>

Mon, Jun 23, 2025 at 4:09 PM

To: Andrew Graminski <agraminski@portlandmaine.gov>

Cc: Justin Pellerin <jrp@portlandmaine.gov>, Jodie Keene <jkeene@portlandmaine.gov>, Kristoffer DeVolder <kdevolder@portlandmaine.gov>

Hi Andrew,

I've reviewed the materials submitted for [1125 Brighton Avenue](#), and have the following comments:

- The Applicant has not provided a stormwater management report. The project will meet the thresholds to require stormwater management per the City of Portland's regulations in Section 5 of the Technical Manual. Please provide a description and calculations to show how the project will meet the City of Portland's current stormwater standards.
- Drawing C-4.0 is provided as the Grading, Drainage & Erosion Control Plan. No proposed topography or elevation information for proposed drainage infrastructure has been provided on this drawing. Details should also be provided for the proposed subsurface stormwater systems.
- Drawing C-3.0 Site & Utility Plan shows location of proposed utility services for the building. Surface restoration, including roadway trench paving, sidewalk reconstruction, curb resetting, and loam and seed, should all be identified on the plan as part of the planned site disturbance.
- The Applicant has noted that they are working with utility providers for confirmation of ability to serve.

If there are any questions, let me know. Most of my review will come when they provide their stormwater design.

Thanks,

Lauren

Lauren Swett, PE*

Technical Manager | Principal



 207.558.3763  207.219.3591  woodardcurran.com

 lswett@woodardcurran.com

 12 Mountfort St, Portland, ME 04101



*Licensed in Maine, New Hampshire, and Georgia



Andrew Graminski <agraminski@portlandmaine.gov>

1125 Brighton Avenue - Initial Traffic Review Comments

Tom Errico <thomas.errico@tylin.com>

Tue, Jun 24, 2025 at 1:41 PM

To: Andrew Graminski <agraminski@portlandmaine.gov>

Cc: Kristoffer DeVolder <kdevolder@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>

Hi Andrew – I have reviewed the application materials and offer the following traffic review comments.

- I have reviewed the trip generation estimate for the project and concur that the project is not expected to add significant peak hour traffic volumes and a Traffic Movement Permit is not required. Given the low traffic volumes estimated, a traffic study is not recommended. To account for the increased demand and desire to have site trips use the Barron Center traffic signal, the applicant shall be responsible for the implementation of a flashing yellow arrow signal head configuration for the outbound Brighton Avenue left turn entering the existing retail driveway.
- Access and egress movements to the site are either from the STOP controlled Brighton Avenue/Holm Avenue intersection or via the signalized Brighton Avenue/Barron Center Driveway. Given heavy traffic volumes on Brighton Avenue, site users should be encouraged to utilize the signalized intersection. The applicant should confirm that the proposed project has rights to use of the Barron Center driveway.
- The applicant has noted that 46 parking spaces for the Barron Center will be eliminated, and that replacement parking is being finalized. I will conduct a detailed review of parking conditions upon receipt of updated parking information.
- The applicant is requesting a waiver for parking aisle width from 24 feet to 22 feet. Based upon low vehicle turnover and review of other parking lots with 22-foot aisles, I support this waiver. There is one parking space that is designated for delivery vehicles. The applicant shall provide a vehicle turning template for this space.

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





Andrew Graminski <agraminski@portlandmaine.gov>

1145 Brighton AVE - BTZ and other comments

Matthew Coldwell <mcoldwell@portlandmaine.gov>
To: Andrew Graminski <agraminski@portlandmaine.gov>

Fri, Jun 27, 2025 at 11:35 AM

Hi,

I did look at the landscape ratio, but I think they will easily meet a minimum 10%

The lot is being leased so I believe we would be using the entire parcel to calculate the open space. I did a rough estimate on GIS for green space for the property and they would most likely have between 30% and 40% landscaped open space with the new building and parking area. I did not see any mention of the ratio in their notes, so it is probably good to let them know it will need to be calculated.

I'm not sure how the separate ownership with Loring House Associates works, but I think we would still look at the entire lot as one parcel.

Let me know if you have any questions.

Thank you,

Mac

[Quoted text hidden]



Andrew Graminski <agraminski@portlandmaine.gov>

PL-003379-2025 1125 Brighton Ave/Barron Center DPW Comments

Kristoffer DeVolder <kdevolder@portlandmaine.gov>

Tue, Jun 24, 2025 at 8:09 AM

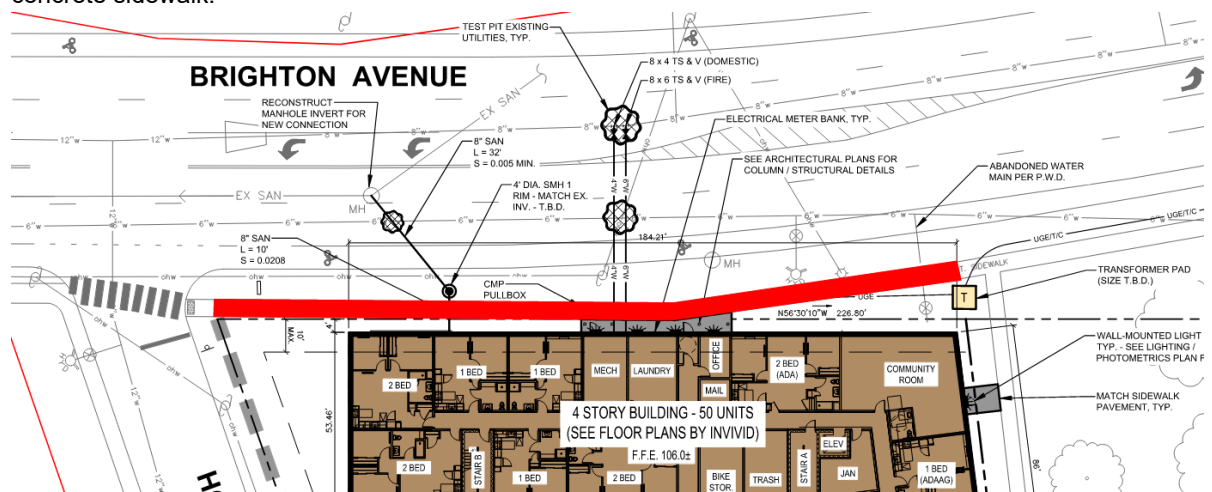
To: Andrew Graminski <agraminski@portlandmaine.gov>

Cc: Keith Gray <kgray@portlandmaine.gov>, Justin Pellerin <jrp@portlandmaine.gov>, Jodie Keene <JKEENE@portlandmaine.gov>, "thomas.errico@tylin.com" <Thomas.Errico@tylin.com>, Lauren Swett <lswett@woodardcurran.com>, Benjamin Pearson <bnp@portlandmaine.gov>

Hello Andrew,

Below are DPW's comments for PL-003379-2025 1125 Brighton Ave/Barron Center. Let me know if you have any questions.

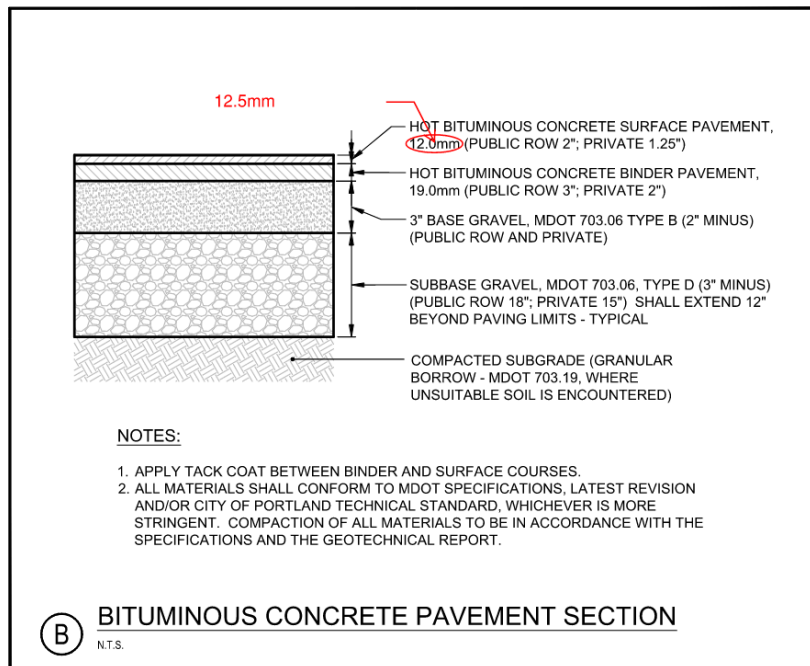
- **PL-003379-2025 1125 Brighton Ave/Barron Center Street Major Site Plan**
 - Comments for Review
 - DPW Transportation
 - Brighton Ave is in the concrete sidewalk district replace asphalt sidewalk along property frontage with concrete sidewalk.



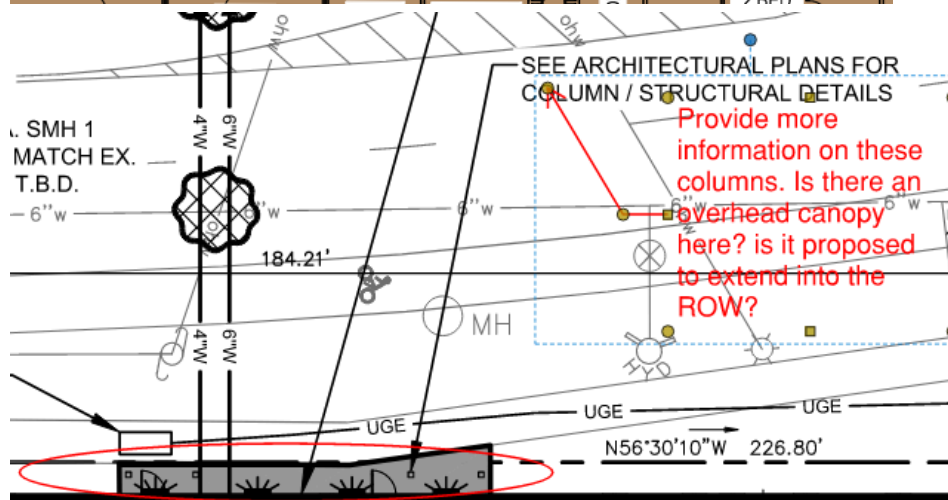
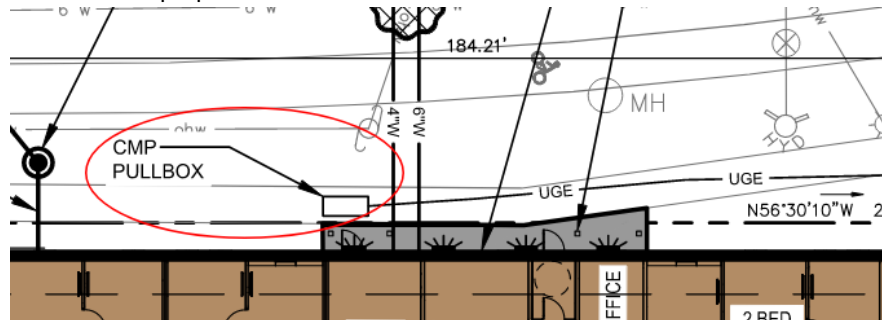
- Extend bit. sidewalk along property frontage along Holm Avenue
- Show existing Receiving Ramp. Verify that both ramps meet ADA requirements, realign and upgrade ramps if ramps do not meet requirements.



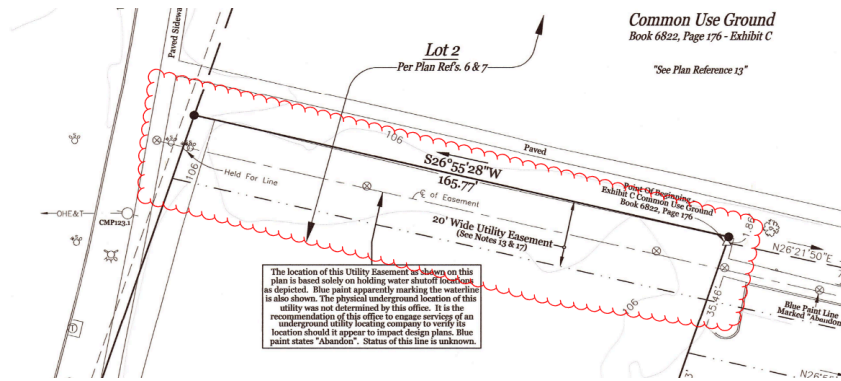
- Add concrete sidewalk detail.
- Revised asphalt pavement detail, see below.



- CMP Pullbox proposed to be located in sidewalk? Shift this outside of the sidewalk.



- Provide affidavit from Water District that states that they are no longer using this easement and do not intend to utilize this easement in the future. Confirm that there are no other utilities that are utilizing this easement.



- Sheet C-4.0 - There is very little detail on this grading sheet, no spot grades are provided. Spot Grades and slopes shall be added to the plans for proposed improvements.
- DPW Water Resources

General Water Resources Comments

- This project is required to meet the City's stormwater requirements found in section 5 of the technical manual. In general this project will be required to treat 95% of new impervious areas and 95% of non-roof developed impervious areas. The project will also be required to provide detention to meet the flooding standard and DPW's minimum detention volume and flow control requirements listed out in section 5 of the technical manual. Please include information describing compliance with these standards in a stormwater management report as outlined in section 5 and 14 of the Technical manual.
- Survey information for the existing sewer manhole being used as a connection point for the private 8" sewer line should be provided and added to the plans. The utility plan should also be updated to include the inverts for the proposed private sewer infrastructure in general.
- Details and further design information should be provided for the site's stormwater management system including survey information at the proposed existing catch basin connection point.
- The applicant should review tech manual standard 6.6.10 and determine whether or not a backflow preventer is required for the private sewer line.
- SMH-1 should either be placed on the applicant's property or a revocable license agreement will be required to be granted by the City to authorize the installation of the privately owned manhole in the City right of way. Please reach out to the DPW Engineering if the applicant wishes to pursue a license agreement for this structure.

LID Comments

- This project is required to meet the City's Low Impact development standards. Please refer to section 3 of the Technical Manual, fill out the LID scoring tool, and provide a narrative explaining how the project meets the standard.

Thank you,
Kris

--

Kris DeVolder, PE
Sr. Engineer
City of Portland Department of Public Works
212 Canco Rd, City of Portland, ME 04103
kdevolder@portlandmaine.gov
Phone: (207) 874-8817





Andrew Graminski <agraminski@portlandmaine.gov>

1145 Brighton AVE - BTZ and other comments

Matthew Coldwell <mcoldwell@portlandmaine.gov>
To: Andrew Graminski <agraminski@portlandmaine.gov>

Tue, Jun 24, 2025 at 12:43 PM

Hi Andrew,

Beyond the build-to-zone requirements I do not see any issues with height or landscaped open space ratio. They will need to determine average grade for the height, but the structure is well under the 75' max allowed.

For the build-to-zone, the definition in Section 7.2 - Rules of Measurement contains language to accommodate corner clearance:

Placement of a building at a build-to zone must not violate corner clearance requirements.

We do have a corner clearance section in supplemental standards:

7.5.1 Corner clearance

No shrub, wall, fence, sign, or pile of material higher than 3 1/2 feet above the lowest elevation at the curblines shall be permitted on a corner lot within the area of a triangle formed by a line connecting the curblines of the intersecting streets at points 25 feet from the corner, unless said obstruction is reviewed by the Public Works Authority and found not to be a traffic or public safety hazard.

There is also some purview for the Planning Authority and Board in Section 7.6.5(B)(3) & (4) - Build-to zone exceptions:

3. The Planning Board or Planning Authority may approve a different front setback or build-to zone for irregularly shaped lots provided the front setback or build-to zone is met to the maximum extent practicable.

4. In the mixed-use and transit-oriented development zones, where buildings are set back more than 10 feet from a lot line abutting a street, or in the B-4 zone where buildings are set back more than 20 feet from a lot line abutting a street, a continuous, attractive, and pedestrianscaled edge treatment shall be constructed along the street, consisting of street trees spaced at no more than 15 feet on center, approved by the City Arborist, and a combination of landscaping no less than four feet deep, ornamental brick or stone walls, or ornamental fencing.

Please let me know if you have any questions or need clarification.

Thank you,

Mac

--

Mac Coldwell

City of Portland
Zoning Specialist
Permitting & Inspections Department
[389 Congress ST, Room #315](#)
Email: mcoldwell@portlandmaine.gov
he/him

Order 222-24/25

Passage: 8-0 (Councilor Fournier absent) on 5/19/2025

Effective 5/29/2025

MARK DION (MAYOR)
 PIOUS ALI (A/L)
 APRIL D. FOURNIER (A/L)
 BENJAMIN GRANT (A/L)

CITY OF PORTLAND
IN THE CITY COUNCIL

SARAH MICHNIEWICZ (1)
 WESLEY PELLETIER (2)
 REGINA L. PHILLIPS (3)
 ANNA BULLETT (4)
 KATE SYKES (5)

**ORDER REFERRING TO THE HOUSING AND ECONOMIC DEVELOPMENT
 COMMITTEE THE NEGOTIATION OF AN OPTION TO LEASE AGREEMENT WITH
 A PROSPERITYME AFFILIATE FOR CITY LAND AT 1125 BRIGHTON AVENUE**

ORDERED, that negotiation of an option to lease agreement with an affiliate of ProsperityMe for the development of affordable housing on city-owned land at 1125 Brighton Avenue is hereby referred to the Housing And Economic Development Committee; and

BE IT FURTHER ORDERED, that the final option to lease agreement shall be returned for approval to the City Council.



CITY OF PORTLAND, MAINE

**LEASE AND DEVELOPMENT OF AFFORDABLE HOUSING
ON
CITY-OWNED LAND AT
1125 BRIGHTON AVENUE
PORTLAND MAINE 04102**

RFP #25056

February 20, 2025

LEGAL NOTICE

City of Portland, Maine

Request for Proposals

“Lease and Development of up to two (2) sites at 1125 Brighton Avenue, Portland Maine”

RFP #25056

The City of Portland, Maine seeks proposals from qualified developers to develop affordable housing on up to two (2) vacant sites on City-owned land located at 1125 Brighton Avenue as generally depicted on the diagram attached as Exhibit A. The sites are near the Barron Center, which is the City’s long-term care facility located on the same property. The property is designated on the City of Portland tax maps as Parcel 269 B001001.

Sealed proposals shall be submitted electronically to bidssubmit@portlandmaine.gov with the name of the Proposer, RFP Name, and RFP number in the subject line and will be received until **Wednesday, April 9, 2025 at 3:30PM** at which time they will be publicly opened and read, or by submitting via USPS, UPS, FedEx or in-person to the City of Portland, Purchasing Rm. 103, 389 Congress St., Portland ME 04101.

Email attachments must not exceed 25MB total; you will receive a confirmation email from bidssubmit@portlandmaine.gov if your submission is successful.

Bids shall be submitted on the City-provided proposal form, being signed with the firm’s name, and bearing the handwritten signature or e-signature of an officer or authorized individual having the authority to bind the company to a contract by his/her signature.

Potential proposers and their contractors, architects, engineers, etc. are free to view the property on the following dates:

- **OPTION 1: March 3, 2025 12Noon – 1:30PM**
- **OPTION 2: March 12, 2025 1:30PM – 3:00PM**

Interested parties should sign in at the Gazebo prior to touring the property; in the case of inclement weather, the sign in will be moved to the Reception area of the Barron Center.

Copies of the above documents will be available by contacting the City of Portland Purchasing Office either via e-mail at purchasing@portlandmaine.gov, or phone (207) 874-8654. Each prospective bidder will be required to obtain from the City each copy of the proposal forms.

Proposals from developers not registered with the Purchasing Office may be rejected; receipt of this document directly from the City of Portland Purchasing Office indicates registration. Should a developer receive this Request from a source other than the City Purchasing Office, please contact 207-874-8654 to ensure that your firm is listed as a proposer for this RFP.

Notice and Specifications

The City of Portland, Maine seeks proposals from qualified developers to develop affordable housing on up to two (2) vacant sites located on City-owned land at 1125 Brighton Avenue as generally depicted on the attached diagram. The sites are near the Barron Center, which is the City of Portland-operated long-term care facility. The property is designated on the City of Portland tax maps as Parcel 269 B001001.

Sealed proposals shall be submitted electronically to bidssubmit@portlandmaine.gov with the name of the Proposer, Contract Name and RFP number in the subject line will be received until **Wednesday, April 9, 2025 at 3:30PM** at which time they will be publicly opened and read, or by submitting via USPS, UPS, FedEx or in-person to the City of Portland, Purchasing Rm. 103, 389 Congress St., Portland ME 04101.

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Interested parties should sign in at the Gazebo prior to touring the property; in the case of inclement weather, the sign in will be moved to the Reception area of the Barron Center.

No questions will be answered during this tour.

Questions must be submitted in writing to the Purchasing Office and be received no later than five business days prior to the proposal opening. These may be mailed, faxed to 207-874-8652 or e-mailed to SLChapin@portlandmaine.gov. The Purchasing Office will be the only office issuing any changes to this Invitation. All changes, addenda, will be in writing and will be sent only to those firms on file in Purchasing as having received this document. The City shall not be responsible for any oral interpretation given by City personnel or others.

Proposers should not contact City Staff with regard to this Request unless to obtain general public information as specified in the document. The lease of this real estate shall be on the basis of a negotiated proposal, with the City of Portland reserving the right to refuse any or all proposals. *All proposers are advised that the property will be leased “as-is” and “where-is,” in its existing condition, with no warranties either expressed or implied.* The City disclaims any and all responsibility for injury to proposers, their agents or others while examining the property or at any other time.

I. GENERAL INFORMATION

A. Background

The City’s long term care facility, the Barron Center, is located at 1125 Brighton Avenue, along with several other City-owned buildings. As of October 2024, 110 individuals reside and receive services at the Barron Center.

The City of Portland’s Office of Elder Affairs (OEA) is also located at 1125 Brighton Avenue. OEA provides various services and programs to Portland residents aged 60+ on and offsite.

Lastly, the Loring House, which includes 104 units affordable to residents aged 62+, is also located at 1125 Brighton Avenue. The buildings on the Loring House parcel (as identified by Parcel ID 269

B001002) are privately owned by Loring House Associates and are located on land that Loring House Associates leases from the City.

On January 6, 2025, the Portland City Council approved Order 116-24/25, authorizing the City Manager to issue an RFP for the lease and development of up to two sections of the City-owned property at 1125 Brighton Avenue, as generally described below and depicted on Exhibit A.

Site 1: Located at the southeast corner of 1125 Brighton Avenue, bound by Brighton Avenue and Holm Avenue. This site currently includes a small amount of green space with trees and a parking lot, which includes approximately 51 parking spaces. This site includes approximately 0.87 acres (37,875 square feet). The smaller parking lot to the immediate north of this site is leased to the Loring House for the purpose of overflow parking, and may not be altered.

Site 2: Located at the northern property line of 1125 Brighton Avenue, bound by I-95 and the exit 49 off ramp. This site includes a forested green space and a parking lot. This site includes approximately 2.5 acres of undeveloped space, excluding the parking lot (107,453 square feet).

This RFP seeks to further the 2024 Council goal to increase the development of affordable housing, as well as to respond to the homelessness crisis in the City of Portland.

This RFP emphasizes engagement with the surrounding neighborhood on the issues of density, extent and character of open space, public safety, neighborhood compatibility and associated impacts related to any development. The selected proposal will best demonstrate the development team's successful engagement of the public in other projects, incorporation of public feedback collected as part of a robust engagement process, and the team's capacity to complete the project in a successful and timely manner.

It is expected that the ultimate development of the site(s) will seek to balance, to the greatest extent practicable, community input on final site design, consistency with City goals and policies, and financial viability. The development team chosen for this project will engage directly with the Nason's Corner and Sagamore Village communities regarding the anticipated development of the property, including soliciting input on site design and uses before finalizing a development plan.

B. Land Use Regulations

Any development of this site will be subject to all applicable codes and regulations, including but not limited to building codes, zoning, site plan, subdivision and potential historic preservation requirements.

The City Council recently approved a comprehensive land use ordinance change, which becomes effective December 4, 2024 and includes rezoning this property from R5 Residential to a B2 Business Zone. Proposers are advised to refer to the City's Land Use Code for complete information, and encouraged to undertake a survey of the property(ies) to identify limitations concerning the sites' development potential.

Due to the distinct nature of this property, the City of Portland will consider requests from the developer(s) to develop one or both of the available sites. Preference will be given to a qualified developer that submits a satisfying proposal for the use of both parcels.

II. DEVELOPMENT CONSIDERATIONS

Development of the site(s) is intended to increase the availability of affordable housing for Portland residents, including those who are experiencing homelessness or are clients of the City of Portland Social Services office.

Proposals for 1) mixed income housing that includes housing that is affordable for someone making at or below 80% of the area median income and/or 2) permanent supportive housing are preferred.

Proposals for permanent supportive housing or housing first developments must include a robust description of the services that would be provided for residents, as well as the oversight that would be provided by management onsite for the safety of residents and neighbors. In addition, proposals for housing first or permanent supportive housing development(s) must include proof of a strong and unequivocal record of successfully managing any impact to neighbors, as well as community engagement and responsiveness.

Affordable housing is defined by the United States Department of Housing and Urban Development (HUD) as housing where no more than 30% of an occupant's gross income is spent on housing costs.

Housing First is defined as an approach to quickly and successfully connect individuals and families experiencing homelessness to permanent housing without preconditions and barriers to entry; 24/7 onsite supportive services are offered to maximize housing stability and prevent returns to homelessness.

Permanent supportive housing is defined as housing in which housing assistance and supportive services are provided offsite, to assist households with at least one member with a disability in achieving housing stability.

A minimum of 30% of total units developed must be reserved for referrals from the City of Portland Social Services office.

The existing structures on the property stand in contrast to the surrounding residential neighborhood, as well as the denser commercial/industrial parcels on the opposite side of Brighton Avenue. Development of the property should show consistency with the overall area by sensitively introducing new uses, occupants, and improvements that do not unreasonably impact the character and vitality of the area.

Furthermore, due to the proximity of the site(s) to the Barron Center, which houses a vulnerable population, a successful proposal will prioritize the safety and well-being of Barron Center residents, as well as residents in the Loring House and adjacent residential neighborhood(s).

Proposals should include a plan to not reduce the total current parking spaces available for use by the Barron Center.

Evaluation of impacts and contextual sensitivity of the site will ultimately be determined over the course of site plan and other regulatory reviews (including but not limited to standards for design, traffic, site circulation, stormwater management, lighting, and landscaping), and historic preservation reviews (if applicable), after full development application materials have been filed.

III. SUBMISSION REQUIREMENTS

Proposals shall be submitted in the following format; please use the headings presented below for the organization of responses.

A. Proposal Submission

All proposals shall include information and documentation in the following in order to be considered:

1. Completed Proposal Form and if applicable, Acknowledged Addenda.

2. Development Team

The proposal shall identify the principal members of the development team and their respective roles in the project, including the developer, design professionals, other key staff and sub-consultants.

Development team capacity shall include qualifications of key team members, including identification of a Project Manager, relevant experience, capacity, and identification of prior projects that demonstrate a proven ability to develop sites of comparable scales and contexts, including identification of projects that included substantive community engagement.

3. Proposal

Proposals shall include:

a. Description of a neighborhood engagement process. The proposal shall include specific examples of the development team members working with the public to find solutions to concerns voiced over the course of a project, a description of the public engagement strategy, and an estimated timeline. The period of public engagement, for the purposes of this RFP, refers to the time after developer selection and prior to an application to the Planning Board for a Site Plan.

b. A description of the redevelopment concept(s) for the site. This should be a narrative of intended uses for the site and any significant programmatic elements. It should address consistency with City policies and include a development timeline. A revised development plan that includes confirmed uses and site layout will need to be submitted following the conclusion of the neighborhood engagement process; no graphics or visuals are being requested as part of this RFP.

4. Financial and Technical Capability

Please refer to the requirements of submitting confidential information in accordance with the Freedom of Access Act on page 7 of this document.

The proposal shall include documentation demonstrating that the development team can successfully redevelop the site by supplying:

a. Letters of financial capability from credible financial institutions with experience working with principles of the development team; and

b. Descriptions and examples of comparable projects or endeavors demonstrating adequate experience and expertise of the development team to successfully complete the project.

5. Lease Price

The City of Portland intends to lease the property to the successful proposer for a term of up to 99 years. Proposers should include a suggested annual rent amount in their proposal.

6. **Timetable**

The anticipated schedule is outlined in VI, Project Schedule, below. Any anticipated departure from the post-selection submittal timeframe should be indicated in the proposal.

7. **References**

Provide a minimum of three professional references. Include name, title, phone number, and email for each reference.

IV. **REVIEW PROCESS**

A. Proposals will be reviewed for completeness.

B. *B. A proposal review committee composed of City staff will review and score submissions and make a recommendation to the City Manager. The City Manager's designee will then present the proposals and their recommendation to the Housing and Economic Development Committee (HEDC) for consideration. After its review, HEDC will present its recommendation to the City Council. HEDC and the City Council may endorse the proposal recommended by staff, endorse a different proposal, table the decision for additional information, or reject all proposals.*

8. After the City Council approves a developer for the project, City Staff and the developer will negotiate a lease or option to lease for the property, which staff will present to the HEDC for review and recommendation to the City Council.

9. Upon agreement on a development plan for the site (after completion of the neighborhood engagement outlined in the proposal and before the submission of a Planning Board application), a lease agreement will be drafted for signatures.

Public presentations may be required at any or all stages of the process.

V. **SELECTION CRITERIA**

1. Development use concept demonstrates understanding of the City's stated desired outcome, policies and priorities; including but not limited to prioritizing the safety and well-being of abutting communities **(30%)**

2. Neighborhood engagement plan that clearly outlines how the Development Team will engage the neighborhood on this project **(20%)**

3. Developer Team qualifications and references **(20%)**

4. Applicant's ability to complete project, including readiness to initiate the project and ability to begin the application process in a timely manner **(15%)**

5. Responsiveness to submittal requirements, including those described in Section II. Development Considerations **(15%)**

VI. **SCHEDULE**

Developer Selection Schedule:

- RFP released: February 20, 2025
- Proposal due: 3:30PM, Wednesday April 9, 2025
- Proposal review and recommendations: April 2025
- Developer(s)selection: May-June 2025 (dependent on Council meeting schedule)
- Approval of Lease: June-July 2025 (Following Council approval)

VII. FREEDOM OF ACCESS ACT

The City of Portland is subject to Maine’s Freedom of Access Act (FOAA). Under this law, the City is required to make public information that we receive in the solicitation of proposals. FOAA does, however, have an exception applicable to proprietary information. In the event that you believe that the proposal you submit contains any proprietary information, you must submit such information in a separate sealed envelope to the City along with your sealed proposal. The outside of this envelope must clearly be marked “Proprietary information/confidential.” Such proprietary information will only be reviewed by Portland City officials, and only on a “need to know” basis. The City will not disclose such information to a third party without your consent, unless it determines that such disclosure is required by law. Prior to disclosing such information, the City will provide you with a reasonable opportunity to seek an injunction or other court order, at your own expense, to prevent such disclosure. The City will not be liable to any proposer or any third party for any disclosure of confidential information.

VIII. RESERVATION OF RIGHTS

The City of Portland reserves the right, at its sole discretion, to reject any and all proposals for the City owned land, based on the quality and merits of the proposals received, or when it is determined to be in the public interest to do so. Furthermore, the City may extend deadlines and timeframes, as needed.

The City reserves the right to waive any informalities in proposals, to accept any proposal, and, to reject any and all proposals, should it be deemed for the best interest of the City to do so. The City reserves the right to substantiate the Proposer’s qualifications, capability to perform, availability, past performance record and to verify that the proposer is current in its obligations to the City.

Pursuant to City procurement policy and ordinance, the City is unable to contract with businesses or individuals who are delinquent in their financial obligations to the City. These obligations may include but are not limited to real estate and personal property taxes and sewer user fees. Bidders who are delinquent in their financial obligations to the City must bring the obligation current before the City will consider their proposal

February 20, 2025

Samantha L. Chapin
Purchasing & Controls Manager

PROPOSAL FORM
Lease and Development of
1125 Brighton Avenue
Portland Maine 04102

RFP #25056

**** THIS SHEET MUST BE INCLUDED IN YOUR PROPOSAL ****

The UNDERSIGNED hereby declares that he/she or they are the only person(s), firm or corporation interested in this proposal as principal, that it is made without any connection with any other person(s), firm or corporation submitting a proposal for the same.

The UNDERSIGNED hereby declares that they have read and understand all conditions as outlined in the Request for Proposals, and that the proposal is made in accordance with same.

The UNDERSIGNED hereby declares that any person(s) employed by the City of Portland, Maine, who has direct or indirect personal or financial interest in this proposal or in any portion of the profits which may be derived therefrom has been identified and the interest disclosed by separate attachment. (Please include in your disclosure any interest which you know of. An example of a direct interest would be a City employee who would be paid to perform services under this proposal. An example of an indirect interest would be a City employee who is related to any officers, employees, principal or shareholders of your firm or to you. If in doubt as to status or interest, please disclose to the extent known).

The bidder acknowledges the receipt of Addenda numbered: _____

The bidder acknowledges the receipt of Addenda numbered: _____

COMPANY NAME: _____
(Individual, Partnership, Corporation, Joint Venture)

AUTHORIZED SIGNATURE: _____ DATE: _____
(Officer, Authorized Individual or Owner)

PRINT NAME & TITLE: _____

ADDRESS: _____

E-MAIL ADDRESS: _____ WEBSITE: _____

PHONE NUMBER: _____ FAX NUMBER: _____

STATE OF INCORPORATION: _____ (If incorporated in another State, businesses must be authorized to do business in the State of Maine prior to contract.)

FEDERAL TAX IDENTIFICATION NUMBER (Required): _____

NOTE: Proposals must bear the handwritten signature of a duly authorized member or employee of the organization submitting a proposal.

SUGGESTED ANNUAL RENT AMOUNT: _____

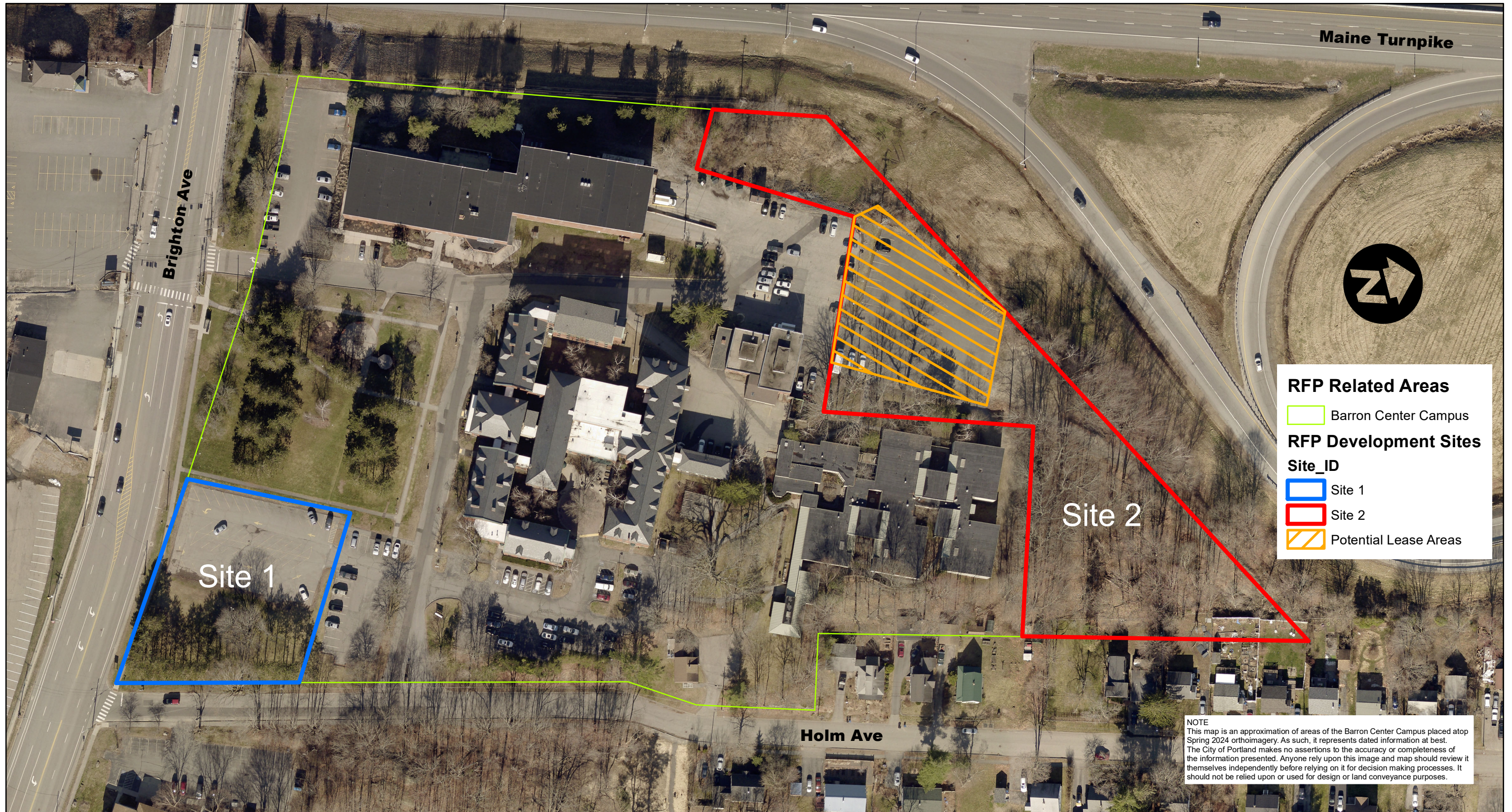


EXHIBIT A

GIS Sketch of Barron Center Campus and Vicinity
October 17, 2024 **1" = 100'**



CITY OF PORTLAND, MAINE
 DEPT. OF PUBLIC WORKS
 212 Canco Rd Suite B PORTLAND, MAINE 04101
 PHONE (207) 874-8846 FAX (207) 874-8852



Current Date: March 25, 2025

The attention of firms submitting proposals for the work named in the above Invitation is called to the following modifications to the documents as were issued.

The items set forth herein, whether of clarification, omission, addition and/or substitution, shall be included and form a part of the Contractor's submitted material and the corresponding Contract when executed. No claim for additional compensation, due to lack of knowledge of the contents of this Addendum will be considered.

ALL BIDDERS ARE ADVISED THAT RECEIPT OF THIS NOTICE MUST BE DULY ACKNOWLEDGED ON THE BID PROPOSAL FORM OR BY THE INSERTION OF THIS SHEET, SIGNED, AND SUBMITTED WITH YOUR PROPOSAL.

**SAMANTHA CHAPIN
PURCHASING & CONTROLS MANAGER**

Please see attached response to questions received and supplementary materials.

Receipt of **Addendum No 1** to the City of Portland's **RFP #25056, Lease and Development of Affordable Housing on City-Owned Land at 1125 Brighton Avenue, Portland Maine**, is hereby acknowledged.

COMPANY NAME: _____

SIGNED BY: _____ DATE: _____

PRINT NAME & TITLE: _____

ADDRESS: _____

ZIP CODE

Q1: The RFP highlights the importance of the safety and well-being of Barron Center residents & staff. Are there any particular safety concerns that proposals should address (such as highly utilized outdoor areas)?

A1: The Barron Center is a skilled nursing facility that serves a vulnerable population that needs support with daily living activities, including a large population of residents with dementia. Residents, their families, and staff pass through shared spaces (sidewalks, drives, etc) in addition to utilizing the lawn directly in front of the Barron Center for recreation and outings. Design decisions should strive to ensure any shared spaces are deliberately planned in a manner to mitigate any challenges and that there are clear delineations (signage, physical structures) to indicate the spaces that are for building tenants and management. Additional social service support/case management will be important to mitigate risks such as harassment, substance use misuse and/or sales to residents, support staff, and families.

Q2: How is the Barron Center census projected to change over the next five years?

A2: The census will vary depending on a variety of factors- budgets approvals, recruiting capacity, and community need. At the moment we anticipate a 14% increase, with possible additional growth in following years as the City may move to expand programming in the Barron Center 2 building. As residents increase, staffing demand will increase too. While the Center is on a main transport avenue, a significant portion of staff use vehicles, hence the need to preserve and where possible, maximize efficient parking. Maximum residents would be 212 with maximum staff being approximately 105 on the day shift which would be the busiest shift.

Q3: Are there any significant programmatic changes expected at either Barron Center building in the next five years?

A3: While specific changes are unknown at this time, bidders are encouraged to consider the maximum capacity identified in Q2.

Q4: Are all Proposals available for public review?

A4: Proposals, to the extent that they can be made public, or redacted if applicable, will be available when they are presented to the Housing and Economic Development Committee.

Q5: How long after the Council agrees on a particular proposal do residents have to comment? Will the project begin immediately once a proposal is accepted?

A5: The public will have an opportunity to provide public comment to the Council up until the time that the Council begins its deliberations on the proposal at the Council meeting during which the item is scheduled for Council action. The timing for the commencement of the project will be addressed in an agreement between the Council and the selected proposer.

Q6: For Section 6 – Timetable, are you just looking for any variances from the provided schedule?

A6: Correct; please just confirm agreement with the time table; or specify any variances needed.

Q7: Is there anything more known about the front lot other than what's shown on the GIS?

A7: No, see answers to Q11 and Q12, for possible additional information.

Q8: How many employees are at the Barron Center? How many parking spaces are needed to be kept, and is it specific to each lot; or only by total spaces available?

A8: 212 Residents, 105 Staff, the total number of current parking spaces needs to remain the same; however, location & orientation can be changed.

Q9: Is there potential for Water Access on either lot?

A9: What is known is mapped on GIS; but additional exploration will be needed.

Q10: For the front lot; will the developer be able to consider sharing the current access of Holm Avenue?

A10: This is possible. However, it would require discussions with the Loring Housing who leases the parking lot above Site 1 and the City of Portland. An understanding of the access to the site would need to be determined as part of the site plan approval process.

Q11: Are there shared utilities on the campus? I.e: underground heating lines, etc..

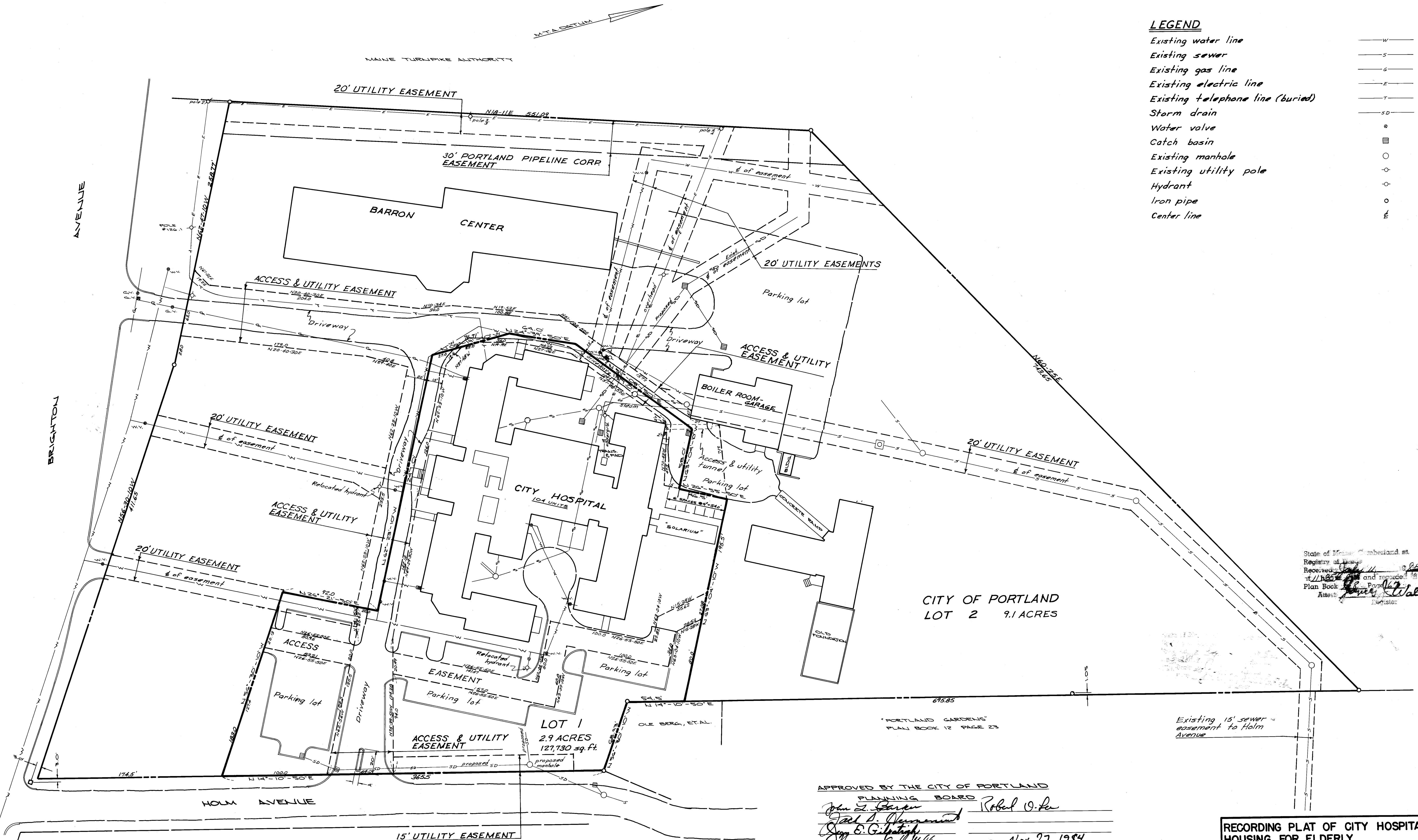
A11: The typical complement of public utilities available in Portland, service the site or are found in the streets abutting the site. It is unclear at this time if there is an ability and capacity to provide shared underground heating lines as part of the as yet to be submitted proposals. Given the variables involved with such an arrangement, the submittal proposal should present details how such an arrangement would work if it is technically feasible.

Q12: I was curious if we could obtain DPW's archived files for the site to better understand the existing on-site infrastructure and constraints.

A12: Some of the most up to date plans available for the site can be found at the Cumberland County Registry of Deeds (CCRD) and are publicly accessible through the CCRD website. Though they are incomplete in their depiction of the entire campus, they do provide some of the important information an initial development proposal of the site might find useful. Please see CCRD Plan Books (PB) and pages as follows: CCRD PB 148 Page 067, CCRD PB 191 Page 039 and CCRD PB 216, Page 056 (copies attached).

Q13: On the references – are you looking for a letter/written blurb as well as the contact info described, or just the contact info described for each reference?

A13: Only the contact information, as described in the RFP is required.



LEGEND

- Existing water line
- Existing sewer
- Existing gas line
- Existing electric line
- Existing telephone line (buried)
- Storm drain
- Water valve
- Catch basin
- Existing manhole
- Existing utility pole
- Hydrant
- Iron pipe
- Center line

State of Maine, Cumberland ss.
 Registry of Deeds
 Received Nov 11 1984
 at 11:50 AM and recorded in
 Plan Book 253, 292, 320 Page 1
 Attest: [Signature] Registrar

CITY OF PORTLAND
 LOT 2 9.1 ACRES

"PORTLAND GARDENS"
 PLAN BOOK 12 PAGE 23

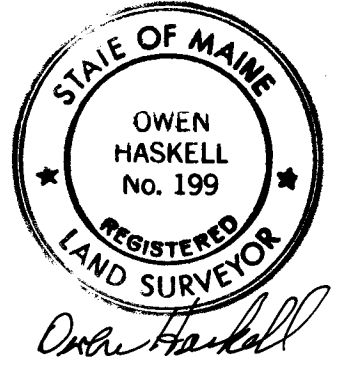
Existing 15' sewer
 easement to Holm
 Avenue

- NOTES:
- 1/ LOCATION OF UNDERGROUND UTILITIES IS APPROXIMATE.
 - 2/ UTILITIES SHOWN ON THIS PLAN ARE EXISTING UNLESS LABELED OTHERWISE.
 - 3/ ONLY UTILITIES THAT AFFECT THE USE AND OCCUPATION OF BOTH LOTS 1 AND 2 ARE SHOWN.

- NOTE: THE FOLLOWING REVISIONS WERE MADE TO THIS PLAN G-17-B5
1. ADDED PROPOSED "SOLARIUM"
 2. ADDED NOTATION OF 104 UNITS
 3. ADDED 6 PROPOSED PARKING SPACES BEHIND "SOLARIUM"

APPROVED BY THE CITY OF PORTLAND
 PLANNING BOARD

[Signature] Robert O. Pen
[Signature]
[Signature]
[Signature]
 CODES ENFORCEMENT OFFICER
 DATE: Nov. 27, 1984
 DATE: 6/20/85



RECORDING PLAT OF CITY HOSPITAL HOUSING FOR ELDERLY PORTLAND, MAINE FOR CITY HOSPITAL HOUSING ASSOC.			
Owen Haskell, Inc.			
Civil Engineers	South Portland, Maine	Land Surveyors	
Drawn By M.M.H.O.H.	Date	Job No.	
Trace By M.M.H., O.H.	NOV. 8, 1984	8416 P	
Check By O.H.	Scale	Drwg. No.	
Bk No 253, 292, 320	1" = 40'	1	

LEGEND

Existing water line
Existing sewer
Existing gas line
Existing electric line
Existing telephone line (buried)
Storm drain
Water valve
Catch basin
Existing manhole
Existing utility pole
Hydrant
Iron pipe
Center line

State of Maine, Cumberland Co.
Registry of Deeds
Received 10/2 1991
at 2:44 PM and recorded in
Plan Book 148 Page 67
Attest [Signature] Registrar

CITY OF PORTLAND
LOT 2 9.1 ACRES

LOT 1
2.9 ACRES
127,130 sq. ft.

APPROVED BY THE CITY OF PORTLAND
PLANNING BOARD

[Signature]
DATE: 11-27-1984

[Signature]
DATE: 6-20-85

APPROVED BY THE PLANNING AUTHORITY PURSUANT
TO § 14-496(3) PORTLAND CITY CODE

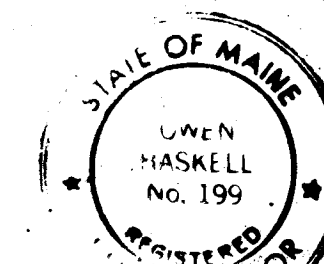
[Signature]
JOSEPH E. GRAY, DIR. OF PLANNING
AND URBAN DEVELOPMENT

REVISION: Δ
MAY 1991 - REVISION TO
ACCESS EASEMENTS BY
CITY OF PORTLAND

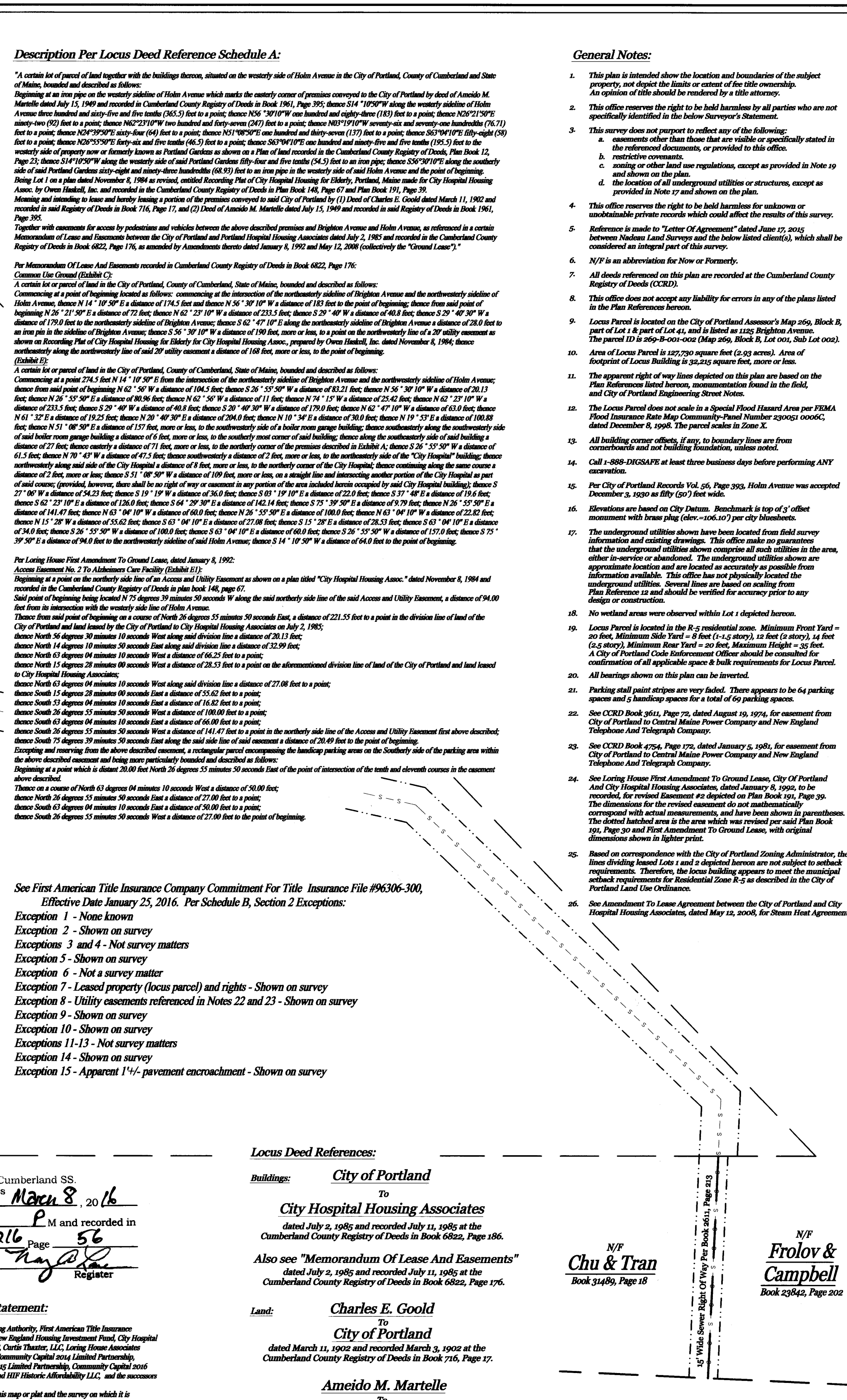
RECORDING PLAT OF CITY HOSPITAL
HOUSING FOR ELDERLY
PORTLAND, MAINE
FOR
CITY HOSPITAL HOUSING ASSOC.

Owen Haskell, Inc.
Civil Engineers South Portland, Maine Land Surveyors

Drawn By M.M.H.O.W.	Date	Job No.
Trace By M.M.H.O.W.	NOV. 8, 1984	8416 P
Check By O.W.	Scale	Draw. No.
Bk No 255, 256, 257	1" = 40'	1



[Signature]



Holm Avenue

7. *As-built Plan of City Hospital Housing For Elderly, Portland, Maine For City Hospital Housing Assoc., dated June 15, 1986 by Owen Husalik, Inc., South Portland, Maine, City Plan 1000/75.

8. *Plan Of Property in Portland, Maine Made For Leo Mosher, Standard Boundary Surveys, dated July 15, 1986 by L.L. E.C. Jordan - Surveyors, Portland, Maine, City Plan 1000/27.

9. *City of Portland, Maine Public Works Department Engineering Section, Washing Showing Approved Boundary Lines # 490 Holm Avenue, dated August 17, 2000, City Plan 925/14.

10. *City of Portland, Maine Public Works Department Engineering Section, Road Rock Schedule Survey from Portland Terminal Railroad To Brighton Ave. And A Portion Of Brighton Ave., Sheet 2 of 3, dated November 13, 2000, City Plan 882/10.

11. *City of Portland, Maine Public Works Department Engineering Section, Holm Avenue Drainage & Reconstruction As-Built Plan & Profile, Sheets 1 & 2 of 6, dated May 26, 2001, City Plan 952/67.

12. *Site Plan, Site Grading And Utilities, Profiles - Storm Drains, Portland City Hospital Housing For Elderly, Sheets SP1, SP2, SP3, issued June 15, 1986 by Architects Powe, Manchester, NH.

Summary of Proposal: Community Housing of Maine CHOM	
SITE 1	
# OF UNITS	52 units of one-bedroom affordable rental housing for older adults aged 55 and older earning less than 50% and 60% of the area median income. Thirty percent (30%) of the units would be reserved for referrals from the city's Social Services Office.
AMENITIES	Shared use of the existing green space adjacent to the site (additional seating and lighting would be added) , a tenant community room, laundry facilities and tenant bike storage.
TIMELINE	9% Low Income Housing Tax Credit (LIHTC) Application in September 2026; with lease up beginning at the end of 2028.
SITE 2	The developer has (determined Site 2 to be more complicated and would need further investigation, however, the proposal envisions a building similar to the one proposed for Site 1)
# OF UNITS	38 affordable units (> 50% 2- and 3- bedroom units) for individuals and families earning less than 50% and 60% of the area median income. Thirty percent (30%) of the units would be reserved for referrals from the city's Social Services Office.
AMENITIES	Similar to those proposed for Site 1.
TIMELINE	9% LIHTC Application in September 2027 or 4% LIHTC in Spring of 2027;
COMMUNITY ENGAGEMENT	3 public meetings, with additional meetings with neighbors as needed, some outreach to neighbors has already begun; anticipated time frame of 7 months for public engagement
PROPERTY MANAGEMENT/ SUPPORT SERVICES	The properties would be managed by Preservation Management. A resident service coordinator would be on site for a minimum of 10-hours/week; tenant support services case management, system navigation, conflict resolution, mental health substance use and trauma recovery) would be provided by the city's Health and Human Services Department and a collaborative of 55 other partners including Spurwink and Commonsplace.
FINANCIAL CAPABILITY	In addition to the LIHTC application and grants from the Federal Home Loan Bank of Boston, Supportive Housing Program funds and Maine Housing below market rate debt, the developer would request assistance from the City of Portland's Jill C. Dusen Housing Trust Fund or HUD HOME Program funds, as well as an Affordable Housing Tax Increment Financing District and Credit Enhancement Agreement.
TECHNICAL CAPABILITY	CHOM is a seasoned affordable housing developer and the proposal reflects a team with the relevant experience and capacity to complete the proposed project.

Developers Collaborative/Prosperity Maine	
SITE 1	Family Housing
# OF UNITS	50 units ranging from one to four bedrooms (70% containing two or more bedrooms); affordable to households at or below 30% to 80% of area median income
AMENITIES	Meet the city's Green Building Ordinance; rooftop solar,
TIMELINE	9% LIHTC submission Sept 2025; construction start Sept 2026 and end Nov 2027
SITE 2	Family Housing
# OF UNITS	50 units ranging from one to four bedrooms (70% containing two or more bedrooms); affordable to households at or below 30% to 80% of area median income
AMENITIES	Meet the city's Green Building Ordinance; rooftop solar,
TIMELINE	9% LIHTC submission Sept 2026; construction start Sept 2027 and end Nov 2028
COMMUNITY ENGAGEMENT	Site 1 Three public meetings: 1st present concept, 2nd revised concept, 3rd Planning Board required neighborhood meeting Site 2 Four public meetings 1st community design workshop 2nd present preferred concept and solicit feedback, 3rd present refined design of preferred solution, 4th Planning Board require neighborhood meeting
PROPERTY MANAGEMENT /SUPPORT SERVICES	Developers Collaborative will serve as the development consultant and provide property management services. Intent is for ProsperityME to develop internal capacity to self-manage their real estate. ProsperityME will be the owner and support tenants through wraparound supportive services. Tenants will be supported by traditional property management and resident services.
FINANCIAL CAPABILITY	In addition to the LIHTC application and grants from the Federal Home Loan Bank of Boston, Supportive Housing Program funds and Maine Housing below market rate debt, the developer would request assistance from the City of Portland's Jill C. Duson Housing Trust Fund (\$900,000).
TECHNICAL CAPABILITY	Developers Collaborative is a seasoned affordable housing developer and the proposal reflects a team with the relevant experience and capacity to complete the proposed project.

Avesta Housing Development Corporation	
SITE 1	
# OF UNITS	40 family units with 12 efficiency units, 20 2-bedroom units, and 8 3-bedroom units. Thirty percent (30%) of the units would be reserved for referrals from the city's Social Services Office.
AMENITIES	The proposal includes 1,200 square feet of ground-floor co-working space for nonprofit organizations, podium parking with approximately 20 spaces, and pocket park for resident use.
TIMELINE	Community Engagement begins August 2025, planning approvals by June 2026, 9% LIHTC application Sept. 2026, construction start January 2028 and completion April 2029
SITE 2	Avesta does not consider Site 2 suitable for development "due to its constrained shape, presence of wetlands, proximity to single-family homes along Holm Avenue, and challenges related to replacing parking and ensuring safety for the community."
# OF UNITS	N/A
AMENITIES	The site would be enhanced with a walking trail. The developer is open to withdrawing its proposal for Site 2 should the city receive a suitable development proposal for Site 2.
TIMELINE	See above
COMMUNITY ENGAGEMENT	Community meeting after proposal selection, 2nd meeting after design concept completed, 3rd meeting during planning board process
PROPERTY MANAGEMENT/ SUPPORT SERVICES	8 efficiency apartments (30% of the units) reserved for 30%AMI referrals from the City's Social Service office
FINANCIAL CAPABILITY	Primary financing will be 9% LIHTC; additional sources may include MaineHousing's Subsidy and Loan Program and Federal Home Loan Bank Affordable Housing Program.
TECHNICAL CAPABILITY	Avesta is a seasoned affordable housing developer and the proposal reflects a team with the relevant experience and capacity to complete the proposed project.

LB Development/Saabino Development Company	
SITE 1	Family Housing; Envisions the City of Portland as part of the owner entity's general partnership
# OF UNITS	65-90 affordable and workforce housing units, majority of units two-bedrooms or larger (some 4-5-bedroom units), half restricted to 0% ami or below, half restricted to 80% ami or below, 30% of the overall units set aside for referrals from Portland's Social Service Division
AMENITIES	Commercial office space on 1st floor occupied by Gateway Community Services for service provision to the general public and available to residents of the development
TIMELINE	9% LIHTC Sept 2026, construction begins July 2027 and ends Jan 2029
SITE 2	Parking
# OF UNITS	25 parking spaces available to residents of the development
AMENITIES	Specifics of amenities and programming will be determined through the community engagement process
TIMELINE	See Site 1 Timeline
COMMUNITY ENGAGEMENT	Canvassing of the neighborhood, host office hours at local businesses and gathering spaces, targeted meetings with interest groups (neighborhood associations, Barron Center staff & residents, Loring House, Office of Elder Affairs)
PROPERTY MANAGEMENT/SUPPORT SERVICES	Property management services to be provided by Preservation Management Gateway Community Services would provide services as needed to residents in the building, including case management support, community health navigation, etc.
FINANCIAL CAPABILITY	Primarily funded through LIHTC, MaineHousing debt, a substantial TIF from the City, commercial debt and other private financing
TECHNICAL CAPABILITY	LB Development has the knowledge, experience and financial capacity to successfully plan, manage and complete this project. Saabino Development Company has completed the rehab of a multifamily investment property in Portland, completed and resold two single family homes and is currently overseeing the redevelopment of a group home in Biddeford for use as a housing and resource hub for indigent youth.

NeuSites USA LLC - This proposal was deemed to be incomplete by the Staff Review Committee	
SITE 1	Development a mixed-income housing complex incorporating green space and maintaining the existing parking lot
# OF UNITS	Number of proposed units not provided, mix of unit sizes to accommodate families, individuals and seniors
AMENITIES	Implement stormwater management systems to minimize runoff, incorporate renewable energy sources, solar panels, preserve existing green spaces and enhance landscaping to promote biodiversity
TIMELINE	Not provided
SITE 2	Create a permanent supportive housing facility, preserving the forest green space and ensuring compatibility with the surrounding environment
# OF UNITS	Number of proposed units not provided, mix of unit sizes to accommodate families, individuals and seniors
AMENITIES	Implement stormwater management systems to minimize runoff, incorporate renewable energy sources, solar panels, preserve existing green spaces and enhance landscaping to promote biodiversity
TIMELINE	Not provided
COMMUNITY ENGAGEMENT	Engage the Nason's Corner and Sagamore Village communities through public meetings, surveys and workshops
PROPERTY MANAGEMENT/SUPPORT SERVICES	Establish an onsite management team to oversee daily operations, maintenance and resident services. Partner with local organizations to provide supportive services, including job training, healthcare and counseling.
FINANCIAL CAPABILITY	Insufficient information provided, unable to determine
TECHNICAL CAPABILITY	Insufficient information provided, unable to determine

RFP #25056

Lease and Development of Affordable Housing on City-Owned Land at 1125 Brighton Avenue, Portland Maine
SCORING SUMMARY

	LB Development Partners	Community Housing of Maine	Avesta	Prosperity ME	Neausites
Development use concept demonstrates understanding of the City's stated desired outcome, policies and priorities; including but not limited to prioritizing the safety and well-being of abutting communities (30 points)	18	27.3	21.5	21	5
Neighborhood engagement plan that clearly outlines how the Development Team will engage the neighborhood on this project (20 points)	11.5	17.3	12.3	17.3	2.1
Developer Team qualifications and references (20 points)	11	20	18.3	17.8	2.6
Applicant's ability to complete project, including readiness to initiate the project and ability to begin the application process in a timely manner (15 points)	7.8	12.4	13	13.8	1.6
Responsiveness to submittal requirements, including those described in Section II. Development Considerations (15 points)	8.5	13.5	13	12.6	2.5
Total	56.8	90.4	78	82.4	13.9

**Pedestrian Activities District (PAD) Overlay
Chapter 14 - Land Use Code Text Amendment
City of Portland, Applicant**

Submitted to: Portland Planning Board Public Hearing Date: July 22, 2025 Date Prepared: July 18, 2025	Prepared by: Andrew Graminski Planning & Development Review Manager
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I. INTRODUCTION

This memo addresses the Planning Board's inquiries regarding the proposed text amendment to the City's Pedestrian Activities District (PAD) Overlay Zone. The Planning Board continued this item from its July 8, 2025, meeting to the July 22, 2025, meeting. At the July 8th meeting, the Planning Board discussed several key points concerning the proposed text amendment:

- Why does the proposed Commercial Vacancy Ordinance need to be tied to the Land Use Code?
- The need for more information on a section of the proposed Commercial Vacancy Ordinance that references temporary art guidelines.
- If the commercial vacancy ordinance is to be tied to the PAD overlay, should the text referencing compliance with the commercial vacancy ordinance be located within Section 8.5.2 (Use restrictions)?
- The use of a different timeline for the commercial vacancy ordinance, which goes into effect after three months of vacancy, and Sec. 8.5.3.A, which permits any permitted use allowed within the B-3 zone to be permitted as a conditional use within the PAD overlay after a period of six months of vacancy.
- The need for additional comprehensive plan analysis within the report to better support the proposed text amendment.

Since the July 8th meeting, staff have taken several actions to address the Board's inquiries. The reference to the Commercial Vacancy Ordinance was relocated to Section 8.5.1 (Applicability) of the PAD Overlay. Staff also expanded on the previous comprehensive plan analysis to better demonstrate how the comprehensive plan is supportive of the proposed amendments. Furthermore, Corporation Counsel confirmed the necessity of a zoning reference within Chapter 14 for the Commercial Vacancy Ordinance.

Staff have attached an updated draft of the Vacant Commercial Properties Ordinance as Attachment B. We've highlighted all changes in yellow for reference.

Here's a summary of the revisions:

- The applicability section now refers exclusively to the PAD Overlay Zone.
- The definition of "vacant property" has been refined to exclude new buildings by adding "previously occupied."
- Both the definition of "vacant property" and fee commencements now begin at 6 months instead of 3 months.

- We've refined the definition of "temporary art" to specify that it refers to 2-D art installed by the City, and we've removed the previous reference to guidelines.
- A waiver condition for temporary art now specifies that the City will install it.

To view the backup material from the July 8, 2025 Planning Board meeting please use the following [link](#).

II. PROPOSED TEXT AMENDMENT

Below is the proposed text amendment to Section 8.5 Pedestrian Activities District (PAD) Overlay. Please see attachment A for the full draft amendment to Article 8.

Section 8.5.1:

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), 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. Buildings located within the areas identified on the PAD Overlay Zone map shall comply with the Vacant Commercial Properties Ordinance, as outlined in Chapter 6, Article XXX. of the City Code.

III. COMPREHENSIVE PLAN ANALYSIS

A. Note on the Planning Board's Scope of Analysis

While the proposed Commercial Vacancy Ordinance would be codified in Chapter 6 of the City Code of Ordinances, and is not subject to a formal finding of consistency with *Portland's Plan 2030*, it is being implemented in tandem with a zoning text amendment to the Pedestrian Activities District (PAD) Overlay Zone, which is located in Article 8 of the Land Use Code, and considered zoning. Any amendment to the land use code must be found to be consistent with the adopted comprehensive plan.

The purpose of this proposed text amendment is to establish an applicable geography within which the Commercial Vacancy Ordinance would apply. While the Planning Board is not being asked to formally recommend adoption of the Commercial Vacancy Ordinance itself, the Board's finding of consistency should acknowledge its relationship to the proposed zoning text amendment to the PAD Overlay Zone. In doing so, the Board should consider how the ordinance supports the overlay zone's purpose of promoting active, engaging ground-floor uses, and enhancing the pedestrian experience in downtown Portland, consistent with the goals and strategies outlined in *Portland's Plan 2030*.

B. Discussion of Consistency

Portland's Plan 2030 and the PAD Overlay Zone purpose statement include numerous goals and strategies that support the City's objective of promoting and maintaining active street-level



Figure 1: Comprehensive Plan Vision Statement

uses to enhance the vibrancy of Downtown and reinforcing the center (downtown) as the regional hub for arts and culture and economic growth. At the heart of *Portland's Plan 2030*, are six interconnected themes which together, constitute a Vision Statement for the City. The linked structure of the Vision Statement conveys the connectedness of the themes and the subjects that comprise the Plan. Ultimately, the goals and implementation strategies described in the Comprehensive Plan are intended to support the Vision Statement. The six interconnected themes are: Equitable; Sustainable; Dynamic; Secure; Authentic; Connected.

The Vision Statement provides the foundation for focusing City policies and priorities for gauging success. In terms of authenticity, dynamism, and security, the Vision Statement highlights that vibrant arts and cultural life will continue to be central to Portland's identity and that we will embrace innovation in order for our community to thrive. Further, the uniqueness and integrity of our neighborhoods will be maintained and enhanced and that we will maintain our character through preservation, innovation, and excellence in design for the built environment.

From an economic development policy standpoint, the Comprehensive Plan acknowledges that Portland's exceptional urban form is integral to the health of its economy. It speaks to the City's compact, walkable downtown and vibrant neighborhood centers being among its key competitive advantages and that a lively and active urban environment remains central to attracting tourists, full-time residents, and the businesses that serve them. Moreover, the geography of Portland's commercial activity is dynamic and multi-nodal, with the Old Port and the Arts District, both components of Downtown, continuing to serve as strong magnets for business and tourism.

Portland's Plan 2030 further outlines the City's economic development vision and emphasizes the importance of fostering a business climate that expands job opportunities and supports long-term economic well-being. At the same time, it underscores that Portland's unique *quality of place*, including its character, culture, and physical environment, is a cornerstone of its current and future success. A key goal of the plan is to emphasize the role of the arts, leveraging them as a central element of the city's identity. It also highlights the importance of ensuring access to arts and culture for all residents and that creative design, public art, and placemaking be incorporated wherever possible to enhance aesthetic value. Additionally, the plan emphasizes the principle of *Reinforcing the Center*, maintaining and enhancing commercial and entrepreneurial activity throughout the city, while recognizing that Downtown Portland remains the heart of the region's cultural, economic, and civic life. The plan affirms that Downtown should continue to be a primary center of activity for the broader region.

The Commercial Vacancy Ordinance is aligned with these goals. Its intent is to promote public welfare, economic development, and urban vibrancy by encouraging the display of creative artwork in vacant street-level commercial spaces within the PAD Overlay Zone. This overlay was created specifically to activate key commercial corridors in Downtown Portland. By establishing a mechanism to incentivize property owners to temporarily activate vacant storefronts with temporary artistic installations, the ordinance supports visually engaging, active street-level environments complementing the uniqueness and integrity of Downtown. At the same time, it provides short-term opportunities for local artists to showcase their work, reinforcing the creative economy and strengthening Portland's cultural identity. In doing so, the ordinance directly advances the Comprehensive Plan's goals related to downtown vibrancy, economic development, and the integration of arts and culture into the city's-built environment.

Specific strategies this amendment is advancing in *Portland's Plan 2030*:

-
1. Economy Chapter
 - a. Encourage innovation and enrich the creative economy
 - i. *Capitalize on the potential of temporary measures, activities, and uses to support and the new projects in the city, and explore models for incorporating changes in policy in an incremental and scalable way.*
 - b. Emphasize arts and culture
 - i. *Leverage arts and culture as a central element of Portland's distinct quality of place*
 - ii. *Support access to arts and culture for all residents*
 2. Recreation and Open Space Chapter
 - a. Develop uniqueness
 - i. *Incorporate creative design, public art, and placemaking wherever possible to enhance aesthetic value.*
 3. Land Use Framework
 - a. Reinforce the Center
 - i. *Portland's Plan embraces the principle that downtown should continue to be a predominant locus of activity for the broader region.*

IV. PUBLIC COMMENT

Since the July 8, 2025 meeting, one public comment has been submitted, which was in support of the amendment.

V. RECOMMENDATION

Based upon the analysis provided within Section III of this report relative to the proposed text amendment to Article 8 of the Land Use Code, and its intersection with the proposed Commercial Vacancy Ordinance, staff recommends that the Planning Board recommend to the City Council, adoption of the proposed zoning text amendment to the PAD Overlay Zone as drafted, based upon its consistency with the goals and policies of *Portland's Plan 2030*.

VI. PROPOSED MOTION

*On the basis of material provided in this report dated July 18, 2025, public testimony, and other information provided during the Planning Board's review process and at the July 22, 2025 public hearing, the Planning Board finds that the proposed amendments to Section 8.5 of the land use code **[are / are not]** consistent with the City of Portland's comprehensive plan and therefore **[recommends / does not recommend]** adoption of said amended land use code to the City Council.*

VII. ATTACHMENTS

- A. Draft Zoning Amendment to the Pedestrian Activities District (PAD) Overlay Section 8.5
- B. Updated Draft Vacant Commercial Properties Ordinance, Chapter 6, Section 6-XXX

OVERLAY ZONES

8.1 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), 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. Buildings located within the areas identified on the PAD Overlay Zone map shall comply with the Vacant Commercial Properties Ordinance, as outlined in Chapter 6, Article XXX. of the City Code.

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

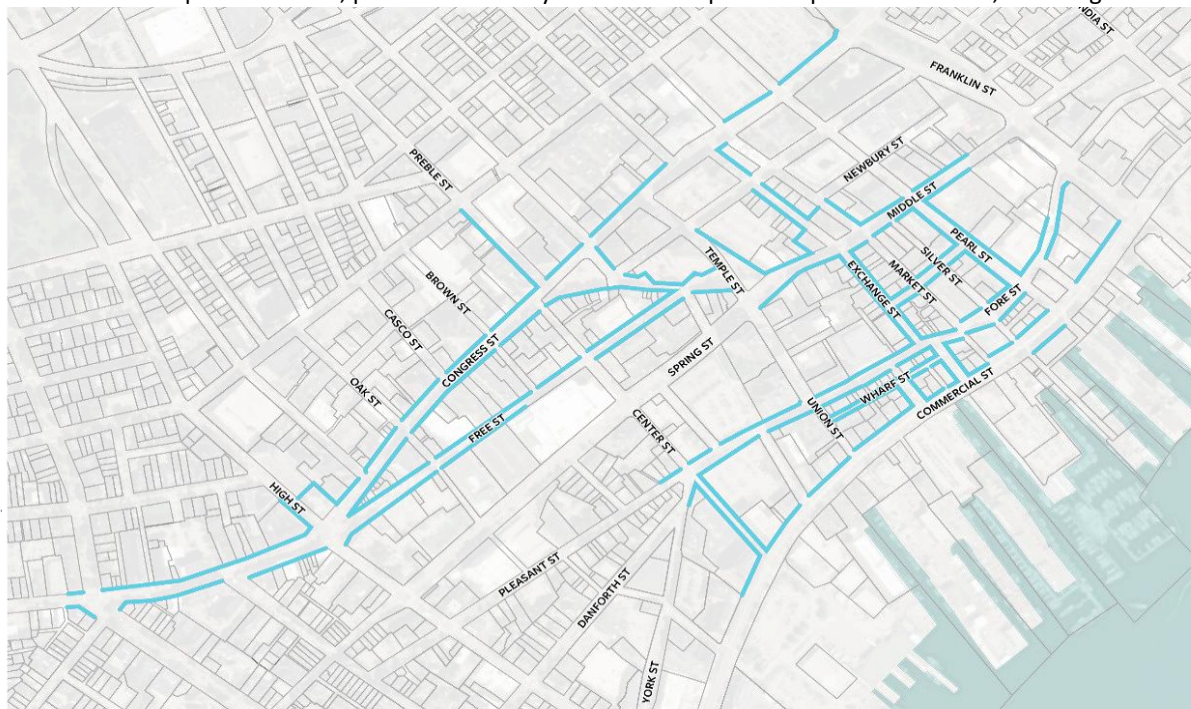


FIGURE 8-H: PEDESTRIAN ACTIVITIES DISTRICT (PAD) OVERLAY



- areas shall be 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

MARK DION (MAYOR)
PIOUS ALI (A/L)
APRIL D. FOURNIER (A/L)
BENJAMIN GRANT (A/L)

**CITY OF PORTLAND
IN THE CITY COUNCIL**

SARAH MICHNIEWICZ (1)
WESLEY PELLETIER (2)
REGINA L. PHILLIPS (3)
ANNA BULLETT (4)
KATE SYKES (5)

**AMENDMENT TO PORTLAND CITY CODE
CHAPTER 6 RE: VACANT COMMERCIAL PROPERTIES**

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PORTLAND,
MAINE IN CITY COUNCIL ASSEMBLED AS FOLLOWS:**

1. *That the Sections 6-246 to 6-253 of the Portland City Code
Chapter 6 is hereby amended to read as follows:*

Chapter 6 BUILDINGS AND BUILDING REGULATIONS*

Art. I. In General, §§ 6-1--6-15

Art. II. Building Code, §§ 6-92--6-103

Div. 1. In General, §§ 6-92--6-97

Div. 2. Building Standards, §§ 6-98--6-103

[Art. III and IV were repealed by Order 18-17/18, 8-21-2107]

Art. V. Housing Code, §§ 6-106--6-149

**Art. VI. Residential Rental Unit Registration Requirements, §§
6-150--6-157**

Art. VII. Green Building Code, §§ 6-165 - - 6-177

Art. VII-A. Bird Friendly Building and Design Requirements
§§ 6-185--6-189

Art. VIII. Property Assessed Clean Energy, §§ 6-190--6-199

Div. 1. Property Assessed Clean Energy, §§ 6-190--6-194

Div. 2. Commercial Property Assessed Clean Energy §§
6-195--6-199

Art. IX. Disorderly Houses, §§ 6-200--6-204

Art. X. Energy Benchmarking, §§ 6-205--6-218

Art. XI. Tenant Housing Rights, §§ 6-219--6-229

Art. XII. Rent Control and Tenant Protections, §§ 6-230--6-244

Art. XIII. Rent Board, §§ 6-250--6-263***



Carter Frank <cfrank@portlandmaine.gov>

Portland Commercial Vacancy Program Proposal

Benjamin Brennan <bbrennan207@gmail.com>
Reply-To: bbrennan207@gmail.com
To: planningboard@portlandmaine.gov

Thu, Jul 3, 2025 at 12:29 PM

To Whom It May Concern,

I urge you to not put forward the Portland Commercial Vacancy Program for the following reasons:

- We want properties full and landlords are not purposefully keeping them vacant. Charging fees and requiring registration does not change the timeline or the ability to fill these spaces.
- The information requested within the registration is often confidential and/or does not reflect how commercial transactions work. Rent is just a portion of the negotiation process, but other factors like timing, tenant improvements, quality of tenant and length of commitment are just as important and cannot be predicted prior to finding the willing tenant.
- The City of Portland can help us keep storefronts full by endorsing the proposed Ambassador Program, which is already working well in Bangor and many cities across the country to keep cities clean, to help people in need find services, and to provide a sense of community and security to all who visit our downtowns.
- This ordinance does not reflect the reality of how commercial deals get done and how long it takes to come together.
- Overregulation could place downward pressure on the valuation of buildings downtown, which in turn could impact property taxes.
- The information requested within the registration is often confidential and/or does not reflect how commercial transactions work. Rent is just a portion of the negotiation process, but other factors like timing, tenant improvements, quality of tenant and length of commitment are just as important and cannot be predicted prior to finding the willing tenant.

Respectfully,

Ben Brennan
Portland City Resident

Downtown Homlessness

John Doyon <John@malonecb.com>

Thu, Jul 3, 2025 at 1:14 PM

Reply-To: john@malonecb.com

To: "planningboard@portlandmaine.gov" <planningboard@portlandmaine.gov>

Imposing penalties on landlords with vacant storefronts does solve the root cause of the vacancy issue. The genesis is inappropriate behavior allowed to persist along the Congress Street corridor and other areas of the city. Penalizing landlords is akin to taking an aspirin to resolve cancer.

John Doyon, CCIM

Partner/Broker



5 Moulton Street, 3rd Fl

Portland, ME 04101

207-772-2422 Office

207-450-8003 Cell

www.malonecb.com

Commercial Vacancy ordinance - opposed

Justin Lamontagne <justin@dunhamgroup.com>

Thu, Jul 3, 2025 at 1:34 PM

Reply-To: justin@dunhamgroup.com

To: "planningboard@portlandmaine.gov" <planningboard@portlandmaine.gov>

I believe this is a gross overstep by the city and a clear overreaction to the ills of one or two landlords along Congress St.

As a Portland resident and local business owner, the fact that time, money and energy is spent on creating policies like this is truly disappointing. We need real action and enforcement to clean up the Arts District, not more regulations and paperwork. The optics are terrible as Portland businesses struggle to stay open - this is remarkably tone deaf and not in line with the reality of the market.

Additionally, as a commercial real estate broker and Managing Partner at the Dunham Group, I strongly agree with MEREDA's points:

- This ordinance does not reflect the reality of how commercial deals get done and how long it takes to come together.
- Overregulation could place downward pressure on the valuation of buildings downtown, which in turn could impact property taxes.
- The information requested within the registration is often confidential and/or does not reflect how commercial transactions work. Rent is just a portion of the negotiation process, but other factors like timing, tenant improvements, quality of tenant and length of commitment are just as important and cannot be predicted prior to finding the willing tenant.

Please do not support this ordinance. Thank you for your work.

Justin

Justin Lamontagne, CCIM, SIOR

Managing Partner | Designated Broker

The Dunham Group

O 207.773.7100 | C 207.272.3013

justin@dunhamgroup.com | dunhamgroup.com

[download vcard](#) | [view profile](#) | [LinkedIn](#) | [My Listings](#)

[2025 Southern Maine Industrial Market Survey](#)

[www.sior.com](#) | [www.ccim.com](#)

Emails sent or received shall neither constitute acceptance of conducting transactions via electronic means nor shall create a binding contract in the absence of a fully signed written agreement.

penalize property owners when storefronts go vacant

Sherwood Properties <sherwoodpropertiesoffice@gmail.com>
Reply-To: sherwoodpropertiesoffice@gmail.com
To: planningboard@portlandmaine.gov

Thu, Jul 3, 2025 at 4:05 PM

We WANT our properties full and are not purposefully keeping them vacant. Charging fees and requiring registration does not change the timeline or our ability to fill these spaces.

- The information requested within the registration is often confidential and/or does not reflect how commercial transactions work. Rent is just a portion of the negotiation process, but other factors like timing, tenant improvements, quality of tenant and length of commitment are just as important and cannot be predicted prior to finding the willing tenant.
- The City of Portland can help us keep our storefronts full by:

o Endorsing the proposed Ambassador Program, which is already working well in Bangor and many cities across the country to keep cities clean, to help people in need find services, and to provide a sense of community and security to all who visit our downtowns.

Thank you

James

Sherwood Properties
295 Brown St. Suite #1
Westbrook, ME 04092
W: 207-200-6886

Portland Commercial Vacancy Program

Jennifer Small <Jennifer@malonecb.com>

Mon, Jul 7, 2025 at 11:34 AM

Reply-To: jennifer@malonecb.com

To: "planningboard@portlandmaine.gov" <planningboard@portlandmaine.gov>

Dear Members of the Planning Board,

I am writing to respectfully express my concerns regarding the proposed Commercial Vacancy Registration Program, particularly as it applies to Congress Street and the surrounding downtown corridor. While I understand and appreciate the City's goal of encouraging vibrancy and reducing long-term vacancies, I believe this ordinance—as currently drafted—does not align with the realities of the commercial real estate market and may have unintended consequences for property owners, tenants, and the broader downtown economy.

1. Misalignment with Commercial Realities

The process of leasing commercial space is inherently complex. Transactions often require many months to complete due to the need to identify qualified tenants, negotiate mutually beneficial terms, and complete necessary tenant improvements. Imposing rigid reporting or disclosure requirements during this process overlooks the time and discretion involved in closing a successful lease.

2. Risk to Property Valuation and Tax Base

Overregulation—especially when perceived as punitive—may suppress investment interest in downtown properties. A decline in investor confidence could place downward pressure on building valuations, which in turn may impact the city's property tax revenues. Congress Street, as Portland's primary commercial and cultural corridor, must remain attractive to both tenants and property owners.

3. Concerns Over Confidentiality and Market Complexity

The information required by the proposed registration—particularly rent expectations or leasing strategy—is often confidential and, when viewed in isolation, does not accurately reflect the full scope of a commercial lease negotiation. Elements such as tenant credit, lease duration, space improvements, and timing are just as critical, and these details typically remain fluid until a tenant is secured.

Recommendation

I respectfully urge the Planning Board to reconsider the current approach and instead engage with commercial brokers, property owners, and business stakeholders to craft a program that encourages activation without penalizing vacancy. Incentives, partnerships, and creative marketing programs may prove far more effective than regulatory mandates in revitalizing our downtown storefronts.

Thank you for your time and thoughtful consideration of this important matter. I would welcome the opportunity to participate in further dialogue and contribute toward a workable, market-informed solution.

Jennifer Small, CCIM

Partner

Malone Commercial Brokers

5 Moulton Street

Portland, ME 04101

207-233-6872- cell

Maine Real Estate and Development Association- Vice President

Maine Commercial Association of Realtors- Director

Portland Commercial Vacancy Program

Cheri Bonawitz <cheri@malonecb.com>
Reply-To: cheri@malonecb.com
To: "planningboard@portlandmaine.gov" <planningboard@portlandmaine.gov>

Mon, Jul 7, 2025 at 11:28 AM

July 7, 2025

Portland Planning Board
389 Congress Street
Portland, ME 04101

Re: Concerns Regarding the Proposed Commercial Vacancy Registration Program

Dear Members of the Planning Board,

I am writing to respectfully express my concerns regarding the proposed Commercial Vacancy Registration Program, particularly as it applies to Congress Street and the surrounding downtown corridor. While I understand and appreciate the City's goal of encouraging vibrancy and reducing long-term vacancies, I believe this ordinance—as currently drafted—does not align with the realities of the commercial real estate market and may have unintended consequences for property owners, tenants, and the broader downtown economy.

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2. Risk to Property Valuation and Tax Base

Overregulation—especially when perceived as punitive—may suppress investment interest in downtown properties. A decline in investor confidence could place downward pressure on building valuations, which in turn may impact the city's property tax revenues. Congress Street, as Portland's primary commercial and cultural corridor, must remain attractive to both tenants and property owners.

3. Concerns Over Confidentiality and Market Complexity

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Recommendation

I respectfully urge the Planning Board to reconsider the current approach and instead engage with commercial brokers, property owners, and business stakeholders to craft a program that encourages activation without penalizing vacancy. Incentives, partnerships, and creative marketing programs may prove far more effective than regulatory mandates in revitalizing our downtown storefronts.

Thank you for your time and thoughtful consideration of this important matter. I would welcome the opportunity to participate in further dialogue and contribute toward a workable, market-informed solution.

Sincerely,

Cheri Bonawitz

Cheri Bonawitz, CCIM | Commercial Real Estate and Business Broker
President New England Chapter CCIM
President, Maine Commercial Association of Realtors



5 Moulton Street
Portland, ME 04105
(207) 772-2422 - Direct
(207) 240-6844 - Cell

(207) 553-1924 - Fax
<http://www.malonecb.com>

Join my email list!

See my Business Listings

re. Vacant Store Fronts

Scott Balfour <sbalfour@balfourcommercial.com>

Mon, Jul 7, 2025 at 11:44 AM

Reply-To: sbalfour@balfourcommercial.com

To: "planningboard@portlandmaine.gov" <planningboard@portlandmaine.gov>

Dear Board Members;

Vacant Store Fronts are a result of the market, not an individual landlord's choice.

It takes time to find good tenants.

Its a sign of a declining city when 'junk' tenants are found just to fill the space. It degrades the abutters property as well, and a cycle of degrade continues.

Property owners have Invested in their properties. They have every interest in filling them. Sometimes improving them. Show the landlords some respect and value their property owner ship rights.

I for one have ruled out investing in residential properties because of your 'rent control'. Shouldn't we be looking for more investment in Rentals and housing in Portland?

Scott Balfour

Certified Business Intermediary

Guiding Business, Advising People, Moving Property

Magnusson Balfour

Commercial & Business Brokers

KW Commercial

Keller Williams Realty

50 Sewall St.

Portland, ME 04102

(207) 553-2420 (Direct)

(207) 879-9801 FAX

sbalfour@balfourcommercial.com

www.balfourcommercial.com

Vacancy Charge

Jonathan Cohen <Jcohen@cohenproperties.com>

Mon, Jul 7, 2025 at 12:14 PM

Reply-To: jcohen@cohenproperties.com

To: "planningboard@portlandmaine.gov" <planningboard@portlandmaine.gov>

Dear Planning Board Members,

I am writing to you today regarding a proposal to charge landlords for vacancies.

We have never intentionally kept a property vacant ever, anywhere. The idea that any municipality can fine a landlord into accepting any tenancy versus what is best for the location is a very bad idea. We do not like nor do we allow marijuana sales in any property we own, anywhere, we find that it lowers the value of a property and the resulting tenant base, which you can now see happening at all of the locations that have accepted marijuana sales. Sometimes it just takes time for a user to find the market, it took us almost 2 years to get Helm restaurant, Mesa Grande and Angour wine Bar, the argument that we "Held out for better rent" is preposterous, we lost a lot of money with the vacancies, but we knew we had to have tenants that fit the needs of the community. In almost every instance, a landlord bears a significant financial impact for vacancy, an even larger impact for lease commissions and tenant fit up as well as free rent, the idea that in addition to all of those costs and loses, the local community would see fit to punish a landlord, will result in bad buildings, bad tenants and lower tax revenue. It is a very bad idea and I urge you to completely reject it.

If the city really wants to work on filling vacant spaces, let's start by enforcing the laws, removing loiterers, eliminating needles and drugs from the streets and bringing back horse patrols to further enhance the feeling of safety. The reality is that some of the vacant storefronts are because the landlords cannot convince any tenants to take the risk on the location.

Thank you for your time,

Jonathan S. Cohen, President and CEO

Cohen Properties, LLC

jcohen@cohenproperties.com

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Penalizing commercial real estate owners for vacancies

Michelle Peacock <michelle@malonecb.com>

Mon, Jul 7, 2025 at 12:18 PM

Reply-To: michelle@malonecb.com

To: "planningboard@portlandmaine.gov" <planningboard@portlandmaine.gov>

Dear planning board members,

I am shocked at the government overreach regarding the proposal to penalize property owners for their vacancies! Landlords do not want to have vacancies, that's not the point of owning property. They want to have tenants, but if tenants don't feel safe to inhabit their spaces, that's due to the city's policies and out of the landlord's control. Let's focus on the real problem at hand here.

Michelle Peacock

Senior Broker Assistant

Associate Broker



5 Moulton Street, 3rd Fl

Portland, ME 04101

207.772.2422 office

207.358.7029 direct

207.749.6932 cell

michelle@malonecb.com

Commercial Vacancy Program

Sam LeGeyt <sam@dunhamgroup.com>

Mon, Jul 7, 2025 at 12:37 PM

Reply-To: sam@dunhamgroup.com

To: "planningboard@portlandmaine.gov" <planningboard@portlandmaine.gov>

I am writing in extreme opposition to the proposed Commercial Vacancy program aimed to penalize property owners when storefronts go vacant for longer than 90 days.

The truth is businesses are scared to place their businesses in these locations due to the lack of safety for their employees and their customers. Of course the trash, human feces, and used needles scattered about don't make for effective showings either. It's hard enough for landlords in these areas to find a successful and profitable business that wants to be in this location, and I fear that putting a clock on filling that vacancy will have extreme consequences for all involved.

Overregulation will place downward pressure on the valuation of buildings downtown and will in turn impact property taxes. Additionally, over time landlords that are penalized will not have the financial ability to continue to do necessary maintenance and updates if they are forced to pay the fines, or take a below market rent to avoid paying the fines.

At one of my listings, potential tenants were recently approached leaving a showing of a vacant arts district retail location and were asked if they wanted to buy drugs. This is not a landlord issue, this is a city issue and I urge you to look at the root of the problem before taking it out on landlords and calling it a win for the city.

I strongly encourage you to vote no on this program.

Sam LeGeyt, SIOR

Partner/Broker



Two Monument Square Suite 602

Portland, ME 04101

207-653-6904-Mobile

207-773-7100-Office

Sam@DunhamGroup.com

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[Click Here For the 2025 Southern Maine Industrial Market Survey](#)

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Portland Commercial Vacancy Program

mike@harborlightadvisors.com <mike@harborlightadvisors.com>
Reply-To: mike@harborlightadvisors.com
To: "planningboard@portlandmaine.gov" <planningboard@portlandmaine.gov>

Mon, Jul 7, 2025 at 8:12 AM

Hello Members of the Planning Board,

I own a commercial property at [24 Preble Street](#), which we have owned since early 2022. I am reaching out in regard to the vacant storefront program that the Housing and Economic Development Committee is proposing. We purchased the building with the first floor vacant and have been aggressively trying to lease the space since we acquired the building. We have been very flexible in terms of how we structure a lease, and we have also been willing to fill the space with a short-term tenant. The issue with filling the vacancy has never been about the economics of the deal. The issue has been the quality of the area. Despite having hired a security company to monitor the building, we consistently have human urine and feces around the property and along the street. Our existing tenants have been verbally assaulted by the constant loiterers on the street. This program be considered will only further penalize our building and the surrounding area without solving the root of the problem. We need the city to invest in the Ambassador Program, which has worked successfully in other cities. We need to create the street as a welcoming environment for businesses to feel comfortable making investments.

I am happy to answer any questions you may have. I appreciate your time and consideration.

Sincerely,

Michael d'Hemecourt

--

Michael A. d'Hemecourt
Principal

Harborlight Properties
617.947.8170 Tel

mike@harborlightadvisors.com



Carter Frank <cfrank@portlandmaine.gov>

Finegan Comment on Text Amendment to the Pedestrian Activities District (PAD) Overlay

Finegan, John <jfinegan@boulos.com>

Tue, Jul 8, 2025 at 10:08 AM

Reply-To: jfinegan@boulos.com

To: "Brandon J. Mazer" <bmazer@perkinsthompson.com>

Cc: "planningboard@portlandmaine.gov" <planningboard@portlandmaine.gov>

Hello Brandon and member of the Portland Planning Board-

My name is John Finegan, I am a commercial real estate broker at Boulos and I have lived in and around Portland my entire life. I am writing in regards to the commercial vacancy program which is on tonight's agenda.

My understanding is that this policy is being considered as a means of revitalizing Congress Street. The main example is Geoffrey Rice's building on the corner of High and Congress, which has been vacant for as long as I can remember. The goal is to incentivize landlords to lease out their commercial spaces. The functionality of this is to impose fines on the landlords, and also have them submit to the city the amount of rent and the reason for the most-recent tenant's leaving.

I am flatly against this policy altogether as it seems like an overreach on personal property rights. However, I understand that the City of Portland is trying to build a toolkit to help combat vacancy, and therefore I see rejecting this law altogether as politically infeasible.

With that being said, I would recommend several changes.

The first is to remove the requirements for landlords to disclose rental rates and reasons for vacancy. I could see this data being used as political ammunition for future laws (I am most scared of referenda) which create commercial rent control.

The second is to increase the length of time before the fines begin. I had emailed with Nancy Martin when she was working on this law, and she asked my input on the 3 months. I spoke to several brokers in my office to ask what is reasonable, and this is what I compiled:

The unanimous feedback I received is that this is a very difficult metric to quantify. It's not a number we track with our sales force, because how long it takes a space to lease is difficult to define. For example, does the "time to lease" start ticking when we have the space on the market? We often list spaces for lease prior to the current tenant vacating a space when that tenant hasn't renewed its option or has told the landlord they plan to vacate in X months once their lease expires. Does it start ticking when the current tenant's lease expires? Is it when they vacate? Does vacancy end when a lease is signed, or when a tenant opens for business?

"Vacancy" is a tricky thing to define.

That said, I do understand what you are trying to figure out. I don't mean to be difficult by pointing out the above, but I do need to call attention to it so you take this input with an adequately sized grain of salt.

I would say it takes about 12 months to find a tenant for a vacant space on average.

A lot of things can impact this. If the building is under construction or is having work done on the upper floors, that can make the space unattractive to a tenant, and they may not want to sign a lease until the work is completed, for example.

Anecdotally, I leased 111 Middle Street last year. It is a turnkey restaurant next to the police station. We had a signed listing agreement on April 1, 2024, and we got a lease signed on November 1, 2024, so 7 months in all. That said, the previous tenant vacated the space on January 1, 2024 and cut town, and the new tenant didn't open for business until March 2025, so it was "empty" for 15 months.

The point I want to highlight is that these commercial spaces are not like residential apartments. New tenants almost always need work done to the space, that work must get paid for, which typically means working with a lender, which means ordering an appraisal and all the other things that go into securing a loan, and all of these things take months to accomplish. Then, once the financing is secured, they need to get a building permit through the City of Portland, which takes at minimum 2 months to secure, then perform the construction, and then get a Certificate of Occupancy from the City of Portland. The City does take a long time on these things and they all delay the leasing process.

You do occasionally see spaces lease quick, like in the 3 months from your original email, but those are exceedingly rare and happen for small spaces (<500 SF) in turnkey shops along Exchange St.

Thank you for taking the time to read this,

John

John Finegan – Associate Broker

The Boulos Company

One Portland Square, Suite 400, Portland, ME 04101

T: 207.553.1718 **C:** 207.829.8305

jfinegan@boulos.com www.boulos.com

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431 Woodford St
Portland Maine 04103

July 15, 2025

by electronic mail

Dear Chair Mazer and Planning Board Members,

Thank you for your attention to the persistent challenge of vacant properties in Portland's neighborhoods. As stewards of our city's-built environment and local economy, the larger real estate community shares your goal: they want their properties full. They want active storefronts, strong businesses, and neighborhoods where vibrancy outweighs vacancy.

Although in my current role as the head of the Maine Redevelopment Land Bank Authority, I have had a chance to study pervasive vacancy extensively, I submit these comments as a Portland resident and long-time supporter of sustainable growth in our city. I want to share two key points:

1. It is not accurate to cast this program as anti-owner, it should be viewed as pro-vibrancy.
2. When well-designed these programs work, the city should collaborate with key stakeholders to ensure our program is appropriately designed for our community.

First, a well-designed commercial vacancy program is not anti-owner. Creating a registration program alone does not directly impact the ability to lease properties, nor does it meaningfully change the timeline for securing responsible tenants. In fact, evidence indicates it can increase incentives to get deals done on a more efficient timeframe, benefiting both the owners and brokerage community. Moreover, successful vacant property strategies begin with understanding why properties remain empty and collaborating on solutions—not assuming neglect or bad intent.

It's also important to recognize that not all building owners are incentivized to fill their properties quickly. In some cases, speculative holding, non-compete payments (especially from national chains), estate issues, deferred maintenance, or tax issues make vacancy a preferred option. We have seen this redevelopment disincentives firsthand in our city with some prominently situated properties sitting vacant for over a decade despite all market factors to the contrary. These are precisely the cases where thoughtful policy interventions can and should occur.

To be clear, this is not the case for the majority of Portland's property owners, particularly in the commercial sector. Most of are actively working to fill their spaces. A thoughtful and well-designed program will not negatively impact these owners; however, it will provide a mechanism, that we now lack, to hold the others accountable. It is these minority of owners whose vacant properties drag down abutting values, place greater burdens on city resources and undermine the vibrancy of our community. Sadly, pervasive vacancy has a parasitic impact far beyond the footprint of the vacant building.

Second, when well-designed these programs work. Evidence nationally is overwhelming in this regard. For example, Philadelphia’s Vacant Property Strategy saw a 25% reduction in long-term vacant parcels in targeted zones within 5 years by combining a tiered registration program, code enforcement and targeted incentives for challenging properties. In Cincinnati, a coordinated strategy linking a property maintenance code, tax credit education, and a vacant property registry led to a 37% increase in rehabilitated structures in targeted neighborhoods from 2015–20.¹

What these examples show is that vacancy programs are most effective when they are part of a larger ecosystem of tools—not blunt enforcement mechanisms. National best practices indicate that these programs work when they:

- Collect actionable, not burdensome, targeting the data collected to tangible strategies to solve the problem;
- Focus intervention on “stuck” properties rather than penalizing all vacancies;
- Are built around on activation and support—not just penalties;
- Ensure accountability while providing clear pathways for owners to comply;
- Create a fee schedule to support the operation of the program where fees for initial registration are not overly burdensome; and
- Are revisited periodically to remain calibrated to the market and to support the existence of useful incentive programs.²

Portland is well-positioned to lead with this kind of nuanced, collaborative approach. You already have strong land use tools, active civic institutions, and a commitment to economic inclusion. I urge you to ensure that any vacancy policy adopted is tailored, targeted, and informed by national best practices—not built on assumptions or blame.

By engaging with the real estate community and using thoughtful data and results driven tools, I firmly believe this program will lead to marked improvements in our streetscape citywide.

Sincerely,

A handwritten signature in black ink, appearing to read "STUART O'BRIEN", with a horizontal line extending from the end of the signature.

Stuart “Tuck” O’Brien

¹ Center for Community Progress. *Strategies for Equitable Vacancy Policy*. 2020; Reclaiming Vacant Properties Conference Case Studies, Philadelphia. Center for Community Progress, 2018; Urban Institute. *Revitalizing Neighborhoods through Vacant Property Programs*. 2020.

² Center for Community Progress. *Vacant Property Registration Best Practices*. 2019.

Planning Board Report
Planning & Urban Development Department



1877 Congress Street
Major Site Plan Application
PL-003020-2024
GreenMars Real Estate Services, Applicant

Submitted to:	Portland Planning Board	Prepared By:	Eric Freeman
Public Hearing Date:	July 22, 2025	Date:	July 12, 2025

I. INTRODUCTION

GreenMars Real Estate Services has submitted a Major Site Plan and Subdivision application to facilitate the creation of 13 new lots and the construction of thirteen twelve-unit residential buildings, totaling 156 dwelling units. The proposal includes approximately 190 on-site parking spaces, with access provided via a new private way located at 1877 Congress Street in the Residential Neighborhood-1 (RN-1) 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, and Subdivision Standards, Section 14.2. Additionally, this application is required to meet the City of Portland's inclusionary zoning requirements outlined in Section 17.2 of the City's Land Use Code.

The Planning and Urban Development Department mailed 81 notices advertising this meeting to property owners within 500 feet of the site. A legal advertisement ran in the July 10 and 11, 2025 editions of the Portland Press Herald.

Applicant: GreenMars Real Estate Services

Applicant Representatives: GreenMars Real Estate Services, Invid Architecture

<i>Review</i>	<i>Applicable Standards</i>
Site Plan	Section 13.6
Subdivision	Section 14.2
Inclusionary Zoning	Section 17.2
Multifamily Design Review Standards	Section 9.1 City of Portland Design Manual (I)



Figure 1: Overall Site Plan

II. REQUIRED REVIEWS

Project Data	
Existing Zoning	RN-1
Property Size	175,982 SF
Existing Use	Undeveloped vegetated area
Proposed Use	Conservation residential development consisting of 13 lots and 156 residential units accessed via a new private way. Approximately 190 on-site parking spaces and shared amenity space.

III. PROJECT BACKGROUND

A Major Site Plan and Subdivision application for the subject property was submitted in July of 2024, proposing a 10-lot subdivision, with each lot containing a 10-unit residential building and a new public street. During the City's preliminary review, staff identified several concerns regarding key aspects of the development, including:

- Zoning Compliance: Staff raised concerns regarding compliance with the R-2 zoning requirements, particularly in relation to off-street parking, which the applicant initially proposed to be on separate lots.
- Site Design and Layout: The subdivision layout closely resembled a Planned Residential Unit Development (PRUD), which was eliminated city-wide as a permitted use when ReCode went into

effect in December of 2024, and which was not permitted at this location under the R-2 rules in effect prior to the adoption of ReCode. Staff also recommended repositioning buildings closer to the proposed public street to foster a stronger relationship with the street and create a more neighborhood-like environment.

- Off-Street Parking: The original submission proposed a parking ratio exceeding one space per residential unit, with surface parking dispersed throughout the subdivision. To minimize the project's environmental impact, staff encouraged the applicant to explore transportation demand management strategies to further reduce parking on-site.

Following the adoption of ReCode in December 2024, the City met with the applicant to discuss potential modifications based upon new provisions in the Land Use Code. Under ReCode, the R-2 zone was reclassified as RN-1, the city's lowest density residential zone. This zone contains more flexible dimensional standards, including reduced minimum lot sizes, setbacks, and street frontage requirements than the prior R-2 zone. Additionally, alternative residential development models, such as cottage courts and conservation residential developments were introduced to encourage smaller-scale, cohesive neighborhoods and natural resource conservation while accommodating appropriate density.

IV. EXISTING CONDITIONS AND SURROUNDING AREA

The subject property is located on outer Congress Street in the Stroudwater neighborhood, with the development proposed behind the Children's Dyslexia Center. The site is approximately four acres in size and is bounded to the north by single-family homes on River's Edge Drive and to the south by the Portland Elk's Lodge. The site is currently undeveloped and consists almost entirely of dense undergrowth and mature trees. The rear portion of the site features a notable drop in elevation and includes significant areas of wetland as you approach the Stroudwater River.



Figure 2: The existing site and surrounding neighborhood

V. PROPOSED DEVELOPMENT

The proposed development involves the construction of a new conservation residential development consisting of 13 lots. Each lot would contain a three-story, 12-unit residential building with a mixture of one, two and three-bedroom units. In total, the site would feature 130 condominium units and 26 accessory dwelling units (ADUs). Each lot would include on-site surface parking dedicated for that particular building, with a shared access easement to permit the movement of vehicles across each of the proposed lots. A shared amenity building is proposed that would include a gymnasium, shared office space, and other amenities for residents.

Lots 1 through 10 would front a shared common area with pedestrian walkways, green space and a playground. Lots 11 through 13 would front the private road and would have access to the shared common area via a crosswalk. All lots would have direct pedestrian access to the amenity building and Congress Street.

The site would be accessed via a 32-foot-wide private roadway extending into the site from an unsignalized intersection with Congress Street. This private way would include two 10-foot vehicle travel lanes and on-street parking on both sides. The roadway would include a five-foot-wide sidewalk on both sides of the private street for a portion of the street, which would be reduced down to one sidewalk along the easterly side of the private roadway street closer to Congress Street. This segment of sidewalk would connect the development into the existing public sidewalk along Congress Street, as well as to a newly proposed public transit shelter.

Approximately 190 parking spaces are proposed on-site. Parking areas would be located at the rear of each building and would feature a mixture of surface and covered parking stalls. On-street parking would also be provided on both sides of the proposed private road.

The site would be served by water and sewer lines connecting to existing services that run along Congress Street. Stormwater treatment would be provided on-site using a Contech StormFilter unit. Electrical utilities would be extended from Congress Street via an underground conduit.

VI. RIGHT, TITLE, & INTEREST

GreenMars Real Estate Services signed an option to purchase agreement for the subject property on June 17, 2024. Right, Title and Interest documentation as submitted by the applicant is included as Attachment D

VII. FINANCIAL & TECHNICAL CAPACITY

The applicant has provided a letter from Norway Savings Bank indicating that the applicant has an ongoing financial relationship with the bank. Financial capacity documentation as submitted by the applicant is included as Attachment F

VIII. ZONING ANALYSIS

The site is located within the Residential Neighborhood 1 (RN-1) zone. Relevant sections of the RN-1 purpose statement include:

- RN-1: “To provide for a residential neighborhood environment predominantly characterized by dwellings on lots of at least 6,500 square feet. Conversion of existing nonresidential structures to multi-family dwellings is permitted within the RN-1 zone, subject to standards encouraging compatibility and context sensitivity to ensure the stability of established residential neighborhoods.”

A. Conservation Residential Development.

This application proposes to utilize the Conservation Residential Development (CRD) typology outlined in section 7.4.1 of the Land Use Code, which is a permitted alternative development form in the RN-1 zone. A conservation residential development permits a reduction in specific dimensional standards, as detailed in the table below, in exchange for the provision of common open space and the preservation of Portland’s natural resources.

A CRD is required to be designed to prioritize the preservation of natural features to the greatest extent practical, and to maintain interconnected streams, wetlands, stands of mature trees and critical wildlife habitat; incorporating natural site features into the development’s overall design. For example, buildings, walkways and parking area should be designed to minimize impacts to identified natural features on-site, including within the general area of disturbance. A minimum of 30% of the total site area of a CRD must be maintained as common open space, as defined in Section 7.4.1.E.2.

Approximately half of the site (2.12 acres) at the rear of the property is proposed to be left undisturbed. This area features significant wetland areas and mature tree growth beyond a steep grade change as the site approaches the Stroudwater River.

A zoning analysis of the proposed project is provided in the table below:

B.. Dimensional Standards

	Base RN-1	Conservation Residential Development	Proposed
Maximum Height (ft)	35 ft.	35 ft.	34.5-35 ft.
Minimum Lot Area	6,500 SF	3,250	4,972 – 7,098 SF
Front Setback	25 ft.	10 ft.	10 ft.
Rear Setback	25 ft.	10 ft.	10 ft.
Side Setback	15 ft.	5 ft.	5 ft.
Open Space	30%	30% for lots over 5,000 SF	30.5%
		N/A for lots under 5,000 SF	N/A
Maximum Lot Coverage	60%	60% for lots over 5,000 SF	35%
		N/A for lots under 5,000 SF	N/A

C. Discussion of Compliance with the Conservation Residential Development Regulation

The City has reviewed the applicant’s conservation residential development proposal under the provisions of the land use code, which allows for dimensional relief in exchange for the conservation of critical natural resources. This zoning provision has enabled the applicant to reduce the overall development footprint and

increase residential density. The intent of this provision is to facilitate a more compact development pattern, thereby conserving and integrating important environmental resources into the overall site design in a meaningful and holistic manner.

A key requirement of this zoning provision is that natural features such as wetlands, streams, mature trees, and critical wildlife habitat be interconnected, creating a cohesive conservation strategy rather than fragmented or isolated preservation areas. Additionally, the design of buildings, walkways, and parking areas should prioritize minimizing environmental impacts to the greatest extent possible.

Based upon the revisions made to the proposed development since July of 2024, Staff finds that the applicant has met the intent of the Conservation Residential Development typology. The applicant has demonstrated that the design of the proposed subdivision prioritizes the interconnection and preservation of natural features to the greatest extent practical, with approximately half of the lot remaining undeveloped. The site incorporates community open space, trail connections, and native landscaping while minimizing surface parking. Furthermore, in response to City feedback, the applicant provided an updated survey detailing the presence of numerous mature trees within the proposed development area. While not all of these can be preserved, the applicant intends to preserve 16 of the 38 mature trees (42%) located within the proposed developed area of the site. Aside from these mature trees, no other critical natural resources were identified within the proposed developed area. Given the extensive preservation of critical natural features at the rear of the property, and the applicant's preservation of numerous trees throughout the area of disturbance, staff consider the project as designed to comply with the standards of the Conservation Residential Development use, as contained in Sec. 7.4.1 of the Land Use Code.

D. Accessory Dwelling Units

Each building within the subdivision will contain two accessory dwelling units (ADU's) totaling 26 units throughout the subdivision. All 26 ADUs will be studio units and will be sold as a package with market-rate units within the same building. Each ADU is approximately 55-60% of the gross square footage of the largest principal unit within each building, which falls beneath the City's maximum floor area allowance for an ADU of approximately 66% or two-thirds of the square footage of the largest principal unit. Given that all 26 ADUs are located within primary structures, they meet all relevant dimensional and setback standards. Staff consider this application to comply with the City's regulations governing accessory dwelling units.

E. 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% (39) of the 156 proposed units as workforce housing. The applicant has indicated that they intend to allocate 25% of the units (39) as workforce housing units for sale, as defined in Article 3, in order to satisfy the City's inclusionary zoning requirements.

As noted throughout this report, the application involves an atypical development scheme in which each building would contain ten principal dwelling units and two ADUs, all structured as for-sale condominiums. In each building, two of the principal units would be paired with an ADU, with the intent that both would be sold together as a single ownership package. At the Planning Board workshop in April, Board members raised questions about the provision of workforce housing units – specifically, whether ADUs sold in tandem with a principal unit could count toward satisfying the inclusionary zoning requirements, and

whether inclusionary zoning requirements should be calculated based solely on the principal units or include all units in the development.

In coordination with Victoria Volent, the City's Housing Program Manager, who oversees the City's Inclusionary Zoning program, the applicant developed a proposal that would involve allocating 19 one-bedroom units, 13 two-bedroom units, and seven three-bedroom units throughout the development as workforce housing units. As proposed, all two-unit housing products (principal unit sold in tandem with an ADU) being developed would remain market-rate housing.

Staff have drafted a condition of approval that would require the applicant to enter into an Affordable Housing Agreement (AHA) with the City to ensure that designated workforce units are maintained as affordable to households earning no more than 80% of the area median income (AMI) for a period of at least 30 years.

F. Density Bonus

The applicant intends to utilize the density bonuses outlined in Table 17-A of the City of Portland's Land Use Code. As proposed, 25% of the total units (39 units) would be deed-restricted affordable housing units for sale, as defined in Article 3. These affordable units would be provided in addition to the 25% of workforce housing units, resulting in 50% of the project's total unit count being deed-restricted as either workforce or affordable housing. Pursuant to Section 17.2.2(D)(3), any units designated as workforce or low-income housing to access the density bonus must meet the City's inclusionary zoning requirements. These include integration of the affordable units within the development and general parity with market-rate units in terms of size, interior finishes, and access to amenities, as outlined in Section 17.2.3(C)(2), (3), and (4).

In the applicant's affordable housing plan and accompanying narrative, the applicant states that the affordable units proposed to qualify for the density bonus would be distributed throughout the development, integrated within each building, and be comparable to market-rate units in terms of size, interior finishes, and access to on-site amenities, consistent with the standards outlined in Section 17.2.3(C)(2), (3), and (4).

Based upon this information, staff support the applicant applying a 2.5X base density bonus to each lot of the subdivision. The applicant will be required to establish a deed restriction over these 39 units to ensure that they would remain affordable at 100% of the area median income (AMI) for a period of 30 years, as required under Sec. 17.2.2.D. Staff has included several draft conditions of approval related to the applicant's use of the density bonus provision. This would include having the applicant detail these restrictions in their condominium declaration, place a deed restriction on these 39 units, and record the condominium declaration and these deed restrictions at the Cumberland County Registry of Deeds.

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. Transportation Standards (Section 13.6.1)

A. Impact on surrounding street systems

The site would be accessed via a 32-foot-wide private road extending into the site from an unsignalized intersection with Congress Street. Congress Street would be modified to include a

left-turn lane, providing access to the site from the south. This modification would require the widening of the Congress Street right-of-way by approximately five feet south of the proposed intersection, and coordination with the Maine Department of Transportation to modify State Route 22.

A pedestrian crossing with a raised center island would be installed at the north side of the intersection. This pedestrian crossing would feature user-activated flashing beacons. The applicant proposes to reconstruct approximately 300 feet of bituminous sidewalk on the western side of Congress Street along the frontage of the Dyslexia Center. Staff have drafted a condition of approval requiring the applicant to work with the Department of Public Works and peer-review traffic engineers to finalize the design of the proposed driveway intersection with Congress Street and make minor modifications to internal crosswalks and circulation.

Based on Board feedback received at the April 8, 2025, workshop, the applicant has provided a revised traffic impact study reflecting the project's increased unit count. The study was conducted by Barton & Loguidice engineers and focused on the development's impact on Congress Street at the proposed site driveway and the nearby intersection of Congress Street and International Parkway. A capacity analysis was performed which indicated that the proposed intersection would operate at an acceptable level of service during peak times, and that the nearby intersection of Congress Street and International Parkway would not fall below an acceptable level of service. Overall, the proposed development is expected to generate approximately 65 vehicle trips during the morning peak hour and 76 during the afternoon peak hour. This falls below the 100-passenger car equivalent (PCE) peak-hour trip threshold required to trigger a Traffic Movement Permit.

The full traffic impact study is included as Attachment T

Finding of Fact: Based on the submitted application materials and the description presented above this standard is determined to be met subject to the conditions of approval detailed above.

B. Access and circulation

The proposed private road would feature a continuous five-foot-wide bituminous sidewalk connecting the site to the existing sidewalk on Congress Street as well as the proposed bus shelter. Internal asphalt walkways connect each building to the street and the shared open space courtyard.

The applicant also intends to develop shared trail facilities at the rear of the site, which would connect to the existing Portland trail network. Proposed trails have not been detailed as part of the applicant's submission and would be developed separately in coordination with Portland Trails. To ensure long-term public access, staff have drafted a condition of approval requiring the applicant to establish a public-access easement over all future trail locations, and connecting routes between Congress Street and the proposed trailheads.

The applicant is also proposing to reconstruct the existing driveway and vehicular circulation pattern for the Dyslexia Center. The existing walkway from the Dyslexia Center to Congress Street would be preserved in order to maintain pedestrian access to that facility. The reconfigured driveway would intersect with the proposed private street. The reconfigured Dyslexia Center

driveway meets dimensional standards outlined in Section 1 of the Technical Manual.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met subject to the conditions of approval detailed above

C. Public transit access

This site is served by METRO's Route 5. Developments of 20 or more units are required to provide a transit shelter if there are no existing transit shelters within a quarter mile of the proposed development. The applicant proposes to install a transit shelter pad and shelter on Congress Street, providing a direct pedestrian connection to the site.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met.

D. Parking

This application would provide approximately 169 off-street parking spaces and 21 on-street spaces for a total of 190 spaces, well beneath the parking maximum of 312 spaces, at a ratio of two spaces per unit, as detailed in Table 18-A in the Land Use Code. Each lot would have a mix of surface and covered parking. Parking would be located at the rear of each lot, accessible via three separate shared driveways that would connect to the private road. An access easement would be placed across all parking areas to allow residents to cross property boundaries within the subdivision. At the rear of the site, the applicant proposes 46 tandem parking spaces. As detailed by the applicant, these 46 tandem spaces would be provided to 23 residential units, thereby providing those units with two spaces each, to ensure private management of this tandem parking area. Staff is requiring that this arrangement be clearly identified in the applicant's condominium documents.

A total of 37 parking spaces would be equipped with Level-II electric vehicle charging stations. These spaces would be located within the covered parking stalls under each building. The applicant is responsible for providing one secure bike storage space for every two residential units. A total of 78 bicycle parking spaces are provided, which satisfies the bike parking requirement

The applicant is proposing a 6-space publicly accessible parking area on the north side of the development. This parking area would be used as parking for public trail access. A public access easement would be established to allow access to the parking area for trail use.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met, subject to the condition of approval detailed above.

E. Transportation demand management (TDM)

TDM plans are required for commercial, institutional or mixed-use developments of 50,000 square feet or more. This application is not commercial or mixed-use and therefore does not require a TDM Plan.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met.

2. Environmental Quality Standards (Section 13.6.2)

A. Preservation of significant natural features

Approximately half of the site (2.12 acres) at the rear of the property will be undisturbed according to the applicant's proposal. This area features significant wetland areas and mature tree growth.

The applicant has provided a Low-Impact Development (LID) assessment detailing the application's adherence to the low-impact development section of the Technical Manual (Section 3). The applicant received a passing score 90.5 out of a possible 178 points on the LID scorecard. Staff have recommended a revised LID assessment score of 86.5 based upon a review of the provide LID materials. As part of their adherence to LID standards, the applicant will:

- Enter into a winter maintenance agreement with the City
- Use native vegetation within landscaped areas
- Maintain a 50-foot setback from all wetland areas on site
- Protect 40% or more of trees 10" DBH or greater
- Provide on-site treatment and detention for 1.5 times the required water quality volume

The full LID assessment is included as Attachment R

The applicant has provided a tree removal and preservation plan detailing the location of mature trees measuring 10-inches diameter at breast height (DBH) or greater, along with details around tree preservation and removal within the area of disturbance. The applicant proposes to retain 16 out of 38 (42%) of the existing mature trees within the area of disturbance. Tree preservation details have been included within the provided tree removal plan. Existing mature street trees along Congress Street would be preserved, partially satisfying street tree requirements, as detailed under the following standard.

The tree removal plan is included as Attachment 18

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met.

B. Site landscaping and buffers

The site would feature a mixture of new trees, bushes and low-profile plantings, having native plantings constitute at least 60% of proposed vegetation. Street trees would be planted at 30-foot intervals along the proposed private road, and existing mature street trees along Congress Street would be preserved to satisfy the street tree requirements for the project.

Concerning the City's site landscaping requirement, the applicant intends to intensively landscape the shared open space area and the development site's periphery with canopy trees, perennial plantings, and shrubs. The central courtyard area would feature pedestrian walkways, bike racks, and a small playground area and would include approximately 11 shade trees as well as shrubs and perennial plantings. As detailed on Sheet C.104, the applicant proposes to plant a total of 103 new canopy trees, significantly exceeding the City's minimum requirement of one shade tree or six plantings per 5,000 square feet of lot area. Based on the development parcel's total area of 4.818 acres, the project would require 42 trees to meet this standard.

The design of the parking area is broken up with landscaped islands as required by the City's site plan ordinance and further detailed in Section 4 of the City of Portland Technical Manual. The applicant has also provided 44 canopy trees within the parking lot area to satisfy the City's parking lot landscaping requirement, which requires one tree per 750 square feet of asphalt. The development's overall off-street parking area totals approximately 29,600 square feet, which would require approximately 39 trees to be provided within the parking area, which the applicant exceeds.

Along the perimeter of the site, the applicant proposes a combination of a dense vegetated buffers and privacy fencing to screen the development from adjacent properties and to help mitigate potential impacts such as noise and headlight glare from vehicles. An 8-foot vinyl privacy fence would provide additional screening around the northern and western edges of the property. Shorter four-foot decorative iron fencing would be provided in segments around the site where screening is less critical. With respect to the required screening of on-site mechanical equipment and solid waste enclosures, the applicant proposes to place HVAC equipment on the roof of proposed buildings, and use an architectural screening element to screen these from view. The solid waste receptacles are located off of the proposed off-street parking areas, and are enclosed and screened per the City's requirements.

Non-vehicular hardscaped surfaces within the site, will have an initial solar-reflectivity index (SRI) of 39 and an aged SRI of 28, which complies with the City's minimum standard of 33 SRI, with an aged SRI score of 28.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met.

C. Water quality/storm water management/erosion control

The project results in the creation of more than 1,000 square feet of new impervious surface and is required to provide for stormwater management in accordance with Maine DEP Chapter 500 and City of Portland Technical Manual Section 5 standards for stormwater management. The applicant has submitted a comprehensive stormwater management plan that demonstrates compliance with both Section 5 of the Technical Manual and the Maine DEP Chapter 500 standards. This application would result in the creation of approximately 37,177 square feet of new impervious area.

Stormwater Treatment would be accomplished using a ConTech subsurface filter to provide for stormwater management on the site. According to the stormwater management report, these systems have been sized to provide the required level of treatment for the developed area of the site. Staff have drafted a condition of approval requiring the applicant enter into a stormwater maintenance agreement with the City.

Pursuant to Section 13.6.2 (C)(4) of the Land Use Code, which requires applicants to demonstrate that subsurface and/or adjacent slope conditions are suitable to support the proposed development, a third-party geotechnical review was undertaken to verify the project's compliance with this standard. This review was performed by SGH Engineering, the City's on-call third-party peer reviewer for geotechnical reviews.

The review determined that the existing site soils, which are comprised primarily of fill material, are susceptible to long-term settlement and compression, and that additional slope stabilization measures may be necessary along the steep slope at the rear of the site. In response, staff have drafted a condition of approval requiring the applicant to continue coordinating with SGH Engineering to develop appropriate stabilization strategies for this slope. This process will involve iterative review of the applicant's geotechnical report and associated plans by SGH until all outstanding comments have been satisfactorily addressed. Any resulting modifications to the site plan would be required to be reviewed and approved by the Planning Authority.

The full geotechnical report and peer-review can be found as attachments S and S3

Finding of Fact: Based on the submitted application materials and description presented above, this standard is determined to be met subject to compliance with the condition of approval detailed above.

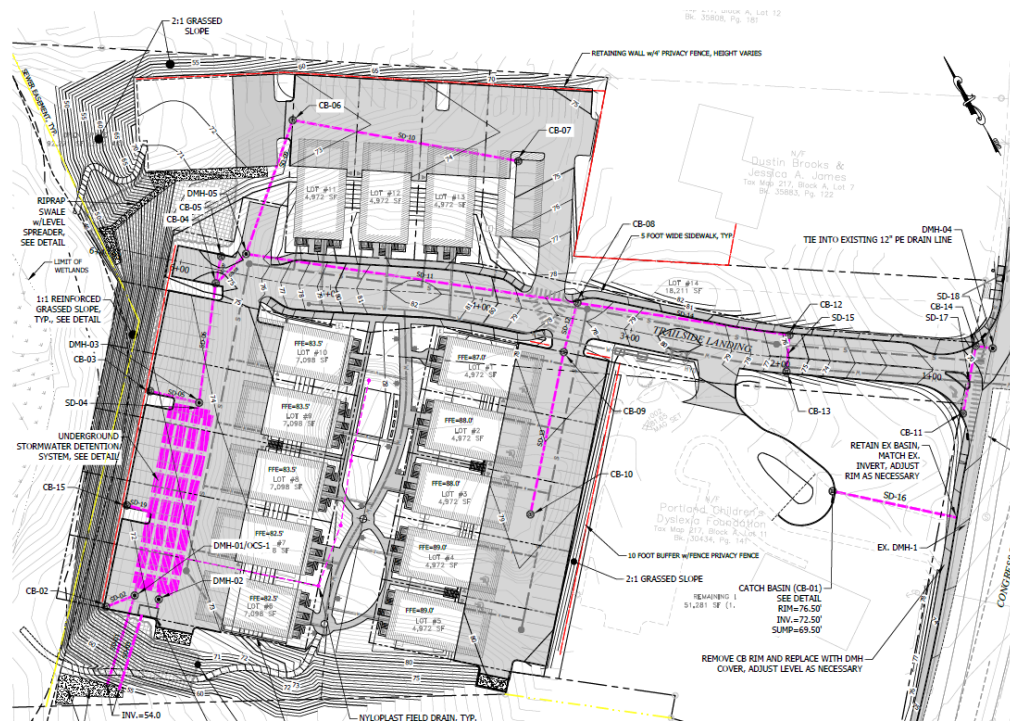


Figure 3: Site Grading and Stormwater Detention Plan

3. Public Infrastructure and Community Safety Standards (Section 13.6.3)

A. Consistency with City Master Plans

The proposed development fully complies with the zoning requirements of the RN-1 Residential zone and other regulations as contained within the City of Portland Land Use Code, which was unanimously recommended by the Planning Board and unanimously adopted by the City Council in November of 2024 on the basis of its consistency with Portland's Plan 2030.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met.

B. Public Safety and Fire Prevention

The applicant has provided fire truck turning templates for internal parking lots and the Congress Street intersection. “Hammerhead” turnarounds have been provided at the end of the proposed private way to enable emergency vehicle apparatus to circulate throughout the site.

Each building within the site would have controlled access points. The amenity building would also be secured and accessible only to site residents. Common open space areas are enclosed by residential buildings to promote natural surveillance and security, with site lighting, numerous ingress/egress points, and multiple forms of activation. As designed, the overall development and common open space areas comply with the crime prevention through environmental design principles and site plan standard.

Finding of Fact: Based on the submitted application materials and description presented above, this standard is determined to be met.

C. Availability and capacity of public utilities

The site would be served by water and sewer lines extending from existing utility lines which run beneath Congress Street. Electrical utilities would be extended from Congress Street via an underground conduit. The applicant has requested ability to serve letters from Central Maine Power and Portland Water district. Staff have drafted a Condition of Approval requiring the applicant to provide outstanding ability to serve letters.

The project complies with the City’s solid waste management requirement, which applies to residential developments of 20 units and requires that they provide for the temporary storage and timely removal of trash and recyclable materials. The development includes two fully enclosed solid waste receptacle areas, each designed to accommodate both trash and recyclables, including paper, corrugated cardboard, plastics, and metals. Trash and recycling containers are housed in separate, clearly designated enclosures to facilitate proper separation of materials. Both receptacle areas are fully screened from view from public sidewalks, streets, and adjacent properties, consistent with the City’s standards for exterior waste storage. The applicant intends to contract with a private waste hauler to remove waste in a timely manner from the site.

Finding of Fact: Based on the submitted application materials and the description presented above this standard is determined to be met subject to the conditions of approval detailed above.

4. Site Design Standards (Section 13.6.4)

A. Massing, ventilation, and wind impact

All residential buildings would feature roof-mounted utilities set back from the roofline to avoid impacts to abutting buildings or open space areas. These are proposed to be screened from view using architectural screening. In the applicant’s materials, they confirm that a minimum of 75% of the buildings’ roof area meets the City’s solar reflectivity index (SRI) requirement, with an initial SRI score of 82, and an aged SRI score of greater than 64.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met.

B. Shadows

The proposed buildings would be approximately three stories in height, but are set back sufficiently to avoid shadow impacts on surrounding properties. Furthermore, the proposed building heights are well below the minimum threshold that triggers compliance with the City's Shadow standard, which applies only to buildings measuring 65 feet in height or greater.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be not applicable.

C. Snow and ice loading

All development subject to the City's site plan ordinance are required to design the development to prevent significant amounts of accumulated snow and ice from loading or falling onto adjacent properties or public ways. The applicant details snow storage locations on their site plan, however certain locations, such the proposed storage location at the rear of the site, are proposed on an area with a steep slope that is not easily accessible. Given this, staff are recommending a condition of approval which would require that the applicant prepare an updated site plan with accompanying narrative detailing the applicant's snow removal plan. This condition would be required to be reviewed and approved by the Planning Authority prior to issuance of the building permit.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met, subject to compliance with the condition of approval as detailed above.

D. View corridors

Not applicable. This application is not within a protected view corridor.

Finding of Fact: This standard is not applicable to this application

E. Historic resources

Not applicable. This application is not within a historic district. In the event that historic or archaeologically significant resources are uncovered during construction, the applicant would be required to adhere to the protocols listed under this standard.

Finding of Fact: This standard is not applicable to this application

F. Exterior lighting

The site will feature full cutoff / dark sky-compliant light fixtures to minimize light spillover. buildings will feature wall-mounted lighting to provide lighting for parking areas and walkways. Common open space areas will have illuminated in-ground bollards. As designed, the applicant's site and street lighting plans comply with the City's requirements around light trespass, minimum, average and maximum light levels, fixture placement, fixture type, and both luminosity and color

temperature requirements. These requirements are fully detailed in Section 8 of the Technical Manual.

The applicant has provided a full photometric plan which is included as Attachment 17

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met.

G. Noise and vibration

Given the location of the proposed buildings, the placement of HVAC generators and other equipment is not anticipated to interfere with abutting residential properties. Mechanical equipment is proposed to be roof-mounted and screened from view using architectural screening elements.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met.

H. Signage and wayfinding

No wayfinding signage is proposed as part of this application.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met.

Zoning-related design standards

This application was subject to a design review as outlined in the City of Portland Design Manual section (i) (*two-family, multi-family, lodging houses, bed and breakfasts and emergency shelters*) design standards. A design memo was provided to the applicant by Planning Staff on May 25, 2025.

Staff's design review focused primarily on open space access, building orientation and site circulation. Staff requested that the applicant provide additional connectivity between parking areas and shared open space. The applicant has provided additional external walkways connecting parking areas to the central courtyard.

Within each building, staff requested that the applicant provide a common entrance fronting the shared open space to allow direct access to the courtyard from all units of each building. The applicant has successfully responded to these comments by adding a shared primary front entrance for each building.

Staff have determined that the applicant has successfully responded to comments raised during the design review. Based upon revised plans submitted by the applicant, Staff drafted a revised Design Memo on July 17, 2025.

The full May 2025 Design Memo is included as Attachment S1 and the July 17 Design Memo is included as Attachment S2

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met.

X. SUBDIVISION REVIEW

Section 14.4.1 of the City's Land Use Code establishes standards under which Subdivision applications must be reviewed. These standards generally overlap with Site Plan standards outlined in Section 13.6 of the Land Use Code, and compliance with which is detailed in the preceding section of this report, Section IX. Therefore, staff refer to the site plan assessment where appropriate in the subsequent subdivision standards assessment.

Per this section, Subdivisions shall adhere to the following requirements:

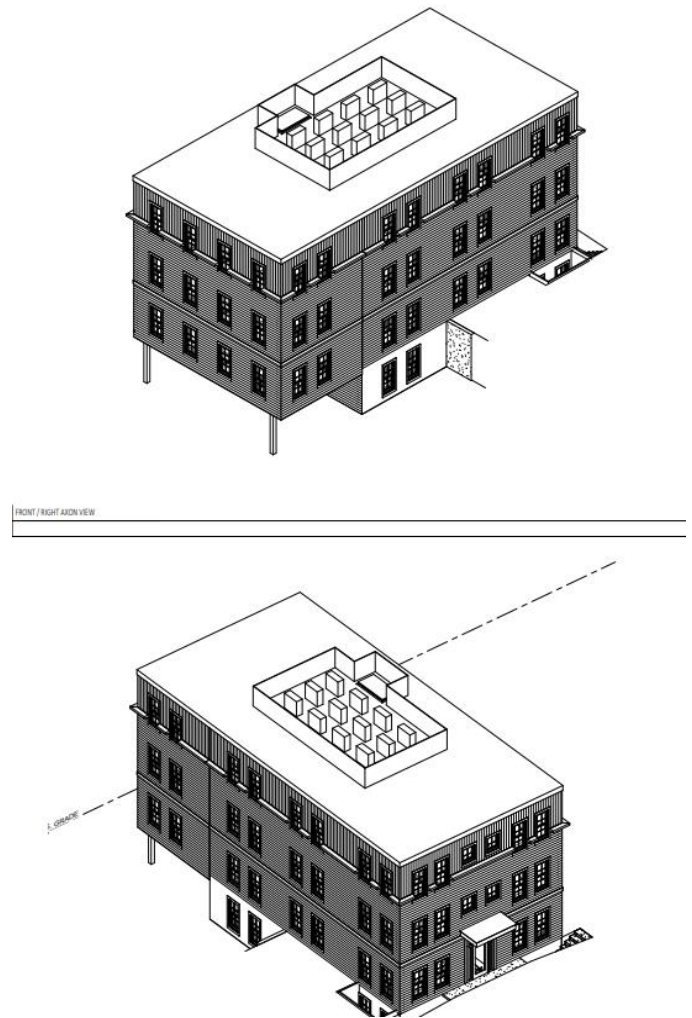


Figure 4: Building Perspective Renderings

A. Water or Air Pollution

Refer to site plan assessment of stormwater management and erosion control. This application is not anticipated to result in any discharge to adjacent water bodies or in increased air pollution.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met

B. Sufficient Water Supply

An ability-to-serve letter from the Portland Water District has not been provided. Staff are reviewing the availability and capacity of public utilities for this application and have drafted a condition of approval requiring the applicant to submit utility capacity verification to the Planning Authority prior to the issuance of any building permits.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met subject to compliance with the condition of approval detailed above.

C. Impacts to Existing Water Supply

Refer to site plan assessment of public utilities. As noted under the preceding standard, staff have included a condition of approval requiring submission of an ability-to-serve letter from the Portland Water District, which would satisfy this subdivision standard.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met subject to compliance with the condition of approval detailed above.

D. Soil Erosion & Stormwater Detention

Refer to the site plan assessment of water quality, stormwater management, and erosion control standards. As noted in the aforementioned site plan standard assessment, the applicant will be required to coordinate with SGH Engineering to confirm the stability of the slope at the rear of the development site. This coordination, along with required plan revisions has been drafted as a condition of approval.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met subject to compliance with the condition of approval detailed above.

E. Impacts to Highways & Public Roads

Refer to site plan assessment of transportation standards. As noted in the aforementioned site plan standard assessment, the applicant will be required to coordinate with the Department of Public Works, the City's third-party traffic engineer and Maine DOT to finalize the plan for improvements within Congress Street, which is State Route 22. The City has drafted a condition of approval which would require that the applicant modify their site plan based upon City feedback, specifically to address concerns with the proposed curb radii for the driveway, the design of islands to help control turning movements, and the widening of Congress Street by approximately five feet. This condition must be met before any building permits can be issued.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met, subject to compliance with the condition of approval detailed above.

F. Adequate Sewer & Stormwater Disposal

A wastewater capacity authorization has not been provided. Staff are still reviewing the applicant's request for sewer capacity verification, which has been drafted as a condition of approval to supply before building permits are issued.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met

G. Impacts to City Solid Waste & Sewage

This application will be required to utilize a private hauler for solid waste removal. The applicant has committed to this, and will be required to detail their solid waste management strategy in the project's condominium documents.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met

H. Adverse Impacts on Visual, Historic & Natural Resources

Please refer to the site plan assessment for the preservation of natural resources standard and the historic resources standard.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met

I. Compliance with Comprehensive Plan

Refer to the Site Plan assessment of compliance with the Comprehensive Plan.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met

J. Financial and Technical Capacity

Refer to Section VII of this report.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met

K. Shoreland Zone Impacts

Not applicable. The project is not located within the shoreland zone.

Finding of Fact: Not applicable to this application

L. Groundwater Quality & Quantity

The applicant is proposing a water service connection to existing Portland Water District utility lines, and does not intend to tap into the underlying groundwater to service the development. The applicant

is providing on-site stormwater treatment and detention which meets Chapter 500 standards, which would treat 95% of stormwater that may infiltrate into the underlying groundwater. Given these development characteristics, no impact to groundwater is anticipated.

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met

M. Flood Risk

Not Applicable. The site is not located in a flood zone.

Finding of Fact: Not applicable to this application

N. Stormwater Management

Refer to the site plan assessment of the site plan assessment of stormwater management

Finding of Fact: Based on the submitted application materials and description presented above this standard is determined to be met

O. Depth-to-Shore Frontage Ratio

Not Applicable

Finding of Fact: Not applicable to this application

XI. NEIGHBORHOOD MEETING AND PUBLIC COMMENT

The applicant held an initial neighborhood meeting on June 26, 2024 at 6pm. The in-person meeting was held at the Elks Lodge located at 1945 Congress Street. In total, 15 members of the public were in attendance. Public comment centered on:

- Traffic impacts on Outer Congress Street
- Green space and buffers to surrounding properties.
- Noise and light pollution

A written summary of the meeting was provided at the request of staff. A full sign-in sheet and meeting minutes from the June meeting are included as Attachment U.

An additional informal neighborhood meeting was held by the applicant with the Stroudwater Neighborhood Association on April 2, 2025. As this meeting was not formally required, a sign-in sheet and meeting minutes were not provided by the applicant to city staff.

XII. 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 plan and subdivision application for 1877 Congress Street (PL-003020-2024) meets the applicable standards of Portland's Land Use Code.

PROPOSED MOTIONS

A. 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 July 22, 2025 for application PL-003020-2024 at 1877 Congress Street 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 and **[approves/does not approve]** the application, subject to the following conditions:

PRIOR TO ISSUANCE OF A BUILDING PERMIT:

1. That the Subdivision Plat shall be finalized to the satisfaction of the Planning Authority, Department of Public Works, and Corporation Counsel prior to signature by the Planning Board. Once signed, and following collection of the required performance guarantee, the applicant shall record the signed recording plat at the Cumberland County Registry of Deeds, and shall provide a mylar copy of the plat with recording information to the City of Portland Engineering Archive located at 212 Canco Road.

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 July 22, 2025 for application # PL-003020-2024 at 1877 Congress Street 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 ISSUANCE OF A BUILDING PERMIT

1. The applicant shall provide ability to serve letters from Central Maine Power, the Portland Water District, and the Department of Public Works Water.
2. The applicant shall enter into an affordable housing agreement (AHA) with the City of Portland for 39 workforce housing units, constituting 25% of the total unit count.
3. The applicant shall coordinate with Greater Portland METRO staff to finalize the design and location of the proposed transit shelter and shall update their site plan accordingly.
4. The app
5. licant shall finalize their stormwater maintenance agreement with a winter maintenance agreement addendum to the satisfaction of the Department of Public Works and Corporation Council.
6. The applicant shall establish a public easement encompassing all publicly accessible areas of the site within the property boundary including sidewalks, drive aisles, parking areas and future trail connections to be developed separately. This easement shall be reviewed and accepted by the Planning Authority and Corporation Council and be recorded in the Cumberland County Registry of

Deeds.

7. The applicant shall coordinate with the Department of Public Works and Maine Department of Transportation to finalize the design of the Congress Street intersection including raised islands, curb radii and right-of-way alterations within Congress Street
8. The applicant shall coordinate with SGH Engineering staff to develop slope stabilization strategies for the 1:1 slope at the rear of the site and shall update their site plan to reflect recommendations made by SGH. Any modifications to the site plan shall be reviewed and approved by the Planning Authority.

PRIOR TO RECORDING THE CONDOMINIUM DECLARATION

9. The Applicant shall provide a draft condominium declaration and plat which shall detail management structure of the property and incorporate all applicable affordable housing covenants. The declaration and plat shall be finalized to the satisfaction of the Planning Authority and Corporation Counsel.
10. The Applicant shall provide draft deed restriction language required under Section 17.2.2.D.4 of the Land Use Code which shall be finalized to the satisfaction of the Planning Authority and Corporation Counsel.
11. The Applicant and the City shall enter into any other agreements determined necessary by Corporation Counsel to satisfy Section 17.2.2. of the Land Use Code.

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

12. The applicant shall record their affordable housing agreement as covenant to the 1877 Congress Street property deed with the Cumberland County Registry of Deeds.
13. The applicant shall place a 30-year deed restriction on the 39 units required to access the City's density bonus provision, as detailed in the applicant's affordable housing plan and narrative. The deed restriction shall ensure that these units comply with the City's 'low-income housing unit for sale' definition, as outlined in Article 3 of the Land Use Code.
14. The applicant shall record the finalized Condominium Declaration, along with all associated plans and documents, at the Cumberland County Registry of Deeds. Proof of recording shall be submitted to the Planning Authority.
15. 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 on-site, the applicant shall pay into the City's Jill C. Duson Housing Trust Fund at a ratio of \$182,830 per required workforce unit, as required under Ch. 14, Sec. 17.2.3.C.6.

C. PLANNING BOARD DECISION

On the basis of the findings, conclusions and recommendations contained in the Planning Board report for the public hearing on July 22, 2025 related to application PL-003020-2024 for 1877 Congress Street , 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-003020-2024 and authorizes the Planning Board Chair to sign the approval letter as drafted.

XIII. ATTACHMENTS

Report Attachments

- S1. May 2025 Design Memo
- S2. July 2025 Design Memo
- S3. Third-Party Geotechnical Review
- S4. July 2025 Department of Public Works Comments

Applicants Submittal

- A. Cover Letter
- B. Site Plan Checklist
- C. Subdivision Checklist
- D. Right, Title& Interest
- E Technical Capacity
- F. Financial Capacity
- G. Site Plan Standards
- H. Site Narrative
- I. Landscaping Standards
- J. .Public Utilities
- K. Solid Waste Narrative
- L. Design Narrative
- M Applicant Response to Comments7.2.25
- N. Zoning Analysis
- O. Conservation Residential Development
- P. Affordability Narrative
- Q. Stormwater Report
- R. Low Impact Development Scorecard
- S. Geotechnical Report
- T. May 2025 Traffic Report
- U. Neighborhood Meeting Materials

Drawings

- 1. Cover Sheet
- 2. Subdivision Plan
- 3. Demolition Plan
- 4. Site and Landscaping Plan
- 5. Grading & Drainage Plan
- 6. Road Profile
- 7. Utility Plan

8. Erosion Control Plan
9. Erosion Control Details
10. Intersection Plan
11. Site Details
12. Sidewalk and ADA Ramp Plan
13. Existing Drainage
13. Turning Templates
14. Drainage Plan
15. Community Building Plans
16. Architectural Plans and Elevations
17. Photometric Plan
18. Tree Removal Plan

Subject: 1877 Congress Street – Major Site Plan Review
Zone: RN-1
Date of May 20, 2025
Review: Design Review – Comment letter
Reviewer(s): Eric Freeman (Planner), Sean King (Urban Designer), Matt Grooms (Deputy-Director), Neha Sunil Pol (Planner)
Project ID: PL-003020-2024

I. INTRODUCTION

The proposed project at 1877 Congress Street to include thirteen multiple-family residential buildings is subject for design review according to the multiple-family residential housing design standards from the City of Portland *Design Manual* as defined in the land use code section 13.6.4.I.

The built context of the surrounding area is primarily single-family residences that reflect an architectural character and arrangement of its time period. In addition, several large footprint commercial buildings and smaller institutional buildings are located along Congress Street.

II. STAFF RECOMMENDATIONS FOLLOWING PLANNING BOARD WORKSHOP – APRIL 22, 2025

Following the Planning Board Workshop held on April 22, 2025, Staff recommends that the Applicant revise design-related comments and resubmit materials at their earliest convenience in advance of next Planning Board agenda item. The Applicant is requested to resubmit architectural elevations with proposed exterior façade materials, mechanical equipment and average grade calculations and to resubmit plans with proposed site amenities in the greenspace area for Staff review.

Staff recommends a more prominent building entrance, such as a recession, overhead canopy, and/or material change with detailed trim, to articulate the building frontage facing the street or the central greenspace. In addition, the Applicant is requested to explore a shared building entry and corridor at the building frontage that allows residents access to all floors.

Staff recommends the Applicant include additional pedestrian pathways or a shared internal corridor that allows residents to circulate from the rear parking area to the building frontage facing the street or the central greenspace. As currently proposed, several pedestrian pathways conflict with the proposed window wells for the basement residential units. Staff recommends further consideration to enhance opportunities for sunlight in the residential units located in the basement.

III. DESIGN REVIEW COMMENTS: red text denotes standards not met and require resubmission.

MULTIPLE-FAMILY STANDARDS. Multiple-family shall meet the following standards:

1. *The exterior design of the proposed structure, including architectural style, façade materials, roof pitch, building form and height, window pattern and spacing, porches and entryways, cornerboard and trim details, and façade 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; **Not Met***

Staff comment: The nearest residential neighborhood consists of properties within and outside of the Stroudwater historic district of primarily single-family residences of various architectural style that in general reflects the time period in which they were built. For instance, single-family residences express an organization of architectural elements that face the street with an articulated building entry, a rhythm of fenestration and pitched roof forms. The proposed use of horizontal siding and regularly aligned, vertically oriented windows are strong points of compatibility for the proposed structures.

The proposed multi-family buildings utilize a similar floor plan and exterior design that Staff finds repetitive and are located with building frontages towards the street or the central greenspace. Staff recommends additional façade variations that articulate the building entrances with a change in exterior material or other architectural features.

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; **Not Met***

Staff comment: The nearest residential neighborhood consists of primarily single-family residences along public streets with a variation of front setbacks that relate to the natural topography, neighborhood compatibility and time period in which these structures were built.

The proposed multi-family buildings and arrangement of lots deviates from the surrounding context where buildings are primarily located along and with direct access to a public street.

Staff recommends that the Applicant arrange the proposed buildings to establish a relationship with the proposed public street and central greenspace through the orientation of building entrances.

3. *Open space on the site for all multiple-family development shall be integrated into the development site. Such open space in 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; **Not Met***

Staff comment: The proposed development includes a shared central greenspace and buffering with privacy fencing and landscaping at adjacent properties. Staff recommends that the Applicant indicate proposed site amenities in the central greenspace and pedestrian pathways that connect residential units to the shared open space.

4. *The design of proposed dwellings shall provide ample windows to enhance opportunities for sunlight and air in each dwelling in principle living areas and shall also provide sufficient storage areas.* **Not Met**

Staff comment: The resubmitted plans indicate a majority of sufficient windows throughout each residential dwelling unit; however, Staff is concerned about the appropriateness of window wells to allow sunlight into the proposed basement units. Staff will review this design standard in relationship to the Applicant's resubmitted plans for site circulation that address access from rear parking areas to building frontages.

5. *The scale and surface area of parking and driveways and paved areas are arranged and landscape to properly screen vehicles from adjacent properties and streets.* **Met**

Staff comment: The proposed development includes parking areas at the rear of each property and screened from abutting properties with either privacy fencing or evergreen landscaping that Staff finds to meet this design standard.

Subject: 1877 Congress Street – Major Site Plan Review
Zone: RN-1
Date of July 17, 2025
Review: Design Review – Comment letter
Reviewer(s): Eric Freeman (Planner), Sean King (Urban Designer), Matt Grooms (Deputy-Director), Neha Sunil Pol (Planner)
Project ID: PL-003020-2024

I. INTRODUCTION

The proposed project at 1877 Congress Street to include thirteen multiple-family residential buildings is subject for design review according to the multiple-family residential housing design standards from the City of Portland *Design Manual* as defined in the land use code section 13.6.4.I.

The built context of the surrounding area is primarily single-family residences that reflect an architectural character and arrangement of its time period. In addition, several large footprint commercial buildings and smaller institutional buildings are located along Congress Street.

II. DESIGN REVIEW COMMENTS: red text denotes standards not met and require resubmission.

MULTIPLE-FAMILY STANDARDS. Multiple-family shall meet the following standards:

- The exterior design of the proposed structure, including architectural style, façade materials, roof pitch, building form and height, window pattern and spacing, porches and entryways, cornerboard and trim details, and façade 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; Met*

Staff comment: The nearest residential neighborhood consists of properties within and outside of the Stroudwater historic district of primarily single-family residences of various architectural style that in general reflects the time period in which they were built. For instance, single-family residences express an organization of architectural elements that face the street with an articulated building entry, a rhythm of fenestration and pitched roof forms. The proposed use of horizontal siding and regularly aligned, vertically oriented windows are strong points of compatibility for the proposed structures.

The exterior design of the proposed multi-family residential structure is three to four stories with a flat roof form. Architectural detailing is proposed throughout each facade through trim around windows, banding to delineate floors, and a pronounced cornice above the third floor to articulate the vertical siding orientation at the upper floor. The resubmitted plans include a shared primary entryway door with transom glass panels and an overhead canopy that Staff finds creates a distinguishable front-facing façade, allowing residents access to the sidewalk at the street or central green space. Staff finds that the

latest architectural plans and elevations for the proposed multi-family residential structure is appropriate to the surrounding context.

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; Met*

Staff comment: The nearest residential neighborhood consists primarily of single-family residences along public streets with a variation of front setbacks that relate to the natural topography and time period in which these structures were built. **The proposed development plan is significantly setback from Congress Street and does not tie into the neighboring public street network. The proposed development is organized with fourteen subdivided lots, thirteen of which place a multi-family building with a primary building entry that faces either the private street, known as Trailside Landing, or the central green space that Staff finds appropriate.**

3. *Open space on the site for all multiple-family development shall be integrated into the development site. Such open space in 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; Met*

Staff comment: **Open space is integrated into the proposed development with the creation of the central greenspace that includes a playground, opportunities for seating, pedestrian-scaled lighting and sidewalks to connect residents from the private street, rear parking areas and front entryways. In addition, the plans include vegetation as screening from neighboring properties that contribute to open space on the site that Staff finds appropriate to meet this design standard.**

4. *The design of proposed dwellings shall provide ample windows to enhance opportunities for sunlight and air in each dwelling in principle living areas and shall also provide sufficient storage areas. Met*

Staff comment: **The resubmitted plans provide ample windows throughout each residential dwelling unit. In addition, Staff finds that each residential unit provides sufficient storage areas.**

5. *The scale and surface area of parking and driveways and paved areas are arranged and landscape to properly screen vehicles from adjacent properties and streets. Met*

Staff comment: **The proposed development includes parking areas at the rear of each property and is screened from abutting properties with either privacy fencing or evergreen landscaping that Staff finds appropriate to meet this design standard.**

DRAFT

Mr. Eric Freeman
 Planning & Urban Development Department
 City of Portland
 389 Congress Street
 Portland, ME 04101

Project 231107 - Third Party Reviewer and Consulting Services for the Proposed
 Stroudwater Commons Housing Development, 1877 Congress Street,
 Portland, ME

Subject: Potential Subsurface Conditions Risks.

Dear Mr. Freeman:

As requested, Simpson Gumpertz & Heger Inc. (SGH) completed a third-party review of the design documents you provided for the above-named project. We summarize our findings and recommendations here.

1. BACKGROUND

We understand that Greenmars Real Estate is looking to develop the site at 1877 Congress Street in Portland, Maine. The Project consists of a multi-residential development within an approx. 175,874 sf undeveloped, partially wooded site. We understand from the City of Portland Planning & Urban Development Department that uncontrolled fill was placed in portions of the site circa the 1970s. Existing wetlands are located on the west side of the site.

In June 2025, the City of Portland approached Simpson Gumpertz & Heger Inc. (SGH) to perform a third-party review of the proposed development's below-grade construction elements and identify potential risks to adjacent structures and infrastructure.

2. RELEVANT PARTIES

- City of Portland, Maine, Planning & Urban Development Department - Agency responsible for proposed development plan approval.
- St. Albans Corporation - Property Owners.
- Greenmars Real Estate (Greenmars) - Project Developer.

- Greenmars Development - Project Civil Engineer.
- S.W. Cole Engineering Inc. (S.W. Cole) - Project Geotechnical Engineer/Soil Scientist.
- BH2M – Surveyor.

3. REVIEW OF DOCUMENTS

We received the following relevant documents from the City of Portland for review:

- Preliminary Geotechnical Engineering Services Report, Proposed Housing Development 1877 Congress Street, Portland, Maine, prepared by S.W. Cole, dated 24 May 2024.
- Civil Plans, Stroudwater Commons, Conservation Residential Development, 1877-1897 Congress Street, Portland, Maine, dated 17 April 2024, Rev. 4 dated 16 May 2025 (Not for Construction). Sheets C-100, C102, C104-C108, C401, C501-C508.
- Boundary Survey and Existing Conditions Plan, dated February 2024, prepared by BH2M (included in the Civil Plans drawing set).

4. REVIEW SUMMARY

Based on our review of the documents provided, we summarize the following:

- The existing conditions survey indicates the topographic elevations are referenced to the NAVD 88 Datum.
- As part of the preliminary subsurface investigation, S.W. Cole performed 8 soil test borings. Five out of the seven soil test borings encountered 20 to 25 ft of very loose to loose granular uncontrolled fill with varying content of clay, organics and construction debris. One soil test boring encountered a 2-ft thick layer of organics underlying the uncontrolled fill.
- A generally stiff to hard clay underlies the uncontrolled fill. However, we note that four of the seven soil test borings encountered 7 to 17 ft of a very soft to soft silty clay stratum starting at about El. 50 to 52 ft., with Standard Penetration Test (SPT) N-blowcounts ranging from 1 to 3 blows per foot (bpf). Field vane shear tests performed in soil test boring B-4 indicate a peak shear strength of 0.6 to 0.7 ksf and a residual strength of 0.11 to 0.14 ksf.
- Both the uncontrolled fill and the very soft to soft clay are typically encountered within the location of Lots 1 to 10 (southern two-thirds of the site).

-
- PROPOSED 10-UNIT BUILDING, TYP., SEE ARCH. PLANS
 OPEN SPACE
 92,271 SF (2.12 AC)
 PUBLIC ACCESS TRAIL
 GUARD RAIL AT END OF ROAD
 SNOW STORAGE, TYP.
 GRASSED OPEN SPACE, TYP.
 GUARD RAIL, TYP.
 LOT #11 4,972 SF
 LOT #12 4,972 SF
 LOT #15 4,972 SF
 LOT #10 7,098 SF
 LOT #9 7,098 SF
 LOT #8 7,098 SF
 LOT #7 7,098 SF
 LOT #6 7,098 SF
 LOT #1 4,972 SF
 LOT #2 4,972 SF
 LOT #3 4,972 SF
 LOT #4 4,972 SF
 LOT #5 4,972 SF
 8' x 24' DUMPSTER PAD w/ENCLOSURE, SEE DETAIL
 8' x 20' DUMPSTER PAD w/ENCLOSURE, SEE DETAIL
 BIT SIDEWALK/WALKWAYS IN OPEN SPACE, TYP., SEE DETAIL
 WALKWAYS LIGHTING, TYP.
 THREE STORY, 3,750 SQUARE FOOT PLACE OF ASSEMBLY
 STREET TREE, TYP., SEE DETAIL
 SIDEWALK RAMP, TYP., SEE DETAIL
 5' CURB EXTENSION RAD., TYP.
 6' WIDE PARKING LANE, TYP.
 PRIVATE WAY (STROUDWATER LANE), TYP., SEE DETAIL
 LOT #14 19,511 SF
 SNOW STORAGE, TYP.
 DETECTABLE WARNING, SEE DETAIL
 4-FOOT CROSSWALK, SEE DETAIL
 STROUDWATER LANE
 4' WROUGHT IRON FENCE
 PLAYGROUND
 BIKE RACK, TYP., SEE DETAIL
 8' PRIVACY FENCE ALONG ENTIRE PROPERTY LINE
 ADA PARKING SPOT, TYP., SEE DETAIL
 ACCESSIBLE PARKING SIGN PER MUTCD R7-8 & R7-8A, TYP., SEE DETAIL
 REMAINING LAND 51,281 SF (1.18 AC)
 NEW PAVED LOOP DRIVEWAY FOR DROPOFFS
 CLOSE EXISTING DRIVEWAY
 NEW 5'-0" BIT. SIDEWALK SAWCUT, TYP., SEE DETAIL
 EXPAND CONGRESS STREET TO ACCOMMODATE LEFT TURN LANE ONTO STROUDWATER LANE
 STOP SIGN, MUTCD R1-1, TYPICAL AT ALL INTERSECTIONS, SEE DETAIL
 ROAD SIGN "WILBUR'S WAY"
 SIDEWALK RAMP, SEE DETAIL
 MAST ARM FOR "NO LEFT TURN" SIGN
 CONNECT TO EXISTING SIDEWALK, LIMIT OF LANE SHIFT
 EXTEND 5'-0" WIDE BIT. SIDEWALK POLE FOR CROSS WALK SYSTEM, TYP.
 CURBED ISLAND, TYP.
 BUS SHELTER, SEE DETAIL
 40' RADIUS

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5. SUBSURFACE CONDITIONS – RISK IDENTIFICATION

- Both the uncontrolled fill and the very soft to soft clay strata are highly compressible soils, which will result in long-term settlement, especially under the added weight of the fill required to bring the site to the proposed finish grade. This long-term settlement is likely to continue beyond the end of construction and result in differential settlements that can impact the proposed residential structures, site improvements, and utility systems, unless mitigated.
- Site development includes construction of a 1H:1V reinforced slope on the west side of the site. There are currently no soil test borings in this area. However, assuming subsurface conditions are similar to the nearest soil test borings B4, B6, and B-7, the very soft to soft clay stratum identified above will be present near the base and toe of the slope, posing a risk for global slope instability. The very soft to soft clay stratum will need to be removed or strengthened to allow for an adequate long-term factor of safety for slope stability in this area. The mitigation measure selected needs to take into consideration impacts on the adjacent wetlands.
- In addition, the civil plans indicate that the proposed 1H:1V slope will be grassed. Given the steepness of the slope, without special measures, it is unlikely that grass seeding will take root or provide sufficient stabilization to prevent sloughing during high-precipitation events. Although setting of grass seeding is more likely in the 2H:1V slopes, maintenance, if required, will be difficult.
- Due to the location of the proposed underground stormwater detention system near the crest of the proposed 1H:1V reinforced slope, and the intended use of the slope for snow storage, the slope stability analyses require careful consideration of the below-grade drainage system design and the design water seepage conditions through the slope. Any global stability analysis of the slope needs to incorporate these conditions. It is likely that the below-grade drainage system design will help to manage the perched groundwater levels currently existing within the uncontrolled fill stratum.
- Given the variability of the uncontrolled fill, the design of the proposed underground stormwater detention system will need to consider a range of infiltration rate values.

6. RECOMMENDATIONS

- Additional subsurface investigation is necessary to define the design shear strength and compressibility parameters for all the cohesive strata present at the site, including the very soft to soft silty clay and stiff to hard clay strata present at the site.

[Name]

- 6 -

[Date]

Project [ProjectNumber]

- Given the anticipated fill height and high compressibility of the existing uncontrolled fill, organic soil, and very soft to soft clay strata present at the site, the site developer and design team should select a mitigation measure or a combination of mitigation measures to reduce the risk of large differential settlements and slope instability at the site.
- The design of the 1H:1V reinforced slope should consider the impact of the proposed underground stormwater detention pond and the proposed snow storage on establishing seepage gradients through the slope. Similarly, slope surface stabilization should consider more reliable methods than grass seeding/vegetation unless combined with gabion baskets or similar, which can provide for the surface stabilization.

Sincerely yours,

Giuliana Zelada-Tumialan, P.E.

Associate Principal

ME License No. 16168

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Eric Freeman <efreeman@portlandmaine.gov>

1877 Congress Street Comments

1 message

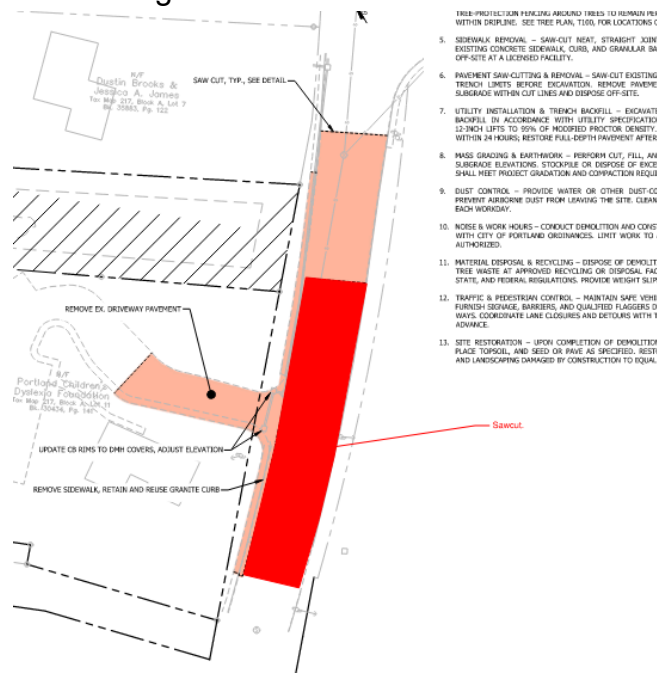
Kristoffer DeVolder <kdevolder@portlandmaine.gov>
To: Eric Freeman <efreeman@portlandmaine.gov>

Fri, Jul 18, 2025 at 12:29 PM

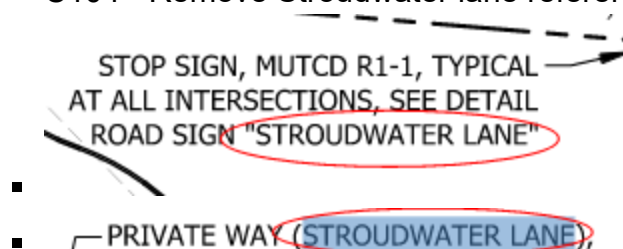
Hello Eric,

Below are my comments on the most recent submittal.

- **PL-003020-2024 1877 Congress Street Major Site Plan**
 - Comments for Review
 - DPW Transportation
 - Applicant shall have their Transportation Consultant review the proposed modifications to Congress Street to verify that they are compliant with all local, and state requirements.
 -
 - C103 - Extend sawcut pavement area. With the Proposed widening and lane shifts Congress Street will need to have the crown readjusted.

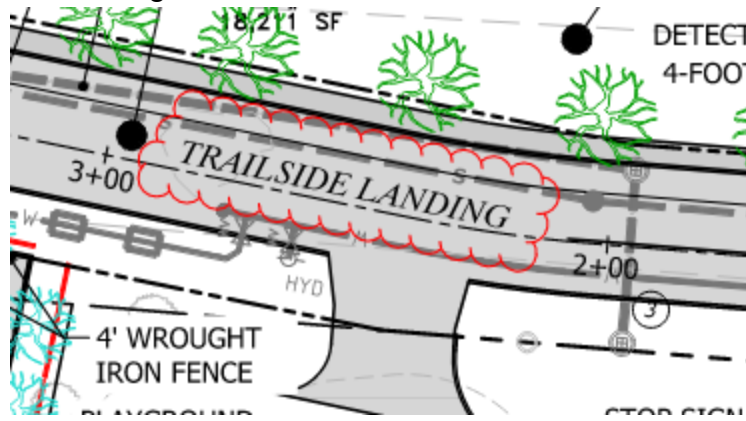


-
- C104 - Remove Stroudwater lane references

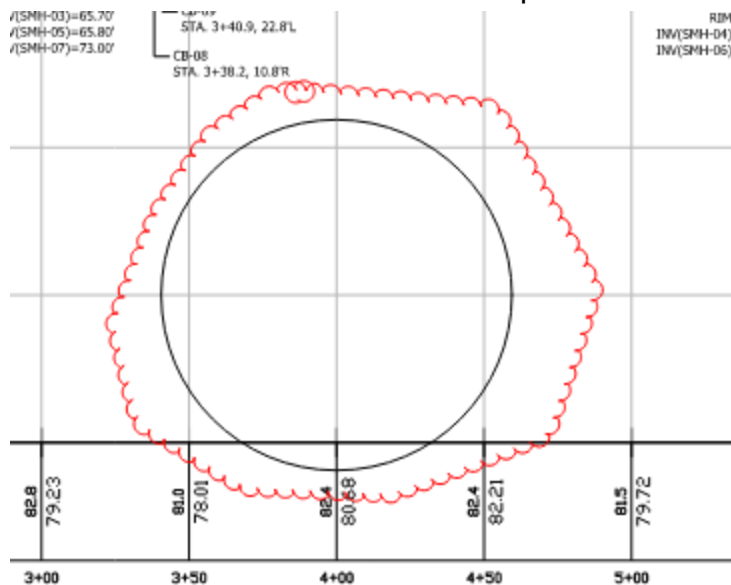


EXPAND CONGRESS STREET TO
ACCOMMODATE LEFT TURN LANE ONTO
STROUDWATER LANE

-
- C104 - Contact the City's Addressing Officer Charles Wordell - 207-874-8803 to confirm if Trilside Landing will be acceptable and to configure proposed addressing.

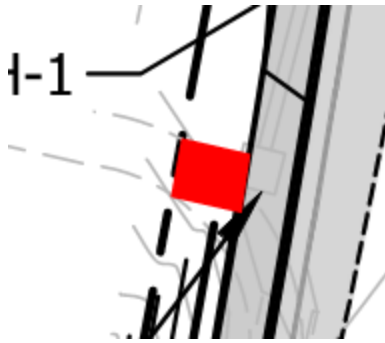


- C104 - Callout new curb on congress
- C106 - Remove undefined circle on profile view

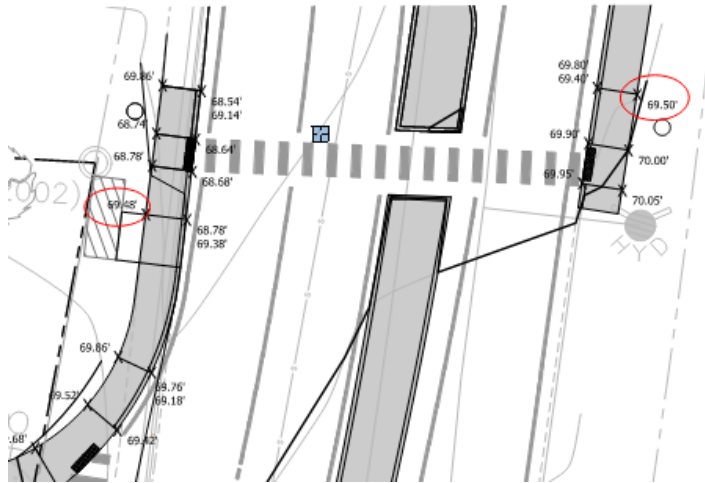


■ E - TRILSIDE LANDING

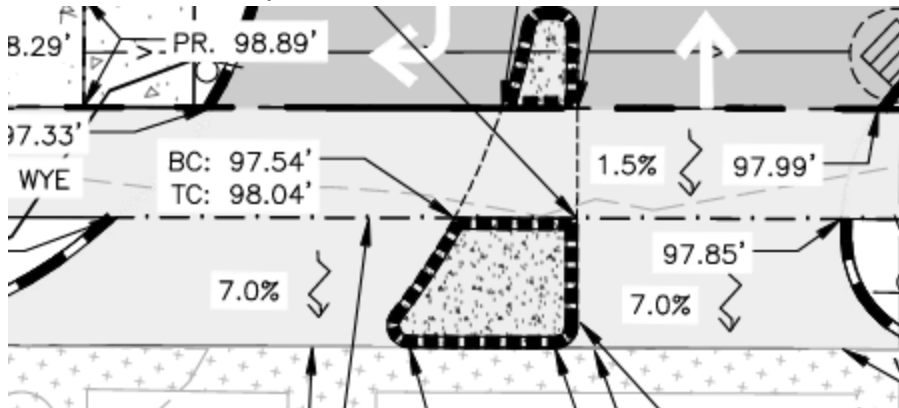
- Include detail for proposed curbed Islands
- Include detail for hybrid pedestrian beacon system
- Include a modified Technical Manual Standard Detail I-3 for the congress Street improvements.
- C109 - Revise island pedestrian crossing see Technical Manual detail I-6H. Include this detail in plan set.
- Extend curbed island further to the south.
- Adjust tie in sidewalk from the Children's Dyslexia Center as part of the driveway closure on Congress Street.



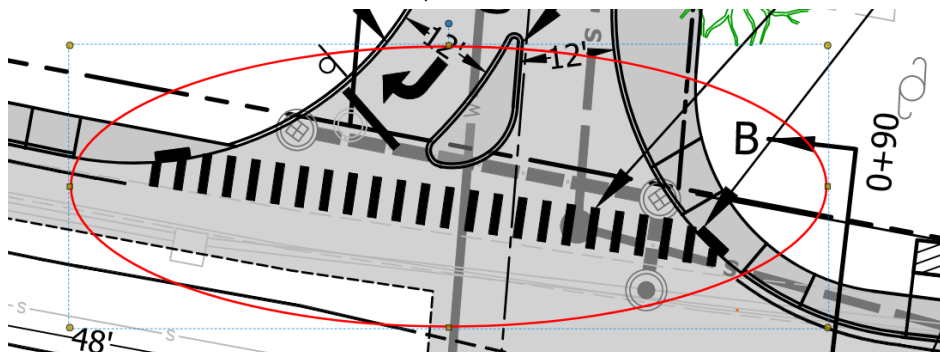
-
- C508 - Label spot grades (Top of curb, bottom of curb etc.), Provide spot grades for islands. Check grading to ensure ADA compliance.



-
- Revise “porkchop” island design. To encompass the pedestrian corridor. See below as an example.



-
- C109 - Revise drive entrance, reduce radii and decrease crosswalk length.



-
- C109 - Call out ROW limits
- C102, C103 - Scale is off, viewport is 1"=40", revise scale on sheet

- C109 - Scale is off, viewport is 1'=20", revise scale on sheet.
- C109 - Revise Island configuration. Extend further south as far as possible to not conflict with the turning movement into the site. Callout island radii.

--

Kris DeVolder, PE
Sr. Engineer
City of Portland Department of Public Works
[212 Canco Rd, City of Portland, ME 04103](#)
kdevolder@portlandmaine.gov
Phone: (207) 874-8817





GreenMars Real Estate Services
30 Exchange Street, Suite 203
Portland, ME 04101

May 26th, 2025

City of Portland Planning Authority
4th Floor, City Hall
389 Congress Street
Portland, ME 04101

**RE: Stroudwater Commons
1877-1897 Congress Street
Map 217, Block A, Lot 10 & 11**

Dear Members of the Planning Committee,

We are pleased to present the Major Site Plan & Subdivision application for the Stroudwater Commons development, led by GreenMars Real Estate Services. Our proposal seeks to establish a vibrant community of 130 apartments and 26 ADU's at 1877 Congress St., with a portion of the neighboring Dyslexia Center's property at 1897 Congress St. integrated into the project.

Situated on a 4.04-acre lot within the Residential 1 Zone (RN-1), this undeveloped parcel boasts a generally sloping site towards the northwest covered with brush, grass and small trees. Access to public water, sewer lines along with other utilities from Congress Street facilitates seamless development. Surrounding the site, a blend of commercial and residential uses contributes to the dynamic character of the neighborhood.

Designed to the Conservation Residential Development standards, the cornerstone of our development plan comprises thirteen four-story buildings, each designed to accommodate ten residential units accessible via a newly constructed private road. To ensure resident convenience, a total of 183 parking spaces, including ADA accessible spots, will be distributed across two off-street lots. Furthermore, in line with our commitment to affordability, 50% of the units.

The following sections of this application present comprehensive, in-depth analyses of every critical project component, ranging from detailed landscape architecture plans and affordability strategies to advanced stormwater management solutions, along with a host of additional technical and community considerations.

We eagerly anticipate collaborating with you and the Planning Staff throughout the project review process. Your valuable insights and feedback will undoubtedly contribute to the successful realization of Stroudwater Commons. Please feel free to reach out with any questions or concerns regarding the application materials.

Warm Regards,

Travis A. Letellier, P.E.
GreenMars Real Estate Services
travis@greenmars.com
207-205-0208

Planning & Urban Development Department

MAJOR AND MINOR SITE PLAN DOCUMENT CHECKLIST

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

General Application Documents

	Indicate Below	Required of All Applications
APP 01	☒	Project Description Cover letter with detailed project description
APP 02	☒	Completed Checklist (this document)
APP 03	☒	Evidence of Right, Title, and Interest Deeds, leases, or purchase and sale agreements
APP 04	☒	Financial Capacity Letter or evidence from a financial institution or third-party verifying financial capacity to undertake the project.
APP 05	☒	Technical Capacity Evidence of technical capability of applicant and consultants – resume and/or examples of past projects.
APP 06	☐	Site Plan Standards Summary of project compliance with site plan standards of the land use code.
APP 07	☒	ZoningAssessment (the link to the form can be found here) Summary of compliance with use and dimensional standards of the land use code.
	Indicate Below Yes N/A	Only if Applicable
APP 08	☒ ☐	Waiver Requests (the link to the form can be found here) Written request for waiver describing request and compliance with applicable waiver standards.
Survey	☒ ☐	Summary of Existing or Proposed Easements or Covenants Evidence of existing easements and any proposed easements, covenants, public or private rights-of-way.
	☐ ☒	Evidence of State or Federal Approvals Permits or letters of non-jurisdiction
		Additional Documents
	Indicate Below Yes N/A	Only if Applicable
AD 01	☒ ☐	Construction Management Plan , including traffic control plan. Provide construction management narrative in accordance with the City’s Construction Management Template.
AD 02	☒ ☐	Traffic Study and/or other Transportation Plans Detailed in Sec. 2 of the Technical Manual
AD 03	☒ ☐	Significant Natural Features Narrative

AD 04

AD 05

AD 06

AD 07

AD 08

AD 09

AD 10

AD 11

		Identify significant natural features, wildlife habitats, fisheries habitats, or archaeological sites as detailed Ch. 14, Article 13, located on or near the project site, and describe protection methods during and after construction.
☒	☐	Stormwater Management Report Detailed in Sec. 14 of the Technical Manual
☒	☐	City Master Plan Narrative Detail project's consistency with City adopted Master Plans.
☒	☐	Evidence of Utility Capacity Provide letter from all utility providers demonstrating capacity to service the project.
☒	☐	Solid Waste Narrative Detail the amount of solid waste and recyclable material anticipated to be generated by the development, and information on how waste will be collected and removed.
☒	☐	Life/Safety Code Analysis Narrative Detail how the project complies with NFPA 1 and other Fire Department technical standards.
☒	☐	Design Narrative Detail how the project complies with any applicable design standards contained within the Land Use Code or City of Portland Design Manual.
☒	☐	HVAC and Manufacturing Equipment Verification Provide verification from manufacturer that equipment meets applicable state and federal emissions requirements.
☒	☐	Low Impact Development (LID) Analysis Provide a narrative detailing how the subdivision complies with the low impact development requirements listed in Section 3 of the Technical Manual, along with a completed LID scorecard.
MAJOR AND MINOR SITE PLAN DRAWINGS CHECKLIST Please upload the following drawings with the listed details into ProjectDox as separate PDFs. All drawings must be submitted in a 24 x 36 inch sheet size.		
Boundary Survey (Stamped by a Licensed Surveyor in accordance with Sec. 14 of the Technical Manual)		
Site Plan(s) (Stamped by a Maine Licensed Professional Engineer)		
Indicate Below	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, including firm that produced plans.	
☒	North arrow	
☒	Date of preparation and revision history block.	
☒	Tax parcel (chart, block, and lot) number	
Indicate Below	Existing Conditions Plan	
Yes N/A		
☒	☐	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 locations of test pits and borings
☒	☐	Zoning boundary lines, including overlays
☒	☐	Location of all existing easements and rights-of-way.
Indicate Below Yes N/A		Proposed Site Plan
☒	☐	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 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
Indicate Below Yes N/A		Utility Plan
☒	☐	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 the site
Indicate Below Yes N/A		Grading and Drainage Plan
☒	☐	Proposed grades
☒	☐	Proposed stormwater management measures meeting Technical Manual standards
☒	☐	Any proposed alteration of a watercourse or wetlands
☐	☒	Any groundwater protection measures
☒	☐	Proposed buffers and preservation measures for wetlands or significant natural features
Indicate Below Yes N/A		Landscape Plan
☒	☐	Existing vegetation to be preserved and preservation measures

☒	☐	Proposed landscaping, screening, and street trees, including caliper widths for trees
☒	☐	Planting schedule, including street trees detailing species, quantity of plantings, and size at planting.
Indicate Below Yes N/A		Architectural Plans and Renderings
☒	☐	Exterior building elevations, color renderings, illustrations of all sides.
☐	☒	Axometric and street-level views for structures greater than three stories in height.
☐	☒	Context drawings
☒	☐	Floor plans
Indicate Below Yes N/A		Construction Management Plan
☒	☐	Specifics on traffic control, sidewalk sheds, and pedestrian rerouting
☒	☐	Construction management plan and narrative based upon site plan in accordance with the City's construction management template.
Indicate Below Yes N/A		Other
☒	☐	Details and cross-sections

Planning & Urban Development Department

SUBDIVISION GENERAL DOCUMENT AND DRAWING CHECKLIST

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

General Application Documents

	Indicate Below	Required of All Applications
APP 01	☒	Project Description Cover letter with detailed project description
APP 02	☒	Completed Checklist (this document)
APP 03	☒	Evidence of Right, Title, and Interest Deeds, leases, or purchase and sale agreements
APP 04	☒	Financial Capacity Letter or evidence from a financial institution or third-party verifying financial capacity to undertake the project.
APP 05	☒	Technical Capacity Evidence of technical capability of applicant and consultants – resume and/or examples of past projects.
APP 06	☐	Subdivision Standards Summary of project compliance with subdivision standards of the land use code.
APP 07	☒	Zoning Assessment (the link to the form can be found here) Summary of compliance with use and dimensional standards of the land use code.
	Indicate Below Yes N/A	Only if Applicable
APP 08	☒ ☐	Waiver Requests (the link to the form can be found here) Written request for waiver describing request and compliance with applicable waiver standards.
Survey	☒ ☒	Summary of Existing or Proposed Easements or Covenants Evidence of existing easements and any proposed easements, covenants, public or private rights-of-way.
	☐ ☐	Evidence of State or Federal Approvals Permits or letters of non-jurisdiction
Additional Documents		
	Indicate Below Yes N/A	Only if Applicable
	☐ ☒	Soil Test Analysis Where private sewage systems are used, soil test results and supporting data, as required by Article 14 in the Land Use Code shall be provided.
AD 12	☐ ☐	Load Bearing Analysis ! Information demonstrating the property's capacity to support the load of the anticipated new development. If the property's load bearing capacity is in question, the

AD 13

AD 04

AD 05

AD 06

AD 07

AD 08

AD 09

AD 10

AD 23

AD 03

AD 01

C108

AD 11

		applicant shall include a geotechnical report, prepared by a professional engineer, with supporting data, detailing the results of test borings.
☒	☒	Price Range of Residential Units Being Developed
☒	☐	High Intensity Soil Survey Detailed in Sec. 14 of the Technical Manual
☐	☒	City Master Plan Narrative Detail project's consistency with City adopted Master Plans.
☒	☐	Evidence of Utility Capacity Provide letter from all utility providers demonstrating capacity to service the project.
☒	☒	Solid Waste Narrative Detail the amount of solid waste and recyclable material anticipated to be generated by the development, and information on how waste will be collected and removed.
☐	☐	Life/Safety Code Analysis Narrative Detail how the project complies with NFPA 1 and other Fire Department technical standards.
☒	☒	Design Narrative Detail how the project complies with any applicable design standards contained within the Land Use Code or City of Portland Design Manual.
☐	☒	HVAC and Manufacturing Equipment Verification Provide verification from manufacturer that equipment meets applicable state and federal emissions requirements.
☒	☒	Site Buffer Narrative Provide a narrative detailing all proposed buffer areas, their dimensions, and long-term maintenance plans and responsibilities.
☒	☒	Significant Natural Features Narrative Identify significant natural features, wildlife habitats, fisheries habitats, or archaeological sites, located on or near the project site, and describe protection methods during and after construction.
☐	☒	Construction Management Plan Provide construction management narrative in accordance with the City's Construction Management Template that details the sequence of construction for major site elements, construction timeline, erosion and sedimentation control measures, and pollution abatement measures.
☐	☒	Erosion and Sedimentation Control Plan Provide an ESC Narrative in accordance with Section 12 of the Technical Manual.
☒	☒	Low Impact Development (LID) Analysis Provide a narrative detailing how the subdivision complies with the low impact development requirements listed in Section 3 of the Technical Manual, along with a completed LID scorecard.
SUBDIVISION DRAWINGS CHECKLIST Please upload the following drawings with the listed details into ProjectDox as separate PDFs. All drawings must be submitted in a 24 x 36 inch sheet size.		
Subdivision Plat (at a scale not more than 1" = 60', unless lots are more than one acre in size)		
Indicate Below	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, including firm that produced plans.
☒	North arrow
☐	Date of preparation and revision history block.
☒	Tax parcel (chart, block, and lot) number
Indicate Below	Other Information
☐	Vicinity sketch (may be shown on separate plan)
☒	Names of adjacent property owners with parcels over 25,000 square feet or names of adjacent subdivision(s).
☐	Location and designation of any zoning district boundaries affecting the subdivision.
☒	Site Data - Breakdown of area within the subdivision by street area, lot area (listing out each lot), and recreation and open space area.
☐	Based on a recent survey by the subdivider, existing contours at two-foot intervals or as otherwise required by the Public Works Authority. Existing structures which are to remain shall be delineated;
☒	Tract boundary lines and property lines of lots, with accurate dimensions and either bearings or deflection angles. All lots shall be numbered.
☐	Names of proposed streets, width of rights of way, typical cross section reservation, and depth of construction materials.
☒	Locations, widths and purposes of other rights of way or easements to be recorded.
☐	All appropriate street geometry information, including point of curvature, point of tangency, tangent distance, radii and interior angle, in standard engineering format
☐	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)
☐	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 stormwater or storm sewer overflow
☒	All potential wetlands within the proposed subdivision, regardless of the size of those wetlands
☒	Any river, stream or brook within or abutting the proposed subdivision. For purposes of this section, "river, stream or brook" has the same meaning as in 38 M.R.S. § 480 B, Subsection 9
n/a ☒	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
☐	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)
☐	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).
☐	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)
☐	Tree plan showing groups of existing, sizeable trees which the subdivider intends to preserve (may be shown on separate plan).
☒	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 feet shall be provided on the drainage plan upon request (may be shown on separate plan)

n/a	☒	All future phases and sections of the subdivision proposed by the subdivider (may be shown on separate plan).
n/a	☐	Proposed parks and school sites, or other public open space that the developer proposes to convey to the city
	☒	Streets and right of way monuments and property line markers
	☐	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 40 feet to one foot and a vertical scale of four feet to one 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
	☒	Where submission drawings are available in electronic form, the applicant shall submit any available electronic CAD files with final plans



One Portland Square
Portland, ME 04101
(207) 772-1333 Tel
(207) 871-1288 Fax
www.boulos.com

AMENDED AND RESTATED OPTION TO PURCHASE REAL ESTATE

THIS AMENDED AND RESTATED OPTION TO PURCHASE REAL ESTATE is made as of June 17, 2024, by and between Portland Children's Dyslexia Foundation, with a mailing address of 1897 Congress St, Portland, ME 04102 (together "Owner") and GreenMars Real Estate Services, Inc., with a mailing address of 30 Exchange St, Suite 3, Portland, ME ("Optionee"), WHO AGREE AS FOLLOWS:

1. This Amended and Restated Option Agreement is hereby executed effective June 13, 2024, to correct certain scrivener's errors in the original option to purchase real estate executed by the parties effective May 15, 2024 (the 'Original Option'), and to incorporate the more specific exhibits attached hereto and hereby supersedes and replaces that Option in its entirety. All deadlines and dates in this Amended and Restate agreement shall run from the date of the original option.
2. Option Property: Owner is the owner of certain premises situated at 1897 Congress St. in Portland, Maine, consisting of approximately 1.9996 +/- AC of vacant land, together with all buildings and improvements thereon and all rights and easements appurtenant thereto, which parcel is further identified in the Portland tax assessor's records as Book 30434, Page 141, or Map 217, Block A, Lot 11 (the "Owner's Property"). The option property is to be any/all vacant land directly abutting the parking lot of the above premises to the northeastern most property line (roughly 30,000 +/- SF of vacant land), together with all rights and easements appurtenant thereto, as approximately shown on Exhibit A attached (the "Property").
3. Due Diligence: Optionee shall have a 365 Day period from execution of the Original Option to begin the testing, inspections and approvals process as noted in section 5. During this period, the Owner may not consider any offers submitted for purchase of the option property.
4. Option: In consideration of the "Option Consideration" herewith paid to Owner by Optionee as identified below, Owner hereby grants to Optionee the exclusive, irrevocable right to purchase the Property on the terms set forth in this Agreement (the "Option"). If Optionee elects to purchase the Property, such election shall be made by written notice given to Owner at any time on or before the end of the "Option Period" identified below. The Option Period (hereinafter collectively the "Option Period") and the corresponding payments (hereinafter collectively the "Option Consideration") are as follows:

Option Period

[REDACTED]

Option Consideration

[REDACTED]

5. Purchase Price: Upon execution of the Option Agreement, the Option Consideration shall become non-refundable and the Purchase Price for the Property shall be [REDACTED]. The Option Consideration shall be credited against the Purchase Price payable at the closing. If Optionee fails to close, Owner shall retain all Option Consideration then paid as full consideration and as its sole remedy. Optionee shall be entitled to a refund of the Option Consideration if Owner's title to the Property proves defective, as provided below.
6. Testing, Inspection, Approvals: During the due diligence and Option Period, Optionee and its employees, contractors and agents shall have the right at their expense to enter upon the Property, after reasonable notice to Owner, for the purposes of conducting inspections, survey work, soils tests, and/or other testing. Owner agrees to cooperate and join with Optionee or its designees in obtaining any rezoning, permits and approvals or the like as Optionee desires, at Optionee's expense. Upon request Optionee agrees to furnish to Owner a copy of any soils testing reports it obtains.
7. Closing: If Optionee elects to purchase the Property, Owner shall convey the Property to Optionee (or its designee) by good and sufficient general Warranty Deed conveying marketable title, free and clear of all encumbrances, defects, liens, tenants and occupants ("Title Defects"), and utilizing the description obtained by Optionee's survey if requested. The closing shall take place within 45 days after written notice from Optionee that it has exercised the Option at the date, time and place specified in the notice. Optionee shall have the right to apply the Purchase Price at the Closing to the removal of any Title Defects. The parties agree to execute and deliver such documents as are reasonably necessary and customary to complete the closing. Real estate taxes and utilities shall be prorated as of the closing date. Real estate transfer taxes, income taxes and gains taxes shall be paid by Owner.
8. Broker: The parties agree that no broker, other than Claire Richardson of The Boulos Company has been involved in this transaction. The buyer shall be responsible for all fees due to The Boulos Company through a separate brokerage agreement.
9. Ownership/Risk of Loss: Owner hereby warrants that Owner is the owner of the Property in fee simple, that Owner has the full right and authority to grant the Option described in this Agreement and that there is no other option, contract or other right to purchase the Property in existence. The risk of loss to the Property or taking by eminent domain during the Option Period shall be on Owner.
10. Owner's Warranties: To the best of Owner's knowledge and belief there are no and have never been "Hazardous Materials" on, under, in or about, or migrating to or from the Property. The presence of such materials at or any time prior to the Closing shall constitute a Title Defect, rendering the title unmarketable as aforesaid. As used herein, "Hazardous Materials" means any hazardous or toxic materials, waste, substances or matter, oil or other petroleum products, underground tanks, asbestos, or similar materials, including as defined in any federal, state or local law or regulation, or any other substances constituting a hazard or threat to the health of persons, animals or plants. This warranty shall survive the Closing and any expiration or other termination of this Option.
11. Memorandum of Option: Owner agrees to execute a document for recording purposes

which will include the terms outlined herein, other than the Purchase Price.

12. Notice: Any notice required to be given by Optionee to extend or exercise this Option shall be in writing, shall be addressed as set forth above, and shall be sent by registered or certified mail, return receipt requested, or by a reputable overnight carrier that provides a receipt, such as Federal Express or Airborne, and shall be deemed delivered on the date postmarked or the date deposited with the overnight carrier
13. Binding Effect: This Option Agreement shall be binding upon the parties and their heirs, administrators, successors and assigns upon full execution by Owner and Optionee in the spaces provided below. Optionee may assign its rights hereunder.
14. Additional Covenants. The Owner and Optionee hereby agree to the additional terms and covenants attached hereto as Exhibit B which shall be carried out prior to Closing, or post-Closing through a post-closing agreement executed by the parties at Closing.

IN WITNESS WHEREOF, Owner and Optionee have executed this Agreement effective as of the date first set forth above.

OWNER:

Portland Children's Dyslexia Foundation


Thomas E. Pulkkinen, Board Chair

Date: 6/18/, 2024

OPTIONEE:

GreenMars Real Estate Services, Inc.

By: _____
Christopher Marshall, President

Date: _____, 2024

EXHIBIT A

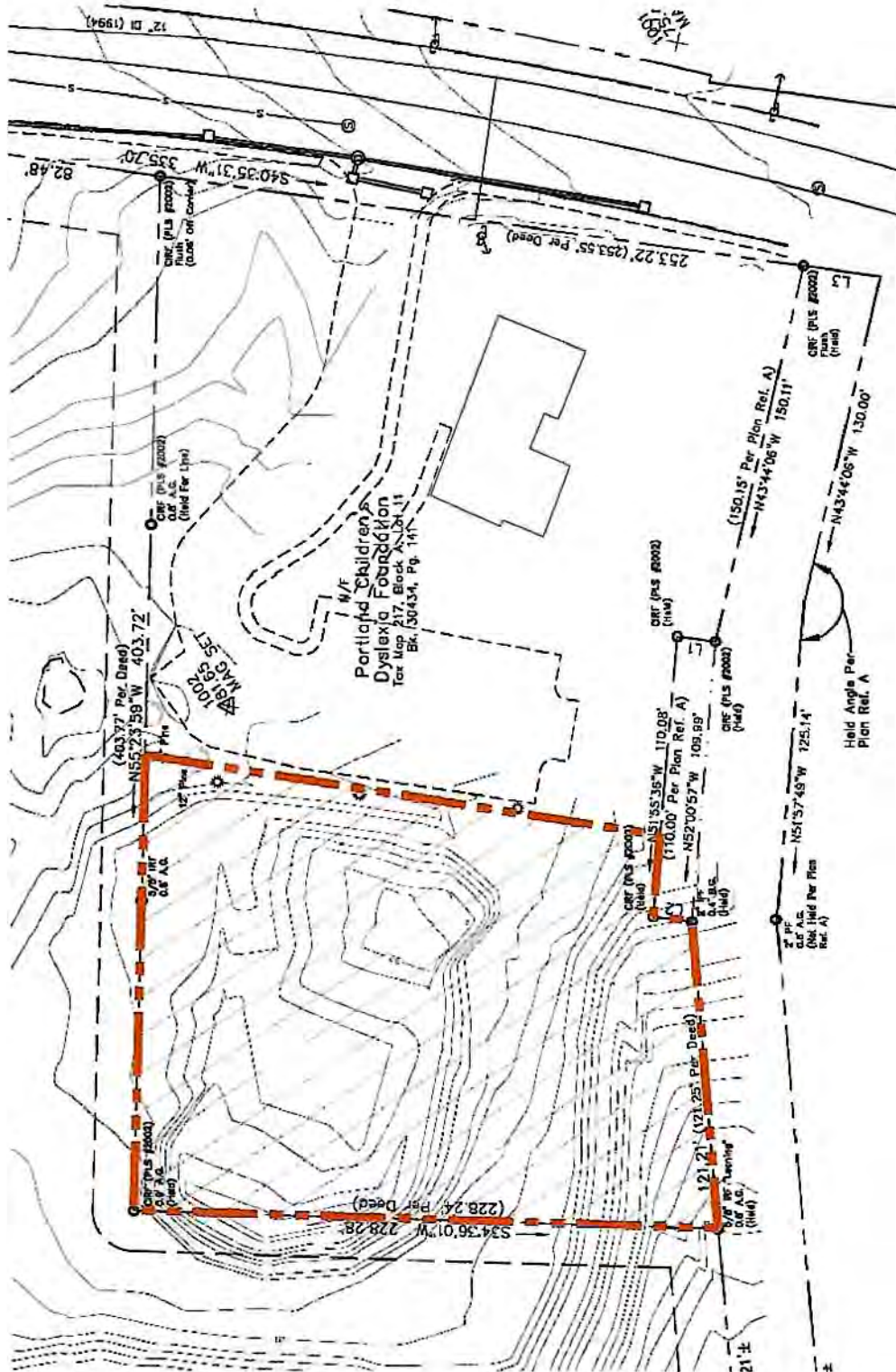


EXHIBIT B

Dear Ms. Richardson:

For the Board of the Portland Children's Dyslexia Foundation {PCDF}, I am pleased to transmit the signed Option to Purchase Real Estate for land owned by the Foundation located at 1897 Congress Street, Portland, Maine.

The document is executed with the caveat that the following commitments contained in your response to me dated April 25, 2024, shall be in honored and be in effect during the option period and /or upon the land being purchased as stipulated in the option agreement:

- 1) The property shall be surveyed by Green Mars during the option period and staked to delineate property lines, and to define dimensions and lot acreage of the respective properties.
- 2) A topographical drawing of the new "circular drop-off driveway" at the PCDF will be completed during the option period to ensure that water will not pool up at the Congress St. end of the circle and to determine whether drainage will be needed during construction by Green Mars.
- 3) The two-way paved driveway from the new 1877 roadway to the PCDF parking lot will be widened to 30 feet to better facilitate two-way turning traffic, and when the driveway connector is constructed, a pavement overlay will be added to the existing CDC parking lot, al at the cost of Green Mars.
- 4) An eight-foot privacy fence will be installed five feet from the edge of the parking lot, and the parking lot lighting (stanchions and underground wiring) will be moved within this five-foot zone. The fencing and lighting changes and related groundwork will be completed by Green Mars at the beginning of the construction phase of the project.
- 5) A split-rail or other agreed-upon fencing along the side property line adjoining the new sidewalk along the 1877 roadway to inhibit dog walkers and others from wandering onto the PCDF grounds will be addressed during the option period.
- 6) Any access to the land through the PCDF driveway and parking area for testing purposes shall be coordinated with the Portland Children's Dyslexia Center {CDC} Director to ensure the safety of children, parents and employees visiting the CDC.

Final execution of the option agreement by both parties is with the understanding that the above provisions shall be faithfully discharged during the option period or any subsequent development of the subject parcel.



GreenMars Real Estate Services
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Portland, ME 04101

Technical Ability

- **Overview**

The design and permitting of the project is being completed under the direction of the GreenMars Real Estate Services (GreenMars). GreenMars and their consultants have the technical ability to prepare the construction documents, oversee construction, operate, and manage the project in compliance with applicable regulations.

GreenMars is the primary consultant involved with the civil/site design and site permitting of the project and has assembled the materials in this application. The following firms are acting as consultants to the Department or as subconsultants for the project:

Firm	Services	Contact
GreenMars 30 Exchange Street Portland, Maine	Civil Site Engineering	Travis Letellier, P.E. travis@greenmars.com
Invid Architecture 631 Stevens Ave Portland, Maine	Architect	Virginie Stanley, Architect, Principal virginie@invidarchitecture.com
S.W. Cole 286 Portland Road Gray, Maine	Soils Consultant	Evan Walker, P.E. Evan.Walker@swcole.com
BH2M 380B Maine Street Gorham, Maine	Boundary Survey	Robert Libby, PLS rlibby@bh2m.com
Barton & Loguidice 383 US RT 1 Scarborough, Maine	Traffic Engineer	Bill Bray, P.E. trafficsolutions@maine.rr.com

- **Experience of Project Team**

The team of consultants retained by GreenMars has expertise and experience in the design of large facilities that require a major site plan permitting.

A full list of completed construction projects by GreenMars and their principal members is available upon request.

- **Ability of the Applicant**

GreenMars experience is apparent in the ongoing operation and maintenance of their existing facilities.



June 26, 2024

RE: Nate Green, Chris Marshall and GreenMars Real Estate Services, Inc.

To whom it may concern,

I write this letter in support of Nate Green, Chris Marshall and GreenMars Real Estate Services, Inc. Nate and Chris have been long time customers of Norway Savings Bank and have done numerous projects with them. I believe GreenMars Real Estate Services, Inc. and its team of experienced developers/investors has the financial capacity to acquire funding to develop Stroudwater Commons at 1877 Congress Street, Portland, ME. I consider them financially capable and very knowledgeable developers.

This is in the preliminary stages and this letter is not a commitment to lend money.

Should you need further information or clarification, please feel free to contact me at (207) 222-1519.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brian C. Desjardins", is written over a faint, horizontal line.

Brian C. Desjardins
Regional Vice President
Commercial Lending

BCD/tbm



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30 Exchange Street, Suite 203
Portland, ME 04101

Site Plan Standards Stroudwater Commons 1877 Congress Street, Portland, Maine

Site Plan Compliance Report for Stroudwater Commons

1. Introduction

- **Project Overview:** Stroudwater Commons is a proposed residential community at 1877-1897 Congress Street in Portland, Maine. The development includes **130 condominiums and 26 accessory dwelling units (ADUs)** on a **4.0-acre site**.
- This report outlines how Stroudwater Commons complies with the City of Portland's site plan standards as specified in the Design Manual and relevant city codes.

2. Compliance with Site Plan Standards

a. Site Layout and Design

- **Building Placement and Orientation:** The thirteen buildings are strategically positioned to promote community interaction and optimize natural light, aligning with Portland's urban design principles.
- **Accessory Dwelling Units (ADUs):** Incorporating 26 ADUs enhances housing diversity and affordability, supporting the city's housing objectives.

b. Transportation and Access

- **Vehicular Access:** The development features a privately maintained roadway designed to meet city standards, ensuring safe and efficient traffic flow within the community.
- **Parking:** Off-street parking is provided at the rear of each building, minimizing visual impact and enhancing the pedestrian experience.
- **Pedestrian Connectivity:** Sidewalks and pathways are integrated throughout the site, promoting walkability and connecting residents to nearby amenities.

c. Stormwater Management

- **Underground Treatment System:** An underground stormwater detention and treatment system utilizing pipe storage and filters is implemented to filter runoff, complying with Portland's Stormwater Management Manual.
- The detention volume provided is **over 1.5 times the required storage volume** providing protection against downstream disturbance due to extreme flows.



d. Landscaping and Open Space

- **Landscaping:** The use of native plant species in landscaping supports local biodiversity and reduces maintenance needs. Over 200 new trees are proposed to be planted.

e. Environmental Considerations

- **Erosion and Sediment Control:** Erosion control measures, such as silt fences and sediment basins, are planned to protect adjacent properties and natural resources during construction.

f. Utilities and Services

- **Solid Waste Management:** Designated dumpster areas at the end of each parking lot will facilitate waste collection by a private hauler, ensuring compliance with city waste management standards.

g. Lighting and Safety

- **Lighting:** Outdoor lighting is designed to enhance safety while minimizing light pollution, adhering to Portland's dark sky ordinances.

h. Sustainability Features

- **Energy Efficiency:** Buildings are designed with energy-efficient materials and systems, contributing to reduced environmental impact and aligning with the city's sustainability goals.

3. Conclusion

Stroudwater Commons is committed to meeting and exceeding the City of Portland's site plan standards. Through thoughtful design and planning, the development aims to provide a sustainable, safe, and vibrant community for its residents.



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Master Plan Narrative Stroudwater Commons 1877 Congress Street, Portland, Maine

Project Summary:

The proposed development at 1877 Congress Street includes affordable residential units and associated site improvements located within a key corridor of Portland. This location offers an opportunity to contribute meaningfully to the city's long-term planning goals outlined in *Portland's Plan 2030*.

1. Alignment with Portland's Vision: "One Portland"

- The development supports the **"Complete Neighborhoods"** principle by offering **housing within proximity to services, transit, open space, and employment areas**.
- It enhances **connectivity** by creating opportunities for **trail access and pedestrian/bicycle linkages** that align with the "Connect the Chain" initiative described in the plan.
- The project provides **walkable access** to the **Fore River Trail system** and could be designed to include formal **trail linkages or easements** to integrate with Portland Trails or future greenway extensions.

2. "Connect the Chain": Open Space & Trail Integration

The site at 1877 Congress Street is **adjacent to or near existing trail systems and natural assets**. According to the Recreation & Open Space section of *Portland's Plan 2030*:

"The City will prioritize open space acquisition and programming toward creating linkages where there are gaps in the network, particularly... the Western Waterfront and the Fore River."

- The development team is exploring ways to **facilitate a trail connection** through or alongside the property to enhance neighborhood access to **trails, the waterfront, and active transportation options**.
- As recommended in the plan, the project can incorporate **green buffers, interpretive signage, and multi-use paths** to further the **vision of an integrated trail network**.

3. Transportation & Accessibility

Portland's Plan 2030 emphasizes **multi-modal accessibility** and improved transit integration.

The development:

- Is sited along a **key transportation corridor (Congress Street)**, supporting public transit use and reducing vehicle dependency.
- Can include **bicycle storage, sidewalk upgrades, and pedestrian-friendly street design** in alignment with the City's **Complete Streets** policies.
- Advances the plan's recommendation to **coordinate land use with transit investments**, providing residential density in a well-served corridor.



4. Environmental Stewardship & Green Infrastructure

From the Environment section of the plan:

“The City encourages Low Impact Development (LID) strategies... such as rain gardens, green buffers, and soil-based stormwater filtration.”

- The project at 1877 Congress Street proposes **an underground storage system and filter-based stormwater treatment**, helping to meet **stormwater goals** while enhancing site aesthetics.
- **Tree preservation and native plantings** can contribute to the urban tree canopy goal (+15%) and help meet Portland’s **climate resiliency and carbon reduction targets**.

5. Affordable and Equitable Housing Goals

While not the focus of this particular narrative, if the project includes **a variety of income-restricted and market rate units**, it will directly support Portland’s housing policies:

“All who work in Portland should have the option of living in Portland.”

The development should be evaluated in terms of:

- Providing **housing diversity**,
- Promoting **aging-in-place**, and
- Ensuring **ADA-accessible units and site features**, as encouraged in *Portland’s Plan 2030*.

6. Summary of Policy Alignment

Plan Goal	Project Contribution
Connect the Chain	Trail access, open space buffers, potential trail easement
Complete Neighborhoods	Housing near services, transit, and recreational opportunities
Climate Resiliency	Low Impact Development, stormwater filtering
Multi-modal Transportation	Pedestrian improvements, access to transit & bike amenities
Recreation & Public Health	Proximity to open space and active lifestyle infrastructure

Conclusion

The development at **1877 Congress Street** is well-positioned to support the long-term objectives of *Portland’s Plan 2030*. Through thoughtful site design and collaboration with city and community partners (e.g., **Portland Trails, Planning Department**), the project can play a meaningful role in **advancing trail connectivity, increasing housing supply, and enhancing livability** in this strategic location.



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Landscaping Plan Stroudwater Commons 1877 Congress Street, Portland, Maine

* Code Reference Key

- **LUC – City of Portland Land Use Code (Article 13 unless noted)**
- **Technical Manual – City of Portland Technical Manual, Section 4 (Landscaping Standards)**
- **Plant material quality & mix (Technical Manual § 4.1.1 (A)(1)–(5), (9))**
 - o Nursery-grown, disease-free stock that meets ANSI Z60.1 —
Standard is met by specifying #1-grade nursery stock in the plant schedule and including certification notes on the landscape plan.
 - o At least 50 % of new trees and shrubs must be native to the Northeast —
Standard is met by selecting 60 % native species such as red maple, white pine, and inkberry holly, clearly tagged “native” in the schedule.
 - o All species on the City’s invasive list—and any “inorganic plants”—are prohibited
Standard is met by cross-checking the palette against the City invasive list and adding a note that no artificial plants are proposed.
- **Minimum on-site landscaping quantity (LUC § 13.6.2 B(1)(a)-(c))**
 - o Provide **1 shade tree or 6 plantings** (1 shrub + 1 ornamental grass + 3 perennials) per **5 000 ft²** of lot area —
Standard is met by totaling 32 shade trees for the 94,000 ft² site, exceeding the minimum required counts.
 - o Existing healthy vegetation may be counted; substitutions allowed when physical constraints are proven —
No healthy vegetation is being counted toward the landscape standard as there are no existing substantial trees within the development area. All trees above 10” DBH are located adjacent to the stream and will not be disturbed.
- **Buffers & screening – general (LUC § 13.6.2 B(2)(a)-(d))**
 - o Service yards, dumpsters, outdoor storage, and utilities must be fully screened with dense landscaping, fencing, walls, or a combination —
Standard is met by a 6 ft solid cedar enclosure backed by arborvitae hedging around the dumpster pads.



- o Parking visible from a right-of-way requires dense landscaping, fencing, or walls per Technical Manual standards —
Standard is met by a 5 ft-wide shrub bed of glossy inkberry and a 4 ft wrought iron fence along the frontage.
 - o Non-residential sites abutting residential property need a **10 ft-deep, 6 ft-high** evergreen buffer (or equivalent fence + trees) —
Standard is not applicable to this development.
- **Detailed buffer & parking-lot perimeter design (Technical Manual § 4.1.5 A-C)**
 - o Sites within 30 ft of a right-of-way must add a 5 ft planting strip *and* one of the listed screening options —
Standard is met by combining the 5 ft strip with a wrought iron fence.
 - o Chain-link must be vinyl-coated and screened; barbed or electric fencing is prohibited —
Standard is met by eliminating chain-link altogether and using decorative welded-steel fencing instead.
 - o Berms or walls may reduce shrub density if they achieve equal opacity —
Standard is met by integrating a 2.5 ft earth berm that lessens shrub spacing to 6 ft o.c. while maintaining 80 % opacity.
- **Parking-lot interior landscaping (LUC § 13.6.2 B(3)(a)-(c); Technical Manual § 4.1.5 C(3)(b))**
 - o Supply **1 tree per 750 ft²** of uncovered pavement —
Standard is met by providing 44 canopy trees (see landscaping plan for species) for 33,000 ft² of uncovered parking pavement.
 - o Install landscaped islands at least every 40 spaces; islands must be curbed, **≥ 8 ft** wide, and may serve as bioretention areas —
Standard is met by providing three 8 ft-wide vegetated islands every 30 spaces, with granite curb and underdrain shown on detail L-5.
- **Non-vehicular hardscape areas (LUC § 13.6.2 B(4))**
 - o Paved plazas and paths must use materials with **SRI ≥ 33 (initial) / 28 (aged)** or plant **1 tree per 750 ft²** of paving —
Standard is met by specifying light-colored concrete pavers or approved equal (initial SRI = 39) for the courtyard.



- **Street-tree frontage requirement (LUC § 13.6.2 B(5)(a)-(c); Technical Manual §§ 4.1.2, 4.1.3)**
 - Plant **1 street tree per 25–35 linear ft** of frontage; coordinate with City Arborist
Standard is met by locating 20 columnar red maples or equivalent at 30 ft spacing along the 600 ft frontage, using City-approved species list.
 - Credit allowed for retaining healthy existing ROW trees or by paying \$400 per missing tree to the City Tree Fund —
Standard is met by not taking down any existing ROW trees
- **Tree-well & sidewalk construction details (Technical Standards Manual § IV — Figures IV-4 a–c)**
 - Use granite-border wells, expandable grates, or sloped-curb wells per City figures —
Standard is met by detailing 5 ft × 10 ft granite curbing tree wells with welded-steel grates (Detail L-7).
 - Maintain ≥ 5 ft clear sidewalk; adjust curb offsets where door swings and street parking conflict —
Standard is met by dimensioning a 5 ft clear zone on the plan.
- **Snow-storage landscaping (LUC § 13.6 D(3); Technical Manual § 4.1.5 C(4))**
 - Select species and materials that tolerate plowed snow in designated storage zones —
Standard is met by specifying salt-tolerant red osier dogwood and switchgrass or approved equal within the snow-storage pocket.
 - Snow piles must not block drainage or encroach on sidewalks or adjacent lots —
Standard is met by locating the snow-storage area in locations that will not block drainage, sidewalks or access roads.
- **Installation & maintenance timing (Technical Manual § 4.1.5 D(1)-(5))**
 - Plant between **Apr 1 – Jul 1** or **Sep 1 – Nov 1** unless approved by the City Arborist —
Standard is met by scheduling all installation for early May and noting contingency fall dates in the project timeline, see landscaping notes (sheet C104)



- o Stabilize all bare soil before certificate of occupancy; replace dead/damaged plants within one year —
Standard is met by specifying hydroseeding for exposed soils and including a one-year replacement guarantee note.
- o Vegetate/mulch 5 %-50 % slopes; > 50 % slopes require biotechnical/structural measures —
Standard is met by applying coir matting and native meadow mix on 3:1 or steeper slopes;
- **Performance guarantee (LUC § 13.10.2; Technical Manual § 4.1.5 D(2))**
 - o If landscaping is incomplete at occupancy, provide a bond until installation is finished and inspected —
Standard is met by posting a landscape bond equal to 125 % of the remaining plant-material cost, as noted on Sheet C104.



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Availability and Adequacy of Public Utilities

- **Electrical services, including providing underground services:**
The site's electrical infrastructure is engineered to deliver reliable and resilient power distribution. Underground electric service deployment to all buildings on-site is planned, optimizing safety and minimizing visual clutter. This design approach adheres to modern urban development standards, prioritizing both functionality and aesthetic appeal while ensuring uninterrupted access to electricity, particularly during adverse weather conditions or construction activities.
- **Existing and proposed connections for public utilities and required public utility upgrades:**
Comprehensive assessments of existing and proposed connections for public utilities are conducted to ensure seamless integration with essential infrastructure, water, sewer and gas services. Preliminary designs are undergoing rigorous scrutiny by utility providers. Addressing necessary upgrades or modifications upfront minimizes potential service disruptions and optimizes construction sequencing. By adhering to regulatory requirements and technical standards, the project streamlines utility integration processes, enhancing operational resilience and minimizing long-term maintenance costs.
- **Sewer line connections:**
Sewer connections undergo thorough review processes to ensure compliance with regulatory standards and utility guidelines. Proposed within the development are gravity sewer lines, strategically engineered to facilitate efficient wastewater conveyance. Connection points to the public infrastructure are meticulously planned, aligning with guidance from the utility provider. This collaborative approach ensures seamless integration with existing sewer systems while optimizing operational efficiency and environmental stewardship. By adhering to utility directives and technical specifications, the project mitigates potential risks of sewer system overloads or failures, promoting long-term reliability and sustainability in wastewater management.



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Solid Waste Management Plan Stroudwater Commons 1877 Congress Street, Portland, Maine

1. Introduction

This Solid Waste Management Plan outlines the strategies and practices for handling solid waste at Stroudwater Commons ensuring compliance with the City of Portland, Maine's standards and regulations. Our goal is to maintain a clean, safe, and environmentally responsible community by implementing effective waste collection, recycling, and disposal methods.

2. Waste Collection System

a. Dumpster Placement

To facilitate efficient waste disposal, dumpsters will be strategically located at the end of each parking lot within the development. These locations are chosen to provide convenient access for residents while minimizing visual impact and ensuring safety.

b. Private Hauler Services

We will engage a licensed private waste hauler to manage the regular collection of solid waste from the dumpsters. The hauler will adhere to all applicable city regulations and collection schedules to ensure timely and efficient service.

3. Recycling Program

In alignment with Portland's commitment to sustainability, a comprehensive recycling program will be implemented:

- **Recycling Containers:** Designated recycling bins will be provided alongside each dumpster to encourage proper sorting of recyclable materials.
- **Educational Materials:** Residents will receive information on acceptable recyclable items and proper sorting techniques to maximize participation and effectiveness.

4. Compliance with City Regulations

Our waste management practices will comply with the City of Portland's solid waste and recycling ordinances, including:

- **Solid Waste Storage:** Ensuring all waste is stored in durable, covered containers to prevent littering and access by pests.
- **Collection Frequency:** Scheduling waste pickups at intervals that prevent overflow and maintain sanitary conditions.
- **Recycling Requirements:** Adhering to the city's mandatory recycling policies to reduce landfill use and promote environmental stewardship.



5. Resident Engagement

To foster community involvement and ensure the success of our waste management plan:

- **Orientation Sessions:** New residents will be briefed on waste disposal procedures and the importance of recycling.
- **Ongoing Communication:** Regular updates and reminders will be provided to keep residents informed about any changes or important information regarding waste services.

6. Monitoring and Improvement

We are committed to continuous improvement of our waste management practices:

- **Regular Assessments:** Periodic evaluations will be conducted to identify areas for enhancement in waste collection and recycling efforts.
- **Resident Feedback:** We will encourage and consider resident suggestions to improve the efficiency and effectiveness of our waste management system.

7. Conclusion

By implementing this Solid Waste Management Plan, Stroudwater Commons aims to provide a clean, sustainable, and compliant living environment. Through strategic planning, resident participation, and adherence to city regulations, we strive to contribute positively to Portland's environmental goals.



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Portland, ME 04101

Design Narrative

Stroudwater Commons

1877 Congress Street, Portland, Maine

1. Introduction

Stroudwater Commons is a thoughtfully designed residential community located in Portland, Maine. The project aligns with the City of Portland's Design Manual and reflects a commitment to high-quality urban planning, sustainability, and neighborhood integration. The development emphasizes efficient land use, infrastructure resilience, and environmental stewardship while creating a safe, welcoming environment for residents.

This narrative outlines how Stroudwater Commons meets or exceeds the City's Design Manual requirements, incorporating a public roadway, underground stormwater management, trail connectivity, a clubhouse amenity building, off-street parking, rear-building parking placement, and significant integration of open space and pedestrian-oriented features.

2. Compliance with the City of Portland Design Manual

Stroudwater Commons's design reflects compliance with all applicable sections of the City of Portland Design Manual, supporting safety, accessibility, and sustainability throughout the development.

A. Site Design & Layout

✓ Private Road Infrastructure

- Stroudwater Commons introduces a new private roadway built to city standards for width, materials, stormwater drainage, and emergency access.
- The road network ensures smooth circulation for vehicles, pedestrians, and bicycles while preserving the surrounding environment.
- The design includes space for public utilities, street trees, and pedestrian-scale lighting.

✓ Off-Street Parking & Rear-Located Parking

- All residential parking is off-street and located behind buildings to maintain a clean and inviting streetscape.
- Landscaped buffers and lighting are incorporated into parking areas to enhance aesthetics, security, and user comfort.



- The parking configuration meets zoning standards and maximizes efficient land use.

✓ **Pedestrian-Friendly Design & Connectivity**

- Sidewalks and walkways are integrated throughout the neighborhood, offering safe pedestrian access to homes, the clubhouse, and open spaces.
- The site design includes direct connections to adjacent and regional trail networks, encouraging recreation and non-motorized transportation.
- Pedestrian crossings, bike racks, and pathway lighting support active living and community connectivity.

✓ **Clubhouse Amenity Building**

- A centrally located clubhouse will serve as a shared amenity for residents, providing indoor community space for events, meetings, and gatherings. The space will also include a gym and office space for the residents of the development.
- The clubhouse will be accessible via sidewalks and adjacent parking, reinforcing the development's walkability and neighborhood cohesion.

B. Stormwater Management & Environmental Considerations

✓ **Underground Stormwater Detention & Treatment System Using Contech StormFilter**

- Stroudwater Commons includes a subsurface stormwater management system that meets Portland's Stormwater Management Manual and state environmental requirements.
- Stormwater is detained in underground pipe storage systems and treated using a Contech StormFilter unit, which removes pollutants such as total suspended solids (TSS), nutrients, hydrocarbons, and metals.
- This low-impact system maximizes usable open space and is designed for long-term reliability and low maintenance.

✓ **Erosion & Sediment Control**

- A robust erosion and sediment control plan ensures minimal soil disruption and protection of nearby natural resources during construction.
- Best practices such as silt fencing, phased grading, and sediment basins will be implemented to maintain environmental compliance.

✓ **Green Infrastructure & Sustainable Development**

- The development incorporates low-impact strategies including native vegetation, and mature tree preservation.



- Landscaping emphasizes drought-tolerant species and natural stormwater filtration to reduce irrigation and promote ecological resilience.

C. Open Space & Community Integration

✓ Strategic Open Space Planning

- Stroudwater Commons features open space throughout the site, including a pocket park, walking trails, and green buffers.
- The project connects directly to local and regional trail systems, providing recreational access and promoting an active lifestyle.

✓ Habitat Conservation & Landscaping

- Landscaping includes native and adapted plantings that support pollinators, biodiversity, and seasonal beauty.
- Tree-lined streets, vegetated buffers, and open lawn areas contribute to community aesthetics and environmental performance.

D. Architectural & Structural Design Compliance

✓ Building Orientation & Streetscape Design

- Homes are oriented to maximize solar access and natural light while maintaining a cohesive, attractive streetscape.
- Building design incorporates architectural elements consistent with Portland's character and residential design guidelines.

✓ Energy Efficiency & Sustainability Features

- Structures meet energy efficiency standards through use of:
 - o High-performance building envelopes
 - o Energy-efficient HVAC systems and LED lighting
 - o Low-flow plumbing fixtures and rainwater collection measures

✓ Outdoor Lighting & Safety Considerations

- Exterior lighting will be dark-sky compliant, minimizing light pollution and preserving nighttime visibility.
- Pedestrian-scale lighting along walkways, roads, and the clubhouse enhances safety and accessibility while maintaining energy efficiency.

3. Conclusion

Stroudwater Commons is a forward-thinking, environmentally responsible residential development that aligns with Portland's vision for sustainable and connected neighborhoods. Highlights of the project include:

- A private road network that meets safety and accessibility standards



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- An underground stormwater management system with advanced treatment
- Integration of pedestrian pathways, public trails, and bike-friendly features
- A community clubhouse providing social and recreational amenities
- Energy-efficient homes and resilient infrastructure
- Well-planned open spaces and native landscaping that enrich quality of life

Stroudwater Commons offers high-quality housing while preserving and enhancing the surrounding environment. This development strengthens Portland's urban fabric, expands access to outdoor spaces, and reflects a commitment to long-term community resilience.



GreenMars Real Estate Services
30 Exchange Street, Suite 203
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July 2, 2025

City of Portland Planning Authority
4th Floor, City Hall
389 Congress Street
Portland, ME 04101

RE: Stroudwater Commons – Comment Response Letter
1877-1897 Congress Street
Map 217, Block A, Lot 10 & 11

Dear Members of the Planning Committee,

The project received the following review comments. **After each comment, a response has been added in Bold identifying how the concern has been addressed.**

Comments from Kristoffer DeVolder, Department of Public Works received via email June 24, 2025, dated April 4, 2025.

DPW Transportation

- Sheets C101, C103 are missing from the plan set
Sheet C101, EC and Boundary Plan is attached to the updated set. Sheet C103 is now the Demolition plan as requested in comment below.
- Proposed street name of Stroudwater Lane will likely cause issues with E911, alternative unique names should be considered. Applicant should contact the City's addressing officer, Charles Wordell, 207-874-8803 to coordinate property addressing.
A new road name, "Trailside Landing," has been added to the plans. Coordination is being done with Mr. Wordell.
- Provide an Existing Conditions/Demo Plan sheet. This is particularly necessary for the changes occurring within Congress Street.
A new plan sheet, C103, has been added showing clearing limits, saw cutting and pavement removal for the off-site improvements.
- A separate plan sheet should be provided for the changes being made within the public ROW on Congress Street.
A new sheet, C109, has been added that specifically highlights the offsite improvements being made in Congress Street.



- C104 - Label Congress Street
Congress Street is now labeled on the updated plan set.
- C104 - What is Wilbur's Way a reference to?
Reference has been removed.
- C104 - Remove Mast Arm for no Left turn sign. As a left turn lane into the site is provided.
Mast arm and label have been removed.
- C104 - Show existing sidewalk that is being connected into.
The plans now more clearly show how the proposed sidewalk ties into the existing sidewalk, see sheet C109 for more details.
- C104 - How does the public access trail connect to the existing trail system? There is no public access trail shown on the plan sheet. Will it meet ADA?
The proposed public access trail will be accessible via two newly established mulch paths—one originating at the terminus of the grass-paved area, and the other extending from the central open space park within the development.

The precise alignment of the trail beyond the endpoints of these mulch paths, including its continuation through the open space, its crossing over the stream, and its connection to existing trail networks, will be determined during a future phase. This subsequent planning and implementation will be carried out in collaboration with Portland Trails as part of a separate project initiative.

The trail connection will likely not be ADA compliant due to the elevation drop necessary to make the connection and the limited space available.

- C104 - Is the gravel parking lot proposed to be temporary or permanent? Per Technical Manual Section 1.10.1 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, both onsite and within the right-of-way, and shall meet accessibility standards.
In response to feedback from City staff and the Planning Board, the design of the open space parking area has been revised. The updated plan includes six paved parking spaces intended for public use during daytime hours and to accommodate overflow parking for residents and guests in the evening

In addition, a grass-paved area is proposed adjacent to the parking spaces. This flexible-use space will serve as a recreational area for residents during the warmer



months and may be utilized by condominium management for snow equipment storage and vehicle shuffling to facility snow removal during the winter season.

- The City's Technical Manual has been recently updated and approved. The applicant shall update all proposed details (Site, Sewer, Stormwater, Landscape, details) to meet the requirements of the recently approved technical manual update or add a note to each to the proposed details that states the City standard detail (figure # and name)shall be followed.

The updated city details are now utilized for this updated plan set. See sheet C505.

- C104 - Per previous discussions Left turn out of the development onto congress will not be permitted

The left turn out lane has been eliminated from the proposed private street. A "porkchop" island is proposed to deter drivers from turning left out of the development.

- Provide Details for curbed island, detectable warning panel, bus shelter, hybrid beacon system, **The curbed island will be constructed using slanted granite curb, as specified in the details provided within the plan set. The design and placement of the proposed bus shelter are currently under discussion with City staff, and a final design will be submitted for review and approval prior to construction.**

Similarly, the proposed hybrid beacon system will follow a standard design commonly implemented at comparable sites throughout Portland and the surrounding region. Final design details for the beacon system will be submitted to both City staff and the MaineDOT for review and approval prior to installation.

- C104 - Extend proposed curbed Island to prevent Left Turn movement out onto Congress Street. **The proposed raised island in Congress has been extended to discourage left turns out of the development.**
- C104 - Proposed improvements and existing conditions in the City ROW shall be dimensions on the plan view sheets. For example ROW, street, lanes sidewalk, esplanade driveways (and other improvements) widths as well as when a width changes. **A new sheet, C109, details the changes being proposed in Congress Street.**
- Square off the proposed pavement repair in congress street **The proposed saw cut lines have been squared off in accordance with the guidance from DPW.**
- Provide Cross Section details for the widened congress street



Sheet C109 provides multiple cross sections of the widened Congress Street.

- C102 - It appears this sheet is attempting to fulfill the recording plat requirement (Tech Manual sec.14.1.3.C). Some comments and questions pertaining to this sheet:
 - o Existing property monuments and existing parent property lines should be fully labeled.
Additional details from the underlying boundary survey have been added to this plan. The plan will ultimately be reviewed and signed by a registered professional land surveyor prior to final signatures by the Board.
 - o All easements and right of ways (both existing and proposed) need to be dimensioned and properly tied to the rest of the boundaries as well as labeled who is to receive the right of way or easement.
All existing and proposed easements have been added to the plan.
 - o Owner(s) of open space areas should be denoted.
The homeowners/condo association will own the proposed open space; this is now noted on the plan.
 - o The plan labels road as private, but sheet notes mention public still. Additionally, the last couple sheet notes are not fully legible.
The note has been updated to indicate the development will be served by a private road.
 - o The plan should address the proposed use/acquisition of the rear portion of the front parcel #217-A-11.
A note has been added that outlines the proposed use/acquisition of the land from parcel 217-A-11.
 - o Left of proposed road station 3+00 is a small triangle lot that should have a lot number & area.
The small triangle area is specifically pointed out on the plan and will be transferred to Parcel 217-A-11 as part of the subdivision and will not be a separate lot.
 - o In general, it is suggested that the applicant and the project team surveyor review the criteria in the Tech Manual sec.14.1.3.C along with sec.14.2. The final version of the recording plat will need to be stamped by a licensed surveyor (sec.14.1.3.C1).
The plan will be reviewed and stamped by a registered surveyor prior to being signed by the planning board.



- C102 - Fix Overlapping labels in General Notes. Remove note regarding public street dedication.
Overlapping text has been revised in the updated plan set.
- C105 - Spot grades and slopes shall be added to plans for proposed improvements within the ROW at grade breaks for proposed driveways, pedestrian ramps, accessible crossings, sidewalks and at the end of the limits of the proposed improvements for the property.
Spot grades are detailed on detail sheet C508
- C106 - Scale says Noted, but no scale is provided on this sheet.
Horizontal and vertical scales have been added to the road profile.
- C502 - Missing dimensions on Detail
Dimensions on the parking detail have been added.
- C502 - Where is the PCC sidewalk detail proposed to be used?
The PCC sidewalk detail has been removed from the plan set. No PCC sidewalk is proposed on this project.
- C506 - Label the Typical Road Cross Section as Private.
The typical road cross section has been updated as private.
- Provide updated turning template for Emergency Vehicles/Solid Waste Removal within the site.
Three updated turning movement diagrams have been provided, illustrating a fire truck maneuvering into Trailhead Landing from Congress Street as well as completing various internal turning movements within the development. These diagrams confirm that all turning paths are accommodated without curb overruns or conflicts with parked vehicles or building structures.

DPW Water Resources

- The City requires a 100' undisturbed buffer strip on either side of the perennial stream. Please see Technical Manual Section 8 (prior version, adopted 7/19/10). The plans do not show this buffer strip and it appears that work is proposed within that setback. Please delineate the 100' undisturbed buffer strip and ensure that no work - no temporary or permanent disturbance - is proposed within that setback.
A 100-foot setback line from the stream has been added and identified on the plans. The proposed work ends just prior to the buffer limits.
- We are concerned with the long term embankment stability of the proposed 1:1 and 2:1 vegetated slope. We would suggest that the applicant have this design reviewed by a geotechnical engineer.



A detailed 1:1 cross section has been prepared to illustrate the relationship between the existing grade and the proposed slope, parking area, underground stormwater storage system, and building footprints. Based on our preliminary analysis, we do not anticipate any concerns regarding slope stability, provided that all earthwork is properly constructed, compacted, and conforms to applicable design standards.

To ensure structural integrity and conformance with best practices, the cross-sectional design and supporting details have been submitted to our geotechnical engineer for review. A final geotechnical report, including slope stability recommendations and any necessary construction specifications, will be submitted to the City Engineering Department for approval prior to the commencement of construction.

- The proposed stormwater outfall should be designed to dissipate flow velocity prior to discharging into the existing stream embankment. We are significantly concerned that this design will lead to downstream erosion of the embankment resulting in eroded material flowing to the stream. This condition could also contribute to stability issues with the 1:1 vegetated embankment.

The stormwater outfall has been rerouted to a stabilized riprap swale.

- The applicant should provide an updated stormwater report as the site design has significantly changed since the previous submission.

An updated stormwater report with new figures and calculations dated July 2025 is included in this response to comments.

- We are concerned that surface runoff from the northerly paved and gravel driveway areas will flow directly onto the proposed 2:1 grassed slope and cause erosion of the embankment.

This area has been re-graded and reclassified as a grassed recreation area. See the response above for more details on the revisions made to this area.

- The applicant should note on the utility plans that all sewer and storm drain infrastructure in Stroudwater Lane and the surrounding lots will be owned and managed by homeowners in the private development.

A note on the subdivision plan, C102, has been added designating ownership of utilities within the private ROW shall be owned and managed by the homeowners Association.

Comments from Justin Pellerin, Department of Public Works received via email June 24, 2025, dated June 23, 2025.

- The applicant is required to update the project's wastewater capacity application (including backup calculations) and send it to water resources engineering for review approval. The original



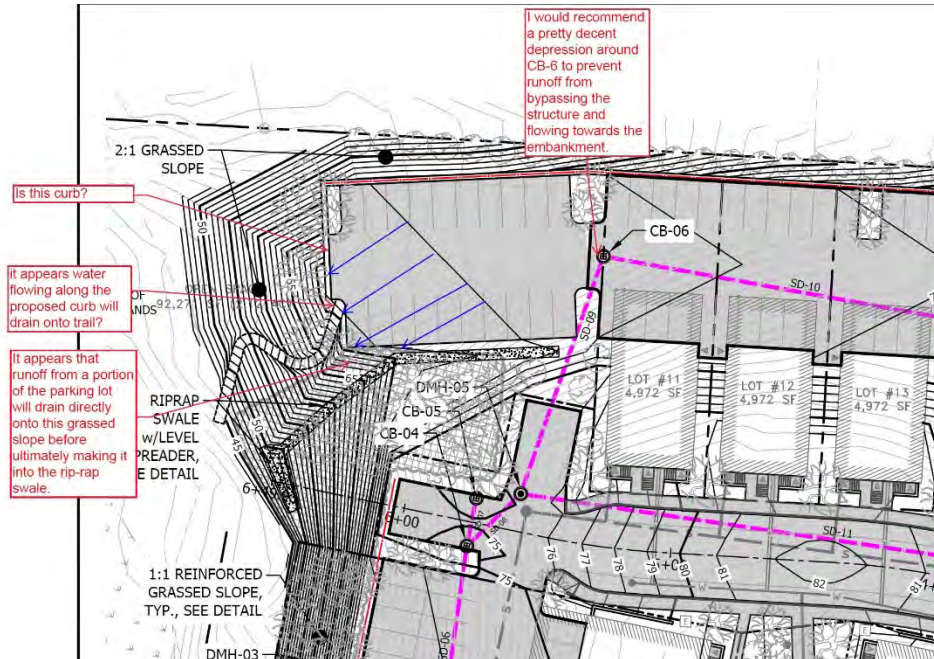
wastewater capacity application provided by the applicant in the fall of 2024 has not been updated to reflect updated site conditions based on the most current submission.

The wastewater application has been updated and is submitted along with this response to comments letter. A total daily flow rate of 25,000 gallons per day is proposed.

- Water Resources remains concerned about the potential for runoff to flow from the overflow/trailhead parking area onto the adjacent embankment in the northwest corner of the site. The updated site design depicts a rip-rap swale to provide drainage from this overflow parking area, but it appears that some runoff from a portion of the parking area may still run across vegetated sections of the embankment prior to entering into the rip-rap channel, which may lead to erosion of the embankment. The applicant should look into this and provide further information. We are also concerned that if CB-6 isn't installed with a decent pavement depression, the structure could pretty easily be bypassed during heavy rain events potentially causing further issues downstream.

As noted previously in this letter, this area has been revised to incorporate both grading and drainage improvements. The site has been regraded to convey stormwater runoff to a designated, stabilized discharge point. From this point, the runoff is directed into a riprapped swale, which subsequently outlets to a riprap-lined level spreader

This sequence of stormwater controls is designed to reduce flow velocity, promote sheet flow dispersion, and dissipate hydraulic energy prior to discharge into adjacent naturally vegetated area. These measures will significantly mitigate erosion risks, enhance slope stability, and support long-term protection of downstream resources within this section of the development.



- Further information and consideration should be provided regarding the energy dissipation design for the storm drain outfall pipe discharging from DMH-2. It appears the velocity coming out of this outfall will be high based on the proposed pipe slope. There is concern that the high velocity of the concentrated runoff will cause erosion and impact the downstream wetlands and stream.

The outlet and overflow from the underground stormwater detention and treatment system have been reconfigured to discharge into a newly designed riprapped swale, which conveys flow to a secondary riprap-lined level spreader.

This revised drainage configuration is intended to manage high-velocity discharges by promoting flow attenuation, energy dissipation, and the transition to sheet flow prior to exiting the developed area. Collectively, these measures serve to minimize erosive forces, reduce the potential for downstream channel destabilization, and improve the long-term resilience of the stormwater management system.

- The plans reference a detail for the proposed rip-rap swale and level spreader providing drainage for the trailhead parking area. I could not locate these details in the plan set. Please provide.
Details are now provided on the plans. See sheets C505 and C507.
- The boundary survey for the project depicts a 100' wide sewer easement that is held by PWD. The applicant should show this boundary on the proposed subdivision and site plan and have PWD review any potential impacts to their easement area.



The sewer easement has been highlighted on the grading plan, sheet C105. The proposed 1:1 fill slope does extend into the easement, no proposed stormwater infrastructure is located in the easement.

- Note 6 on sheet C-102 should be updated to reflect that all stormdrain infrastructure within the Stroudwater Lane private road right of way shall also be the responsibility of the Stroudwater commons subdivision.

The note has been updated in accordance with the guidance given.

- A note should be added to sheet C-102 which indicates that the sewer line in Stroudwater lane will be the responsibility of the private homeowners association and not the City. The City will own and maintain the line from SMH-02 to the connection point to the Congress Street sewer at SMH-01.

Noter 13 on the subdivision plan, C102, specifies that all utilities within the development and private ROW shall be owned and managed by the Homeowners Associations.

LID Review Comments

- The project claims LID points for a 50' undisturbed buffer to wetlands and for permanently protecting a 100ft buffer to the stream. However, it appears that site work potentially encroaches into these set backs.

- o Please provide a site plan clearly showing an undisturbed 50' wetland buffer. No grading, filling, cutting, etc. is allowed in an undisturbed buffer.

The 50-foot buffer is shown on the subdivision plan and noted on the site plan and grading plan as well. Some fill grading is proposed at the toe of the 1:1 slope. The 50-foot buffer comprises a total of 23,300 square feet. The total fill grading within this buffer is 3,300 square feet, or just over 14 percent. The majority of the buffer is preserved. I have updated the scoring to be 85% of the allowed score.

- o Please provide a site plan clearly showing an undisturbed 100' stream shoreline buffer. No grading, filling, cutting, etc. is allowed in an undisturbed buffer.

The 100-foot stream buffer is shown on the subdivision plan and noted on the site plan and grading plan. The toe of the slope proposed stops just shy of the buffer zone and we provide a full undisturbed 100+ feet at all locations.

- o Permanent protection requires installation of feno markers or similar, along the undisturbed stream shoreline buffer. The feno markers also need to be shown on the site plan.

Feno markers have been added to the site plan and denoted. They are proposed at 50-foot intervals along the 100-foot stream buffer.



- The project claims LID points for protecting all intact contiguous forests and native trees on site. However, it appears the site development will require removal of trees. Please provide a tree survey, clearly showing which trees are 10" dbh and greater and clearly show which trees are going to be protected and preserved on site.

A tree plan, sheet T100, is included in the plan set for review. It shows all the trees that are 10" dbh or greater and which are being saved. Over 40% of trees with a 10: dbh or greater will be saved on the property.

- Please provide the site-specific soil survey and comprehensive soil management and protection plan.

Per the technical manual section 14.3 we are required to submit a medium intensity soil map of the area. A medium intensity map is included in the Stormwater Report.

- Please provide the current total square footage of undeveloped area on site, the total area of proposed disturbance, and the total area of undeveloped area that will remain undisturbed during and after construction.

Total area	= 209,865 sf
Total disturbed area	= 150,700 sf (71.8%)
Total undisturbed area	= 59,165 sf

Total developed area	= 124,000 sf
Total impervious cover	= 87,300 sf

- Please provide a landscape plan that shows only locally-sourced, native vegetation.
The landscape plan, sheet C104, note 2 indicates that all proposed trees shall be native to the northeast per the technical manual.
- Please provide a narrative detailing how roadway and driveway impervious surface has been minimized. Please include minimum allowed and proposed dimensions.
The typical street cross section for Portland is two 14-foot lanes, our proposal includes two 10-foot travel lanes.
- Please provide a detailed winter maintenance agreement, which includes the annual reporting requirement. This agreement is required to be recorded with the Stormwater Maintenance Agreement with the Registry of Deeds for this parcel / these parcels.
A draft Winter Maintenance Agreement has been prepared and is included with this response for review. The final version of the agreement will be revised as needed based on the City's comments, and will be fully executed and recorded prior to the issuance of final occupancy for the development.



- The project is claiming bonus points for providing structured parking but is proposing both structured and surface parking on site. Please provide a breakdown of total parking spaces, structured parking spaces, and surface parking spaces. Points will be awarded accordingly.
A total of 58 (37%) of the 159 parking spaces will be under cover in the proposed development. I have updated the bonus point to 4.
- The project is claiming bonus points for being further than 200' from a City sewer but the site is within 200' of the Congress St. sewer infrastructure. This bonus is not provided for sewer infrastructure needed within the project site.
All new building connections and proposed lots are located more than 200 feet from the existing sanitary infrastructure in Congress Street. As a result, extending the sewer main by over 200 feet within the proposed private right-of-way will be required to provide service to the lots within the development.
- The applicant has claimed points for providing stormwater detention of 1.5 times the required volume. Please provide calculation documentation to prove the proposed stormwater system is providing a total detention volume of 1.5" of rainfall x the project's total impervious area.
The updated stormwater report includes calculation sheets demonstrating that the underground detention system provides 1.67 times the minimum required volume for the entire development. This estimate is conservative, as it does not account for the additional storage capacity provided by the 40% void space within the crushed stone bedding surrounding the detention pipes, which will also store stormwater during precipitation events. This volume will also be treated and bonus points are being taken for that criteria as well.

Comments from Lauren Swett from meeting on June 23rd.

- Consistency with space on slope.
The proposed 1:1 slope will be vegetated with grass only. Following initial stabilization, the area will either be allowed to naturally revegetate or maintained with limited mowing, no more than once per season. Establishing grass cover on the slope will provide surface stabilization and significantly reduce the potential for erosion and sedimentation.
- Conflict between stormwater and geogrid.
A scaled cross-section figure has been prepared to illustrate the relationship between the existing and proposed grades, the location and extent of the geogrid reinforcement, and the underground stormwater detention system. This cross-section has been developed in accordance with the proposed details and specifications and confirms



that there are no conflicts between the stormwater infrastructure and the proposed geotechnical elements.

- Stormwater management standpoint- documentation for background information.
Pre-development and post-development drainage plans have been included with this submission for review. These plans reflect the most current drainage area delineations and are fully consistent with the updated stormwater management report and supporting calculations.
- Total square footage of parking area
The total parking area is calculated in the Landscape Plan narrative included with this submission. The proposed layout identifies approximately 33,000 square feet of uncovered parking area, which, in accordance with the applicable landscape requirements, will require the planting of 44 parking lot trees. These trees will be strategically located in and around the parking area to enhance canopy coverage and meet ordinance standards. Please refer to Sheet C104 for the detailed planting locations and schedule.

Comments from Ann Machado from meeting June 23, 2025.

- o Documentation for right to work in the dyslexia center
A general construction easement will be needed from the owner of Parcel #217-A-11 and will be agreed to and signed prior to construction. The Dyslexia Center supports the project and there will be no resistance to get their signoff on this.
- o Finished floor elevations
Finished floor elevations, for the first floors, have been added to the grading plan, sheet C105.
- o Average grade of each building in relation maximum height
The cross sections provided by Invivid Architecture illustrate the proposed average finished grade surrounding each building, along with the corresponding total building height. Based on these sections, the vertical distance from the average proposed ground elevation to the highest point of the flat roof measures 35 feet. This information confirms that the building height complies with applicable zoning and height regulations, as measured from the average grade per City standard.



GreenMars Real Estate Services
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Portland, ME 04101

We appreciate the time and effort the City staff and reviewing agencies have dedicated to the evaluation of this project. We believe the responses and updated materials provided herein address all outstanding comments and demonstrate our commitment to meeting applicable standards and design requirements. Should any additional clarification or information be required, please do not hesitate to contact us. We look forward to your continued review and to moving the project forward toward final approval.

Warm Regards,

A handwritten signature in black ink, appearing to read 'Travis A. Letellier', is written over a light blue circular background.

Travis A. Letellier, P.E.
GreenMars Real Estate Services
travis@greenmars.com
207-205-0208



ZONING ANALYSIS Relevant Zone(s) RN-1

All Projects:

	Required	Proposed
Lot Size	6,500 sf/3,250 sf	14 @ 3,900+ sf
Area Per Dwelling Unit	n/a	
Minimum Street Frontage	20'/40'	14 @ 40'+
Front Yard Minimum	25'	25' to 36'
Front Yard Maximum	n/a	
Rear Yard	25'	25' to 58'
Yard Right	5'/8'	14 @ 5'+
Yard Left	5'/8'	14 @ 5'+
Side Street Setback	n/a	
Step Back	n/a	
Maximum Lot Coverage	60%	60%
Minimum Lot Coverage	n/a	
Maximum Height	35'	35'
Open Space		
Maximum Impervious Area	60%/n/a	14 @ <60%
Pavement Setback		
Floor Area Ratio		
Off Street Parking Spaces	0	183
Loading Bays	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	Increase	4 x 2.5 = 10	10
Height	n/a		
Setback Reduction	n/a		
Recreation Space	n/a		
Maximum Accessory Building Length			
Minimum Setbacks			
Minimum Building Separation			
Minimum Open Space			
Explanatory Text 1 (optional): 50% affordable units allows for 2.5x base density of 4			
Explanatory Text 2 (optional):			
Explanatory Text 3 (optional):			



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Conservation Residential Development Standards Stroudwater Commons 1877 Congress Street, Portland, Maine

The proposed development at **1877 Congress Street**, known as **Stroudwater Commons**, is a premier example of Portland's **Conservation Residential Development (CRD)** zoning model in action. Encompassing **13 buildings** with **156 total units** (each structure comprising 10 residences and 2 accessory dwelling units), this project makes full use of the CRD ordinance found in **Section 7.4.1 of the Portland Land Use Code**.

Purpose and Fit for CRD Zoning

The CRD model is intended "**to allow for the efficient use of land and preservation of Portland's natural resources**," promoting compact development while conserving meaningful open space. Stroudwater Commons exemplifies this by concentrating homes in a previously disturbed central portion of the site—once used as a fill dump over 30 years ago—while dedicating its more sensitive areas, particularly the stream corridor and mature tree stands at the rear, to permanent preservation.

This strategy fully supports the CRD's mandate to "**minimize impacts on the natural environment by carefully laying out structures, streets, and other infrastructure, including buffer zones to protect and connect existing natural areas on site.**"

Dimensional Standards and Compliance

Located in the **RN-1 zone**, the parcel qualifies for CRD as it exceeds the **2-acre minimum site area** (totaling **4.037 acres** or 175,874 sq ft). The project takes advantage of CRD's dimensional flexibilities, including:

- **Minimum lot size reduced** from 6,500 sq ft to 3,250 sq ft
- **Street/open space frontage** reduced from 40 ft to 20 ft
- **Setbacks** reduced: front to 10 ft, rear to 12.5 ft, and side to 5 ft

Each building fronts either a **private road or common open space**, consistent with Section 7.4.1.E.1 of the CRD standards. Clustering units in this way enhances land efficiency and preserves larger blocks of open land.

Conservation Area and Natural Features

The rear section of the property features a **stream corridor with mature tree growth**, which has been **consciously preserved as part of the required open space**. Notably, this conservation area includes the **preservation of multiple large trees**, including a **28-inch Spruce**, a **22-inch**



Locust tree, and multiple Oak and Spruce trees over 12 inches in diameter, demonstrating a strong commitment to the CRD's goal of protecting significant natural features.

The conservation area:

- **Comprises more than 30% of the total site area**
- **Meets the required 30-foot minimum width in all directions**
- **Contains natural vegetation, stream buffers, and recreational green space**

Design and Landscape Features

A defining feature of the Stroudwater Commons design is its **landscaped, pedestrian-only parkway**. This amenity threads through the heart of the site, connecting residents to natural surroundings and enhancing walkability. Importantly, this parkway provides **direct connectivity to the preserved stream corridor and trail system**, in alignment with the CRD ordinance which specifically calls for the layout of infrastructure to "**protect and connect existing natural areas on site.**"

Additional open space elements include:

- **Public access trails and sidewalks**
- **Grassed open areas for passive recreation.**
- **Tree and shrub buffers for ecological and visual cohesion**
- **Playground and common areas** that promote community interaction.

This layout ensures **minimal disruption** to mature vegetation, as most of the development occurs on **previously disturbed, low-lying bushland**, leaving the **ecologically valuable areas untouched**.

Conclusion

Stroudwater Commons is a model for how the **CRD ordinance can deliver sustainable, context-sensitive housing**. It balances the need for increased housing options with environmental stewardship by:

- **Concentrating development in areas of low ecological value**
- **Preserving streams and mature tree stand**
- **Offering well-integrated pedestrian amenities and open space**

This development not only complies with CRD requirements but also embodies its **spirit**, delivering a **compact, livable, and ecologically respectful neighborhood** that contributes to Portland's vision for smart growth.



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Affordability Narrative Stroudwater Commons 1877 Congress Street, Portland, Maine

1. Project Overview

Stroudwater Commons is a new 156-dwelling unit for-sale residential development in Portland, Maine, being advanced by GreenMars Real Estate. The project comprises:

- **130 for-sale condominium units** in a mix of **one-, two-, and three-bedroom layouts** designed to meet the needs of a diverse population, including singles, families, and multigenerational households.
- **26 studio Accessory Dwelling Units (ADUs)** that will be sold in tandem with market-rate condominium units to provide flexible space for extended families, caregivers, or rental income support.

The development is designed with affordability, transportation access, and long-term sustainability in mind. It will be a modern, efficient, and family-oriented neighborhood contributing to Portland's pressing need for attainable homeownership.

2. Affordability Commitments and Inclusionary Zoning Compliance

Stroudwater Commons is explicitly designed to meet and exceed **Portland's Inclusionary Zoning (IZ) ordinance**, while also qualifying under **Portland's Affordable Housing Density Bonus program**:

Affordability Breakdown

- **50% of all units (78 out of 156)** will be sold to households earning **at or below 100% of the Area Median Income (AMI)**.
- **25% of all units (39 units)** will be sold to households earning **at or below 80% of AMI**, fully satisfying the IZ requirement for for-sale developments.
- **All affordability restrictions will be recorded and enforced** through deed covenants that maintain pricing eligibility at resale, as required under the City's IZ administrative rules.

Compliance with Portland's Affordable Housing Bonus Program

Per **Portland City Code Section 14-752**, the project qualifies for a **2.5x density bonus** by meeting the threshold of **50% or more of dwelling units priced below 100% AMI**. This



substantial increase in allowable unit count enables efficient site utilization and maximizes the number of affordable homes in a market-driven context.

- **Baseline density would allow approximately 62 units on this site.**
- **With the 2.5x bonus, 156 units are proposed**, made possible through intelligent site design and the project's affordability profile.

3. Parity, Unit Design and Integration

All workforce units designated under the IZ requirement will be constructed to **identical design standards** as the market-rate units. This includes:

- Interior Finishes: Same cabinetry, countertops, flooring, appliances, lighting, and fixtures.
- Exterior Design: Workforce units will be indistinguishable from market-rate units from the outside.
- Amenities: All residents, including those in IZ units, will have full access to the shared amenity spaces, including the gym, coworking space, lounge, game room, bike racks, and trail network.

The 130 for-sale condominium homes include a balanced mix of:

- **52 one-bedroom units**
- **52 two-bedroom units**
- **26 three-bedroom units**

This mix ensures suitability for a range of household sizes and life stages. The **26 studio ADUs** are integrated into the condominium master deed but sold in combination with market-rate condos, providing private accessory space with additional flexibility.



4. Phasing and Unit Distribution

The project will be constructed in **two phases**, and affordable units will be delivered concurrently with market-rate units:

Phase 1: Buildings 1–5 and 11–13

- 12 one-bedroom IZ units
- 8 two-bedroom IZ units
- 4 three-bedroom IZ units
- 9 one-bedroom 100% AMI units
- 8 two-bedroom 100% AMI units
- 8 three-bedroom 100% AMI units

Phase 2: Buildings 6–10

- 7 one-bedroom IZ units
- 5 two-bedroom IZ units
- 3 three-bedroom IZ units
- 4 one-bedroom 100% AMI units
- 5 two-bedroom 100% AMI units
- 5 three-bedroom 100% AMI units

There are **no buildings without IZ units**, and IZ units are spread evenly throughout the site to promote integration and parity.



5. Maximum Sale Price Assumptions

The pricing methodology adheres to the City's Inclusionary Zoning Guidelines and includes assumptions for AMI levels, mortgage interest rates, property taxes, HOA fees, and insurance.

80% AMI Price Calculation			
	1 Bed	2 Bed	3 Bed
80% AMI Gross Incomes (2027)	\$ 77,127.43	\$ 88,160.79	\$ 99,194.15
Maximum Housing Expense	\$ 1,928.19	\$ 2,204.02	\$ 2,479.85
Electric - Heat Pump	\$ 44.00	\$ 52.00	\$ 59.00
Electric - Cooking	\$ 10.00	\$ 15.00	\$ 20.00
Electric (general/other)	\$ 55.00	\$ 70.00	\$ 86.00
Electric - Heat Water	\$ 28.00	\$ 36.00	\$ 43.00
Water - Paid by HOA	\$ -	\$ -	\$ -
Sewer - Paid by HOA	\$ -	\$ -	\$ -
Trash - Paid by HOA	\$ -	\$ -	\$ -
HOA Fees	\$ 235.00	\$ 250.00	\$ 265.00
Insurance	\$ 29.17	\$ 33.33	\$ 37.50
Mortgage Insurance - 80 Bps	\$ 152.73	\$ 177.07	\$ 202.10
Real Estate Taxes	\$ 205.00	\$ 215.00	\$ 220.00
Mortgage Amount	\$ 229,095.71	\$ 265,602.74	\$ 303,149.52
Down Payment	5%	5%	5%
Term (Years)	30	30	30
Interest Rate	4.48%	4.48%	4.48%
Mortgage Payment	\$ (1,169.29)	\$ (1,355.62)	\$ (1,547.25)
Purchase Price	\$ 241,153.00	\$ 279,581.00	\$ 319,104.00

GreenMars will revise pricing if needed upon prevailing financing conditions.



6. Construction Strategy and Cost Management

Stroudwater Commons will be built using **low-cost, scalable construction methods** that prioritize value engineering, straightforward sitework, and simplified building systems to ensure affordability:

- **No specialty construction methods (e.g., steel, LEED, Passive House)** will be required unless mandated by code.
- Exterior materials and mechanical systems will be **durable but cost-effective**, aiming to reduce both capital costs and operating expenses.

This approach demonstrates how market-oriented design can still achieve affordability outcomes, even in a challenging construction cost environment.



7. Financing & Mortgage Access

To improve the marketability of the units and expand access to affordable mortgage products, GreenMars will seek **full project approval for the condominium association** from:

- **Fannie Mae (FNMA)**
- **Freddie Mac (FHLMC)**
- **Federal Housing Administration (FHA)**

These approvals will:

- Enable buyers to use conforming mortgage products with **lower down payments** and **competitive rates**.
- Ensure lenders are not restricted by project-level overlays that might otherwise hinder financing.
- Open the door for **first-time buyers and workforce households** with lower capital reserves to purchase and build equity.

This is particularly critical for the 80% AMI tier, where loan underwriting flexibility can make or break a purchase transaction.

8. Strategic Site Selection for Transportation Access

Stroudwater Commons is uniquely positioned to offer residents **meaningful mobility options**, reducing car dependence and supporting a more sustainable and equitable housing model:

- **Transit Access:** Two METRO bus lines stop within 0.3 miles of the site, offering direct routes to downtown, the Maine Mall, and key employment hubs.
- **Airport Proximity:** Located less than 1.5 miles from Portland International Jetport, this location offers unmatched regional and national connectivity.
- **Commuter Arteries:** Immediate access to I-295 and Congress Street allows seamless car-based commutes for those working outside Portland.
- **Trail System Access:** Adjacent to the Portland Trails network, the project encourages walkability, biking, and a connection to nature.

Transportation cost savings are a hidden but major component of housing affordability — and Stroudwater Commons is built with this factor in mind.



9. GreenMars Philosophy and Regional Impact

Stroudwater Commons is one piece of a broader strategy by GreenMars Real Estate to **rebuild Maine’s missing housing infrastructure** — particularly in the homeownership and workforce housing segments.

GreenMars believes that:

- **Affordable homeownership** is not a luxury, but a foundation for economic stability, wealth building, and neighborhood resilience.
- **Volume and speed** are essential: Maine’s housing crisis demands that high-quality units be delivered at scale, with a variety of market-based and subsidized strategies.
- **Market-driven affordability models can complement traditional housing programs**, offering immediate and replicable solutions to pressing demand.

While GreenMars does and will continue to utilize subsidy where appropriate in other developments, **Stroudwater Commons at 1877 Congress Street** stands as an example of how affordable homeownership can be delivered without direct subsidy, through innovative application of zoning and density incentives.

Additional GreenMars projects in development — such as **Wilbur’s Woods in Brunswick** and **Deering Village in Portland** — are being structured with the same commitment to affordability, scalability, and long-term housing access.

Conclusion

Stroudwater Commons represents a clear and compelling example of how Portland’s planning and zoning reforms can be translated into tangible community outcomes. By delivering:

- 50% of units at or below 100% AMI,
- 25% of units at or below 80% AMI (in full compliance with Inclusionary Zoning),
- A transportation-accessible, environmentally sensitive design,
- And a scalable model of affordable homeownership within a market-based development,

GreenMars is demonstrating that the private sector can play a significant role in solving Maine’s most urgent housing challenges. Stroudwater Commons is a proof point that even in high-cost environments, thoughtful land use policy and mission-aligned development can lead to real, measurable housing outcomes.

Att.
Q

STORMWATER MANAGEMENT REPORT

July 2025

Stroudwater Commons

1877 Congress Street
Portland, Maine

Prepared for:
GreenMars
30 Exchange Street
Portland, Maine 04101



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APPENDICES

Appendix A	HydroCAD Output: Pre-Development Condition
Appendix B	HydroCAD Output: Post-Development Condition
Appendix C	Soil Report
Appendix D	Stormwater Calculations
Appendix E	Inspection and Maintenance Plan

1) PROJECT DESCRIPTION

This Stormwater Management Report has been prepared for GreenMars to present the stormwater runoff results for a proposed affordable housing project in Portland, Maine. The property is identified parcel 217 A010001 and a portion of parcel 217 A011001. The total combined area occupies 4.86 acres.

The entirety of the site is vegetated and hilly and sits on very poorly draining soil.

The development of the site will result in the following:

Road Development:

Proposed impervious area (on previously vegetated surface)	= 2.00 acres
Proposed developed area	= 2.84 acres
Proposed disturbed area	= 3.46 acres

2) STORMWATER NARRATIVE

2.1 SITE LOCATION

The project site is located on an undeveloped parcel at 1877 Congress Street in Portland, Maine. The property is currently unoccupied by development and consists of brushy vegetation.

2.2 RECEIVING WATERS

An adjacent stream, an unnamed tributary of the Stroudwater River, receives the majority of stormwater from this development. A portion of the new road will drain to Congress Street and into the City's combined drainage system.

2.3 HISTORIC FLOODING

The project site is not located with a floodplain as indicated on the Flood Insurance Rate Map for the City of Portland, Maine Cumberland County Panel 12 of 17. Map number 230051 0012C, dated December 8, 1998.

2.4 METHODOLOGY AND MODELING ASSUMPTIONS

Runoff and routing calculations have been performed for the watershed areas affected by the proposed development. Times of concentration and runoff curve number calculations have been determined using the method described in the Natural Resource Conservation Service (NRCS) Technical Release 55, (TR-55). Time of concentration calculations have been amended where the values given by the TR-55 method is less than five minutes. In these

cases a standard minimum value of five minutes has been used to keep this parameter within the acceptable working range of the model. Each Tc path and corresponding length and slope is identified in the pre and post development drainage area plan. The TR-20 based HydroCAD (version 10.0) modeling software has been utilized to perform the complex runoff and routing calculations.

Design rainfall has been modeled using the SCS Type III hydrograph for 24-hour duration storm events. The rainfall depth for each return period is taken from the Stormwater Management for Maine: Best Management Practices, Appendix H. The rainfall depth values utilized in the stormwater model are indicated in the table below.

24-Hour Rainfall Depths for Cumberland County			
Stormwater Management for Maine: Best Management Practices Appendix H			
Frequency	2-Year	10-Year	25-Year
Rainfall Depth	3.19	4.77	6.01

2.5 SOILS

Soil types in the area of the project were identified using the NRCS Web Soil Survey. The curve numbers (CN) utilized in this analysis relate to the ground cover that was observed on the site. Soils identified on the site (or within close proximity) are identified in the Table below. These soil boundaries have been identified on the Pre and Post Development Watershed Maps.

Soil Types	Symbol	HSG
Lamoine silt loam	BuB	D
Lyman-Tunbridge complex	HrB	D

2.6 PERMITTING REQUIREMENTS

The City of Portland

General Standard

Developments as specified under Section II Applicability in Portland must comply with the most recent version of the Maine Department of Environmental Protection (Maine DEP) Chapter 500 Rules for Stormwater Management (<http://www.maine.gov/dep/land/stormwater/storm.html>), including but not limited to the standards for Urban Impaired Stream, Basic, General, and Flooding Standards for the suitability, design, installation, and maintenance of systems to comply with the General and Flooding Standards are provided in Volume III of the Maine Stormwater Best Management Practices Manual

Applicability

Projects that require a Stormwater Permit pursuant to 38 M.R.S.A. Sec. 420-D (Stormwater Management Law) and projects that may substantially affect the environment and require a site location of development (Site Law) permit pursuant to 38 M.R.S.A. Sec 481-490 shall be reviewed for conformance with Chapter 500 under the City's Delegated Review Authority or by the Maine Department of Environmental Protection.

MDEP Permitting Requirements:

Basic Standards: The basic standards require that grading and other construction activities on the site do not impede or otherwise alter drainage ways to create an unreasonable adverse impact on a protected natural resource. The basic standards will be met by the implementation of an Erosion and Sedimentation Control Plan addressing erosion and sediment control during construction and post-construction stabilization of the site and through the implementation of Stormwater Management Facilities Maintenance Plan identifying various inspection, maintenance and general housekeeping procedures. A copy of the Stormwater Management Facilities Maintenance Plan is attached to this report.

The Erosion and Sedimentation Control Plan was developed following Best Management Practice (BMP) guidelines and has been placed directly on the design plans for reference during construction.

General Standards: The general standards consist of Best Management Practice (BMP) standards. The BMP standards require a project's stormwater management system to include treatment measures that will mitigate the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential temperature impacts. This must be achieved by using one or more MDEP approved methods to control runoff from no less than 95% of the proposed impervious area and no less than 80% of the proposed developed area associated with a project. As this project will create greater than one acre of new impervious surface area and is subject to MDEP General Standards. A DEP stormwater permit will be required for this project. It will also meet the MDEP General standards based on the requirements of Post-Construction Stormwater Infrastructure Management Ordinance

Flooding Standard: MDEP requires that projects which create 3 acres or more of impervious area and 20 acres or more of developed area or otherwise require review pursuant to the Site Location of Development Law must control the peak flow of runoff from the site to pre-development rates during the 2-year, 10-year and 25-year, 24-hour storms. As this project does not meet the above criteria the MDEP Flooding Standard does not apply. It will meet the MDEP Flooding standards based on the requirements of Post-Construction Stormwater Infrastructure Management Ordinance

2.7 PROPOSED BMPs

The majority of the site will be collected through a series of catch basins that will direct stormwater to underground pipe storage system then through a Contech Stormfilter.

2.8 PROJECT IMPACTS

The total developed area associated with this project will be 2.84 acres of which 2.00 acres will be impervious cover, consisting of roads, parking, paved access ways and roofs.

No wetlands will be impacted by this proposed development.

There is no proposed fill within the delineated 100-year flood plain that runs along the unnamed tributary to the Stroudwater River at the rear of the property.

3) STORMWATER QUANTITY ANALYSIS

3.1 PRE-DEVELOPMENT CONDITIONS

Under pre-development conditions the site is modeled as two watersheds dividing flow to two points of analysis. Point 1 is an unnamed tributary of the Stroudwater River and Point 2 is Congress Street.

3.2 POST- DEVELOPMENT CONDITIONS

Under the post-development condition, the site area is divided into five sub catchments in order to separate the developed area of the site from the undisturbed area. The same two points of study from the pre-development condition are used.

The watershed areas and times of concentration of the post-development watersheds vary from the existing conditions based on the proposed site development and grading. The Table below summarizes the results of the hydrologic analysis of the project under pre-development and post-development conditions.

3.3 STORMWATER QUANTITY SUMMARY

Stormwater Runoff Summary Table Pre-Development vs. Post-Development								
<u>Study Point</u>	Total Watershed Area (Ac)		Peak Rates of Runoff (cfs)					
			2-Year		10-Year		25-Year	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
SP-1	4.35	4.15	3.6	2.1	7.5	3.9	10.7	6.7
SP-2	2.05	2.25	2.3	2.4	4.3	4.4	6.0	6.1

4) STORMWATER QUALITY ANALYSIS

Water quality treatment is provided by capturing sediment within the deep sump catch basins and filtering the stormwater within the Contech Structures.

For treatment the project is broken into two categories, the linear portion of the project and the non-linear portion.

The linear portion of the project, the proposed new road, is required to treat 75% of impervious cover and 50% of the developed area, whereas the non-linear portion is required to treat 95% and 80% respectfully.

The attached calculation sheets shows that a total of roughly 94,190 square feet of developed area and 79,500 square feet of impervious area are required to be treated on this project. The calculation sheet also summarizes that 106,600 square feet of developed area and 85,000 square feet of impervious cover will be collected and treated by the proposed underground detention and StormFilter

Additionally, the stormwater calculation sheet shows that the fully developed site will include approximately 87,300 square feet of impervious surface and 36,700 square feet of landscaped area, yielding a minimum required detention volume of just under 8,500 cubic feet. According to the HydroCAD model, the underground pipe storage system provides 14,218 cubic feet of detention capacity at elevation 68.25. This volume equates to approximately 1.67 times the minimum required detention for the total proposed development, and 1.82 times the volume of stormwater being treated and directed to the storage system. This detention volume reported doesn't take into account the 40% void space within the stone surrounding the pipe storage.

5) CONCLUSIONS

The runoff and routing calculations demonstrate that the development will result in minimal increases in the peak rate to Congress Street during the 2-year, 10-year and 25-year storm events. There will be a significant decrease in stormwater flows for the 2-year and 10-year and 25-year storm events.

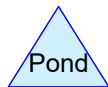
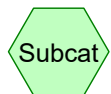
Stormwater runoff from this site has been designed to meet the MDEP Basic and General standards. As summarized above the site will treat more impervious cover than required and also detain/treat greater than 1.5x the required minimum volume.

The proposed project is designed to fit into the topography and natural features of the site to the maximum extent practical. Stormwater runoff from the development will be captured, retained, and treated by a series of catch basins, detention structures and Contech filtration BMP's

An Erosion and Sedimentation Control Plan will be implemented to address erosion and sediment control during construction and the post-construction stabilization of the site. These construction requirements have been developed following BMP guidelines and have been placed directly on the design plans for construction reference.

APPENDIX A

PRE-DEVELOPMENT HYDROCAD OUTPUT



PRE

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Project Notes

Rainfall events imported from "NRCS-Rain.txt" for 5105 ME Cumberland Se

Rainfall events imported from "NRCS-Rain.txt" for 5105 ME Cumberland Se

Rainfall events imported from "NRCS-Rain.txt" for 5105 ME Cumberland Se

PRE

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	NRCC 24-hr	D	Default	24.00	1	3.19	2
2	10-Year	NRCC 24-hr	D	Default	24.00	1	4.77	2
3	25-Year	NRCC 24-hr	D	Default	24.00	1	6.01	2

PRE

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Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
259,988	77	Brush, Fair, HSG D (S1, S2)
2,400	98	Roofs, HSG D (S2)
16,400	98	Unconnected pavement, HSG D (S2)
278,788	78	TOTAL AREA

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Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
278,788	HSG D	S1, S2
0	Other	
278,788		TOTAL AREA

PRE

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	Subca Numb
0	0	0	259,988	0	259,988	Brush, Fair	
0	0	0	2,400	0	2,400	Roofs	
0	0	0	16,400	0	16,400	Unconnected pavement	
0	0	0	278,788	0	278,788	TOTAL AREA	

PRE

NRCC 24-hr D 2-Year Rainfall=3.19"

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment S1: S1

Runoff Area=189,388 sf 0.00% Impervious Runoff Depth=1.20"
Flow Length=650' Tc=19.7 min CN=77 Runoff=3.607 cfs 19,012 cf

Subcatchment S2: S2

Runoff Area=89,400 sf 21.03% Impervious Runoff Depth=1.57"
Flow Length=280' Tc=16.8 min UI Adjusted CN=WQ Runoff=2.317 cfs 11,721 cf

Link POA1: Point of Analysis #1

Inflow=3.607 cfs 19,012 cf
Primary=3.607 cfs 19,012 cf

Link POA2: Point of Analysis #2

Inflow=2.317 cfs 11,721 cf
Primary=2.317 cfs 11,721 cf

Total Runoff Area = 278,788 sf Runoff Volume = 30,733 cf Average Runoff Depth = 1.32"
93.26% Pervious = 259,988 sf 6.74% Impervious = 18,800 sf

Summary for Subcatchment S1: S1

Runoff = 3.607 cfs @ 12.30 hrs, Volume= 19,012 cf, Depth= 1.20"

Routed to Link POA1 : Point of Analysis #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
NRCC 24-hr D 2-Year Rainfall=3.19"

Area (sf)	CN	Description
189,388	77	Brush, Fair, HSG D
189,388	77	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0800	0.13		Sheet Flow, A-B Sheet
					Woods: Light underbrush n= 0.400 P2= 3.00"
7.0	550	0.0690	1.31		Shallow Concentrated Flow, B-C Shallow
					Woodland Kv= 5.0 fps
19.7	650	Total			

Summary for Subcatchment S2: S2

Runoff = 2.317 cfs @ 12.26 hrs, Volume= 11,721 cf, Depth= 1.57"

Routed to Link POA2 : Point of Analysis #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
NRCC 24-hr D 2-Year Rainfall=3.19"

Area (sf)	CN	Adj	Description
70,600	77	77	Brush, Fair, HSG D
16,400	98	98	Unconnected pavement, HSG D
2,400	98	98	Roofs, HSG D
89,400			Weighted Average
70,600	77	77	78.97% Pervious Area
18,800	98	98	21.03% Impervious Area
16,400			87.23% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0700	0.12		Sheet Flow, A-B Sheet
					Woods: Light underbrush n= 0.400 P2= 3.00"
3.4	180	0.0320	0.89		Shallow Concentrated Flow, B-C Shallow
					Woodland Kv= 5.0 fps
16.8	280	Total			

Summary for Link POA1: Point of Analysis #1

Inflow Area = 189,388 sf, 0.00% Impervious, Inflow Depth = 1.20" for 2-Year event
Inflow = 3.607 cfs @ 12.30 hrs, Volume= 19,012 cf
Primary = 3.607 cfs @ 12.30 hrs, Volume= 19,012 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link POA2: Point of Analysis #2

Inflow Area = 89,400 sf, 21.03% Impervious, Inflow Depth = 1.57" for 2-Year event
Inflow = 2.317 cfs @ 12.26 hrs, Volume= 11,721 cf
Primary = 2.317 cfs @ 12.26 hrs, Volume= 11,721 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

PRE

NRCC 24-hr D 10-Year Rainfall=4.77"

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment S1: S1

Runoff Area=189,388 sf 0.00% Impervious Runoff Depth=2.43"
Flow Length=650' Tc=19.7 min CN=77 Runoff=7.467 cfs 38,379 cf

Subcatchment S2: S2

Runoff Area=89,400 sf 21.03% Impervious Runoff Depth=2.87"
Flow Length=280' Tc=16.8 min UI Adjusted CN=WQ Runoff=4.309 cfs 21,410 cf

Link POA1: Point of Analysis #1

Inflow=7.467 cfs 38,379 cf
Primary=7.467 cfs 38,379 cf

Link POA2: Point of Analysis #2

Inflow=4.309 cfs 21,410 cf
Primary=4.309 cfs 21,410 cf

Total Runoff Area = 278,788 sf Runoff Volume = 59,789 cf Average Runoff Depth = 2.57"
93.26% Pervious = 259,988 sf 6.74% Impervious = 18,800 sf

PRE

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NRCC 24-hr D 10-Year Rainfall=4.77"

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Summary for Subcatchment S1: S1

Runoff = 7.467 cfs @ 12.29 hrs, Volume= 38,379 cf, Depth= 2.43"

Routed to Link POA1 : Point of Analysis #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
NRCC 24-hr D 10-Year Rainfall=4.77"

Area (sf)	CN	Description
189,388	77	Brush, Fair, HSG D
189,388	77	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0800	0.13		Sheet Flow, A-B Sheet
					Woods: Light underbrush n= 0.400 P2= 3.00"
7.0	550	0.0690	1.31		Shallow Concentrated Flow, B-C Shallow
					Woodland Kv= 5.0 fps
19.7	650	Total			

Summary for Subcatchment S2: S2

Runoff = 4.309 cfs @ 12.25 hrs, Volume= 21,410 cf, Depth= 2.87"

Routed to Link POA2 : Point of Analysis #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
NRCC 24-hr D 10-Year Rainfall=4.77"

Area (sf)	CN	Adj	Description
70,600	77	77	Brush, Fair, HSG D
16,400	98	98	Unconnected pavement, HSG D
2,400	98	98	Roofs, HSG D
89,400			Weighted Average
70,600	77	77	78.97% Pervious Area
18,800	98	98	21.03% Impervious Area
16,400			87.23% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0700	0.12		Sheet Flow, A-B Sheet
					Woods: Light underbrush n= 0.400 P2= 3.00"
3.4	180	0.0320	0.89		Shallow Concentrated Flow, B-C Shallow
					Woodland Kv= 5.0 fps
16.8	280	Total			

Summary for Link POA1: Point of Analysis #1

Inflow Area = 189,388 sf, 0.00% Impervious, Inflow Depth = 2.43" for 10-Year event
Inflow = 7.467 cfs @ 12.29 hrs, Volume= 38,379 cf
Primary = 7.467 cfs @ 12.29 hrs, Volume= 38,379 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Summary for Link POA2: Point of Analysis #2

Inflow Area = 89,400 sf, 21.03% Impervious, Inflow Depth = 2.87" for 10-Year event
Inflow = 4.309 cfs @ 12.25 hrs, Volume= 21,410 cf
Primary = 4.309 cfs @ 12.25 hrs, Volume= 21,410 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

PRE

NRCC 24-hr D 25-Year Rainfall=6.01"

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment S1: S1

Runoff Area=189,388 sf 0.00% Impervious Runoff Depth=3.49"
Flow Length=650' Tc=19.7 min CN=77 Runoff=10.713 cfs 55,046 cf

Subcatchment S2: S2

Runoff Area=89,400 sf 21.03% Impervious Runoff Depth=3.97"
Flow Length=280' Tc=16.8 min UI Adjusted CN=WQ Runoff=5.957 cfs 29,562 cf

Link POA1: Point of Analysis #1

Inflow=10.713 cfs 55,046 cf
Primary=10.713 cfs 55,046 cf

Link POA2: Point of Analysis #2

Inflow=5.957 cfs 29,562 cf
Primary=5.957 cfs 29,562 cf

Total Runoff Area = 278,788 sf Runoff Volume = 84,608 cf Average Runoff Depth = 3.64"
93.26% Pervious = 259,988 sf 6.74% Impervious = 18,800 sf

PRE

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NRCC 24-hr D 25-Year Rainfall=6.01"

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Summary for Subcatchment S1: S1

Runoff = 10.713 cfs @ 12.29 hrs, Volume= 55,046 cf, Depth= 3.49"

Routed to Link POA1 : Point of Analysis #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
NRCC 24-hr D 25-Year Rainfall=6.01"

Area (sf)	CN	Description
189,388	77	Brush, Fair, HSG D
189,388	77	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.7	100	0.0800	0.13		Sheet Flow, A-B Sheet
					Woods: Light underbrush n= 0.400 P2= 3.00"
7.0	550	0.0690	1.31		Shallow Concentrated Flow, B-C Shallow
					Woodland Kv= 5.0 fps
19.7	650	Total			

Summary for Subcatchment S2: S2

Runoff = 5.957 cfs @ 12.25 hrs, Volume= 29,562 cf, Depth= 3.97"

Routed to Link POA2 : Point of Analysis #2

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
NRCC 24-hr D 25-Year Rainfall=6.01"

Area (sf)	CN	Adj	Description
70,600	77	77	Brush, Fair, HSG D
16,400	98	98	Unconnected pavement, HSG D
2,400	98	98	Roofs, HSG D
89,400			Weighted Average
70,600	77	77	78.97% Pervious Area
18,800	98	98	21.03% Impervious Area
16,400			87.23% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0700	0.12		Sheet Flow, A-B Sheet
					Woods: Light underbrush n= 0.400 P2= 3.00"
3.4	180	0.0320	0.89		Shallow Concentrated Flow, B-C Shallow
					Woodland Kv= 5.0 fps
16.8	280	Total			

Summary for Link POA1: Point of Analysis #1

Inflow Area = 189,388 sf, 0.00% Impervious, Inflow Depth = 3.49" for 25-Year event
Inflow = 10.713 cfs @ 12.29 hrs, Volume= 55,046 cf
Primary = 10.713 cfs @ 12.29 hrs, Volume= 55,046 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

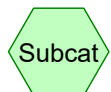
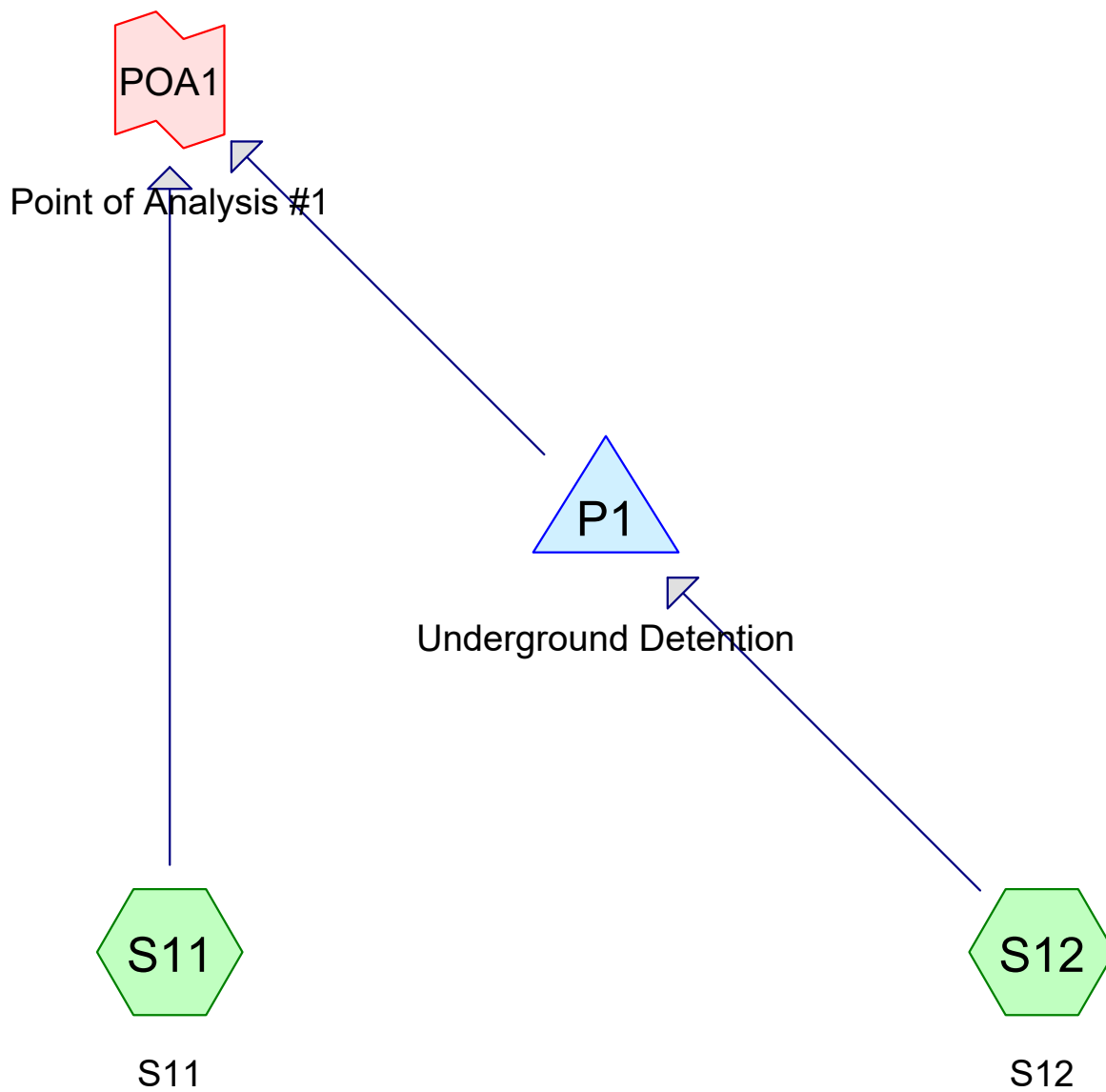
Summary for Link POA2: Point of Analysis #2

Inflow Area = 89,400 sf, 21.03% Impervious, Inflow Depth = 3.97" for 25-Year event
Inflow = 5.957 cfs @ 12.25 hrs, Volume= 29,562 cf
Primary = 5.957 cfs @ 12.25 hrs, Volume= 29,562 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

APPENDIX B

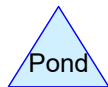
POST DEVELOPMENT HYDROCAD OUTPUT



Subcat



Reach



Pond



Link

Routing Diagram for POST_03
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Page 2

Project Notes

Rainfall events imported from "NRCS-Rain.txt" for 5105 ME Cumberland Se

Rainfall events imported from "NRCS-Rain.txt" for 5105 ME Cumberland Se

Rainfall events imported from "NRCS-Rain.txt" for 5105 ME Cumberland Se

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	NRCC 24-hr	D	Default	24.00	1	3.19	2
2	10-Year	NRCC 24-hr	D	Default	24.00	1	4.77	2
3	25-Year	NRCC 24-hr	D	Default	24.00	1	6.01	2

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Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
21,600	80	>75% Grass cover, Good, HSG D (S12)
68,600	77	Brush, Fair, HSG D (S11)
5,300	91	Paved parking, Grass Pave (S11)
21,000	98	Roofs, HSG D (S12)
64,000	98	Unconnected pavement, HSG D (S12)
180,500	88	TOTAL AREA

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Soil Listing (selected nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
175,200	HSG D	S11, S12
5,300	Other	S11
180,500		TOTAL AREA

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Ground Covers (selected 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	0	21,600	0	21,600	>75% Grass cover, Good
0	0	0	68,600	0	68,600	Brush, Fair
0	0	0	0	5,300	5,300	Paved parking, Grass Pave
0	0	0	21,000	0	21,000	Roofs
0	0	0	64,000	0	64,000	Unconnected pavement
0	0	0	175,200	5,300	180,500	TOTAL AREA

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Pipe Listing (selected nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	P1	63.00	51.00	100.0	0.1200	0.013	0.0	15.0	0.0	

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NRCC 24-hr D 2-Year Rainfall=3.19"

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment S11: S11

Runoff Area=73,900 sf 0.00% Impervious Runoff Depth=1.28"
Flow Length=100' Slope=0.0600 '/' Tc=14.3 min CN=WQ Runoff=1.725 cfs 7,880 cf

Subcatchment S12: S12

Runoff Area=106,600 sf 79.74% Impervious Runoff Depth=2.64"
Flow Length=145' Tc=18.8 min CN=WQ Runoff=4.222 cfs 23,459 cf

Pond P1: Underground Detention

Peak Elev=66.21' Storage=8,481 cf Inflow=4.222 cfs 23,459 cf
Outflow=0.400 cfs 23,459 cf

Link POA1: Point of Analysis #1

Inflow=2.125 cfs 31,338 cf
Primary=2.125 cfs 31,338 cf

Total Runoff Area = 180,500 sf Runoff Volume = 31,339 cf Average Runoff Depth = 2.08"
52.91% Pervious = 95,500 sf 47.09% Impervious = 85,000 sf

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NRCC 24-hr D 2-Year Rainfall=3.19"

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Summary for Subcatchment S11: S11

Runoff = 1.725 cfs @ 12.23 hrs, Volume= 7,880 cf, Depth= 1.28"

Routed to Link POA1 : Point of Analysis #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
NRCC 24-hr D 2-Year Rainfall=3.19"

Area (sf)	CN	Description
68,600	77	Brush, Fair, HSG D
* 5,300	91	Paved parking, Grass Pave
73,900		Weighted Average
73,900	78	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.3	100	0.0600	0.12		Sheet Flow, A-B Sheet Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment S12: S12

Runoff = 4.222 cfs @ 12.27 hrs, Volume= 23,459 cf, Depth= 2.64"

Routed to Pond P1 : Underground Detention

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
NRCC 24-hr D 2-Year Rainfall=3.19"

Area (sf)	CN	Description
0	77	Brush, Fair, HSG D
64,000	98	Unconnected pavement, HSG D
21,000	98	Roofs, HSG D
21,600	80	>75% Grass cover, Good, HSG D
106,600		Weighted Average
21,600	80	20.26% Pervious Area
85,000	98	79.74% Impervious Area
64,000		75.29% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.5	95	0.0300	0.09		Sheet Flow, SSheet Grass: Bermuda n= 0.410 P2= 3.00"
0.3	50	0.0200	2.87		Shallow Concentrated Flow, Shallow Paved Kv= 20.3 fps
18.8	145	Total			

Summary for Pond P1: Underground Detention

Inflow Area = 106,600 sf, 79.74% Impervious, Inflow Depth = 2.64" for 2-Year event
 Inflow = 4.222 cfs @ 12.27 hrs, Volume= 23,459 cf
 Outflow = 0.400 cfs @ 11.15 hrs, Volume= 23,459 cf, Atten= 91%, Lag= 0.0 min
 Primary = 0.400 cfs @ 11.15 hrs, Volume= 23,459 cf
 Routed to Link POA1 : Point of Analysis #1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 66.21' @ 13.88 hrs Surf.Area= 3,172 sf Storage= 8,481 cf

Plug-Flow detention time= 169.0 min calculated for 23,419 cf (100% of inflow)
 Center-of-Mass det. time= 168.9 min (953.0 - 784.2)

Volume	Invert	Avail.Storage	Storage Description
#1	63.00'	14,985 cf	72.0" Round Pipe Storage L= 530.0'
#2	63.00'	314 cf	24.0" Round Pipe Storage L= 100.0'
		15,300 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	63.00'	15.0" Round Culvert L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.00' / 51.00' S= 0.1200 ' S= 0.1200 ' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	68.25'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#3	Device 1	63.00'	0.400 cfs Constant Flow/Skimmer Phase-In= 0.25'

Primary OutFlow Max=0.400 cfs @ 11.15 hrs HW=63.30' TW=0.00' (Dynamic Tailwater)

- 1=Culvert (Passes 0.400 cfs of 0.434 cfs potential flow)
- 2=Sharp-Crested Rectangular Weir (Controls 0.000 cfs)
- 3=Constant Flow/Skimmer (Constant Controls 0.400 cfs)

Summary for Link POA1: Point of Analysis #1

Inflow Area = 180,500 sf, 47.09% Impervious, Inflow Depth = 2.08" for 2-Year event
 Inflow = 2.125 cfs @ 12.23 hrs, Volume= 31,338 cf
 Primary = 2.125 cfs @ 12.23 hrs, Volume= 31,338 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

POST_03

NRCC 24-hr D 10-Year Rainfall=4.77"

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment S11: S11 Runoff Area=73,900 sf 0.00% Impervious Runoff Depth=2.53"
Flow Length=100' Slope=0.0600 '/' Tc=14.3 min CN=WQ Runoff=3.480 cfs 15,562 cf

Subcatchment S12: S12 Runoff Area=106,600 sf 79.74% Impervious Runoff Depth=4.16"
Flow Length=145' Tc=18.8 min CN=WQ Runoff=6.581 cfs 36,960 cf

Pond P1: Underground Detention Peak Elev=68.39' Storage=14,491 cf Inflow=6.581 cfs 36,960 cf
Outflow=1.046 cfs 36,418 cf

Link POA1: Point of Analysis #1 Inflow=3.880 cfs 51,980 cf
Primary=3.880 cfs 51,980 cf

Total Runoff Area = 180,500 sf Runoff Volume = 52,522 cf Average Runoff Depth = 3.49"
52.91% Pervious = 95,500 sf 47.09% Impervious = 85,000 sf

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NRCC 24-hr D 10-Year Rainfall=4.77"

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Summary for Subcatchment S11: S11

Runoff = 3.480 cfs @ 12.22 hrs, Volume= 15,562 cf, Depth= 2.53"

Routed to Link POA1 : Point of Analysis #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
NRCC 24-hr D 10-Year Rainfall=4.77"

Area (sf)	CN	Description
68,600	77	Brush, Fair, HSG D
* 5,300	91	Paved parking, Grass Pave
73,900		Weighted Average
73,900	78	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.3	100	0.0600	0.12		Sheet Flow, A-B Sheet Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment S12: S12

Runoff = 6.581 cfs @ 12.27 hrs, Volume= 36,960 cf, Depth= 4.16"

Routed to Pond P1 : Underground Detention

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
NRCC 24-hr D 10-Year Rainfall=4.77"

Area (sf)	CN	Description
0	77	Brush, Fair, HSG D
64,000	98	Unconnected pavement, HSG D
21,000	98	Roofs, HSG D
21,600	80	>75% Grass cover, Good, HSG D
106,600		Weighted Average
21,600	80	20.26% Pervious Area
85,000	98	79.74% Impervious Area
64,000		75.29% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.5	95	0.0300	0.09		Sheet Flow, SSheet Grass: Bermuda n= 0.410 P2= 3.00"
0.3	50	0.0200	2.87		Shallow Concentrated Flow, Shallow Paved Kv= 20.3 fps
18.8	145	Total			

Summary for Pond P1: Underground Detention

Inflow Area = 106,600 sf, 79.74% Impervious, Inflow Depth = 4.16" for 10-Year event
 Inflow = 6.581 cfs @ 12.27 hrs, Volume= 36,960 cf
 Outflow = 1.046 cfs @ 13.17 hrs, Volume= 36,418 cf, Atten= 84%, Lag= 54.0 min
 Primary = 1.046 cfs @ 13.17 hrs, Volume= 36,418 cf
 Routed to Link POA1 : Point of Analysis #1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 68.39' @ 13.17 hrs Surf.Area= 1,929 sf Storage= 14,491 cf

Plug-Flow detention time= 293.8 min calculated for 36,357 cf (98% of inflow)
 Center-of-Mass det. time= 284.2 min (1,059.9 - 775.7)

Volume	Invert	Avail.Storage	Storage Description
#1	63.00'	14,985 cf	72.0" Round Pipe Storage L= 530.0'
#2	63.00'	314 cf	24.0" Round Pipe Storage L= 100.0'
15,300 cf			Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	63.00'	15.0" Round Culvert L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.00' / 51.00' S= 0.1200 ' S= 0.1200 ' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	68.25'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#3	Device 1	63.00'	0.400 cfs Constant Flow/Skimmer Phase-In= 0.25'

Primary OutFlow Max=1.040 cfs @ 13.17 hrs HW=68.38' TW=0.00' (Dynamic Tailwater)
 1=Culvert (Passes 1.040 cfs of 12.891 cfs potential flow)
 2=Sharp-Crested Rectangular Weir (Weir Controls 0.640 cfs @ 1.20 fps)
 3=Constant Flow/Skimmer (Constant Controls 0.400 cfs)

Summary for Link POA1: Point of Analysis #1

Inflow Area = 180,500 sf, 47.09% Impervious, Inflow Depth > 3.46" for 10-Year event
 Inflow = 3.880 cfs @ 12.22 hrs, Volume= 51,980 cf
 Primary = 3.880 cfs @ 12.22 hrs, Volume= 51,980 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

POST_03

NRCC 24-hr D 25-Year Rainfall=6.01"

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-Q
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment S11: S11 Runoff Area=73,900 sf 0.00% Impervious Runoff Depth=3.59"
Flow Length=100' Slope=0.0600 '/' Tc=14.3 min CN=WQ Runoff=4.940 cfs 22,132 cf

Subcatchment S12: S12 Runoff Area=106,600 sf 79.74% Impervious Runoff Depth=5.37"
Flow Length=145' Tc=18.8 min CN=WQ Runoff=8.446 cfs 47,706 cf

Pond P1: Underground Detention Peak Elev=68.75' Storage=15,080 cf Inflow=8.446 cfs 47,706 cf
Outflow=4.840 cfs 45,309 cf

Link POA1: Point of Analysis #1 Inflow=6.726 cfs 67,441 cf
Primary=6.726 cfs 67,441 cf

Total Runoff Area = 180,500 sf Runoff Volume = 69,839 cf Average Runoff Depth = 4.64"
52.91% Pervious = 95,500 sf 47.09% Impervious = 85,000 sf

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NRCC 24-hr D 25-Year Rainfall=6.01"

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Summary for Subcatchment S11: S11

Runoff = 4.940 cfs @ 12.22 hrs, Volume= 22,132 cf, Depth= 3.59"
 Routed to Link POA1 : Point of Analysis #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 NRCC 24-hr D 25-Year Rainfall=6.01"

Area (sf)	CN	Description
68,600	77	Brush, Fair, HSG D
* 5,300	91	Paved parking, Grass Pave
73,900		Weighted Average
73,900	78	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.3	100	0.0600	0.12		Sheet Flow, A-B Sheet Woods: Light underbrush n= 0.400 P2= 3.00"

Summary for Subcatchment S12: S12

Runoff = 8.446 cfs @ 12.27 hrs, Volume= 47,706 cf, Depth= 5.37"
 Routed to Pond P1 : Underground Detention

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 NRCC 24-hr D 25-Year Rainfall=6.01"

Area (sf)	CN	Description
0	77	Brush, Fair, HSG D
64,000	98	Unconnected pavement, HSG D
21,000	98	Roofs, HSG D
21,600	80	>75% Grass cover, Good, HSG D
106,600		Weighted Average
21,600	80	20.26% Pervious Area
85,000	98	79.74% Impervious Area
64,000		75.29% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.5	95	0.0300	0.09		Sheet Flow, SSheet Grass: Bermuda n= 0.410 P2= 3.00"
0.3	50	0.0200	2.87		Shallow Concentrated Flow, Shallow Paved Kv= 20.3 fps
18.8	145	Total			

Summary for Pond P1: Underground Detention

Inflow Area = 106,600 sf, 79.74% Impervious, Inflow Depth = 5.37" for 25-Year event
 Inflow = 8.446 cfs @ 12.27 hrs, Volume= 47,706 cf
 Outflow = 4.840 cfs @ 12.51 hrs, Volume= 45,309 cf, Atten= 43%, Lag= 14.4 min
 Primary = 4.840 cfs @ 12.51 hrs, Volume= 45,309 cf
 Routed to Link POA1 : Point of Analysis #1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 68.75' @ 12.51 hrs Surf.Area= 1,283 sf Storage= 15,080 cf

Plug-Flow detention time= 249.3 min calculated for 45,234 cf (95% of inflow)
 Center-of-Mass det. time= 218.3 min (989.7 - 771.4)

Volume	Invert	Avail.Storage	Storage Description
#1	63.00'	14,985 cf	72.0" Round Pipe Storage L= 530.0'
#2	63.00'	314 cf	24.0" Round Pipe Storage L= 100.0'
15,300 cf			Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	63.00'	15.0" Round Culvert L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 63.00' / 51.00' S= 0.1200 ' S= 0.1200 ' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	68.25'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#3	Device 1	63.00'	0.400 cfs Constant Flow/Skimmer Phase-In= 0.25'

Primary OutFlow Max=4.688 cfs @ 12.51 hrs HW=68.73' TW=0.00' (Dynamic Tailwater)

1=Culvert (Passes 4.688 cfs of 13.355 cfs potential flow)
 2=Sharp-Crested Rectangular Weir (Weir Controls 4.288 cfs @ 2.27 fps)
 3=Constant Flow/Skimmer (Constant Controls 0.400 cfs)

Summary for Link POA1: Point of Analysis #1

Inflow Area = 180,500 sf, 47.09% Impervious, Inflow Depth > 4.48" for 25-Year event
 Inflow = 6.726 cfs @ 12.50 hrs, Volume= 67,441 cf
 Primary = 6.726 cfs @ 12.50 hrs, Volume= 67,441 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

APPENDIX C

SOIL REPORT



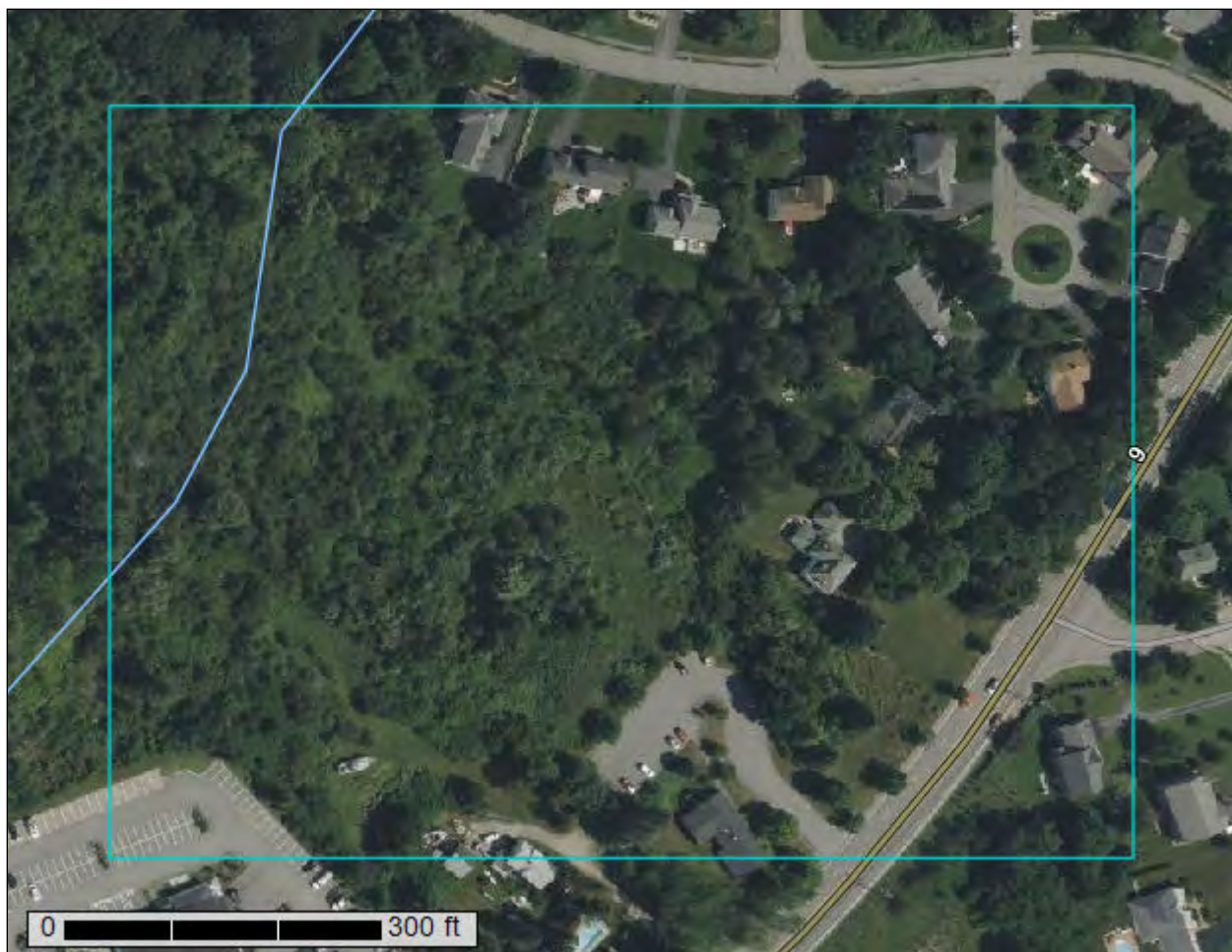
United States
Department of
Agriculture

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



May 16, 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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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

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.

Custom Soil Resource Report Soil Map



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 20, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 22, 2021—Oct 7, 2021

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
BuB	Lamoine silt loam, 3 to 8 percent slopes	5.8	36.9%
BuC2	Buxton silt loam, 8 to 15 percent slopes	3.5	22.5%
EmB	Elmwood fine sandy loam, 0 to 8 percent slopes	0.1	0.6%
HrB	Lyman-Tunbridge complex, 0 to 8 percent slopes, rocky	3.3	20.7%
Ls	Limerick-Saco silt loams	2.6	16.6%
Sn	Scantic silt loam, 0 to 3 percent slopes	0.4	2.7%
Totals for Area of Interest		15.7	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

BuB—Lamoine silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2t0kc

Elevation: 10 to 490 feet

Mean annual precipitation: 33 to 60 inches

Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Lamoine and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lamoine

Setting

Landform: River valleys, marine terraces

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Fine glaciomarine deposits

Typical profile

Ap - 0 to 7 inches: silt loam

Bw - 7 to 13 inches: silt loam

Bg - 13 to 24 inches: silty clay loam

Cg - 24 to 65 inches: silty clay

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)

Depth to water table: About 6 to 17 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: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: C/D

Ecological site: F144BY401ME - Clay Flat

Hydric soil rating: No

BuC2—Buxton silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2x1by
Elevation: 10 to 490 feet
Mean annual precipitation: 33 to 60 inches
Mean annual air temperature: 36 to 52 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Buxton and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Buxton

Setting

Landform: River valleys, marine terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Fine glaciomarine deposits

Typical profile

Ap - 0 to 7 inches: silt loam
Bw1 - 7 to 18 inches: silt loam
Bw2 - 18 to 23 inches: silty clay loam
BC - 23 to 35 inches: silty clay loam
C - 35 to 65 inches: silty clay

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: About 17 to 24 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: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C/D
Ecological site: F144BY402ME - Clay Hills
Hydric soil rating: No

EmB—Elmwood fine sandy loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: blh8
Elevation: 10 to 900 feet
Mean annual precipitation: 38 to 55 inches
Mean annual air temperature: 43 to 46 degrees F
Frost-free period: 130 to 195 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Elmwood and similar soils: 88 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elmwood

Setting

Landform: Stream terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse-loamy glaciolacustrine deposits

Typical profile

H1 - 0 to 8 inches: fine sandy loam
H2 - 8 to 25 inches: sandy loam
H3 - 25 to 65 inches: silty clay loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B
Ecological site: F144BY402ME - Clay Hills
Hydric soil rating: No

HrB—Lyman-Tunbridge complex, 0 to 8 percent slopes, rocky

Map Unit Setting

National map unit symbol: 2x1cx

Elevation: 0 to 520 feet

Mean annual precipitation: 36 to 65 inches

Mean annual air temperature: 36 to 52 degrees F

Frost-free period: 90 to 160 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Lyman and similar soils: 50 percent

Tunbridge and similar soils: 30 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lyman

Setting

Landform: Ridges, hills

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Nose slope, crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 3 inches: loam

E - 3 to 5 inches: fine sandy loam

Bhs - 5 to 7 inches: loam

Bs1 - 7 to 11 inches: loam

Bs2 - 11 to 18 inches: channery loam

R - 18 to 79 inches: bedrock

Properties and qualities

Slope: 0 to 8 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 11 to 24 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

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Hydrologic Soil Group: D

Ecological site: F144BY702ME - Shallow and Moderately-deep Till

Hydric soil rating: No

Description of Tunbridge

Setting

Landform: Ridges, hills

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Side slope, crest

Down-slope shape: Linear

Across-slope shape: Convex

Parent material: Loamy supraglacial till derived from granite and gneiss and/or loamy supraglacial till derived from phyllite and/or loamy supraglacial till derived from mica schist

Typical profile

Oe - 0 to 3 inches: moderately decomposed plant material

Oa - 3 to 5 inches: highly decomposed plant material

E - 5 to 8 inches: fine sandy loam

Bhs - 8 to 11 inches: fine sandy loam

Bs - 11 to 26 inches: fine sandy loam

BC - 26 to 28 inches: fine sandy loam

R - 28 to 79 inches: bedrock

Properties and qualities

Slope: 3 to 8 percent

Surface area covered with cobbles, stones or boulders: 1.5 percent

Depth to restrictive feature: 21 to 41 inches to lithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 14.03 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: C

Ecological site: F144BY702ME - Shallow and Moderately-deep Till

Hydric soil rating: No

Ls—Limerick-Saco silt loams

Map Unit Setting

National map unit symbol: blj2

Elevation: 10 to 1,750 feet

Mean annual precipitation: 34 to 48 inches

Mean annual air temperature: 37 to 46 degrees F

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Frost-free period: 80 to 160 days

Farmland classification: Not prime farmland

Map Unit Composition

Limerick and similar soils: 55 percent

Saco and similar soils: 30 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Limerick

Setting

Landform: Flood plains

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Coarse-silty alluvium derived from slate

Typical profile

H1 - 0 to 8 inches: silt loam

H2 - 8 to 16 inches: silt loam

H3 - 16 to 65 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: Frequent

Frequency of ponding: None

Available water supply, 0 to 60 inches: Very high (about 18.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: B/D

Ecological site: F144BY110ME - Broad Floodplain Riparian Complex,
F144BY120ME - Small Floodplain Riparian Complex (reserved)

Hydric soil rating: Yes

Description of Saco

Setting

Landform: Flood plains

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Talf

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Coarse-silty alluvium

Typical profile

H1 - 0 to 12 inches: silt loam

H2 - 12 to 24 inches: silt loam

H3 - 24 to 65 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very high (about 15.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: B/D
Ecological site: F144BY110ME - Broad Floodplain Riparian Complex,
F144BY120ME - Small Floodplain Riparian Complex (reserved)
Hydric soil rating: Yes

Sn—Scantic silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2slv3
Elevation: 10 to 900 feet
Mean annual precipitation: 33 to 60 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 90 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Scantic and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Scantic

Setting

Landform: River valleys, marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Glaciomarine deposits

Typical profile

Ap - 0 to 9 inches: silt loam
Bg1 - 9 to 16 inches: silty clay loam
Bg2 - 16 to 29 inches: silty clay
Cg - 29 to 65 inches: silty clay

Properties and qualities

Slope: 0 to 3 percent

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Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 6.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: D

Ecological site: F144BY304ME - Wet Clay Flat

Hydric soil rating: Yes

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Custom Soil Resource Report

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United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

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

APPENDIX D

STORMWATER CALCULATIONS

GreenMars Real Estate

30 Exchange Street, Portland, Maine 04101
Tel: 207-205-0208

Project: Stroudwater Commons
Sheet No. 1 Of 2
Calc by: TAL Date: 7.2.25
Check by: _____ Date: _____
Scale: _____

Sizing Calculations

Total site:

Impervious Area: 87300 sf
Landscaped Area: 36700 sf

Treated Area

Impervious Area: 85000 sf
Landscaped Area: 21600 sf

Total Site Volume Calculation

Volume: V = (1" x impervious area) + (0.4" x landscaped area)
V = 7275 cf 1223 cf

V = 8498 cf

Volume Provided = 14218 cf ✓
at elev 68.25

Multiple of Required = 1.67

Treated Area Volume Calculation

Volume: V = (1" x impervious area) + (0.4" x landscaped area)
V = 7083 cf 720 cf

V = 7803 cf

Volume Provided = 14218 cf ✓
at elev 68.25

Multiple of Required = 1.82

GreenMars Real Estate

30 Exchange Street, Portland, Maine 04101
Tel: 207-205-0208

Project: Stroudwater Commons
Sheet No. 2 Of 2
Calc by: TAL Date: 7.2.25
Check by: _____ Date: _____
Scale: _____

Linear & Non-Linear Treatment

Linear Portion

Treatment Requirement

Total Area =	23900	sf			
Dev Area =	23900	sf	50%	11950	sf
Imp Area =	17340	sf	75%	13005	sf

Non-Linear Portion

Treatment Requirement

Total Area =	150700	sf			
Dev Area =	102800	sf	80%	82240	sf
Imp Area =	69960	sf	95%	66462	sf

Total Required Treatment on Site

Dev Area =				94190	sf
Imp Area =				79467	sf

Total Treated Area

Dev Area =				106600	sf	✓
Imp Area =				85000	sf	✓

Contech Engineered Solutions, LLC Engineer:
Date

DRA
3/25/2025

Site Information

Project Name	Stroudwater Commons
Project State	Portland
Project Location	ME
Site Designation	West WQU
Total Drainage Area, Ad	2.45 ac
Post Development Impervious Area, Ai	2.13 ac
Pervious Area, Ap	0.31
% Impervious	87 %
Runoff Coefficient, Rc	0.83
Upstream pretreatment credit	50%

Mass loading calculations

Mean Annual Rainfall, P	49 in
Agency required % removal	80%
Percent Runoff Capture	90%
Mean Annual Runoff, V_t	361,547 ft ³
Event Mean Concentration of Pollutant, EMC	70 mg/l
Annual Mass Load, M_{total}	1,579 lbs

Filter System

Filtration brand	StormFilter
Cartridge height	27 in
Specific Flow Rate	1.00 gpm/ft ²

Number of cartridges - mass loading

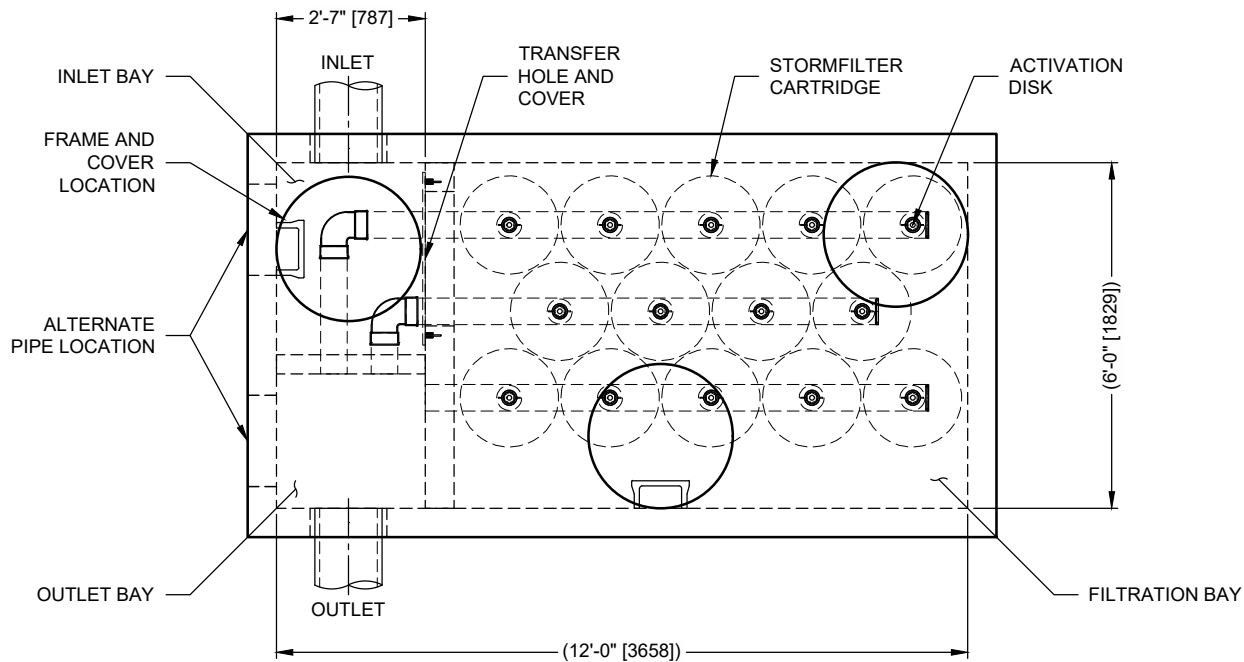
Mass removed by pretreatment system, M_{pre}	789 lbs
Mass load to filters after pretreatment, M_{pass1}	789 lbs
Mass to be captured by filters, M_{filter}	632 lbs
Allowable Cartridge Flow rate, Q_{cart}	11.25 gpm
Mass load per cartridge, M_{cart} (lbs)	54 lbs
Number of Cartridges required, N_{mass}	12 ea
Treatment Capacity	0.301 cfs

Determine Critical Sizing Value

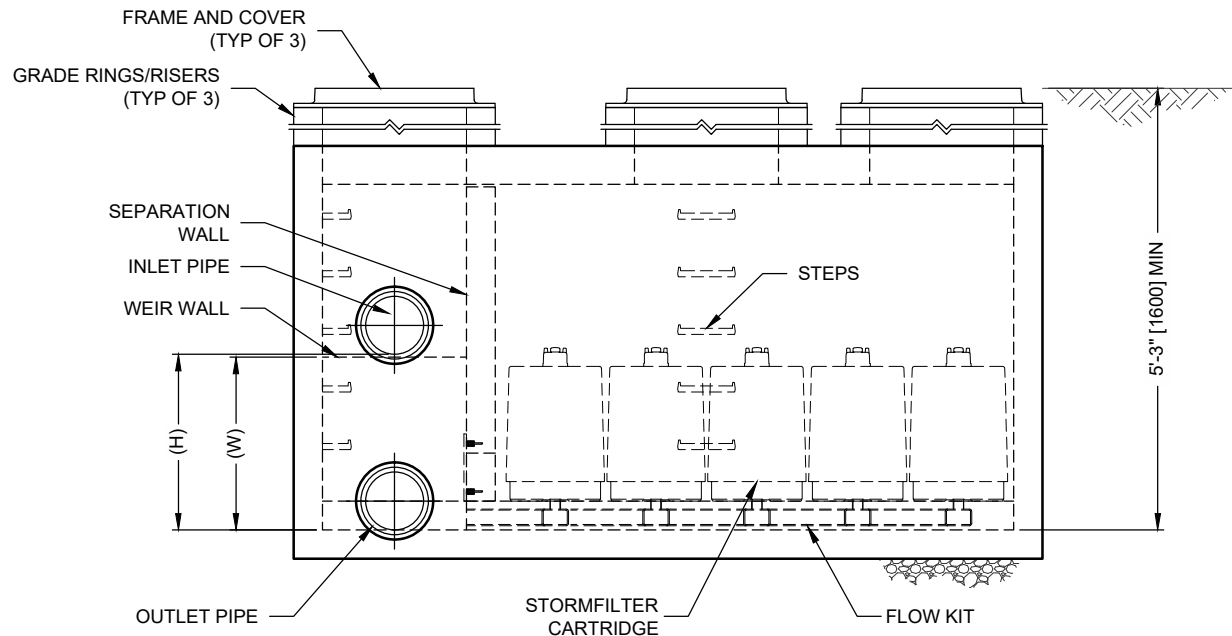
Number of Cartridges using $Q_{release\ treat}$, N_{mass}	12 ea
Method to Use:	MASS-LOADING

Summary	
Treatment Mass Provided	648 lbs
Mass Required Cartridge Quantity	12
Treatment Flow Rate	0.301 cfs

I:\STORMWATER\COMPMOPS\10 STORMFILTER40 STANDARD DRAWINGS\SF PEAK DIVERSION\DWGS\FPD0612-DTL-DWG 3/16/2022 8:11 AM



PLAN



ELEVATION

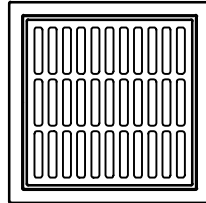


STORMFILTER DESIGN NOTES

- STORMFILTER TREATMENT CAPACITY VARIES BY CARTRIDGE COUNT AND LOCALLY APPROVED SURFACE AREA SPECIFIC FLOW RATE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD
- A 6' x 12' [1829 x 3658] PEAK DIVERSION STYLE STORMFILTER IS SHOWN WITH THE MAXIMUM NUMBER OF CARTRIDGES (14) AND IS AVAILABLE IN A LEFT INLET (AS SHOWN) OR A RIGHT INLET CONFIGURATION
- ALL PARTS AND INTERNAL ASSEMBLY PROVIDED BY CONTECH UNLESS NOTED OTHERWISE

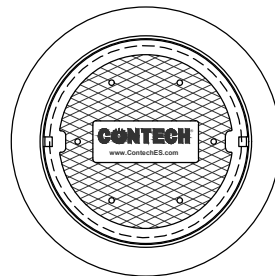
CARTRIDGE SIZE (in. [mm])	27 [686]		18 [457]		LOW DROP	
RECOMMENDED HYDRAULIC DROP (H) (ft. [mm])	3.05 [930]		2.3 [701]		1.8 [549]	
HEIGHT OF WEIR (W) (ft. [mm])	3.00 [914]		2.25 [686]		1.75 [533]	
SPECIFIC FLOW RATE (gpm/sf [L/s/m ²])	2 [1.36]	1.67* [1.13]*	1 [0.68]	2 [1.36]	1.67* [1.13]*	1 [0.68]
CARTRIDGE 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 [0.47]

* 1.67 gpm/sf [1.13 L/s/m²] SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB® (PSORB) MEDIA ONLY



FRAME AND GRATE

(24" SQUARE)
(NOT TO SCALE)



FRAME AND COVER

(30" ROUND)
(NOT TO SCALE)

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 FLOW RATE			
CARTRIDGE SIZE (27, 18, LOW DROP (LD))			
MEDIA TYPE (PERLITE, ZPG, PSORB)			
NUMBER OF CARTRIDGES REQUIRED			
INLET BAY RIM ELEVATION			
FILTER BAY RIM ELEVATION			
PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			
NOTES/SPECIAL REQUIREMENTS:			

PERFORMANCE SPECIFICATION

FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. **RADIAL MEDIA DEPTH SHALL BE 7" [178]**. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST **38 SECONDS**. SPECIFIC FLOW RATE SHALL BE **2 GPM/SF [1.36 L/s/m²] (MAXIMUM)**. SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE **6 GPM/CF [13.39 L/s/m³] OF MEDIA (MAXIMUM)**.

GENERAL NOTES

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- ALTERNATE DIMENSIONS ARE IN MILLIMETERS [mm] UNLESS NOTED OTHERWISE.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. www.ContechES.com
- STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 10' [3048] 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.

INSTALLATION NOTES

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE.
- CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL SECTIONS AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH OUTLET PIPE INVERT WITH OUTLET BAY FLOOR.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
- CONTRACTOR TO REMOVE THE TRANSFER OPENING COVER WHEN THE SYSTEM IS BROUGHT ONLINE.

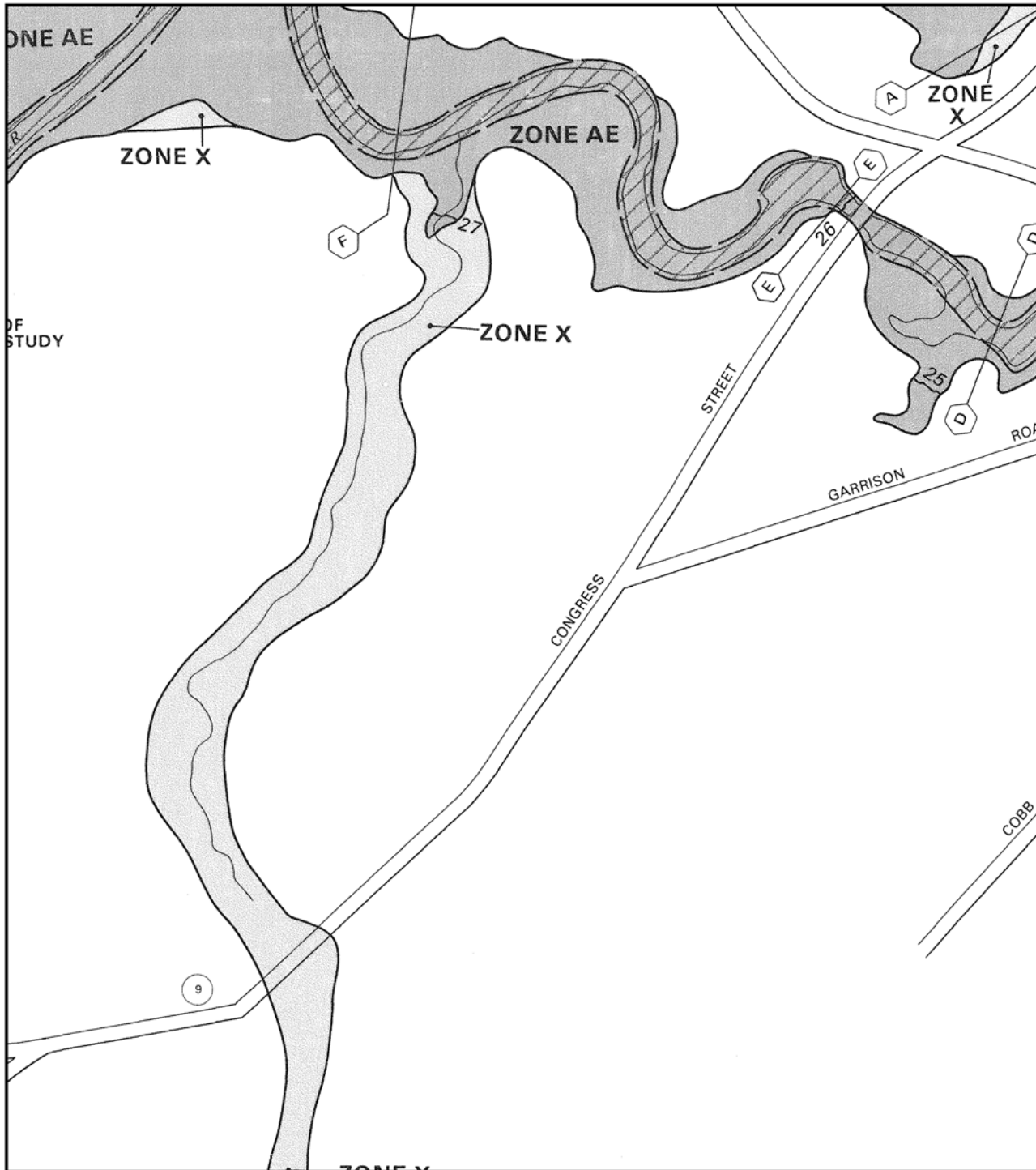
CONTECH
ENGINEERED SOLUTIONS LLC

www.ContechES.com

9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069

800-526-3999 513-645-7000 513-645-7993 FAX

SFPD0612 (6' x 12')
PEAK DIVERSION STORMFILTER
STANDARD DETAIL



To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at (800) 638-6620.



APPROXIMATE SCALE

400 0 400 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM FLOOD INSURANCE RATE MAP

CITY OF
PORTLAND,
MAINE
CUMBERLAND COUNTY

PANEL 12 OF 17
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230051 0012 C



Federal Emergency Management Agency

MAP REVISED:
DECEMBER 8, 1998

This is an official FIRMette showing a portion of the above-referenced flood map created from the MSC FIRMette Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at <https://msc.fema.gov>.

APPENDIX E

INSPECTION AND MAINTENANCE PLAN

STORMWATER SYSTEM
INSPECTION, HOUSEKEEPING, and OPERATION & MAINTENANCE PLAN
Stroudwater Commons – Congress Street, Portland, Maine

Introduction

The following plan outlines the anticipated inspection and maintenance procedures for the erosion and sedimentation controls as well as stormwater management devices for the project site. Also, this plan outlines several housekeeping requirements that shall be followed during and after construction. These procedures should be followed in order to ensure the intended function of the designed measures and to prevent unreasonable adverse impacts to the surrounding environment.

The procedures outlined in this inspection and maintenance plan are provided as an overview of the anticipated practices to be used on this site. In some instances, additional measures may be required due to unexpected conditions. For additional detail on any of the erosion and sedimentation control measures or stormwater management devices to be utilized on this project, refer to the most recently revised edition of the “Maine Erosion and Sedimentation Control BMP” manual and/or the “Stormwater Management for Maine: Best Management Practices” manual as published by the Maine Department of Environmental Protection (MDEP).

During Construction

1. **Inspection:** During the construction process, it is the Contractor’s responsibility to comply with the inspection and maintenance procedures outlined in this section. These responsibilities include inspecting disturbed and impervious areas, erosion control measures, materials storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site. These areas shall be inspected at least once a week as well as before and after a storm event, and prior to completing permanent stabilization measures. A person with knowledge of erosion and stormwater control, including the standards and conditions in any applicable permits, shall conduct the inspections.
2. **Maintenance:** All measures shall be maintained in an effective operating condition until areas are permanently stabilized. If Best Management Practices (BMPs) need to be maintained or modified, additional BMPs are necessary, or other corrective action is needed, implementation must be completed within 7 calendar days and prior to any storm event (rainfall).
3. **Documentation:** A log summarizing the inspections and any corrective action taken must be maintained on-site. 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 erosion and sedimentation controls, material storage areas, and vehicle access points to the site. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where additional BMPs are needed. For each BMP

requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken. The log must be made accessible to the appropriate regulatory agency upon request. The permittee shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.

4. **Specific Inspection and Maintenance Tasks:** The following is a list of erosion control and stormwater management measures and the specific inspection and maintenance tasks to be performed during construction.

A. Sediment Barriers:

- Hay bale barriers, silt fences, and filter berms shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
- If the fabric on a silt fence or filter barrier should decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, it shall be replaced.
- Sediment deposits should be removed after each storm event. They must be removed before deposits reach approximately one-half the height of the barrier.
- Filter berms shall 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.

B. Riprap Materials:

- Once a riprap installation has been completed, it should require very little maintenance. It shall, however, be inspected periodically to determine if high flows have caused scour beneath the riprap or dislodged any of the stone.

C. Temporary Storm Drain Inlet Protection:

- The inlet protection structure shall be inspected before each rain event and repaired as necessary.
- Sediment shall be removed and the storm drain sediment barrier restored to its original dimensions when the sediment has accumulated to half of the design depth of the trap.
- Structures shall be removed upon permanent stabilization of the tributary area.
- Upon removal of the structure, all accumulated sediments downstream of the structure shall be cleaned from the storm drain system.

D. Stabilized Construction Entrances/Exits:

- 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. The entrance should then be reconstructed.
- Areas that have received mud-tracking or sediment deposits shall be swept or washed. Washing shall be done on an area stabilized with aggregate, which drains into an approved sediment-trapping device (not into storm drains, ditches, or waterways).

E. Temporary Seed and Mulch:

- Mulched areas should be inspected after rain events to check for rill erosion.
- If less than 90% of the soil surface is covered by mulch, additional mulch shall be applied in bare areas.
- In applications where seeding and mulch have been applied in conjunction with erosion control blankets, the blankets must be inspected after rain events for dislocation or undercutting.
- Mulch shall continue to be reapplied until 95% of the soil surface has established temporary vegetative cover.

F. Stabilized Temporary Drainage Swales:

- Sediment accumulation in the swale shall be removed once the cross section of the swale is reduced by 25%.
- The swales shall be inspected after rainfall events. Any evidence of sloughing of the side slopes or channel erosion shall be repaired and corrective action should be taken to prevent reoccurrence of the problem.
- In addition to the stabilized lining of the channel (i.e. erosion control blankets), stone check dams may be needed to further reduce channel velocity.

5. **Housekeeping:** The following general performance standards apply to the proposed project.

- A. Spill prevention: Controls must be used to prevent pollutants from being discharged from materials on-site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.
- B. 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.

- C. 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.
- D. Debris and other materials: Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.
- E. Trench or foundation dewatering: Trench dewatering is the removal of water from trenches, foundations, cofferdams, 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 must be removed from the ponded area, either through gravity or pumping, and 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.

After Construction

- 1. **Inspection**: After construction, it is the responsibility of the owner or assigned heirs to comply with the inspection and maintenance procedures outlined in this section. All measures must be maintained in effective operating condition. A person with knowledge of erosion and stormwater control, including the standards and conditions in all applicable permits, shall conduct the inspections.
- 2. **Specific Inspection and Maintenance Tasks**: The following is a list of permanent erosion control and stormwater management measures and the inspection and maintenance tasks to be performed after construction.

- A. Vegetated Areas:

- Inspect vegetated areas, particularly slopes and embankments, early in the growing season or after heavy rains to identify active or potential erosion problems.
- Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.

- B. Ditches, Swales, and Other Open Channels:

- Inspect ditches, swales and other open stormwater channels in the spring, in the late fall, and after heavy rains to remove any obstructions

to flow. Remove accumulated sediments and debris, remove woody vegetative growth that could obstruct flow, and repair any erosion of the ditch lining.

- Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity.
- Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable.
- If the ditch has a riprap lining, replace riprap in areas where any underlying filter fabric or underdrain gravel is showing through the stone or where stones have dislodged.
- Check dams located every 40' in roadside ditches along the steep portion of the driveway shall be inspected, cleaned of accumulated sediment, and repaired as needed to conform to original design detail, Exhibit B.

C. Culverts:

- Inspect culverts in the spring, in the late fall, and after heavy rains to remove any obstructions to flow.
- Remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit.
- Inspect and repair any erosion damage at the culvert's inlet and outlet.

D. Catch Basins/Drywells/Outlet Control Structure:

- Inspect and, if required, clean-out catch basins and outlet control structures at least once a year, preferably in early spring.
- Clean out must include the removal and legal disposal of accumulated sediments and debris at the bottom of the basin, at any inlet grates, at any inflow channels to the basin, and at any pipes between basins.
- If the basin outlet is designed to trap floatable materials, then remove the floating debris and any floating oils (using oil-absorptive pads).

3. **Documentation:** A log summarizing the inspections and any corrective action taken 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 controls. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a

particular location, and locations where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken. The log must be made accessible to the appropriate regulatory agency upon request. A sample “Stormwater Inspection and Maintenance Form” has been included as Attachment 1 of this Inspection, Maintenance, and Housekeeping Plan.

4. **Duration of Maintenance:** Perform maintenance as described and required for any associated permits unless and until the system is formally accepted by a municipality or quasi-municipal district, or is placed under the jurisdiction of a legally created association that will be responsible for the maintenance of the system.

City of Portland ME: Low-Impact Design Requirements				
Owner / applicant name:	GreenMars Real Estate			
Representative name:	Nate Green			
Project address:	1877 Congress Street			
Project CBL:				
Application ID (if known):	Stroudwater Commons			
	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		Select a site that does not have wetlands or vernal pools = 12pts
			8.5	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 <i>(exclusive of approved stream crossings; must include a no-disturb zone with markers installed and deed restriction recorded at registry of deeds)</i>	12	Select one option		Select a site with no streams = 12pts
			10	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		Select a site with no streams = 12pts
			10	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)			
Protect 30% of trees over 10" DBH	Required (Tree survey required)			
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
			4	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
			0	Disturbance of any slope 15% or greater = 0pts
Protect soils	5	Select one option		Redevelopment sites = 5pts
			5	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
			6	New development disturbs less than 75% of existing undeveloped site area = 6pts
				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
			3	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
				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
				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
				No more than 1-acre of drainage per treatment system = 3pts
			3	Increase time of concentration on site (1" 25 year storm event) = 3pts
Limit / eliminate salt use	4	Select one option	4	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		4	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		10	Connecting to City sewer from a site >200 ft from existing City infrastructure = 10pts
	6		6	Detention of 1.5 times the required volume = 6pts
	6		6	Treatment for 1.5 times the required water quality volume = 6pts
	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 90.5	Minimum points required for approval of LID strategies and techniques 80



REPORT

23-0378.1 S

May 24, 2024

Preliminary Geotechnical Engineering Services

Proposed Housing Development
1877 Congress Street
Portland, Maine

Prepared For:
GreenMars
Attention: Travis Letellier, P.E.
30 Exchange Street
Portland, ME 04101

Prepared By:
S. W. Cole Engineering, Inc.
286 Portland Road
Gray, ME 04039
T: 207-657-2866

www.swcole.com | info@swcole.com

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23-0378.1 S

May 24, 2024

GreenMars
Attention: Travis Letellier, P.E.
30 Exchange Street
Portland, ME 04101

Subject: Preliminary Geotechnical Engineering Services
Proposed Housing Development
1877 Congress Street
Portland, Maine

Dear Travis:

In accordance with our Agreement, dated March 1, 2024, we have reviewed prior subsurface exploration data for the subject project. This report summarizes our findings and preliminary geotechnical recommendations, and its contents are subject to the limitations set forth in Appendix A.

1.0 INTRODUCTION

1.1 Scope and Purpose

The purpose of our services was to review available prior subsurface information at the site in order to evaluate preliminary geotechnical considerations for foundations, earthwork, and pavement associated with the proposed construction. Our scope of services included reviewing prior subsurface exploration data, a preliminary geotechnical analysis of the subsurface findings, and preparation of this report.

1.2 Site and Proposed Construction

We understand the site is located at 1877 Congress Street in Portland, Maine and is comprised of an undeveloped, partially wooded site. Based on the provided topographic information, we understand existing grades gently rise away from Congress Street to a relatively flat area in the middle of the site, and then slopes steeply down about 40 feet to lower laying wet areas.

We understand development is still in the planning stages but is conceived to include new one to two-story housing buildings with daylight and walkout basement levels. We understand proposed grading may include lowering grades in the central portion of the site by about 10 feet.

Proposed and existing site features are shown on the “Exploration Location Plan” attached in Appendix B.

2.0 EXPLORATION AND TESTING

2.1 Explorations

Eight test borings (B-1 through B-8) were made at the site in April 2023 for a prior proposed development concept. The borings were made by S. W. Cole Explorations, LLC. The approximate exploration locations are shown on the “Exploration Location Plan” attached in Appendix B. Logs of the explorations and a key to the notes and symbols used on the logs are attached in Appendix C. The elevations shown on the logs were estimated based on topographic information provided at the time these explorations were made.

2.2 Field Testing

The test borings were drilled using hollow-stem auger and cased wash boring techniques. The soils were sampled at 2-to-5-foot intervals using a split spoon sampler and Standard Penetration Testing (SPT) methods. Pocket Penetrometer Tests were performed where stiffer cohesive soils were encountered. SPT blow counts and PPT results are shown on the logs. Soil samples obtained from the explorations were visually classified.

3.0 SUBSURFACE CONDITIONS

3.1 Soil and Bedrock

The test borings encountered a subsurface profile generally consisting of areas of uncontrolled fill and buried relic organics, overlying native glacial outwash sand and glaciomarine sand and clay, overlying glacial till. The principal soils encountered at the explorations are summarized below. Not all of the strata were encountered at each exploration; refer to the attached boring logs for more detailed subsurface information.

Uncontrolled Fill and Buried Relic Organics: Underlying a surficial layer of topsoil and organics, where present, borings B-4, B-5, B-6, B-7, and B-8 encountered relatively thick layers of uncontrolled fill extending to depths ranging from about 9 to 25 feet below ground surface (bgs). The fill consisted of very loose to medium dense, brown, gray, and black, sand or clay with varying portions of silt, gravel, cobbles, organics, wood, and miscellaneous debris including plastic, brick, and glass. The existing site grades indicate the fill is thickest in the central portion of the site. About 2 feet of buried relic roots and organics were encountered underlying the uncontrolled fill in boring B-7.

Glaciomarine Deposits: Underlying the surficial organics and uncontrolled fill and buried relic organics, where present, borings B-1, B-2, B-4, B-5, B-6, and B-7 encountered glaciomarine deposits extending to depths ranging from about 45 to 50 feet bgs where penetrated. The glaciomarine deposits generally consisted of medium dense sand with varying portions of silt and hard to stiff brown silty clay. At borings B-1, B-2, B-4, B-6, and B-7, the glaciomarine deposits transitioned to layers of relatively soft gray silty clay up to about 14 feet thick.

Glacial Outwash Deposits: Underlying the surficial organics and uncontrolled fill, where present, borings B-3 and B-8 encountered glacial outwash deposits extending to depths of 16 to 20 feet bgs. These deposits consisted of medium dense to very dense sand with varying portions of silt, gravel, and cobbles.

Glacial Till: Underlying the glaciomarine and glacial outwash deposits, borings B-1, B-3, B-4, and B-8 encountered glacial till deposits consisting of medium dense to very dense sand with varying portions of silt and gravel.

3.2 Groundwater

Saturated soils were encountered in the explorations at depths varying from about 13 to 33 feet bgs. Apparent perched groundwater was encountered within the layers of uncontrolled fill in several test borings. Groundwater likely becomes perched on the relatively impervious silty clay soils encountered in some of the explorations. Long term groundwater information is not available. It should be anticipated that groundwater levels will fluctuate, particularly in response to periods of snowmelt and precipitation, as well as changes in site use.

4.0 PRELIMINARY EVALUATION AND RECOMMENDATIONS

4.1 Foundation and Floor Slab Considerations

Based on the subsurface findings and our understanding of the proposed development, the site presents some geotechnical limitations. The principal foundation and floor slab considerations include:

- Based on the subsurface finding and observations of the existing site grades, the central and easterly portions of site are underlain by relatively thick layers of loose uncontrolled fill and, in areas, buried relic organics and relatively soft, compressible silty clay. These soils are unsuitable for support of the proposed building without adverse post-construction settlement.
- We recommend planning include improving the ground beneath proposed buildings (including beneath foundations, floor slabs, and entrance slabs) sited over the unsuitable soils with Rigid Inclusions. Rigid inclusions should fully penetrate the layers of uncontrolled fill, buried relic organics, and softer gray silty clays.
- Existing terrain at the neighboring property suggests relatively shallow bedrock may be present on the easterly side of the site. Additional test borings should be made to explore the presence of shallow bedrock which may require removal to achieve finish building grades.
- We recommend that a slope stability evaluation be made for building pads sited along the existing site slopes.

4.2 Excavation and Dewatering Considerations

Based on the available subsurface data, we anticipate excavation work will generally encounter thick layers of uncontrolled fill with debris, overlying native deposits of sand, silty clay, and glacial till. Care must be exercised during construction to limit disturbance of the bearing soils. Earthwork and grading activities should occur during drier, non-freezing weather of Spring, Summer and Fall. Rubber tired construction equipment should not

operate directly on the native soils, when wet. Final cuts to subgrade should be performed with a smooth-edged bucket to help reduce strength loss from soil disturbance.

We recommend an environmental professional be retained to characterize the uncontrolled for handling and disposal during construction.

Vibrations from construction should be controlled below threshold limits of 0.5 in/sec for structures, water supply wells and infrastructure within 500 feet of the project site. More restrictive vibration limits may be warranted in specific cases with sensitive equipment, historic structures or artifacts on-site or within close proximity.

Perched groundwater was encountered in several of the explorations. Sumping and pumping dewatering techniques should be adequate to control groundwater in shallow excavations. Controlling the water levels to at least one foot below planned excavation depths will help stabilize subgrades during construction.

Excavations must be properly shored or sloped in accordance with OSHA Regulations to prevent sloughing and caving of the sidewalls during construction. Care must be taken to preclude undermining adjacent structures, utilities and roadways. The design and planning of excavations, excavation support systems, and dewatering is the responsibility of the contractor.

4.3 Paved Areas

Based on the subsurface findings, conventional asphalt pavements appear feasible at the site. However, the subsurface explorations made in proposed paved areas encountered a variable thickness of uncontrolled fill and buried relic organics overlying native deposits of silty clay and sand. We recommend project planning include proof-rolling uncontrolled fills beneath paved areas with 3 to 5 passes of a 10-ton vibratory roller compactor and repairing soft areas prior to installing pavement gravels. Buried relic organics and debris encountered during excavation should be overexcavated and backfilled with compacted Granular Borrow beneath paved areas. Depending on final design grades, it may be necessary to provide woven geotextile fabric for subgrade reinforcement over subgrades consisting of uncontrolled fill.

It must be understood that uncontrolled fills and organics left in-place beneath new paved areas will settle differentially over time, even with proof-rolling and repairing. Periodic pavement maintenance will be required.

4.4 Recommendations for Design Phase Services

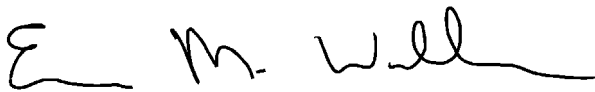
We recommend design phase test borings and geotechnical evaluation be made at the site to further explore the extent of unsuitable uncontrolled fill, buried relic organics, and potential shallow bedrock, as well as to evaluate ground improvement and slope stability.

5.0 CLOSURE

It has been a pleasure to be of assistance to you with this phase of your project. We look forward to working with you as project planning progresses.

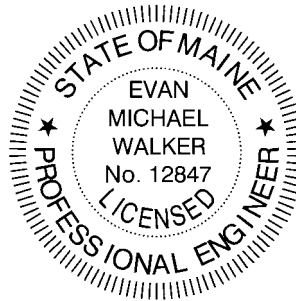
Sincerely,

S. W. Cole Engineering, Inc.



Evan M. Walker, P.E.
Senior Geotechnical Engineer

EMW:tjb



APPENDIX A

Limitations

This report has been prepared for the exclusive use of GreenMars for specific application to the proposed Housing Development at 1877 Congress Street in Portland, Maine. S. W. Cole Engineering, Inc. (S.W.COLE) has endeavored to conduct our services in accordance with generally accepted soil and foundation engineering practices. No warranty, expressed or implied, is made.

The soil profiles described in the report are intended to convey general trends in subsurface conditions. The boundaries between strata are approximate and are based upon interpretation of exploration data and samples.

The analyses performed during this investigation and recommendations presented in this report are based in part upon the data obtained from subsurface explorations made at the site. Variations in subsurface conditions may occur between explorations and may not become evident until construction. If variations in subsurface conditions become evident after submission of this report, it will be necessary to evaluate their nature and to review the recommendations of this report.

Observations have been made during exploration work to assess site groundwater levels. Fluctuations in water levels will occur due to variations in rainfall, temperature, and other factors.

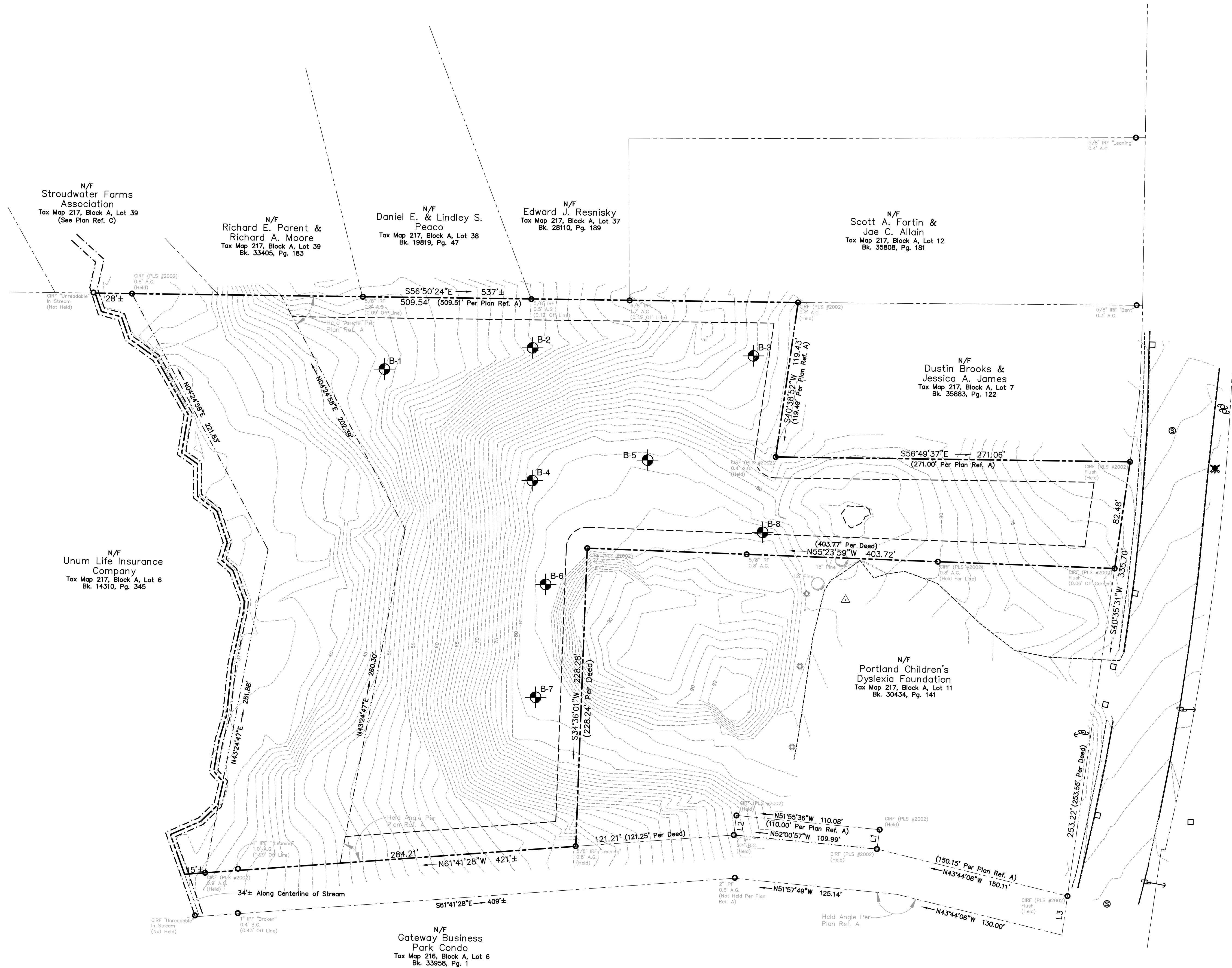
S.W.COLE's scope of services has not included the investigation, detection, or prevention of any Biological Pollutants at the project site or in any existing or proposed structure at the site. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and the byproducts of any such biological organisms.

Recommendations contained in this report are based substantially upon information provided by others regarding the proposed project. In the event that any changes are made in the design, nature, or location of the proposed project, S.W.COLE should review such changes as they relate to analyses associated with this report. Recommendations contained in this report shall not be considered valid unless the changes are reviewed by S.W.COLE.

APPENDIX B

Figures

R:\2023\03-078\1\CA03\Drawings\03-078\1 ELP.dwg, 3/12/2024, 2:22:26 PM, CEN, S. W. Cole Engineering, Inc.



LEGEND:

 APPROXIMATE BORING LOCATION

- NOTES:**
1. EXPLORATION LOCATION PLAN WAS PREPARED FROM A 1" = 40' SCALE PLAN OF THE SITE TITLE 'BOUNDARY SURVEY & EXISTING CONDITIONS PLAN, PREPARED BY BERRY, HUFF, McDONALD, MILLIGAN INC. (BH2M), DATED 02/2024.
 2. THE BORINGS WERE LOCATED IN THE FIELD BY S. W. COLE ENGINEERING, INC. USING A MAPPING GRADE GPS RECEIVER.
 3. THIS PLAN SHOULD BE USED IN CONJUNCTION WITH THE ASSOCIATED S. W. COLE ENGINEERING, INC. GEOTECHNICAL REPORT.
 4. THE PURPOSE OF THIS PLAN IS ONLY TO DEPICT THE LOCATION OF THE EXPLORATIONS IN RELATION TO THE EXISTING CONDITIONS AND PROPOSED CONSTRUCTION AND IS NOT TO BE USED FOR CONSTRUCTION.



GREENMARS
EXPLORATION LOCATION PLAN
PROPOSED HOUSING DEVELOPMENT
1877 CONGRESS STREET
PORTLAND, MAINE

Job No.: 23-0378.1
Date: 03/12/2024
Scale: 1" = 40'
Sheet: 1

APPENDIX C

Exploration Logs and Key



DRILLER BORING LOG

BORING NO.: **B-1**
SHEET: 1 of 2
PROJECT NO. 23-0378
DATE START: 4/20/2023
DATE FINISH: 4/20/2023

CLIENT: _____
PROJECT: Proposed Housing Development
LOCATION: 1877 Congress Street, Portland, ME

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 49' +/- TOTAL DEPTH (FT): 42.0 LOGGED BY: Evan Walker
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Kevin Hanscom DRILLING METHOD: Cased Boring
RIG TYPE: Track Mounted Diedrich D-50 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 / 140 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL: _____
HAMMER CORRECTION FACTOR: _____ HAMMER DROP (inch): 30 / 30
WATER LEVEL DEPTHS (ft): 13 ft Soils Wet Below 11', Saturated Below 13' +/-

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level
▽ At time of Drilling D = Split Spoon Sample Pen. = Penetration Length WOR = Weight of Rods S_v = Field Vane Shear Strength, kips/sq.ft.
▽ At Completion of Drilling U = Thin Walled Tube Sample Rec. = Recovery Length WOH = Weight of Hammer q_u = Unconfined Compressive Strength, kips/sq.ft.
▽ After Drilling R = Rock Core Sample bpf = Blows per Foot RQD = Rock Quality Designation Ø = Friction Angle (Estimated)
V = Field Vane Shear mpf = Minute per Foot PID = Photoionization Detector N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			1D	×	0-2	24/16	1-1-3-4		0.5 Forest Duff / Topsoil		
			2D	×	2-4	24/20		q _p =9 ksf	Hard to stiff, brown, silty CLAY		
45	5		3D	×	5-7	24/22		q _p =6 to 8 ksf			
40	10		4D	×	10-12	24/24	1-2-3-3				
35	15		1U	■	15-17	24/24			13.5 Stiff to medium, gray, silty CLAY	▽	
30	20		1V	□	17-17.5	6			17.5 Incomplete Vane Push at 1V		
			5D	×	20-22	24/15	4-14-6-4		Medium dense, gray-brown, silty SAND, some gravel, with occasional cobbles (Till)		
25	25		6D	×	25-27	24/1	3-9-7-7				
20	30		7D	×	30-32	24/16	3-5-9-7				
15	35		8D	×	35-37	24/18	5-7-5-4				
10											

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: **B-1**



DRILLER BORING LOG

BORING NO.: **B-1**
SHEET: 2 of 2
PROJECT NO. 23-0378
DATE START: 4/20/2023
DATE FINISH: 4/20/2023

CLIENT: _____
PROJECT: Proposed Housing Development
LOCATION: 1877 Congress Street, Portland, ME

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			9D	X	40-42	24/14	12-10- 7-9				

Bottom of Exploration at 42.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-1**

DRILLER BORING LOG

BORING NO.:	B-2
SHEET:	1 of 1
PROJECT NO.	23-0378
DATE START:	4/19/2023
DATE FINISH:	4/19/2023

CLIENT: _____
PROJECT: Proposed Housing Development
LOCATION: 1877 Congress Street, Portland, ME

Drilling Information

LOCATION: <u>See Exploration Location Plan</u>	ELEVATION (FT): <u>58' +/-</u>	TOTAL DEPTH (FT): <u>22.0</u>	LOGGED BY: <u>Evan Walker</u>
DRILLING CO.: <u>S. W. Cole Explorations, LLC</u>	DRILLER: <u>Kevin Hanscom</u>	DRILLING METHOD: <u>Hollow Stem Auger</u>	
RIG TYPE: <u>Track Mounted Diedrich D-50</u>	AUGER ID/OD: <u>2 1/4 in / 5 5/8 in</u>	SAMPLER: <u>Standard Split-Spoon</u>	
HAMMER TYPE: <u>Automatic</u>	HAMMER WEIGHT (lbs): <u>140</u>	CASING ID/OD: <u>N/A /N/A</u>	CORE BARREL: <u></u>
HAMMER CORRECTION FACTOR: <u></u>	HAMMER DROP (inch): <u>30</u>		
WATER LEVEL DEPTHS (ft): <u>∅ 13 ft Soils Saturated Below 13' +/-</u>			

GENERAL NOTES:					
KEY TO NOTES AND SYMBOLS:	<u>Water Level</u>	D = Split Spoon Sample	Pen. = Penetration Length	WOR = Weight of Rods	S _v = Field Vane Shear Strength, kips/sq.ft.
	▽ At time of Drilling	U = Thin Walled Tube Sample	Rec. = Recovery Length	WOH = Weight of Hammer	q _u = Unconfined Compressive Strength, kips/sq.ft.
	▼ At Completion of Drilling	R = Rock Core Sample	bpf = Blows per Foot	RQD = Rock Quality Designation	Ø = Friction Angle (Estimated)
	▽ After Drilling	V = Field Vane Shear	mpf = Minute per Foot	PID = Photoionization Detector	N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION						Graphic Log		H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data				
55 												

Bottom of Exploration at 22.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-2**



DRILLER BORING LOG

BORING NO.: **B-3**
SHEET: 1 of 1
PROJECT NO. 23-0378
DATE START: 4/19/2023
DATE FINISH: 4/19/2023

CLIENT: _____
PROJECT: Proposed Housing Development
LOCATION: 1877 Congress Street, Portland, ME

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 71' +/- TOTAL DEPTH (FT): 22.0 LOGGED BY: Evan Walker
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Kevin Hanscom DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted Diedrich D-50 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 CASING ID/OD: N/A / N/A CORE BARREL: _____
HAMMER CORRECTION FACTOR: _____ HAMMER DROP (inch): 30
WATER LEVEL DEPTHS (ft): ∇ 11 ft Soils Wet to Saturated Below 11' +/-

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: ∇ Water Level
 ∇ At time of Drilling
 ∇ At Completion of Drilling
 ∇ After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
Ø = Friction Angle (Estimated)
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
70			1D	X	0-2	24/12	1-1-1-2	0.8	Forest Duff / Topsoil		
			2D	X	2-4	24/16	3-6-9-10	2.0	Loose, orange-brown, silty fine SAND, with roots		
	5		3D	X	5-6.1	13/13	12-22-50/1"	5.0	Medium dense, brown, silty fine SAND		
								7.0	Dense, brown, silty gravelly SAND, with cobbles		
	10		4D	X	10-12	24/18	8-11-12-14		Medium dense, brown, silty fine SAND, with layers of medium to coarse sand	∇	
	15		5D	X	15-17	24/5	11-13-17-21	15.0	Medium dense to dense, brown, SAND, some gravel, trace silt		
	20		6D	X	20-22	24/16	4-10-12-15	20.0	Medium dense, gray-brown, silty SAND, some gravel (Till)		

Bottom of Exploration at 22.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-3**



DRILLER BORING LOG

BORING NO.: **B-4**
SHEET: 1 of 2
PROJECT NO. 23-0378
DATE START: 4/20/2023
DATE FINISH: 4/20/2023

CLIENT: _____
PROJECT: Proposed Housing Development
LOCATION: 1877 Congress Street, Portland, ME

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 80' +/- TOTAL DEPTH (FT): 52.0 LOGGED BY: Evan Walker
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Kevin Hanscom DRILLING METHOD: Cased Boring
RIG TYPE: Track Mounted Diedrich D-50 AUGER ID/OD: N/A / N/A SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 / 140 CASING ID/OD: 4 in / 4 1/2 in CORE BARREL: _____
HAMMER CORRECTION FACTOR: _____ HAMMER DROP (inch): 30 / 30
WATER LEVEL DEPTHS (ft): ∇ 35 ft Perched Water in Fill Below 15', Soils Saturated Below 35'

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level
 ∇ At time of Drilling
 ∇ At Completion of Drilling
 ∇ After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
Ø = Friction Angle (Estimated)
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			1D	X	0-2	24/12	1-4-4-5		0.2 Vegetation / Forest Duff Loose, brown, silty gravelly SAND, with roots (FILL)		
75	5		2D	X	5-7	24/18	1-1-2-2		5.0 Very loose, gray, clayey SILT AND SAND, some gravel, with dark brown organics (FILL)		
70	10		3D	X	10-12	24/8	1/12"- 1/12"		10.0 Very loose, gray-brown, gravelly SILT AND SAND, with frequent cobbles (FILL)		
65	15		4D	X	15-17	24/15	2-1-1-1		15.0 Very loose to loose, dark brown and gray, gravelly SILT AND SAND, with plastic fiber (FILL)		
60	20		5D	X	20-22	24/4	2-3-2-2				
55	25		6D	X	25-27	24/24	6-10- 15-22	q _p =9 ksf	25.0 Hard to stiff, brown, silty CLAY		
50	30		7D	X	30-32	24/24	4-4-4-5	q _p =3.5 to 5 ksf			
45	35		8D	X	35-37	24/24	2- 1/12"-3	q _p =2 to 3 ksf	35.5 Medium, gray, silty CLAY	∇	

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: **B-4**

BORING / WELL 10-12-2022 23-0378.GPJ SWCE TEMPLATE.GDT 3/14/24



DRILLER BORING LOG

BORING NO.: **B-4**
SHEET: 2 of 2
PROJECT NO. 23-0378
DATE START: 4/20/2023
DATE FINISH: 4/20/2023

CLIENT: _____
PROJECT: Proposed Housing Development
LOCATION: 1877 Congress Street, Portland, ME

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
			1V		40-41	12			S _v =0.61/0.11ksf		
			1V'		41-42	12			S _v =0.72/0.14ksf		
35	45		SPT		45-47	24/16	13-15- 10-9		44.0 Medium dense, orange-brown, SAND, some silt, some gravel		
									45.6 Medium dense to dense, gray-brown, silty SAND, some gravel, with cobbles (Till)		
30	50		SPT		50-52	24/14	10-18- 14-16		50.0 Dense, gray, silty SAND, some gravel (Till)		

Bottom of Exploration at 52.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-4**



DRILLER BORING LOG

BORING NO.: **B-5**
SHEET: 1 of 1
PROJECT NO. 23-0378
DATE START: 4/19/2023
DATE FINISH: 4/19/2023

CLIENT: _____
PROJECT: Proposed Housing Development
LOCATION: 1877 Congress Street, Portland, ME

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 82' +/- TOTAL DEPTH (FT): 37.0 LOGGED BY: Evan Walker
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Kevin Hanscom DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted Diedrich D-50 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 CASING ID/OD: N/A / N/A CORE BARREL: _____
HAMMER CORRECTION FACTOR: _____ HAMMER DROP (inch): 30
WATER LEVEL DEPTHS (ft): ∇ 25 ft Soils Moist Below 5, Saturated Below 25' +/-

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level
 ∇ At time of Drilling
 ∇ At Completion of Drilling
 ∇ After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
Ø = Friction Angle (Estimated)
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
80			1D	X	0-2	24/14	11-5-4-4	0.1	Vegetation / Topsoil (FILL) Loose, dark brown, SILT AND SAND, some gravel, trace organics (FILL)		
75	5		2D	X	5-7	24/16	4-3-3-4	5.0	Loose, gray-brown, silty SAND, some gravel (FILL)		
70	10		3D	X	10-12	24/18	1-1-2-4	10.0	Loose, gray and dark brown, silty CLAY, some sand, trace gravel, with roots, wood, and organics (FILL)		
65	15		4D	X	15-17	24/10	2-2-2-3				
60	20		5D	X	20-22	24/20	5-7-10-11	20.0	Very stiff, brown, silty CLAY		
55	25		6D	X	25-27	24/18	4-4-6-8	25.0	Loose to medium dense, layered, silty fine SAND, silty CLAY, and SAND trace silt	∇	
50	30		7D	X	30-32	24/20	4-7-9-7	30.0	Medium dense, brown, SAND, some silt, with silty seams		
45	35		8D	X	35-37	24/20	5-8-10-10	35.0 36.0	Medium dense, gray-brown, SAND, some silt Medium dense, gray-brown, silty fine SAND		
Bottom of Exploration at 37.0 feet											

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-5**



DRILLER BORING LOG

BORING NO.: **B-6**
SHEET: 1 of 2
PROJECT NO. 23-0378
DATE START: 4/19/2023
DATE FINISH: 4/19/2023

CLIENT: _____
PROJECT: Proposed Housing Development
LOCATION: 1877 Congress Street, Portland, ME

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 83' +/- TOTAL DEPTH (FT): 56.0 LOGGED BY: Evan Walker
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Kevin Hanscom DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted Diedrich D-50 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 CASING ID/OD: N/A /N/A CORE BARREL: _____
HAMMER CORRECTION FACTOR: _____ HAMMER DROP (inch): 30
WATER LEVEL DEPTHS (ft): ∇ 35 ft Perched Water 20' to 25', Soils Saturated Below 35' +/-

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level
 ∇ At time of Drilling
 ∇ At Completion of Drilling
 ∇ After Drilling
D = Split Spoon Sample
U = Thin Walled Tube Sample
R = Rock Core Sample
V = Field Vane Shear
Pen. = Penetration Length
Rec. = Recovery Length
bpf = Blows per Foot
mpf = Minute per Foot
WOR = Weight of Rods
WOH = Weight of Hammer
RQD = Rock Quality Designation
PID = Photoionization Detector
S_v = Field Vane Shear Strength, kips/sq.ft.
q_u = Unconfined Compressive Strength, kips/sq.ft.
Ø = Friction Angle (Estimated)
N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
80	5		1D	X	0-2	24/10	2-11-7-8		0.5 Vegetation / Forest Duff / Topsoil (FILL) Medium dense to loose, dark brown and gray, silty gravelly SAND, with organics, brick, mortar (FILL)		
75			2D	X	5-7	24/15	2-2-3-4				
70	10		3D	X	10-12	24/14	2-4-5-3		10.0 Loose, gray, silty SAND, some gravel, with clayey silt seams (FILL)		
65	15		4D	X	15-17	24/12	2-3-3-3		15.0 Loose, gray, gravelly SILT AND SAND, with roots, organics, glass, and asphalt (FILL)		
60	20		5D	X	20-22	24/12	2-2-2-2				
55	25		6D	X	25-27	24/22	5-6-8-9		25.0 Stiff to hard, brown, silty clay		
50	30		7D	X	30-32	24/24	4-5-6-6		q _p =7-7.5 ksf		
45	35		8D	X	35-37	24/24	2-1-2-2		q _p =0.5-1.5 ksf		
									35.0 Stiff, gray, silty CLAY	∇	
									36.0 Medium, gray, silty CLAY		
									ROD PROBE Depth Resistance Interpreted Soil Type 37-50 HYD Silty Clay		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: **B-6**



DRILLER BORING LOG

BORING NO.: **B-6**
SHEET: 2 of 2
PROJECT NO. 23-0378
DATE START: 4/19/2023
DATE FINISH: 4/19/2023

CLIENT: _____
PROJECT: Proposed Housing Development
LOCATION: 1877 Congress Street, Portland, ME

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field / Lab Test Data			
40									Gray, silty CLAY		
45											
35											
50											
30											
55											

Bottom of Exploration at 56.0 feet

BORING / WELL 10-12-2022 23-0378.GPJ SWCE TEMPLATE.GDT 3/14/24

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-6**



DRILLER BORING LOG

BORING NO.: **B-7**
SHEET: 1 of 2
PROJECT NO. 23-0378
DATE START: 4/19/2023
DATE FINISH: 4/19/2023

CLIENT: _____
PROJECT: Proposed Housing Development
LOCATION: 1877 Congress Street, Portland, ME

Drilling Information

LOCATION: See Exploration Location Plan ELEVATION (FT): 81' +/- TOTAL DEPTH (FT): 51.3 LOGGED BY: Evan Walker
DRILLING CO.: S. W. Cole Explorations, LLC DRILLER: Kevin Hanscom DRILLING METHOD: Hollow Stem Auger
RIG TYPE: Track Mounted Diedrich D-50 AUGER ID/OD: 2 1/4 in / 5 5/8 in SAMPLER: Standard Split-Spoon
HAMMER TYPE: Automatic HAMMER WEIGHT (lbs): 140 CASING ID/OD: N/A / N/A CORE BARREL: _____
HAMMER CORRECTION FACTOR: _____ HAMMER DROP (inch): 30
WATER LEVEL DEPTHS (ft): ∇ 15 ft Soils Saturated Below 15' +/-

GENERAL NOTES:

KEY TO NOTES AND SYMBOLS: Water Level
 ∇ At time of Drilling D = Split Spoon Sample Pen. = Penetration Length WOR = Weight of Rods S_v = Field Vane Shear Strength, kips/sq.ft.
 ∇ At Completion of Drilling U = Thin Walled Tube Sample Rec. = Recovery Length WOH = Weight of Hammer q_u = Unconfined Compressive Strength, kips/sq.ft.
 ∇ After Drilling R = Rock Core Sample bpf = Blows per Foot RQD = Rock Quality Designation Ø = Friction Angle (Estimated)
V = Field Vane Shear mpf = Minute per Foot PID = Photoionization Detector N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
80			1D	X	0-2	24/20	2-2-4-4		0.3 Forest Duff / Vegetation / Topsoil (FILL) Stiff, gray-brown, silty CLAY, some sand, trace gravel, with roots (FILL)		
75	5		2D	X	5-7	24/20	2-2-3-3		5.0 Stiff, gray, silty CLAY, some sand, trace gravel, with sandy layers, roots, and organics (FILL)		
70	10		3D	X	10-12	24/18	2-1-1-1		10.0 Loose, dark gray and black, SILT AND SAND, some gravel, with organics and glass (FILL)		
65	15		4D	X	15-17	24/10	4-2-1-2		15.0 Loose, gray, clayey SILT AND SAND, trace gravel, with asphalt (FILL)	∇	
60	20		5D	X	20-22	24/16	1-3-5-3		21.0 Loose, gray-brown, SILT AND SAND, with dark brown organic layers and roots (Relic Ground Surface)		
55	25		6D	X	25-27	24/22	5-7-9-11	q _p =8.5-9 ksf	23.0 Very stiff to stiff, brown, silty CLAY		
50	30		7D	X	30-32	24/24	2-3-3-5	q _p =3-3.5 ksf			
45	35		8D	X	35-37	24/24	WOH/12"-1-3		32.0 Medium, gray with black streaking, silty CLAY		

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

(Continued Next Page)

BORING NO.: **B-7**

BORING / WELL 10-12-2022 23-0378.GPJ SWCE TEMPLATE.GDT 3/14/24



DRILLER BORING LOG

BORING NO.: **B-7**
SHEET: 2 of 2
PROJECT NO. 23-0378
DATE START: 4/19/2023
DATE FINISH: 4/19/2023

CLIENT: _____
PROJECT: Proposed Housing Development
LOCATION: 1877 Congress Street, Portland, ME

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
40			9D	X	40-42	24/24	WOR/12" WOH-1				
	45								ROD PROBE Depth Resistance Interpreted Soil Type 42-44.8 HYD Silty Clay		
35									44.8 ROD PROBE Depth Resistance Interpreted Soil Type 44.8-45.8 23 Granular Soils		
	50								45.8-46.8 24 46.8-47.8 27 47.8-48.8 31 48.8-49.8 41 49.8-50.8 25 50.8-51.3 15		
30											

Bottom of Exploration at 51.3 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-7**

DRILLER BORING LOG

BORING NO.:	B-8
SHEET:	1 of 1
PROJECT NO.	23-0378
DATE START:	4/20/2023
DATE FINISH:	4/20/2023

CLIENT: _____
PROJECT: Proposed Housing Development
LOCATION: 1877 Congress Street, Portland, ME

Drilling Information

LOCATION: <u>See Exploration Location Plan</u>	ELEVATION (FT): <u>84' +/-</u>	TOTAL DEPTH (FT): <u>17.0</u>	LOGGED BY: <u>Evan Walker</u>
DRILLING CO.: <u>S. W. Cole Explorations, LLC</u>	DRILLER: <u>Kevin Hanscom</u>	DRILLING METHOD: <u>Hollow Stem Auger</u>	
RIG TYPE: <u>Track Mounted Diedrich D-50</u>	AUGER ID/OD: <u>2 1/4 in / 5 5/8 in</u>	SAMPLER: <u>Standard Split-Spoon</u>	
HAMMER TYPE: <u>Automatic</u>	HAMMER WEIGHT (lbs): <u>140</u>	CASING ID/OD: <u>N/A /N/A</u>	CORE BARREL: <u></u>
HAMMER CORRECTION FACTOR: <u></u>	HAMMER DROP (inch): <u>30</u>		
WATER LEVEL DEPTHS (ft): <u>No Free Water Observed</u>			

KEY TO NOTES AND SYMBOLS:	<u>Water Level</u>	D = Split Spoon Sample	Pen. = Penetration Length	WOR = Weight of Rods	S _v = Field Vane Shear Strength, kips/sq.ft.
	▽ At time of Drilling	U = Thin Walled Tube Sample	Rec. = Recovery Length	WOH = Weight of Hammer	q _u = Unconfined Compressive Strength, kips/sq.ft.
	▼ At Completion of Drilling	R = Rock Core Sample	bpf = Blows per Foot	RQD = Rock Quality Designation	Ø = Friction Angle (Estimated)
	▽ After Drilling	V = Field Vane Shear	mpf = Minute per Foot	PID = Photoionization Detector	N/A = Not Applicable

Elev. (ft)	Depth (ft)	Casing Pen. (bpf)	SAMPLE INFORMATION					Graphic Log	Sample Description & Classification	H ₂ O Depth	Remarks
			Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD				
<											

Bottom of Exploration at 17.0 feet

Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

BORING NO.: **B-8**

KEY TO NOTES & SYMBOLS

Test Boring and Test Pit Explorations

Stratification lines represent the approximate boundary between soil types and the transition may be gradual.

Key to Symbols Used:

w	-	water content, percent (dry weight basis)
q _u	-	unconfined compressive strength, kips/sq. ft. - laboratory test
S _v	-	field vane shear strength, kips/sq. ft.
L _v	-	lab vane shear strength, kips/sq. ft.
q _p	-	unconfined compressive strength, kips/sq. ft. – pocket penetrometer test
O	-	organic content, percent (dry weight basis)
W _L	-	liquid limit - Atterberg test
W _P	-	plastic limit - Atterberg test
WOH	-	advance by weight of hammer
WOM	-	advance by weight of man
WOR	-	advance by weight of rods
HYD	-	advance by force of hydraulic piston on drill
RQD	-	Rock Quality Designator - an index of the quality of a rock mass.
γ _T	-	total soil weight
γ _B	-	buoyant soil weight

Description of Proportions:

Trace:	0 to 5%
Some:	5 to 12%
"Y"	12 to 35%
And	35+%
With	Undifferentiated

Description of Stratified Soils

Parting:	0 to 1/16" thickness
Seam:	1/16" to 1/2" thickness
Layer:	1/2" to 12" thickness
Varved:	Alternating seams or layers
Occasional:	one or less per foot of thickness
Frequent:	more than one per foot of thickness

REFUSAL: Test Boring Explorations - Refusal depth indicates that depth at which, in the drill foreman's opinion, sufficient resistance to the advance of the casing, auger, probe rod or sampler was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

REFUSAL: Test Pit Explorations - Refusal depth indicates that depth at which sufficient resistance to the advance of the backhoe bucket was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

Although refusal may indicate the encountering of the bedrock surface, it may indicate the striking of large cobbles, boulders, very dense or cemented soil, or other buried natural or man-made objects or it may indicate the encountering of a harder zone after penetrating a considerable depth through a weathered or disintegrated zone of the bedrock.

TRAFFIC IMPACT STUDY

FOR PROPOSED

Residential Development

1877 Congress Street, Portland, Maine

Prepared For: Greenmars Holdings, LLC

Prepared By: Barton & Loguidice

May 16, 2024

2865.001.001

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Traffic Impact Study

Residential Development

1877 Congress Street, Portland, Maine

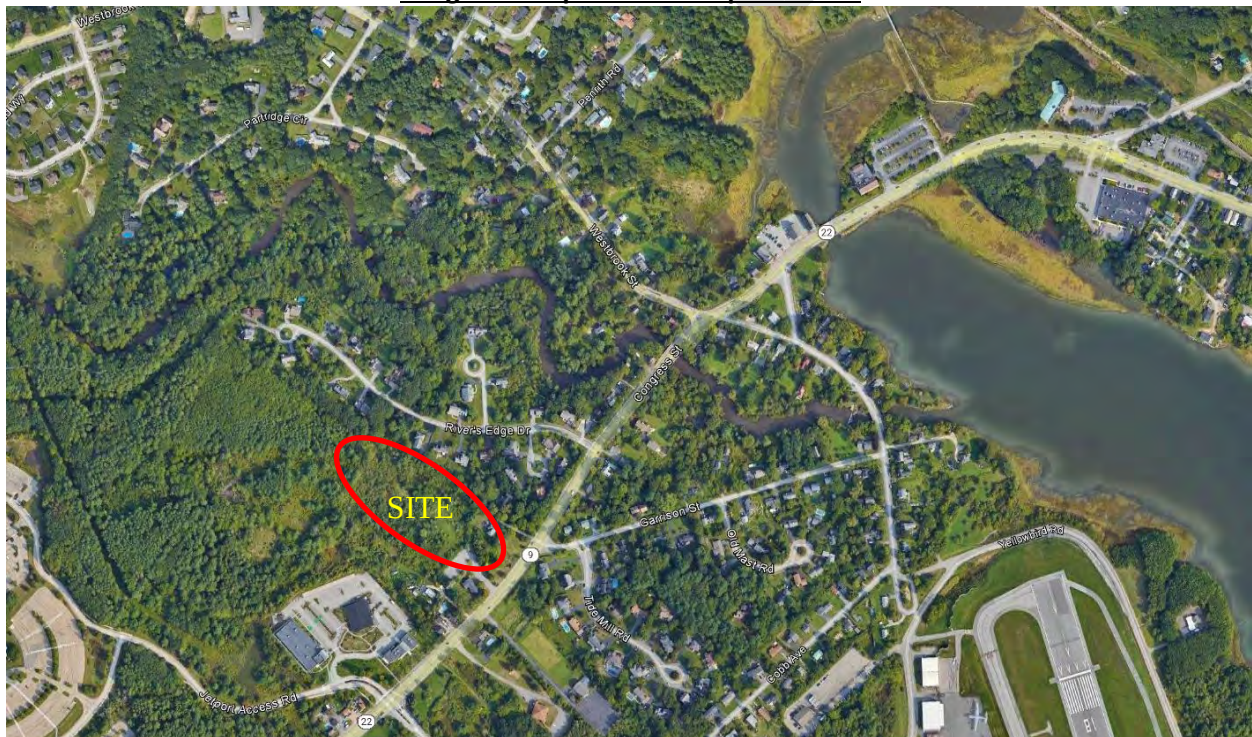
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1 INTRODUCTION

Greenmars Holdings, LLC is proposing the development of a 156-unit residential development located on the parcel addressed 1877 Congress Street (State Route 9/22) in the City of Portland (refer to Image 1A for the approximate location of the proposed development). Access to the development site will be provided by a proposed driveway entrance that will intersect with the northwest side of Congress Street 139 feet southwest of the intersection of Congress Street and Garrison Street. The 156-unit residential development is comprised of 78 market-rate apartment units and 78 workforce apartment units. The 78 workforce apartment units will have the rent restricted to below market rate. With the project's development, the existing driveway entrance for the Masonic Learning Center, a school for children with dyslexia, will be removed, and a new connection will be provided via the proposed site entrance.

The purpose of this traffic impact study is to examine existing traffic conditions in the general vicinity of the proposed project, estimate the total number of site trips generated by the project, and determine whether the existing transportation system can safely accommodate the added traffic generated by the project.

Image 1A Proposed Development Site



2 EXISTING CONDITIONS

2.1 Existing Development Site

The existing site is located on the parcel addressed 1877 Congress Street in the City of Portland. The parcel is a vacant wooded lot with frontage on Congress Street. The parcel is bounded by residential dwelling units on the northeast border. On the southeast border are residential dwellings, an

institutional use, and Congress Street. On the northwest and southwest boundaries, the parcel is bordered by wooded lots. There are no existing driveway entrances on the development parcel.

2.2 Study Intersection

For this traffic impact study, we have identified 2 study intersections:

1. Congress Street at International Parkway (signalized)
2. Congress Street at the Proposed Site Driveway (unsignalized)

Congress Street fronting the site is a three-lane bidirectional roadway with two southbound lanes and one northbound lane. Just southeast of the site, Congress Street consists of two southbound lanes and two northbound lanes, which merge into a single lane. Northeast of the site, at the intersection of Garrison Street and Congress Street, there are two southbound lanes, one northbound lane, and a two-way center-left-turn lane.

2.3 Existing Traffic Conditions

Turning movement counts were collected at the existing study intersection during the weekday morning, weekday evening, and Saturday peak hour time periods during the 4th week of April 2024. The weekday traffic data was collected between the hours of 7:00 and 9:00 AM and again between the hours of 3:00 and 6:00 PM. On Saturday, the traffic data was collected between 11:00 AM and 2:00 PM. All traffic entering the intersection was recorded in 15-minute intervals for the data collection time periods. A summary of the turning movement counts shows that the morning peak hour begins at 7:30 AM, the evening peak hour begins at 4:00 PM, and on Saturday, the midday peak hour begins at 12:30 PM. The turning movement count sheets have been attached in *Section A of the appendix*.

Figure 1, attached in *Section A of the appendix*, illustrates the collected turning movement counts.

3 BACKGROUND TRAFFIC

3.1 Seasonal Adjustments

Traffic data collected during April requires a seasonal adjustment to reflect the “peak” travel conditions typically 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 2019 Count Book classifies Congress Street as a Group I roadway, defined as “roadways or urban roads are those which carry commuter traffic and exhibit little seasonal change in traffic volumes”. In accordance with MaineDOT’s 2023 Weekly Group Mean Factors, a seasonal adjustment factor of **1.091** has been applied to the collected traffic counts.

3.2 Future Traffic Growth

This traffic study has been prepared based on a projected build-out year of 2025. MaineDOT’s 2019 Count Book recorded an annual average daily traffic (AADT) volume of 23,380 in 2016 and an AADT of 22,180 in 2019 on Congress Street at a point southwest of Westbrook Street. The AADT shows during the 3 years between 2016 and 2019, traffic volumes on Congress Street decreased by approximately - 1.7% annually. For the purposes of this study, we will assume a 1% annual growth will occur on Congress

Street and International Parkway. **Figure 2**, attached in *Section A of the appendix*, depicts the 2025 design hour traffic volumes, including seasonal and annual adjustments.

3.3 Other Development Traffic

The City of Portland Planning & Urban Development office has been contacted and was requested to identify all pending or approved other development projects whose trips may have an impact on Congress Street within the vicinity of the site. At this time, no confirmation of other development trips has been provided. For the purposes of this traffic study, we will assume that there are no other development trips within the vicinity of the project.

3.3 2025 Pre-Development Traffic Volumes

Because no other development trips were included in this traffic study, the 2025 pre-development traffic volumes do not vary from the 2025 design hour traffic volumes shown in *Figure 2*.

4 PROPOSED CONDITIONS

4.1 Development

Greenmars Holdings, LLC is proposing the development of a 156-unit residential development on the parcel addressed 1877 Congress Street in the City of Portland. The development is comprised of 78 market-rate apartment units and 78 workforce apartment units, which will be rented below market rate. With the project's development, the existing driveway entrance for the Masonic Learning Center will be removed, and a new connection will be provided via the proposed site entrance.

4.2 Site Access

Access to the development site will be provided by a proposed driveway entrance that will intersect with the northwest side of Congress Street 139 feet southwest of the intersection of Congress Street and Garrison Street.

4.3 Proposed Site Trip Generation

Daily and peak hour site trip generation estimates have been prepared for the proposed development based upon the trip generation tables presented within the 11th Edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. The ITE Manual provides numerous land use codes (LUC) and the volume of site-generated trips produced by each category.

Trip generation calculations for the 78 market-rate apartment units have been prepared using [LUC #220 – Multifamily Housing \(Low-Rise\)](#), which ITE defines as “apartments, townhouses, and condominiums located within the same building with at least three other dwelling units that have two or three floors.”

The trip generation calculations for the 78 workforce apartments have been prepared using [LUC #223 – Affordable Housing - Income Limits](#), defined as “all multifamily housing that is rented at below market rate to households that include at least one employed member.”

In the Trip Generation Manual, for LUC #220 and LUC #223, ITE provides the “Average” trip generation rate, and the “Fitted Curve” trip generation rates. MaineDOT guidelines state that when $R^2 \geq 0.80$, the “Fitted Curve” trip generation rate shall be used. However, the fitted curve equation for LUC #220 has a y-intercept of (20.55) and (34.78) in the PM peak hours. Given the low number of dwelling units (78), it is our opinion that these equations overestimate the number of trips generated by the proposed

apartment units. When analyzing the data points provided on the ITE data plot tables, trips generated by study sites of similar size (60-90 units) are on or below the “Average Rate” line (refer to Image 4A and 4B below)

Image 4A – PM Peak Hour (Street) ITE Data Plot

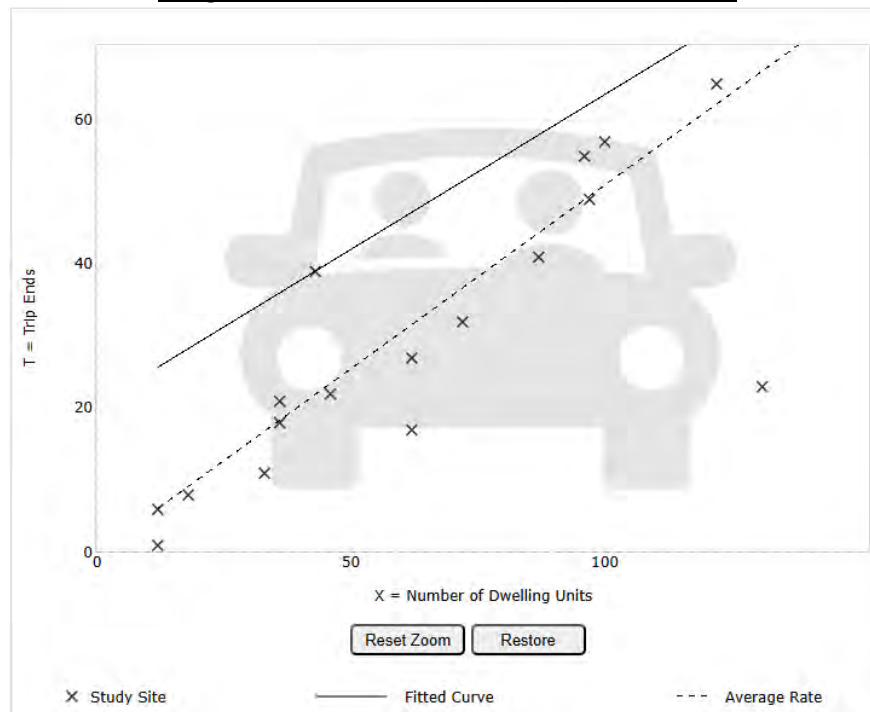
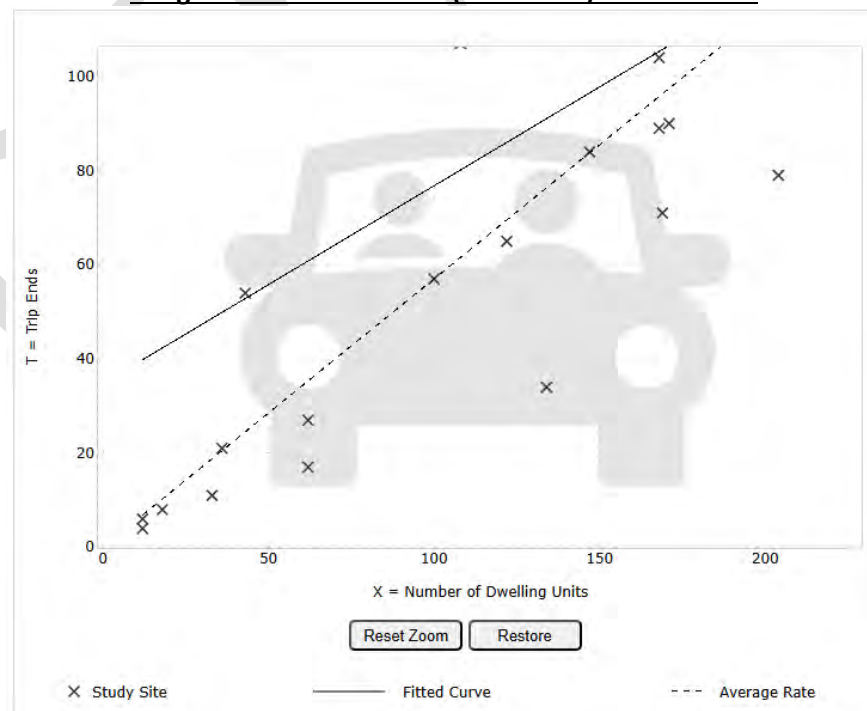


Image 4B – PM Peak Hour (Generator) ITE Data Plot



Because the fitted curve equations do not best represent the trip generation for 78-units of market rate housing, we will use the “Average” trip generation rates for the LUC #220 PM peak hours.

The trip generation calculations for the 78 market-rate and 78 workforce apartment units are provided below in Table 4A and Table 4B:

Table 4A ITE Trip Generation Calculations						
Land Use	Multifamily Housing (Low-Rise) Not Close to Rail Transit - LUC 220					
Time Period	Dwelling Units	Avg. Trip Gen. Rate Trips/Dwelling Units	Trips Generated	Distribution Entering / Exiting	Enter	Exit
Weekday	78	6.74	526	50% / 50%	263	263
AM Weekday Peak Hour (Street)	78	0.40	31	24% / 76%	7	24
PM Weekday Peak Hour (Street)	78	0.51	40	63% / 37%	25	15
AM Weekday Peak Hour (Generator)	78	0.47	37	24% / 76%	9	28
PM Weekday Peak Hour (Generator)	78	0.57	44	62% / 38%	27	17
Saturday Peak Hour*	78	0.41	32	50% / 50%	16	16

*Trip generation distribution is assumed for the Saturday peak hour.

Table 4B ITE Trip Generation Calculations							
Land Use	Affordable Housing-Income Limits - LUC 223						
Time Period	Dwelling Units (X)	R ²	Avg. Rate/Fitted Curve Equation	Trips Generated (T)	Distribution Entering / Exiting	Enter	Exit
Weekday	78	0.98	$T = 3.73(X) + 139.35$	431	50% / 50%	216	215
AM Weekday Peak Hour (Street)	78	0.96	$T = 0.21(X) + 17.21$	34	29% / 71%	10	24
PM Weekday Peak Hour (Street)	78	0.67	0.46	36	59% / 41%	21	15
AM Weekday Peak Hour (Generator)	78	0.96	$T = 0.21(X) + 17.97$	34	26% / 74%	9	25
PM Weekday Peak Hour (Generator)	78	0.67	0.50	39	58% / 42%	23	16
PM Weekday Peak Hour (Generator)	78	n/a	0.41	32	50% / 50%	16	16

*ITE only provides one data point for Sat. Peak Hour. Assumed similar to LUC #220 Sat. Peak Hour. Assumed 50/50 Distribution.

Table 4C summarizes the total trips generated by the proposed market rate and workforce housing apartments.

Table 4C ITE Trip Generation Summary			
Time Period	Total Trips	Enter	Exit
Weekday	957	479	478
AM Weekday Peak Hour (Street)	65	17	48
PM Weekday Peak Hour (Street)	76	46	30
AM Weekday Peak Hour (Generator)	71	18	53
PM Weekday Peak Hour (Generator)	83	50	33
Saturday Peak Hour	64	32	32

Table 4C shows that the proposed residential development is expected to generate a total of 65 trips during the AM peak hour of the adjacent (street), and 76 trips during the PM peak hour of the adjacent street. During the peak hours of the (generator), the proposed development is expected to generate 71 trips in the AM peak hour and a maximum of 83 trips during the PM peak hour. The proposed project is expected to generate 64 trips during the Saturday peak hour.

4.4 Existing Site Trip Assignment (Masonic Learning Center)

With the development of the project, the existing driveway for the Masonic Learning Center will be removed, and a new connection will be provided via the proposed site driveway. Because the existing traffic generated by the site will enter and exit the proposed driveway, we will include the existing site generated trips produced by the learning center alongside the trips generated by the proposed development within our analyses. Students of the learning center come twice a week after school with parents dropping the kids off, then picking them up an hour later. During the weekdays, the center has 10 daily staff and 15-20 daily students. The hours of operation are from 3:00 PM to 7:00 PM.

Given the nature of the learning center, within this study, we have assumed that the center will be a similar trip generator to a day care during the weekday PM peak hour. Accordingly, we have estimated the existing trip generation using [LUC #565 – Day Care Center](#), defined by ITE as “a facility where care for pre-school age children is provided, normally during daytime hours. A day care facility generally includes classrooms, offices, eating areas, and playgrounds. A center may also provide after-school care for school age children” The trip generation calculations for the Masonic Learning Center are provided below in Table 4D:

Table 4D ITE Trip Generation Calculations						
Land Use	Day Care Center - LUC 565					
Time Period	Students	Avg. Trip Gen. Rate Trips/Student	Trips Generated	Distribution Entering / Exiting	Enter	Exit
PM Weekday Peak Hour (Street)	20	0.79	16	47% / 53%	8	8
PM Weekday Peak Hour (Generator)	20	0.81	16	47% / 53%	8	8

Table 4D shows that the existing Masonic Learning Center generates 16 trips in the PM peak hours.

4.5 Trip Assignment

Traffic generated by the proposed development and the Masonic Learning Center has been assigned to and from the site based on the existing traffic patterns on the adjacent roadway, as illustrated in Figure 1. The trip assignment percentages are shown below in Table 4D:

Table 4D Vehicle Trip Assignment			
Approach	AM Peak Hour	PM Peak Hour	Sat. Peak Hour
Jetport Access Rd	14%	11%	4%
Congress St (South)	47%	38%	41%
International Pkwy	8%	6%	7%
Congress St (North)	31%	45%	48%

Figure 3, attached in *Section A of the appendix*, provides the site trip assignment for the proposed residential development, following the percentages provided above. Following Figure 3, **Figure 4** illustrates the re-assigned trips generated by the Masonic Learning Center.

4.6 2025 Post-Development Volumes

The 2025 post-development traffic volumes are provided in **Figure 5**, attached in *Section A of the appendix*, which has been prepared by combining the 2025 design hour traffic volumes shown in Figure 2 with the site trip assignment shown in Figure 3 and the Masonic Learning Development trip assignment shown in Figure 4.

5 ANALYSES

5.1 Intersection Sight Distance

Intersection sight distances were recorded at the proposed site driveway's intersection with Congress Street in accordance with the criteria established within the MaineDOT's *Highway Driveway and Entrance Rules* publication, which require the following minimum sight distance 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 Congress Street fronting the proposed development is posted at 40 mph, requiring an unobstructed sight distance of 360 feet. In accordance with the *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 Congress Street indicate that existing sight distances are in excess of the minimum standard based upon the 40 mph posted speed limit. Looking left, we recorded a sight distance in excess of 400 feet, and looking right, we recorded a similar measurement in excess of 400 feet. Refer to Image 5A and Image 5B, attached below:

Image 5A - Sight Distance – Looking Left**Image 5B - Sight Distance – Looking Right**

5.2 Crash Analysis

Crash data for the latest three-year time period (2022-2024) was provided by MaineDOT's Accident Records Section for the segment of Congress Street located between International Parkway and Westbrook Street for a distance of 0.44 miles. MaineDOT's crash report has been attached in *Section B of the appendix*. A summary of the report is provided below in Table 5A:

Table 5A 2021-2023 Crash Report Summary Congress Street Between Westbrook Street and International Parkway			
#	Location	Total Crashes	Critical Rate Factor
1	Congress Street @ International Parkway	17	0.63
2	Congress Street @ Westbrook Street	18	0.60
3	Congress Street @ Garrison Street	1	0.16
4	Congress St btw. International Pkwy and Garrison St	9	0.61
5	Congress Street btw. Garrison Street and Westbrook Street	10	0.67

MaineDOT considers any roadway intersection or segment a high crash location 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 the data presented in Table 5A shows, there are no high crash locations within the defined study area.

5.3 NCHRP Left-Turn Lane Warrant Analysis

The National Cooperative Highway Research Program (NCHRP) Report 457 provides a process for determining whether projected traffic conditions at an intersection warrant a dedicated left-turn lane from the major street to the lower-volume roadway or driveway entrance. In this traffic study, we have reviewed the left-turn lane at the intersection of Congress Street and the proposed site entrance during the AM, PM, and Saturday peak hours.

The NCHRP left-turn lane warrant process uses four traffic inputs in determining if a dedicated left-turn lane is warranted: 1) *posted speed limit*, 2) *advancing volume of traffic*, 3) *opposing volume*, and 4) *percent of left-turns in the advancing volume*.

The NCHRP report stipulates that, where applicable, the traffic volumes used for the analysis represent “average” travel conditions. The 2024 through traffic volumes, shown in Figure 1, were adjusted using MaineDOT’s 2023 Weekly Group Mean Factors (factor of **1.021**) and the 1-year annual adjustment factor of **1.01**. The unadjusted turning volumes used within this analysis are shown as northbound through volumes in Figure 3 and Figure 4. Table 5B summarizes the inputs and outputs of the analysis. The NCHRP calculation sheets have been attached in *Section C of the appendix*.

Time Period	Advancing Volume (Va)	Opposing Volume (Vo)	Percent Left-Turns	Warrant Met (Yes/No)
AM Weekday Peak Hour	499	981	1%	No
PM Weekday Peak Hour	949	867	2%	Yes
Saturday Peak Hour	665	685	2%	No

The NCHRP warrant analysis indicates that the “average” 2025 post-development PM peak hour traffic volumes warrant a dedicated left-turn lane on the northbound Congress Street approach at the site entrance. The warranted left-turn lane is illustrated in the Conceptual Plan attached in *Section C of the appendix*.

The left-turn lane design illustrated in the concept plan provides a 10-foot-wide turn lane with 60 feet of vehicle storage. The preliminary design widens Congress Street on the western side of the roadway to accommodate the turn lane.

5.4 Capacity Analysis

A capacity analysis of the 2025 pre-development and post-development traffic conditions has been performed for the two study intersections: Congress Street at International Parkway (signalized), and Congress Street at the Proposed Site Driveway (unsignalized)

Within the capacity analysis, we will review the level of service (LOS) for each movement at 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 unsignalized and signalized 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 5C, below, summarizes the results of the analysis completed for the AM, PM, and Saturday peak hour pre- and post-development conditions:

Table 5C Level of Service Summary												
Intersection/Movement	2025 Pre-Development						2025 Post-Development					
	AM Peak Hour		PM Peak Hour		Sat. Peak Hour		AM Peak Hour		PM Peak Hour		Sat. Peak Hour	
	Delay (sec./veh.)	LOS	Delay (sec./veh.)	LOS	Delay (sec./veh.)	LOS	Delay (sec./veh.)	LOS	Delay (sec./veh.)	LOS	Delay (sec./veh.)	LOS
1. Congress Street & Site Driveway												
Site - SEL	-	n/a	-	n/a	-	n/a	31.3	D	66.6	F	28.1	D
Site - SER	-	n/a	-	n/a	-	n/a	6.6	A	5.6	A	4.4	A
Congress St - NEL	-	n/a	-	n/a	-	n/a	8.0	A	8.5	A	5.1	A
Congress St - NET	0.4	A	0.8	A	0.5	A	0.3	A	0.9	A	0.4	A
Congress St - SWT	0.8	A	0.7	A	0.6	A	0.8	A	0.8	A	0.6	A
Congress St - SWR	-	n/a	-	n/a	-	n/a	0.1	A	0.3	A	0.1	A
Overall	0.6	A	0.8	A	0.5	A	1.1	A	1.6	A	0.9	A
55												
Jetport Access Rd - SEL	55.6	E	40.2	D	64.0	E	55.0	D	40.3	D	43.5	D
Jetport Access Rd - SET	60.2	E	33.1	C	42.1	D	39.7	D	29.3	C	56.9	E
Jetport Access Rd - SER	4.8	A	7.0	A	5.1	A	4.7	A	6.1	A	4.9	A
International Pkwy - NWL	53.4	D	51.9	D	54.0	D	61.7	E	53.8	D	55.3	E
International Pkwy - NWT	56.4	E	-	n/a	78.3	E	57.7	E	-	n/a	41.5	D
International Pkwy - NWR	4.2	A	5.3	A	5.0	A	4.3	A	5.5	A	5.0	A
Congress St - NEL	56.9	E	64.4	E	54.7	D	51.6	D	55.6	E	55.0	D
Congress St - NET	8.2	A	20.3	C	8.4	A	7.9	A	21.4	C	8.0	A
Congress St - NER	2.7	A	5.5	A	1.4	A	2.7	A	4.5	A	1.6	A
Congress St - SWL	54.2	D	54.3	D	53.9	D	53.9	D	55.5	E	52.4	D
Congress St - SWT	6.6	A	10.0	A	5.4	A	6.9	A	9.1	A	5.0	A
Congress St - SWR	3.6	A	4.7	A	2.5	A	4.1	A	5.1	A	1.8	A
Overall	13.5	B	20.1	C	13.2	B	13.6	B	20.0	B	12.7	B

The SimTraffic capacity analysis shows that at the proposed site intersection, all Congress Street movements are expected to operate at a LOS 'A' during each study period. In the PM peak hour, the left-turn movement out of the site is forecast to operate at a LOS 'F' during the PM peak hour, a LOS 'D' in the Saturday peak hour, and a LOS 'D' in the AM peak hour. Overall, the proposed site driveway's intersection with Congress Street is forecast to operate at a LOS 'A' during the studied peak hour time periods.

At the signalized intersection of Congress Street, Jetport Access Road, and International Parkway, in the AM peak hour post-development condition, two movements are expected to operate at LOS 'E': the left-turn movement out of International Parkway, and the through movement out of International Parkway. During the post-development PM peak hour, two movements are anticipated to operate at LOS 'E'. During the post-development Saturday peak hour, two movements are expected to operate at LOS 'E': the Jetport Access Road through movement, and the International Parkway left-turn movement. Overall, in the post-development conditions, the intersection LOS will remain similar.

The analysis indicates that the major movements on Congress Street (through movements) will operate at LOS "A" in the Build Condition. The green times could be adjusted to improve the LOS 'E' we have for minor movements at the intersection of Congress Street and Jetport Access Road, however, because Congress Street is an arterial type roadway of regional significance, our opinion would be to not adjust the signal times and keep Congress Street operating as is. In addition, the minor movements that could be improved are at LOS 'E' so the delay is not excessive and the queues associated with these movements are also not excessive.

5.5 Vehicle Queue Analysis

In addition to outputting the vehicle delay, SimTraffic also provides vehicle queue reports, which show the expected average queue and 95th percentile queue. The queue reports for the pre- and post-development conditions are summarized below in Table 5D:

Table 5D Vehicle Queue Summary							
Intersection/Approach	Storage Length (ft)	2025 Pre-Development			2025 Post-Development		
		AM Peak Hour	PM Peak Hour	Sat. Peak Hour	AM Peak Hour	PM Peak Hour	Sat. Peak Hour
		Veh. Queue (ft)	Veh. Queue (ft)	Veh. Queue (ft)	Veh. Queue (ft)	Veh. Queue (ft)	Veh. Queue (ft)
1. Congress Street & Site Driveway							
Site - SE L	n/a	-	-	-	42	55	41
Site - SE R	35	-	-	-	52	39	38
Congress St - NE L	60	-	-	-	33	49	31
Congress St - NE T	n/a	-	-	-	-	2	3
Congress St - SW TR	n/a	-	-	-	-	5	-
2. Congress Street & Jetport Access Road/International Parkway							
Jetport Access Rd - SE L	n/a	58	214	31	63	215	26
Jetport Access Rd - SE TR	200	33	50	22	29	51	24
International Pkwy - NW LT	n/a	56	106	103	54	109	102
International Pkwy - NW R	90	53	75	72	53	74	74
Congress St - NE L	210	105	31	102	105	26	88
Congress St - NE T	n/a	92	211	99	83	224	102
Congress St - NE TR	n/a	103	277	114	94	301	106
Congress St - SW L	160	151	129	117	152	139	118
Congress St - SW T	n/a	71	98	50	78	98	50
Congress St - SW TR	n/a	150	81	93	161	157	90

At the proposed site entrance, the queuing analysis shows that a 55-foot vehicle queue is expected in the left-turn lane exiting the site during the PM peak hour and a 52-foot vehicle queue in the right-turn lane during the AM peak hour. In the proposed left-turn lane on Congress Street, entering the site, the analysis reports a 95th percentile vehicle queue of 49 feet in the PM peak hour.

At the intersection of Congress Street, Jetport Access Road, and International Parkway, the queuing analysis shows that the existing turn lanes are not anticipated to be exceeded during peak hours of the 2025 pre- and post-development conditions.

6 CONCLUSIONS & RECOMMENDATIONS

6.1 Trip Generation

The proposed site trip generation includes 65 trips in the AM peak hour of the adjacent (street), 76 trips in the PM peak hour of the adjacent (street), and 957 trips during the typical weekday. The site is expected to produce 64 trips during the Saturday peak hour. Overall, the proposed development will remain below the 100-trip threshold required to trigger a MaineDOT Traffic Movement Permit.

6.2 Intersection Sight Distance

Sight distance measurements were field recorded looking both left and right directionally onto Congress Street from the proposed site entrance. The field measurements indicate that existing sight distances are in excess of the minimum standard of 360-feet, based on the 40 mph posted speed limit. Looking left, we recorded a sight distance in excess of 400 feet, and looking right, we recorded a similar measurement in excess of 400 feet.

6.3 Crash Analysis

Crash data for the latest three-year time period (2022-2024) was provided by MaineDOT's Accident Records Section for the segment of Congress Street between the intersections at Westbrook Street and International Parkway for a distance of approximately 0.44 miles. A review of the crash data showed that there were no high crash locations within the study area.

6.4 NCHRP Left-Turn Lane Warrant Analysis

A left-turn lane warrant analysis was completed for the Congress Street northbound left-turn movement into the proposed site entrance. The analysis was conducted using the National Cooperative Highway Research Program (NCHRP) Report 457, which shows that a dedicated left-turn lane on Congress Street is warranted based on the projected average condition traffic volumes found in the weekday PM peak hour.

The warranted left-turn lane has been illustrated in a concept plan attached in the appendix. The design provides a 10-foot-wide turn lane with 60 feet of vehicle storage, and widens Congress Street on the western side of the roadway to accommodate the turn lane. Based on the results of the capacity analysis, the storage provided in this left-turn lane is satisfactory.

6.5 Capacity Analysis

A capacity analysis of the intersection of Congress Street and Jetport Access Road/ International Parkway, and the proposed intersection of the site entrance and Congress Street was conducted for the pre-development and post-development traffic conditions during the AM, PM, and Saturday peak hour time periods.

The SimTraffic capacity analysis shows that at the proposed site intersection, all Congress Street movements are expected to operate at a LOS 'A' during each study period. In the PM peak hour, the left-turn movement out of the site is forecast to operate at a LOS 'F' during the PM peak hour, a LOS 'D' in the Saturday peak hour, and a LOS 'D' in the AM peak hour. Overall, the proposed site driveway's intersection with Congress Street is forecast to operate at a LOS 'A' during the studied peak hour time periods.

At the signalized intersection of Congress Street, Jetport Access Road, and International Parkway, in the AM peak hour post-development condition, two movements are expected to operate at LOS 'E': the left-turn movement out of International Parkway, and the through movement out of International Parkway. During the post-development PM peak hour, two movements are anticipated to operate at LOS 'E'. During the post-development Saturday peak hour, two movements are expected to operate at LOS 'E': the Jetport Access Road through movement, and the International Parkway left-turn movement. Overall, in the post-development conditions, the intersection LOS will remain similar.

The analysis indicates that the major movements on Congress Street (through movements) will operate at LOS "A" in the Build Condition. The green times could be adjusted to improve the LOS 'E' we have for minor movements at the intersection of Congress Street and Jetport Access Road, however, because

Congress Street is an arterial type roadway of regional significance, our opinion would be to not adjust the signal times and keep Congress Street operating as is. In addition, the minor movements that could be improved are at LOS 'E' so the delay is not excessive and the queues associated with these movements are also not excessive.

6.6 Vehicle Queue Analysis

At the proposed site entrance, the queuing analysis shows that a 55-foot vehicle queue is expected in the left-turn lane exiting the site during the PM peak hour and a 52-foot vehicle queue in the right-turn lane during the AM peak hour. In the proposed left-turn lane on Congress Street, entering the site, the analysis reports a 95th percentile vehicle queue of 49 feet in the PM peak hour.

At the intersection of Congress Street, Jetport Access Road, and International Parkway, the queuing analysis shows that the existing turn lanes are not anticipated to be exceeded during peak hours of the 2025 pre- and post-development conditions.

APPENDIX

- A. TRAFFIC FIGURES & TRAFFIC COUNTS
- B. MAINEDOT CRASH REPORT
- C. NCHRP REPORT 457 CALCULATION SHEETS & OFF-SITE IMPROVEMENTS CONCEPT PLAN
- D. SYNCHRO & SIMTRAFFIC CAPACITY ANALYSIS REPORTS

DRAFT

GreenMars Stroudwater Commons Community Meeting Comments

Resident Comments

Traffic

Residents had concerns of the effect of the proposed development will have on traffic on congress St, adding to the heavy & highspeed traffic. Many wanted lower speed limits on the road. The Residents did appreciate GreenMars' plan to implement a pedestrian crossing across Congress St., which will immensely help pedestrians cross Congress. St.

GreenMars also made attendants of the meeting aware of the traffic study done, which predicts at peak hours the trips per hour will be <49. Well below the threshold of 100, needed for a D.O.T Movement Permit.

Parking

Residents had concerns about the parking relative to the number of units, & if not adequate the overflow could clog Congress St. and other parking areas around the development. GreenMars were pleased to announce that we greatly exceed minimum parking requirements.

Architecture & Buffers

Residents had concerns about the look of the buildings noting that they were located near a historic part of Portland. GreenMars noted that the architecture for these buildings was done by local and highly regarded architecture firm Invid Architecture, and they mimic the mansard roofs on historical home.

Residents concerns also extended to the quantity and quality of buffer from the development and abutting residential parcels. We ensured residents of the buffers present on the site plan & their relative location to the residential homes abutting the development.

STROUDWATER COMMONS

CONSERVATION RESIDENTAIL DEVELOPMENT
1877-1897 CONGRESS STREET
PORTLAND, MAINE 04101

PROJECT DEVELOPMENT TEAM

OWNER:
ST ALBANS CORP
1897 CONGRESS ST
PORTLAND, MAINE 04102

APPLICANT:
GREENMARS REAL ESTATE
30 EXCHANGE STREET
PORTLAND, MAINE 04101

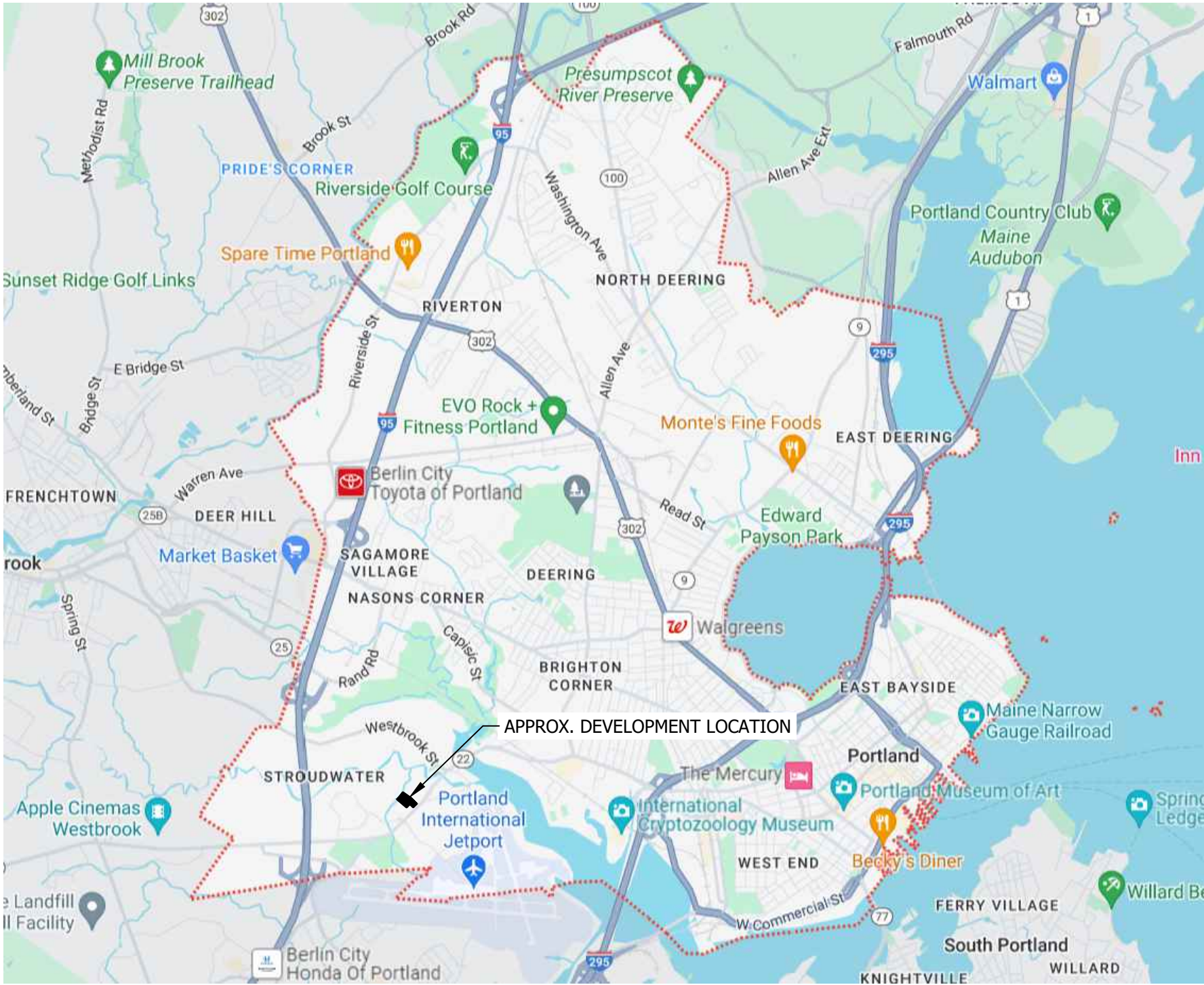
CIVIL ENGINEER:
GREENMARS DEVELOPMENT
30 EXCHANGE STREET
PORTLAND, MAINE 04101
TRAVIS LETELLIER, P.E.

ARCHITECT:
INVIVID ARCHITECTURE
631 STEVENS AVE
PORTLAND, MAINE 04103
VIRGINE STANLEY, ARCHITECT, PRINCIPAL

SURVEYOR:
BH2M
380B MAIN STREET
GORHAM, MAINE 04038
ROBERT LIBBY, PLS

TRAFFIC ENGINEER
BARTON & LOGUIDICE
383 US RT 1, SUITE 2A
SCARBOROUGH, MAINE 04074
WILLIAM J. BRAY, P.E.

SOIL SCIENTIST
SW COLE ENGINEERING, INC
286 PORTLAND ROAD
GRAY, MAINE 04039
EVAN WALKER, P.E.



LOCUS MAP
SCALE: 1"=10,000'

SHEET INDEX

C100	COVER/INDEX
C101	EC/BOUNDARY SURVEY PLAN (BH2M)
C102	SUBDIVISION PLAN
C103	DEMOLITION PLAN
C104	SITE/LANDSCAPE PLAN
C105	GRADING AND DRAINAGE PLAN
C106	PROFILE
C107	UTILITY PLAN
C108	EROSION CONTROL PLAN
C109	CONGRESS STREET IMPROVEMENTS PLAN
C401	EROSION CONTROL NOTES & DETAIL
C501-C507	CONSTRUCTION DETAILS
C508	DETAILED SIDEWALK GRADING PLAN
T100	TREE PLAN

FOR REVIEW
NOT FOR CONSTRUCTION



PREPARED FOR:
GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

PROJECT:
STROUDWATER
COMMONS
PARCEL ID: 217 A010001 & 217 A011001

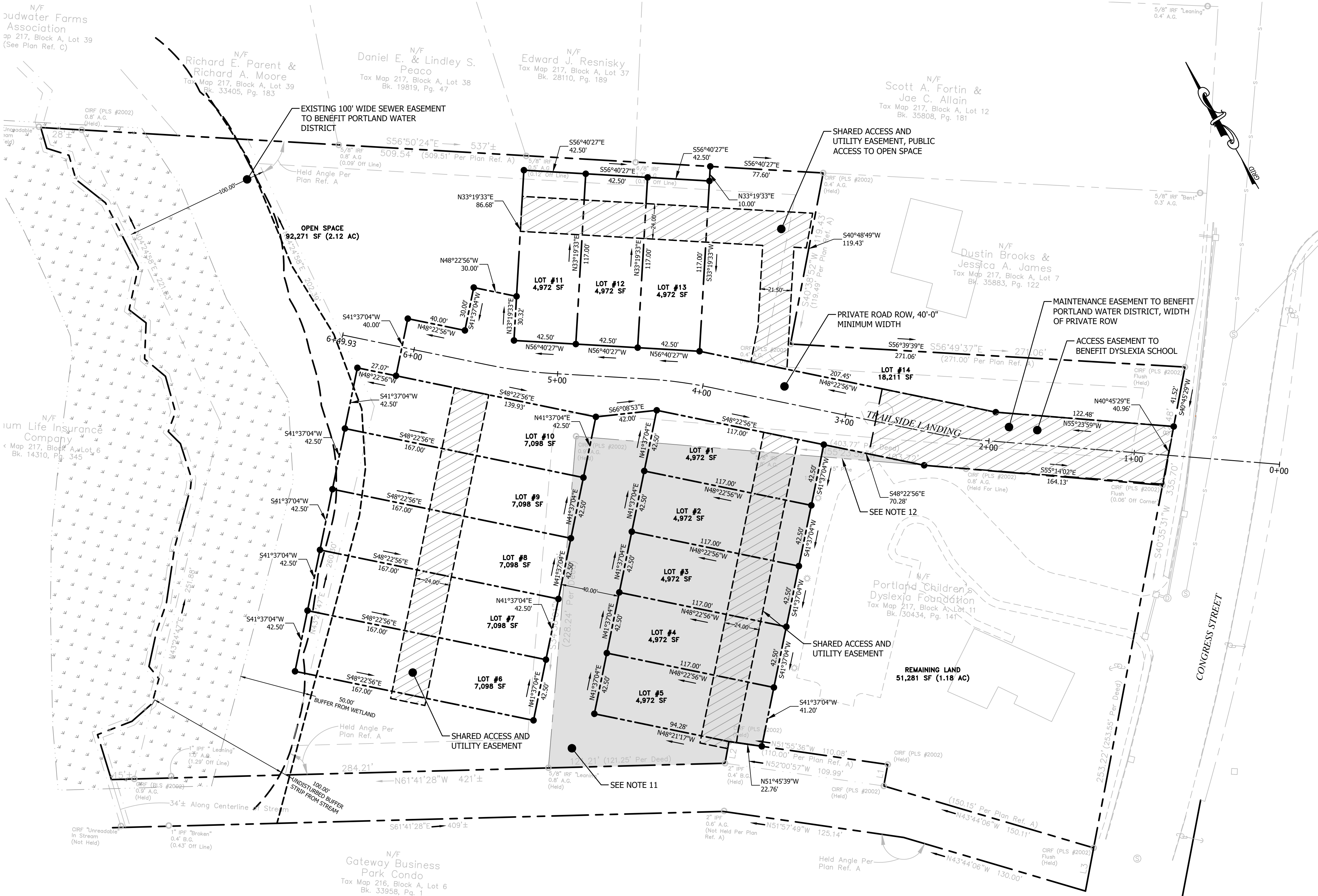
COVER & INDEX

REVISION:		DESCRIPTION	
NO.	DATE	APPR.	TAL
1	07/01/24	TAL	TAL
2	11/21/24	TAL	TAL
3	03/08/25	TAL	TAL
4	05/16/25	TAL	TAL
5	07/04/25	TAL	TAL

DRAWN:	TAL
SCALE:	NOTED
DATE:	4/17/2024

SHEET:

C100



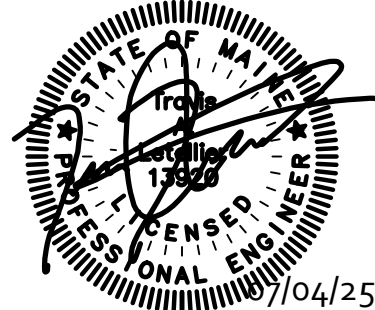
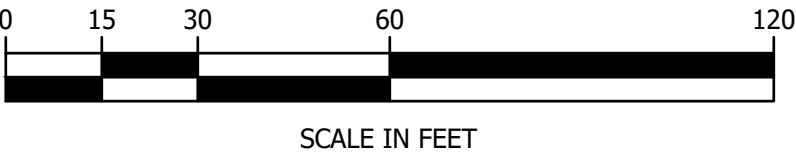
- PLAN REFERENCES
- "PLAN OF LAND OF MASONIC TRUSTEES OF PORTLAND", DATED NOVEMBER 2010, B Y LAND SERVICES INC. AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 211, PAGE 111.
 - "STATE OF MAINE, DEPARTMENT OF TRANSFORMATIONS, RIGHT OF WAY MAP, STATE AND HIGHWAY "7", DATED APRIL 1993 AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 197, PAGES 204-205.
 - "FINAL SUBDIVISION PLAN, RIVERS EDGE", DATED APRIL 2001, FOR STROUDWATER FARMS ASSOCIATES, BY OWNE HASKELL, INC. AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN PLAN BOOK 201, PAGE 494.
 - "SUBDIVISION PLAT, 1945 CONGRESS STREET", DATED APRIL 2016, FOR NORTHLAND ENTERPRISES, BY PINKHAM & GREER CIVIL ENGINEERS, JOB NUMBER 13151.

- GENERAL NOTES
- THE SITE, MAP 217, BLOCK A, LOT 10, IS OWNED BY PORTLAND/ST. ALBANS, CORP AS RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 29756 PAGE 145.
 - AREA OF EXISTING LOT = 4.037 ACRES (175,874 S.F.)
AREA OF DEVELOPMENT LOT w/PORITION OF 217-A-11 = 4.818 ACRES (209,865 S.F.)
 - ZONING REQUIREMENTS: ZONE: RESIDENTIAL 1 (RN-1)
 - MIN. LOT AREA 6,500 SF
 - STREET FRONTAGE 40 FT.
 - MIN. FRONT YARD 20 FT.
 - MIN. REAR YARD 25 FT.
 - MIN. SIDE YARD 8 FT.
 - MAX. IMPERVIOUS AREA 70%
 - MAX. BUILDING HEIGHT 35 FT.
 - BASE DENSITY 4 UNITS PER LOT
 - REQUIREMENT FOR CONSERVATION RESIDENTIAL DEVELOPMENT
 - MIN. LOT AREA 3,250 SF
 - STREET/OPEN SPACE FRONTAGE 20 FT.
 - MIN. FRONT YARD 10 FT.
 - MIN. REAR YARD 12.5 FT.
 - MIN. SIDE YARD 5 FT.
 - MAX. IMPERVIOUS AREA n/a FOR LOTS UNDER 5,000 SF
 - MAX. BUILDING HEIGHT 35 FT.
 - WETLANDS SHOWN ARE DELINEATED FROM THE US FISH & WILDLIFE SERVICE'S NATIONAL WETLANDS INVENTORY ONLINE MAPPING
 - ALL NEW HOMES IN THE STROUDWATER COMMONS SUBDIVISION WILL REQUIRE SPRINKLER SYSTEMS.
 - ALL STORMWATER INFRASTRUCTURE WITHIN THE DEVELOPMENT AND PRIVATE ROW SHALL BE THE RESPONSIBILITY OF THE STROUDWATER COMMONS HOMEOWNERS ASSOCIATION AS DESCRIBED IN THE STORMWATER DRAINAGE SYSTEM MAINTENANCE AGREEMENT TO BE RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.
 - RIGHT-OF-WAY MONUMENTS AND COVERS SHOWN SHALL BE SET BY THE CONTRACTOR IN ACCORDANCE WITH THE CITY OF PORTLAND TECHNICAL STANDARDS MANUAL.
 - AN ELEVATION BENCHMARK SHALL BE ESTABLISHED ON AT LEAST ONE OF THE NEW STREET MONUMENTS, AND IT SHALL BE SHOWN AND DESCRIBED ON THE AS-BUILT PLAN FOR THIS PROJECT.
 - AT LEAST TWO OF THE NEW STREET MONUMENTS SHALL BE LABELED WITH STATE PLANE COORDINATES ON A REVISED COPY ON THE SUBDIVISION PLAN.
 - SUBDIVISION IS SUBJECT TO A STORMWATER DRAINAGE SYSTEM MAINTENANCE AGREEMENT AND BY LAWS OF THE STROUDWATER COMMONS HOMEOWNER'S ASSOCIATION.
 - TRAILSIDE LANDING SHALL BE A PRIVATE CITY STREET
 - OPEN SPACE SHALL BE OWNED BY THE CONDO/HOMEOWNERS ASSOCIATION
 - A PORTION, 33,991 SQUARE FEET, OF PARCEL #217-A-11 SHALL BE COMBINED WITH PARCEL #217-A-10 FOR THE PROPOSED SUBDIVISION.
 - A PORTION, 297 SQUARE FEET, OF PARCEL #217-A-10 SHALL BE COMBINED WITH THE REMAINING LAND OF PARCEL #217-A-11.
 - ALL UTILITIES WITHIN THE DEVELOPMENT AND PRIVATE ROW SHALL BE OWNED AND MANAGED BY THE HOMEOWNERS WITHIN STROUDWATER COMMONS.

LEGEND

- #5 REBAR WITH PLASTIC CAP (PROPOSED)
- SET CITY OF PORTLAND RIGHT-OF-WAY MONUMENT & COVER (PROPOSED)
- FOUND IRON (SIZE & TYPE AS NOTED)
- UTILITY POLE (NUMBER AS NOTED)
- GUY WIRE ANCHOR
- BOUNDARY LINE
- RIGHT-OF-WAY LINE
- ABUTTER LINE
- BUILDING SETBACK
- OVERHEAD UTILITY
- EASEMENT
- NOW OR FORMERLY OWNED BY DEED BOOK AND PAGE (CCRD)
- TAX MAP--LOT
- WETLAND

FOR REVIEW
NOT FOR CONSTRUCTION



APPROVED BY THE CITY OF
PORTLAND PLANNING BOARD

CHAIRPERSON	DATE

LOT	MIN. LOT AREA	PROPOSED LOT AREA	MIN. LOT FRONTAGE	PROPOSED LOT FRONTAGE
1	3,250 SF	4,972 SF	20'	42.50'
2		4,972 SF		42.50'
3		4,972 SF		42.50'
4		4,972 SF		42.50'
5		4,972 SF		42.50'
6		7,098 SF		42.50'
7		7,098 SF		42.50'
8		7,098 SF		42.50'
9		7,098 SF		42.50'
10		7,098 SF		42.50'
11		4,972 SF		42.50'
12		4,972 SF		42.50'
13		4,972 SF		42.50'
14	6,500 SF	18,211 SF	40'	329.93'

- CONDITIONS OF APPROVAL
- [CONDITION 1]
 - [CONDITION 2]



PREPARED FOR:
PROJECT:

GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

STROUDWATER
COMMONS
PARCEL ID: 217 A010001 & 217 A011001

TITLE:

SUBDIVISION PLAN

REVISION:

NO.	DATE	DESCRIPTION
1	07/01/24	CITY SITE PLAN SUBDIVISION SUBMISSION
2	11/21/24	TAL RESPONSE TO CITY REVIEW COMMENTS
3	03/08/25	TAL REVISED PER CONS. RES. DEV. STANDARDS
4	05/16/25	TAL REVISED PER STAFF COMMENTS
5	07/04/25	TAL REVISED PER PLANNING STAFF COMMENTS

DRAWN: TAL

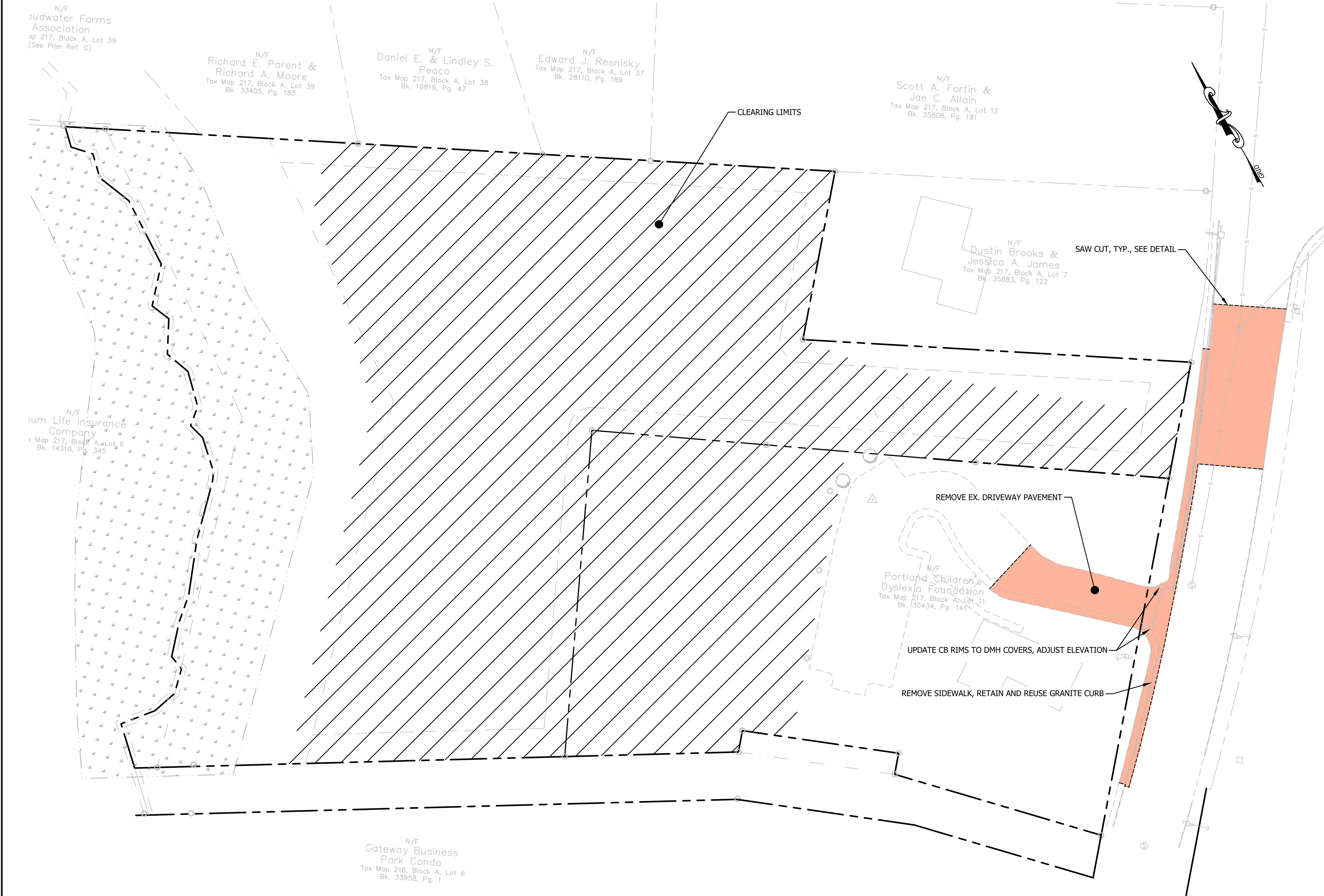
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DATE: 4/17/2024

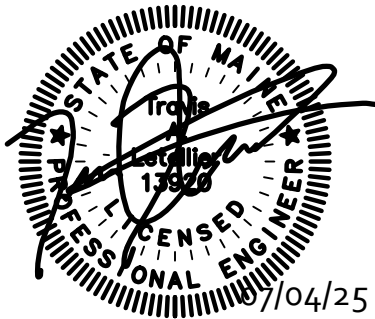
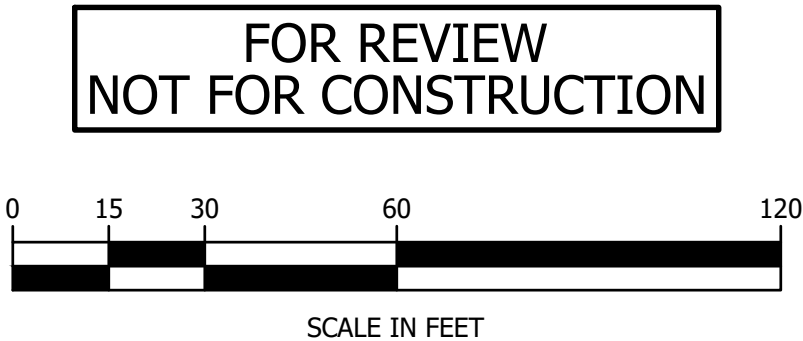
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- DEMOLITION NOTES
1. FIELD VERIFICATION – CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO COMMENCING ANY DEMOLITION. REPORT DISCREPANCIES TO THE ENGINEER FOR RESOLUTION.
 2. UTILITY LOCATING & PROTECTION – CONTACT DIG SAFE AND ALL AFFECTED UTILITY OWNERS A MINIMUM OF 72 HOURS BEFORE EXCAVATION. LOCATE, EXPOSE, AND PROTECT ACTIVE UTILITIES; SUPPORT OR CAP AS REQUIRED. DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED IMMEDIATELY AT CONTRACTOR'S EXPENSE.
 3. EROSION & SEDIMENT CONTROLS – INSTALL AND MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES (SILT FENCE, INLET PROTECTION, STABILIZED CONSTRUCTION ENTRANCE, ETC.) PRIOR TO LAND-DISTURBING ACTIVITIES AND KEEP IN EFFECTIVE CONDITION UNTIL FINAL STABILIZATION IS ACHIEVED.
 4. TREE REMOVALS & PROTECTION – REMOVE TREES ONLY WITHIN THE LIMITS OF WORK AS SHOWN ON THE PLANS. GRIND STUMPS A MINIMUM OF 6 INCHES BELOW FINISHED GRADE. INSTALL TREE-PROTECTION FENCING AROUND TREES TO REMAIN PER DETAIL; NO STORAGE OR EQUIPMENT WITHIN DRIPLINE. SEE TREE PLAN, T100, FOR LOCATIONS OF PROTECTED TREES.
 5. SIDEWALK REMOVAL – SAW-CUT NEAT, STRAIGHT JOINTS AT LIMITS OF REMOVAL. REMOVE EXISTING CONCRETE SIDEWALK, CURB, AND GRANULAR BASE AS INDICATED. DISPOSE OF DEBRIS OFF-SITE AT A LICENSED FACILITY.
 6. PAVEMENT SAW-CUTTING & REMOVAL – SAW-CUT EXISTING ASPHALT PAVEMENT ALONG PROPOSED TRENCH LIMITS BEFORE EXCAVATION. REMOVE PAVEMENT, BASE COURSE, AND UNSUITABLE SUBGRADE WITHIN CUT LINES AND DISPOSE OFF-SITE.
 7. UTILITY INSTALLATION & TRENCH BACKFILL – EXCAVATE TRENCHES, INSTALL UTILITIES, AND BACKFILL IN ACCORDANCE WITH UTILITY SPECIFICATIONS. COMPACT BACKFILL IN MAXIMUM 12-INCH LIFTS TO 95% OF MODIFIED PROCTOR DENSITY. PLACE A TEMPORARY HOT-MIX PATCH WITHIN 24 HOURS; RESTORE FULL-DEPTH PAVEMENT AFTER UTILITY TESTING AND ACCEPTANCE.
 8. MASS GRADING & EARTHWORK – PERFORM CUT, FILL, AND MASS GRADING TO ACHIEVE DESIGN SUBGRADE ELEVATIONS. STOCKPILE OR DISPOSE OF EXCESS SOIL AS DIRECTED. IMPORTED FILL SHALL MEET PROJECT GRADATION AND COMPACTION REQUIREMENTS.
 9. DUST CONTROL – PROVIDE WATER OR OTHER DUST-CONTROL MEASURES AS NECESSARY TO PREVENT AIRBORNE DUST FROM LEAVING THE SITE. CLEAN ADJACENT ROADWAYS AT THE END OF EACH WORKDAY.
 10. NOISE & WORK HOURS – CONDUCT DEMOLITION AND CONSTRUCTION OPERATIONS IN COMPLIANCE WITH CITY OF PORTLAND ORDINANCES. LIMIT WORK TO APPROVED HOURS UNLESS OTHERWISE AUTHORIZED.
 11. MATERIAL DISPOSAL & RECYCLING – DISPOSE OF DEMOLITION DEBRIS, CONCRETE, ASPHALT, AND TREE WASTE AT APPROVED RECYCLING OR DISPOSAL FACILITIES IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS. PROVIDE WEIGHT SLIPS UPON REQUEST.
 12. TRAFFIC & PEDESTRIAN CONTROL – MAINTAIN SAFE VEHICULAR AND PEDESTRIAN CIRCULATION. FURNISH SIGNAGE, BARRIERS, AND QUALIFIED FLAGGERS DURING OPERATIONS IMPACTING PUBLIC WAYS. COORDINATE LANE CLOSURES AND DETOURS WITH THE CITY ENGINEER A MIN. 48 HOURS IN ADVANCE.
 13. SITE RESTORATION – UPON COMPLETION OF DEMOLITION, GRADE DISTURBED AREAS SMOOTH, PLACE TOPSOIL, AND SEED OR PAVE AS SPECIFIED. RESTORE ALL OFF-SITE AREAS, DRIVEWAYS, AND LANDSCAPING DAMAGED BY CONSTRUCTION TO EQUAL OR BETTER CONDITION.



PREPARED FOR:

GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

PROJECT:

**STROUDWATER
COMMONS**
PARCEL ID: 217 A010001 & 217 A011001

TITLE:

DEMOLITION PLAN

REVISION:

NO.	DATE	DESCRIPTION
1	07/01/24	CITY SITE PLAN SUBMISSION
2	11/21/24	RESPONSE TO CITY REVIEW COMMENTS
3	03/08/25	REVISED PER CONS. RES. DEV. STANDARDS
4	05/16/25	REVISED PER STAFF COMMENTS
5	07/04/25	REVISED PER PLANNING STAFF COMMENTS

DRAWN:

TAL

SCALE:

NOTED

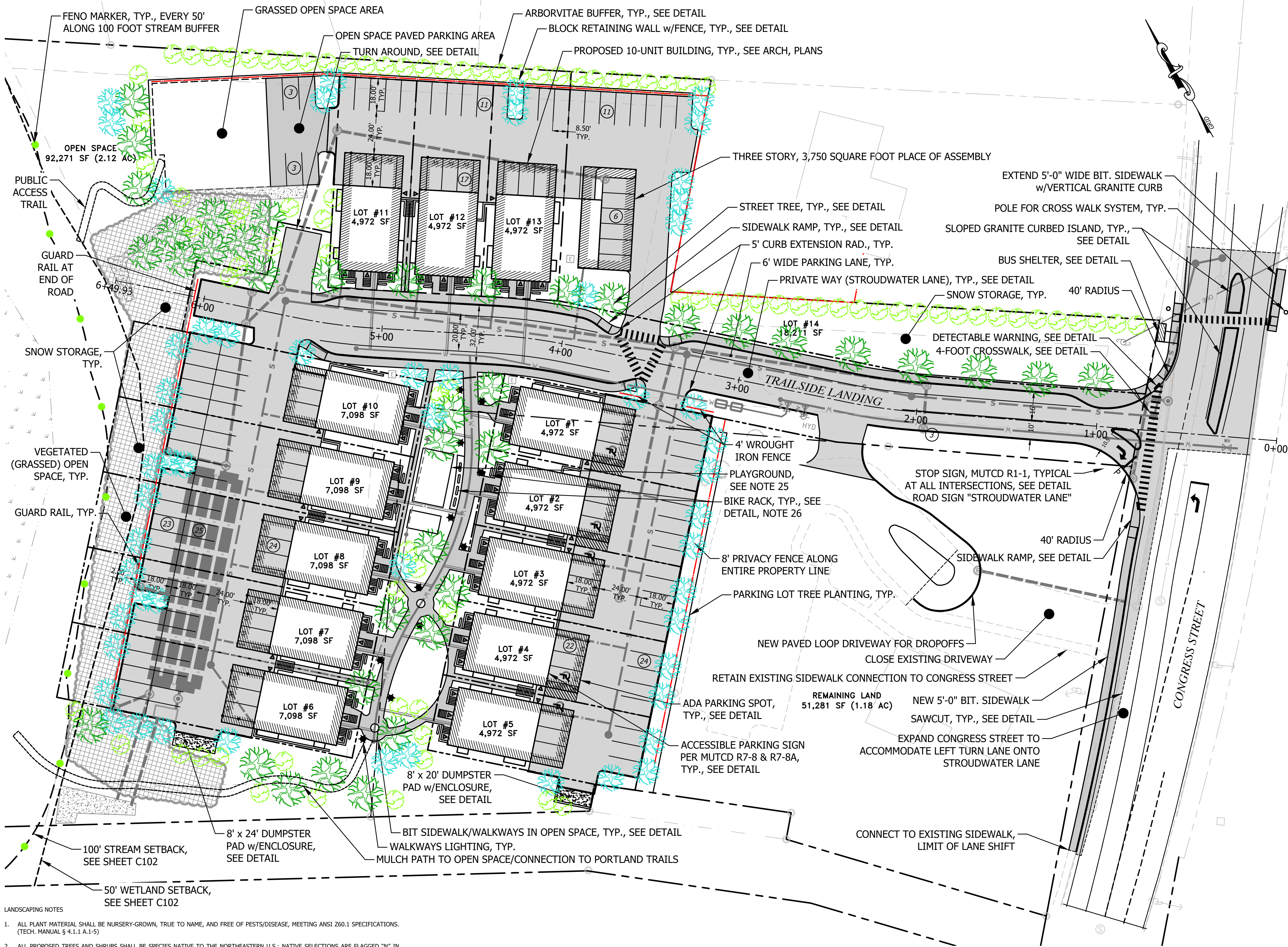
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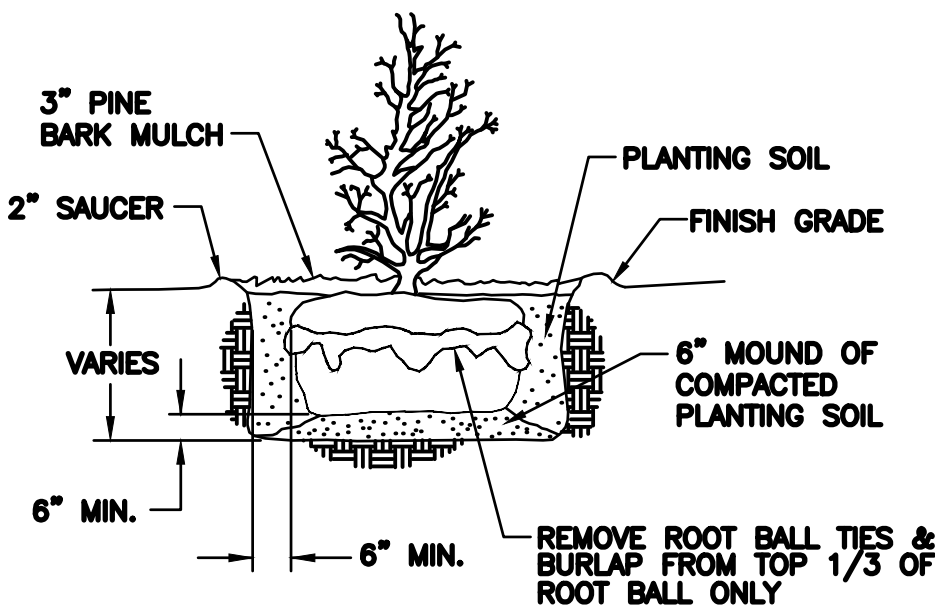
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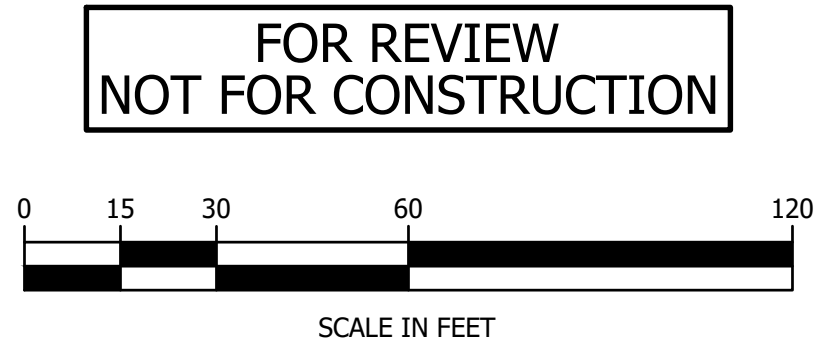
- LANDSCAPING NOTES
- ALL PLANT MATERIAL SHALL BE NURSERY-GROWN, TRUE TO NAME, AND FREE OF PESTS/DISEASE, MEETING ANSI Z60.1 SPECIFICATIONS. (TECH. MANUAL § 4.1.1 A.1-5)
 - ALL PROPOSED TREES AND SHRUBS SHALL BE SPECIES NATIVE TO THE NORTHEASTERN U.S.; NATIVE SELECTIONS ARE FLAGGED "N" IN THE SCHEDULE. (TECH. MANUAL § 4.1.1 A.9)
 - NO SPECIES LISTED BY THE CITY AS INVASIVE—OR ANY ARTIFICIAL/INORGANIC "PLANTS"—SHALL BE INSTALLED. (TECH. MANUAL § 4.1.1 A.3)
 - THE SERVICE YARD/DUMPSTER AREA SHALL BE FULLY SCREENED BY A 6 FT SOLID CEDAR FENCE BACKED BY A STAGGERED ARBORVITAE HEDGE. (LUC § 13.6.2 B.2.A)
 - COURTYARD PAVING SHALL BE LIGHT-COLORED CONCRETE PAVERS OR APPROVED EQUAL WITH AN INITIAL SRI ≥ 39, SATISFYING HARDSCAPE SOLAR-REFLECTANCE REQUIREMENTS. (LUC § 13.6.2 B.4)
 - ALL STREET TREES TO BE SET IN 5 FT × 10 FT GRANITE-CURBED WELLS WITH WELDED-STEEL GRATES PER CITY FIGURE IV-4A. (TECH. STANDARDS MANUAL § IV)
 - THE DESIGNATED SNOW-STORAGE POCKET IS PLANTED WITH SALT-TOLERANT RED-OSIER DOGWOOD AND SWITCHGRASS OR APPROVED EQUAL; GRADING DIRECTS MELTWATER TO THE ADJACENT STORMWATER COLLECTION SYSTEM. (TECH. MANUAL § 4.1.5 C.4)
 - SNOW PILES SHALL NOT IMPEDE DRAINAGE STRUCTURES NOR ENCROACH UPON SIDEWALKS OR PROPERTY LINES; A 3 FT SETBACK IS DIMENSIONED ON THE GRADING PLAN. (LUC § 13.6 D.3)
 - PLANT INSTALLATION SHALL OCCUR APRIL 1 – JULY 1 OR SEPTEMBER 1 – NOVEMBER 1; FALL BACK-UP DATES ARE NOTED IN THE CONSTRUCTION SCHEDULE. (TECH. MANUAL § 4.1.5 D.1)
 - ALL EXPOSED SOILS TO BE HYDRO-SEEDED IMMEDIATELY AFTER FINAL GRADING; SLOPES STEEPER THAN 5 % RECEIVE COIR MATTING AND MEADOW MIX. (TECH. MANUAL § 4.1.5 D.3)
 - CONTRACTOR SHALL REPLACE ANY DEAD, DISEASED, OR DAMAGED PLANT MATERIAL WITHIN ONE YEAR OF INSTALLATION. (TECH. MANUAL § 4.1.5 D.4)
 - A LANDSCAPE PERFORMANCE BOND EQUAL TO 125 % OF REMAINING PLANT-MATERIAL COST SHALL BE POSTED IF LANDSCAPING IS NOT COMPLETE AT ISSUANCE OF THE CERTIFICATE OF OCCUPANCY. (LUC § 13.10.2; TECH. MANUAL § 4.1.5 D.2)

PLANTING SCHEDULE				
QUANTITY	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT	SYMBOL
48	ACER RUBRUM 'RED SUNSET' ¹	RED SUNSET MAPLE ¹	25'-45'	
55	CARPINUS BETULUS ²	EUROPEAN HORNBEAM ²	>25'	
100	THUJA OCCIDENTALIS 'SMARAGD' ³	EMERALD GREEN ARBORVITAE	12'-35'	

- ¹ VARY NATIVE SPECIES FROM CITY OF PORTLAND APPROVED TREE LIST (SMALL/MEDIUM STREET TREES)
² VARY NATIVE SPECIES FROM CITY OF PORTLAND APPROVED TREE LIST (SMALL ORNAMENTAL OR NATURALIZE)
³ EXCLUDING PERIMETER BUFFERING VARY SPECIES PER THE CITY OF PORTLAND APPROVED TREE LIST (CONIFERS)



TYPICAL SHRUB PLANTING DETAIL
N.T.S.



GENERAL NOTES

- THE SITE, MAP 217, BLOCK A, LOT 10, IS OWNED BY PORTLAND/ST. ALBANS, CORP AS RECORDED IN CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 29756 PAGE 145.
 - AREA OF EXISTING LOT = 4.037 ACRES (175,874 S.F.)
AREA OF DEVELOPMENT LOT W/PORITION OF 217-A-11 = 4.818 ACRES (209,865 S.F.)
 - ZONING REQUIREMENTS: ZONE: RESIDENTIAL 1 (RN-1)
 - MIN. LOT AREA 6,500 SF
 - STREET FRONTAGE 40 FT.
 - MIN. FRONT YARD 20 FT.
 - MIN. REAR YARD 25 FT.
 - MIN. SIDE YARD 8 FT.
 - MAX. IMPERVIOUS AREA 70%
 - MAX. BUILDING HEIGHT 35 FT.
 - BASE DENSITY 4 UNITS PER LOT
- REQUIREMENT FOR CONSERVATION RESIDENTIAL DEVELOPMENT
- MIN. LOT AREA 3,250 SF
 - STREET/OPEN SPACE FRONTAGE 20 FT.
 - MIN. FRONT YARD 10 FT.
 - MIN. REAR YARD 12.5 FT.
 - MIN. SIDE YARD 5 FT.
 - MAX. IMPERVIOUS AREA N/A FOR LOTS UNDER 5,000 SF
 - MAX. BUILDING HEIGHT 35 FT.
- SITE CLEARING SHALL BE LIMITED TO PHASE 1 WHEN IT IS CONSTRUCTED. THE AREA FOR PHASE 2 SHALL BE LEFT IN A NATURAL STATE UNTIL BUILDING PERMITS HAVE BEEN ISSUED FOR THE UNITS IN THAT PHASE. PRIOR TO CLEARING FOR THE CURRENT PHASE, THE CLEARING LIMITS SHALL BE FLAGGED.
 - PRIOR TO CONSTRUCTION THE TOWN ENGINEER/DIRECTOR OF PUBLIC WORKS SHALL APPROVE THE CONSTRUCTION DRAWINGS.
 - THE CONTRACTOR SHALL CONFIRM HORIZONTAL AND VERTICAL CONTROL BEFORE BEGINNING WORK.
 - ALL DISTURBED SURFACES NOT COVERED WITH OTHER MATERIALS SHALL RECEIVE 4" TOPSOIL, LOAM, & SEED.
 - CLEARING DEBRIS AND GRUBBINGS SHALL BE REMOVED, OR GROUND UP AND USED IN EROSION CONTROL. WHAT CANNOT BE RE-USED WILL BE SUBJECT TO BURNING, WITH COORDINATION FROM PORTLAND FIRE DEPARTMENT
 - THE LIMITS OF CLEARING SHALL BE LOCATED AND MARKED PRIOR TO CUTTING OF TREES.
 - TREES, SHRUBS, AND GROUNDCOVER IN AREAS NOT TO BE DISTURBED SHALL BE PROTECTED.
 - REMOVE DEAD WOOD, PRUNE AND CLEAN UP TRIMMED VEGETATION TO THE CLEARING LIMIT IN WOODED AREAS.
 - INSTALL TEMPORARY EROSION CONTROL BEFORE BEGINNING EARTHWORK. REMOVE WHEN UPSLOPE AREAS ARE STABILIZED
 - SEE PLUMBING AND ELECTRICAL PLANS FOR LOCATION AND INVERTS OF SLEEVES IN FOUNDATIONS.
 - ELECTRIC SERVICE SHALL BE INSTALLED IN CONDUIT UNDER PAVEMENT/CONC.
 - CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL SEWER, WATER, ELECTRICAL, AND SANITARY CONDUIT, MANHOLES, TRANSFORMERS, AND FITTINGS FOR APPROVAL.
 - ALL UNDERGROUND UTILITIES LOCATED ON THIS PLAN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 - ALL SIGNAGE AND PAVEMENT MARKINGS TO BE IN ACCORDANCE WITH THE MUTCD STANDARDS.
 - ALL ACCESS ROUTES TO BE CONSTRUCTED IN ACCORDANCE WITH ADA REQUIREMENTS.
 - ALL WATER SERVICE WORK TO BE COORDINATED WITH PORTLAND WATER DISTRICT STANDARDS.
 - DUCTILE IRON PIPE SHALL MEET THE REQUIREMENTS OF AWWA C150 AND C151, CLASS 52, AND HAVE PUSH ON OR FLANGED JOINTS AS REQUIRED. FITTINGS SHALL HAVE MECHANICAL JOINTS WITH RETAINER GLANDS.
 - SANITARY SEWER PIPE AND FITTINGS TO BE SDR-35 PVC.
 - INSTALL 2" RIGID STYROFOAM INSULATION OVER SANITARY SEWER IN AREAS WHERE THERE IS LESS THAN 4" OF COVER.
 - CONNECTIONS AT MANHOLES/CATCH BASINS SHALL HAVE A FLEXIBLE BOOT CAST ONTO THE BARREL AND SECURED WITH STAINLESS STEEL BANDS.
 - SEE SHEET C105 FOR GRADING, DRAINAGE, STORM DRAIN DATA & SHEET C108 FOR EROSION CONTROL MEASURES.
 - PLAYGROUND SURFACING SHALL BE WOODCHIPS AND OR A NON-SYNTHETIC MATERIAL APPROVED BY THE CITY.
 - BICYCLE PARKING:
 - 26.1. 78 TOTAL SPACES PROVIDED,
 - 26.2. 24 SECURE INTERIOR SPACES PROVIDED IN THE COMMUNITY BUILDING,
 - 26.3. 54 SECURE EXTERIOR SPACES PROVIDED BY 27 BIKE RACKS AT BUILDING ENTRANCES AND CENTRAL GREENWAY



PREPARED FOR:

GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

TITLE:

SITE/ LANDSCAPE PLAN

PROJECT:

STROUDWATER
COMMONS

PARCEL ID: 217 A010001 & 217 A011001

REVISION:

NO.	DATE	APPR.	DESCRIPTION
2	11-21-24	TAL	RESPONSE TO CITY REVIEW COMMENTS
3	03-08-25	TAL	REVISED PER CONS. RES. DEV. STANDARDS
4	05-16-25	TAL	REVISED PER STAFF COMMENTS
5	07-04-25	TAL	REVISED PER PLANNING STAFF COMMENTS
6	07-15-25	TAL	UPDATED PER PLANNING STAFF COMMENTS

DRAWN:

TAL

SCALE:

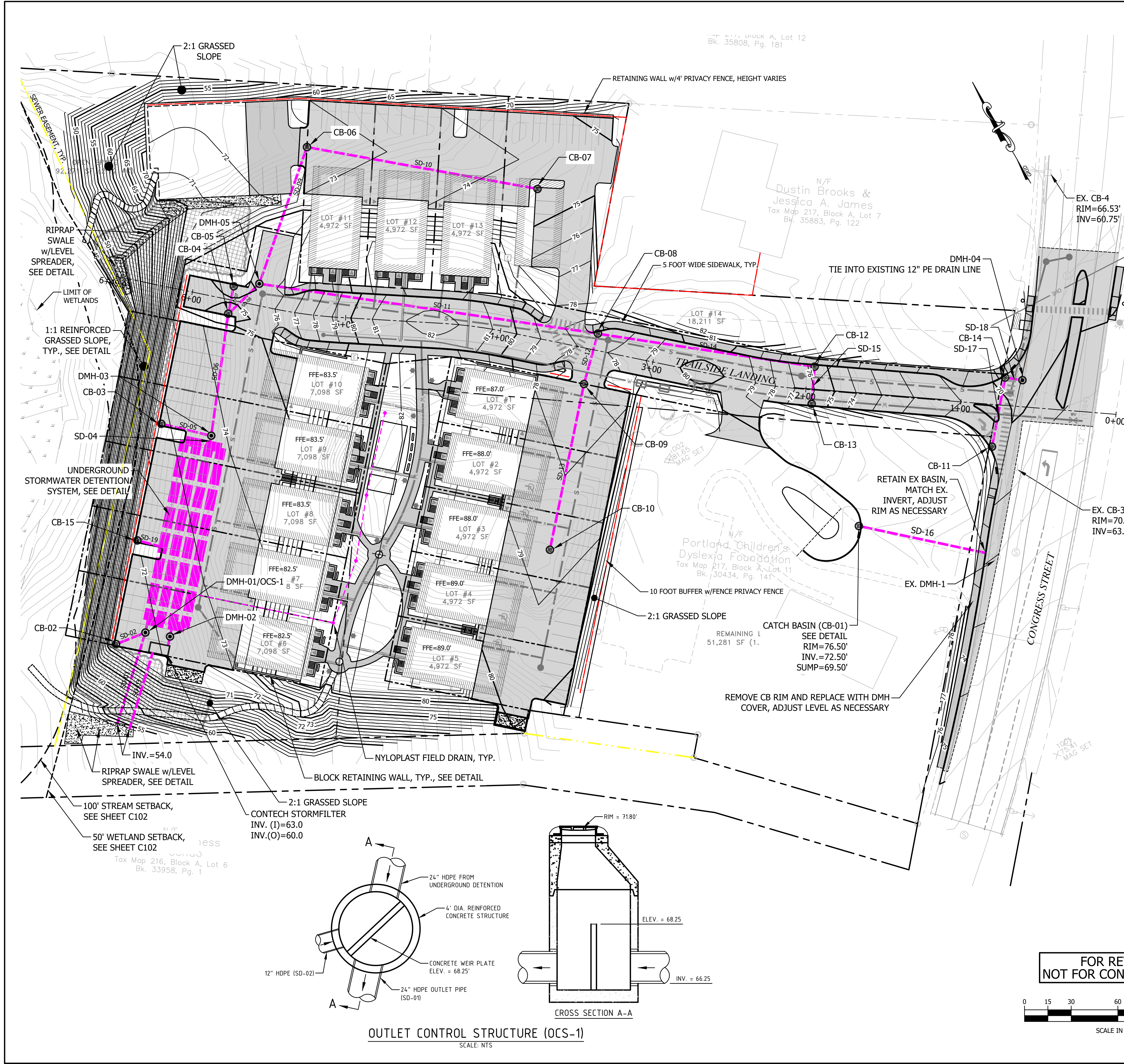
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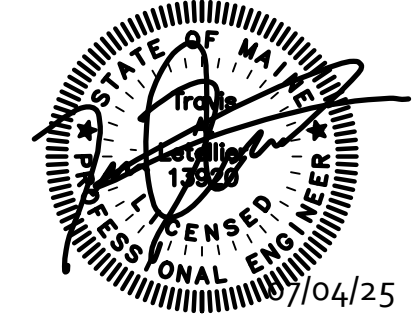
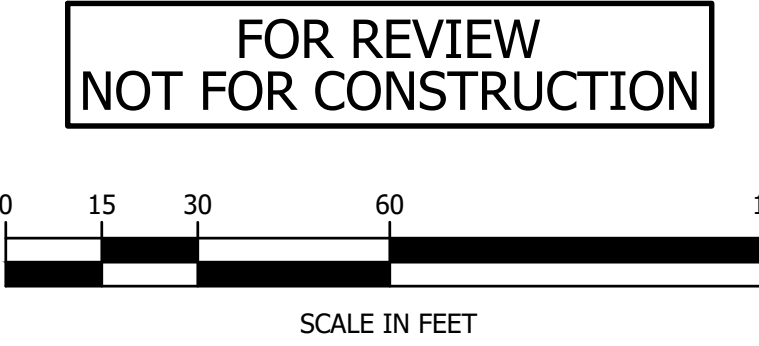
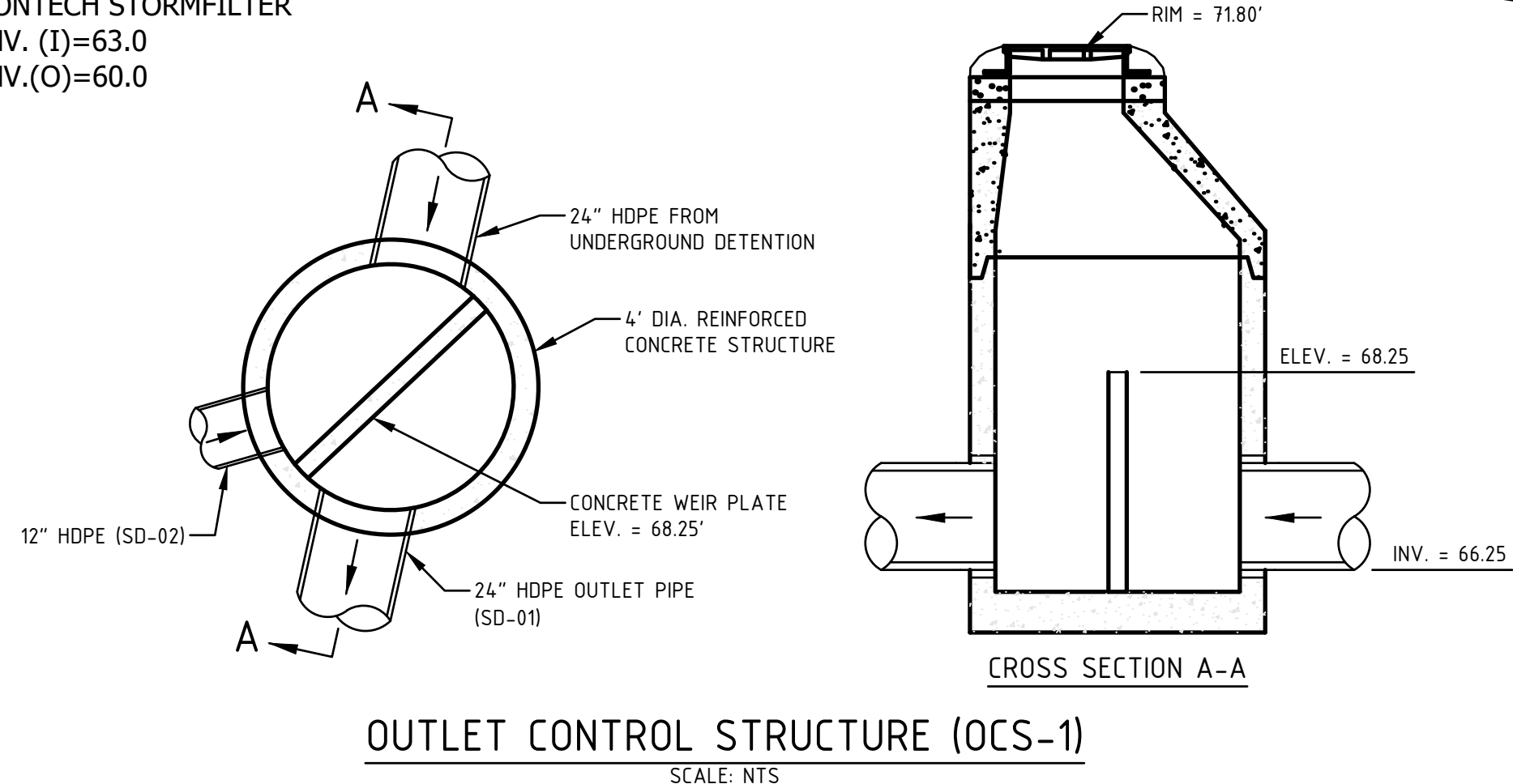
- GENERAL CONSTRUCTION SEQUENCE
1. INSTALL CONSTRUCTION ENTRANCE, SEE DETAIL.
 2. CUT AND CLEAR TREES WITHIN THE CLEARING LIMITS.
 3. INSTALL SEDIMENT FENCES, ROCK CHECK DAMS, AND OTHER APPROPRIATE EROSION CONTROL MEASURES AT LOCATIONS SHOWN ON THE PLANS AND AS NEEDED.
 4. GRUB SITE WITHIN GRADING LIMITS.
 5. STRIP AND STOCKPILE TOPSOIL AND INSTALL EROSION CONTROL MEASURES.
 6. INSTALL/ADJUST SEDIMENT FENCE, CHECK DAMS, AND HAYBALES, AS REQUIRED.
 7. PROCEED WITH WORK, LIMITING THE DURATION OF DISTURBANCE. THE MAXIMUM OF UNCOVERED DISTURBED EARTH AT ANY ONE TIME IS FIVE ACRES. THE MAXIMUM LENGTH OF TIME THAT DISTURBED EARTH MAY BE LEFT UNSTABILIZED IS 45 DAYS.
 8. BEGIN SEEDING AND MULCHING IMMEDIATELY AFTER GRADING. ALL DISTURBED AREAS SHALL BE STABILIZED WITH APPROVED METHODS WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
A) A BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
B) A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
C) A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
D) EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
 9. INSPECT ALL EROSION CONTROL MEASURES ON A DAILY BASIS AND AFTER EVERY 0.5 INCHES OF PRECIPITATION. MAINTAIN SEDIMENT FENCE, SEDIMENT TRAPS, HAY BALES, ETC., AS NECESSARY.
 10. PAVE DRIVEWAY AND PARKING AREAS.
 11. PLACE TOPSOIL, SEED AND MULCH.
 12. COMPLETE ALL REMAINING PERMANENT EROSION CONTROL STRUCTURES.

PIPE SCHEDULE				
PIPE	PIPE DIAMETER	PIPE LENGTH (FT)	PIPE SLOPE (FT/FT)	TYPE
SD-01	18"	58.6'	0.1877	ADS HP STORM PIPE
SD-02	12"	29.8'	0.0402	ADS HP STORM PIPE
SD-03	12"	24.7'	0.6072	ADS HP STORM PIPE
SD-04	24"	4.0'	FLAT	ADS HP STORM PIPE
SD-05	12"	28.0'	0.0100	ADS HP STORM PIPE
SD-06	24"	74.1'	FLAT	ADS HP STORM PIPE
SD-07	12"	13.0'	FLAT	ADS HP STORM PIPE
SD-08	18"	22.8'	0.0702	ADS HP STORM PIPE
SD-09	12"	88.0'	0.0100	ADS HP STORM PIPE
SD-10	12"	146.0'	0.0100	ADS HP STORM PIPE
SD-11	18"	215.0'	0.0100	ADS HP STORM PIPE
SD-12	12"	28.7'	0.0200	ADS HP STORM PIPE
SD-13	12"	103.8'	0.0200	ADS HP STORM PIPE
SD-14	12"	135.0'	0.0100	ADS HP STORM PIPE
SD-15	12"	29.0'	FLAT	ADS HP STORM PIPE
SD-16	12"	81.0'	FLAT	ADS HP STORM PIPE
SD-17	12"	40.2'	FLAT	ADS HP STORM PIPE
SD-18	12"	6.3'	0.0100	ADS HP STORM PIPE

STRUCTURE SCHEDULE				
STRUCTURE	RIM (FT)	INVERT IN (FT)	INVERT OUT (FT)	SUMP (FT)
CB-01	SEE PLAN			
CB-02	71.20		67.20 (SD-02)	64.20
CB-03	72.80		68.80 (SD-05)	65.80
CB-04	74.70	66.00 (SD-08) 70.00 (SD-07)	63.00 (SD-06)	60.00
CB-05	74.70		70.00 (SD-07)	67.00
CB-06	72.25	68.50 (SD-10)	68.50 (SD-09)	65.50
CB-07	74.50		70.00 (SD-10)	67.00
CB-08	77.30	69.85 (SD-12) 69.85 (SD-14)	69.85 (SD-11)	66.85
CB-09	77.10	70.42 (SD-13)	70.42 (SD-12)	67.42
CB-10	78.70		72.50 (SD-13)	69.50
CB-11	70.50		66.50 (SD-17)	63.50
CB-12	75.50	71.10 (SD-15)	71.10 (SD-14)	68.10
CB-13	75.50		71.10 (SD-15)	68.10
CB-14	69.80	66.50 (SD-17)	66.50 (SD-18)	68.75
DMH-1	SEE DETAIL			
DMH-2	71.80	63.00 (UGSD*)	63.00 (FILTER)	
DMH-3	73.75	63.00 (SD-06) 63.00 (SD-05)	63.00 (UGSD*)	
DMH-4	69.35	62.77 (EX. CB-3) 65.47 (SD-18)	62.75 (EX. CB-4)	
DMH-5	75.20	67.60 (SD-11) 67.60 (SD-09)	67.60 (SD-09)	
OCS-1	SEE DETAIL			

* UNDERGROUND STORMWATER DETENTION





GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

PROJECT:

STROUDWATER COMMONS
PARCEL ID: 217 A010001 & 217 A011001

TITLE:

GRADING & DRAINAGE PLAN

REVISION:

NO.	DATE	APPR.	DESCRIPTION
1	07/01/24	TAL	CITY SITE PLAN SUBMISSION
2	11/21/24	TAL	RESPONSE TO CITY REVIEW COMMENTS
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DRAWN:

TAL

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4/17/2024

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PREPARED FOR:

GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

PROJECT:

STROUDWATER
COMMONS
PARCEL ID: 217 A010001 & 217 A011001

TITLE:

ROAD PROFILE

REVISION:

NO.	DATE	APPR.	DESCRIPTION
1	07/01/24	TAL	CITY SITE PLAN SUBMISSION
2	11/21/24	TAL	RESPONSE TO CITY REVIEW COMMENTS
3	03/08/25	TAL	REVISED PER CONS. RES. DEV. STANDARDS
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5	07/04/25	TAL	REVISED PER PLANNING STAFF COMMENTS

DRAWN:

TAL

SCALE:

NOTED

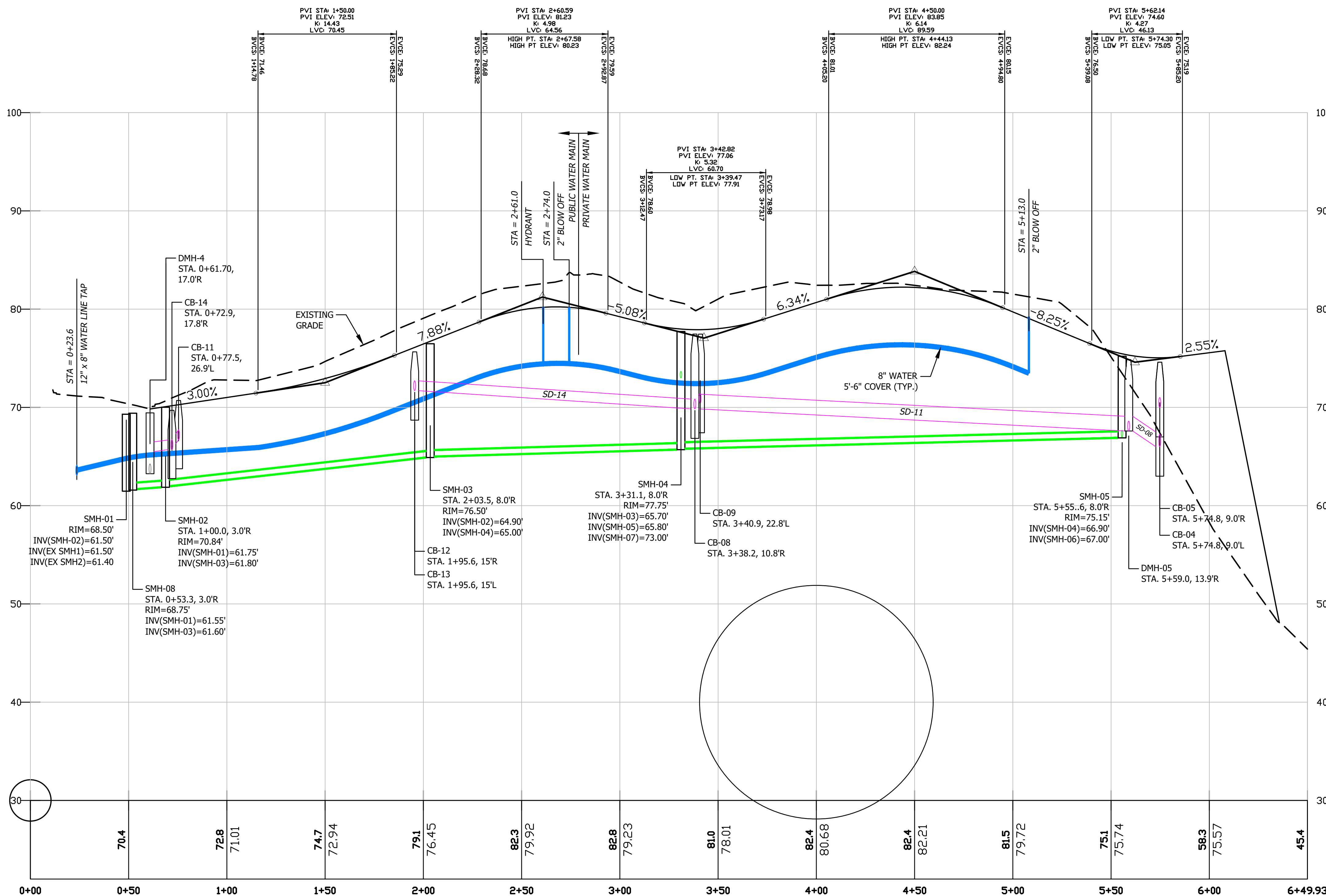
DATE:

4/17/2024

SHEET:

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7 of 20



ROAD PROFILE — TRAYSIDE LANDING

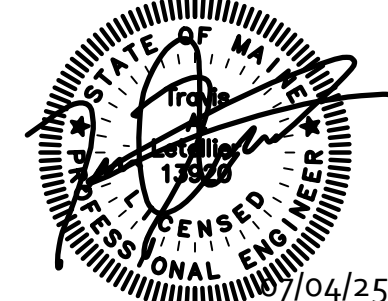
SCALE HORZ. = 1" = 30'

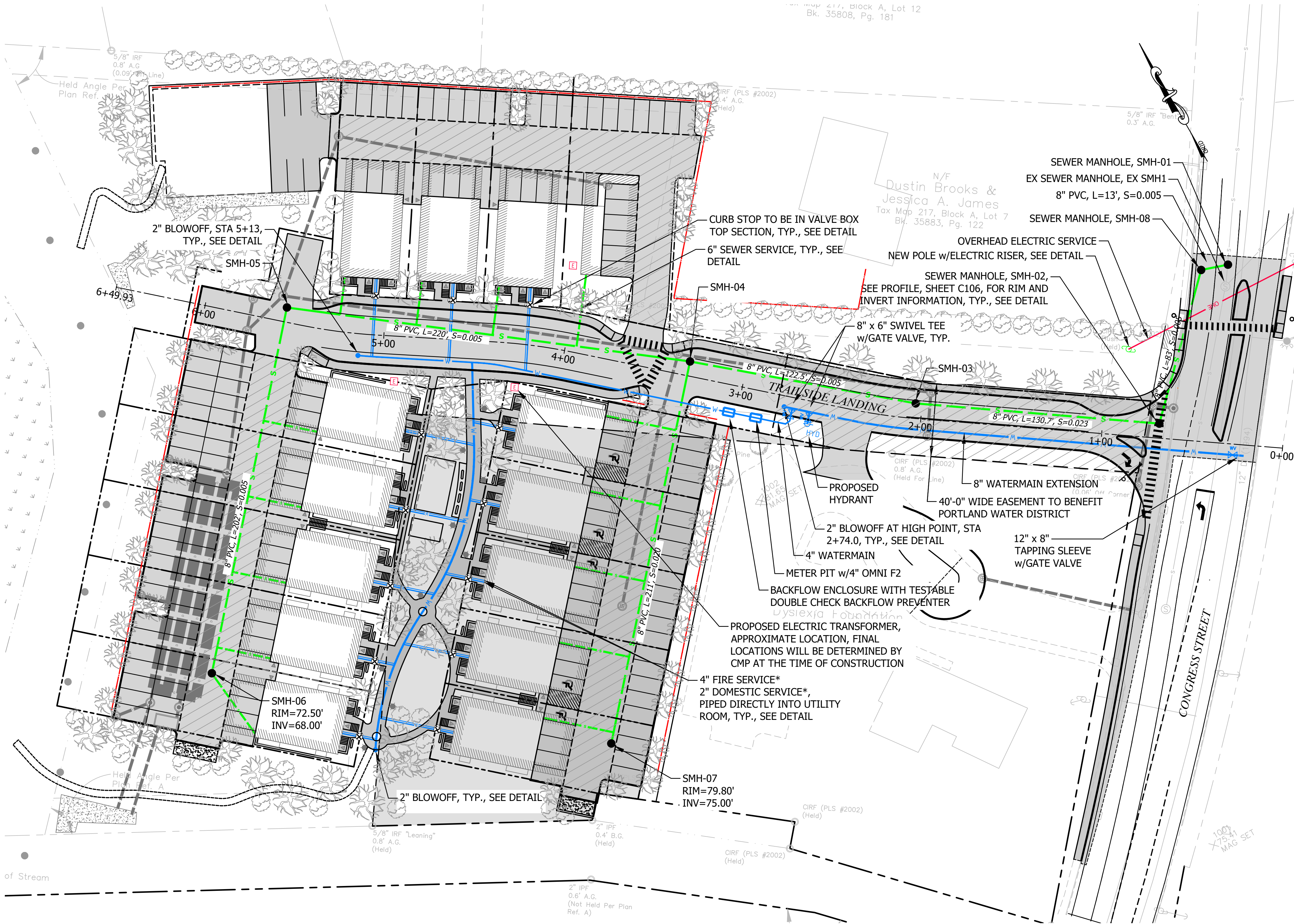
SCALE VERT. = 1" = 6'

CONSTRUCTION NOTES

- ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND HAVE BEEN DETERMINED BY SURFACE EVIDENCE AND/OR PREVIOUSLY GENERATED PLANS. NO GUARANTEE IS MADE THAT ALL UTILITIES ARE SHOWN OR WILL BE FOUND IN LOCATIONS INDICATED. THIS INFORMATION IS PROVIDED FOR REFERENCE AND THE CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES AND POINTS OF CONNECTION IN THE FIELD. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND RESTORATION OF ALL UTILITIES DISTURBED DURING CONSTRUCTION AT NO EXTRA EXPENSE TO THE OWNER.
- CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIM OR HERSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIM OR HERSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFORMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
- CONTRACTOR SHALL NOTIFY ENGINEER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND IN THE FIELD.
- THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ANY CHANGES AND/OR DEVIATIONS OF APPROVED PLANS NOT AUTHORIZED BY THE ARCHITECT/ENGINEER AND/OR CLIENT/OWNER.
- DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. ANY MODIFICATION TO SUIT FIELD DIMENSIONS AND CONDITIONS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY WORK.
- ALL SUBSURFACE UTILITY LINES, SHOWN HEREON, ARE BASED SOLELY ON THE FIELD LOCATION OF VISIBLE STRUCTURES, SMH'S, CB'S, HYDRANTS, ETC. IN CONJUNCTION WITH DESIGN AND/OR AS-BUILT PLANS SUPPLIED TO GREENMARS BY OTHERS. PRIOR TO ANY CONSTRUCTION, EXCAVATION, TEST BORINGS, DRILLING ETC. DIG SAFE MUST BE NOTIFIED AND A SITE IDENTIFICATION NUMBER, ALONG WITH A SAFE TO DIG DATE OBTAINED. THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING THE LOCATION, DEPTH AND MATERIAL OF ALL SUBSURFACE UTILITY LINES SHOWN HEREON, AND ON ANY AND ALL OTHERS LOCATED ON SITE WITHIN THE CONSTRUCTION AREA. CONTACT DIG-SAFE (888) DIG-SAFE PRIOR TO ANY EXCAVATION WORK.
- COORDINATE ALL ELECTRICAL WORK WITH CENTRAL MAINE POWER PRIOR TO CONSTRUCTION.
- ALL PAVEMENT MARKINGS AND PAINT STRIPING TO MEET THE STANDARDS OF THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- ALL WATER LINE WORK SHALL MEET PORTLAND WATER DISTRICT STANDARDS (PWD). COORDINATE ALL WORK WITH THE DISTRICT PRIOR TO CONSTRUCTION.

FOR REVIEW
NOT FOR CONSTRUCTION





STANDARD TRENCH NOTES - SEWER

- ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE SHALL BE REPLACED WITH BEDDING MATERIAL. SEE ALSO NOTE 4.
- BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM ORGANIC MATTER, CLAY, AND/OR LOAM MEETING ASTM C33 STONE SIZE NO. 67.

100% PASSING	1 INCH SCREEN
90-100% PASSING	3/4 INCH SCREEN
20-55% PASSING	3/8 INCH SCREEN
0-10% PASSING	#4 SIEVE
0-5% PASSING	#8 SIEVE

- SAND BLANKET: CLEAN SAND FREE FROM ORGANIC MATTER, SO GRADED THAT 100% PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 15% PASSES A #200 SIEVE.
- SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS, AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED FROM THE TRENCH DURING THE COURSE OF CONSTRUCTION, AFTER EXCLUDING DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, WET OR SOFT MUCK, PEAT OR CLAY, EXCAVATED LEDGE MATERIAL, AND ALL ROCKS OVER SIX INCHES IN LARGEST DIMENSION, OR ANY MATERIAL NOT APPROVED BY THE ENGINEER.

TRENCH BACKFILL IN CROSS-COUNTRY LOCATIONS SHALL BE SUITABLE MATERIAL AS DESCRIBED ABOVE, EXCEPT THAT TOP SOIL, LOAM, MUCK, OR PEAT MAY BE USED PROVIDED THAT THE COMPLETED CONSTRUCTION WILL BE STABLE AND ACCESS TO THE PIPE FOR MAINTENANCE AND RECONSTRUCTION IS PRESERVED. BACKFILL SHALL BE MOUNDED TO A HEIGHT OF SIX INCHES ABOVE THE ORIGINAL GROUND SURFACE

- SHEETING: ALL TRENCH SUPPORTS SHALL CONFORM TO OSHA STANDARDS. CONTRACTOR IS RESPONSIBLE FOR OSHA COMPLIANCE AND WORKER SAFETY THROUGHOUT CONSTRUCTION.
- TRENCH DIMENSIONS: W = MAXIMUM ALLOWABLE TRENCH WIDTH MEASURED 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER (D) OR LESS, W SHALL BE NO MORE THAN 36 INCHES; FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS THE PIPE OUTSIDE DIAMETER. W SHALL ALSO BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE. THE MAXIMUM ALLOWABLE TRENCH PAVEMENT PAYMENT WIDTH SHALL BE 8 FEET CENTERED OVER PIPE.
- PIPE INSULATION AT STORM DRAIN CROSSING: INSTALL 2" THICK RIGID FOAM INSULATION OVER SEWER AT STORM DRAIN CROSSINGS, EXTEND INSULATION 4 FEET EITHER SIDE OF STORM DRAIN ALONG SEWER.

STANDARD TRENCH NOTES - WATER

- ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE SHALL BE REPLACED WITH BEDDING MATERIAL. SEE ALSO NOTE 4.
- BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM ORGANIC MATTER, CLAY, AND/OR LOAM MEETING ASTM C33 STONE SIZE NO. 67.

100% PASSING	1 INCH SCREEN
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- WATER/SEWER SEPARATION: WATER MAINS SHALL BE SEPARATED FROM SANITARY SEWER BY A MINIMUM OF 10 FEET HORIZONTALLY AND A MINIMUM OF 18 INCHES VERTICALLY, WITH THE WATER MAIN ABOVE THE SEWER.
- PIPE COVER: COVER OVER WATER SHALL BE 5'-6" IN ALL LOCATIONS.

WATER SUPPLY GENERAL NOTES

1. GENERAL

BUILD THE WATER SUPPLY SYSTEM IN CONFORMANCE WITH THE WATER USE RULES, REGULATIONS AND CONSTRUCTION SPECIFICATIONS, AND THE PORTLAND WATER DISTRICT..

2. PIPE AND FITTING MATERIALS:

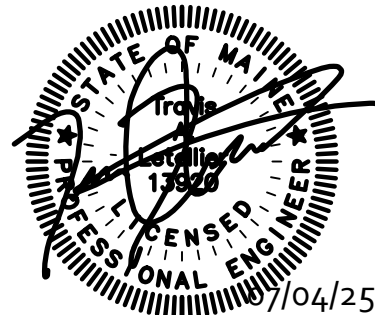
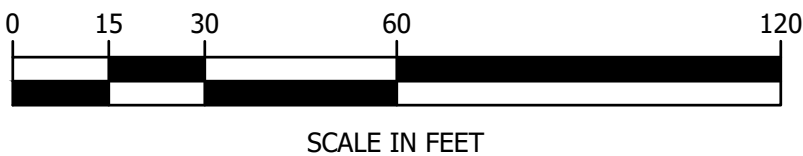
PIPES WITH DIAMETERS GREATER THAN 2 INCHES MUST BE DUCTILE IRON. ALL PIPES MUST HAVE A PRESSURE RATING OF 200 PSI OR GREATER.

- JOINT RESTRAINT: USE MECHANICALLY RESTRAINED JOINTS FOR THE ENTIRE LENGTH OF THE NEW 6" DI FIRE SERVICE LINE.

- PRESSURE TESTING: PRESSURE TEST IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT REQUIREMENTS OR ANSI/AWWA C600 IF AHJ DOES NOT HAVE A PREFERRED METHOD OF TESTING. MINIMUM TEST PRESSURE IS 1.5 x MAXIMUM SYSTEM PRESSURE OR 100 PSI, WHICHEVER IS GREATER.

- DISINFECTION: DISINFECT WATER MAIN AND DOMESTIC SERVICES IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT REQUIREMENTS AND ANSI/AWWA C651.

FOR REVIEW
NOT FOR CONSTRUCTION



PREPARED FOR:

GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

TITLE:

UTILITY PLAN

PROJECT:

STROUDWATER
COMMONS

PARCEL ID: 217 A010001 & 217 A011001

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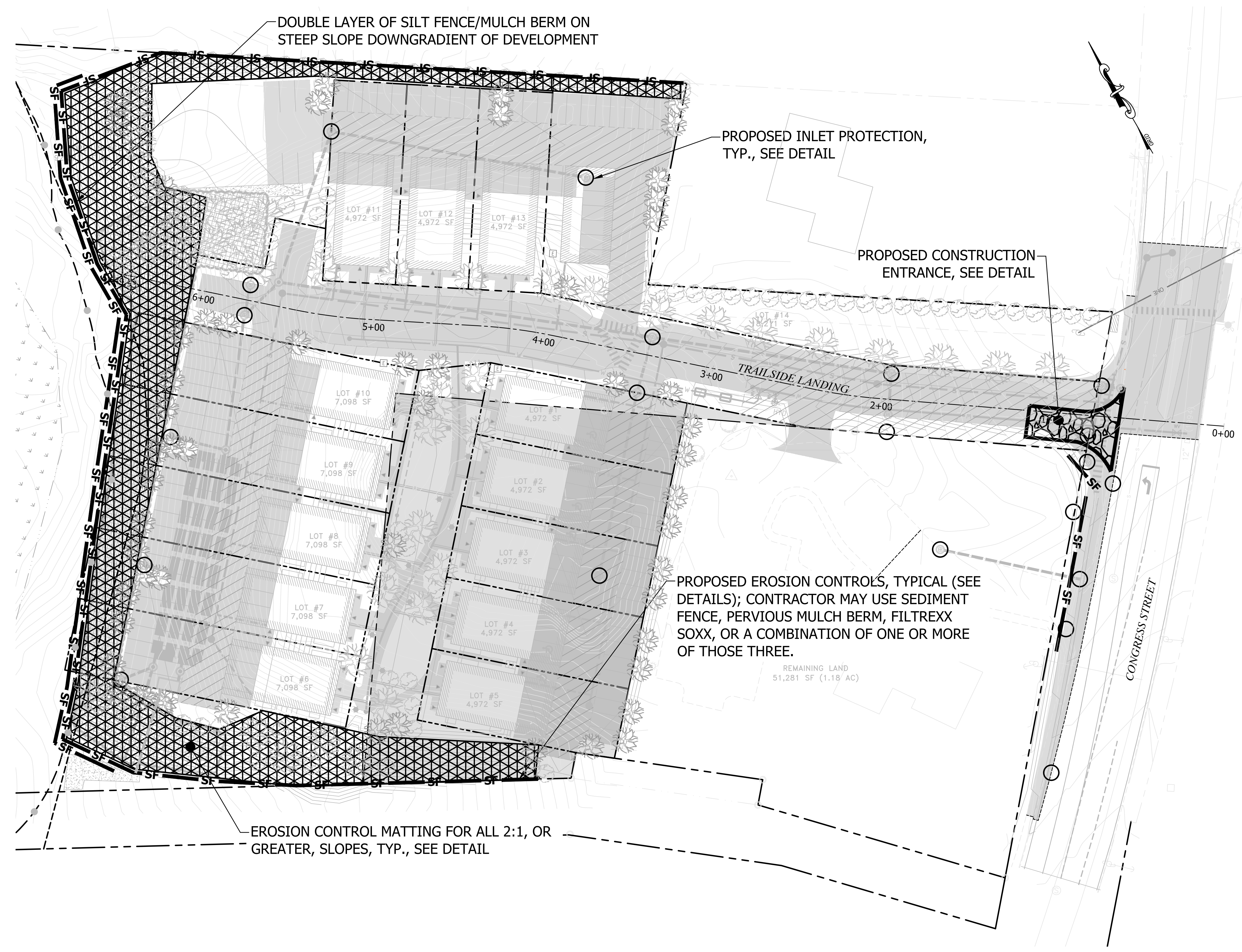
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DOUBLE LAYER OF SILT FENCE/MULCH BERM ON STEEP SLOPE DOWNGRADIENT OF DEVELOPMENT

PROPOSED INLET PROTECTION, TYP., SEE DETAIL

PROPOSED CONSTRUCTION ENTRANCE, SEE DETAIL

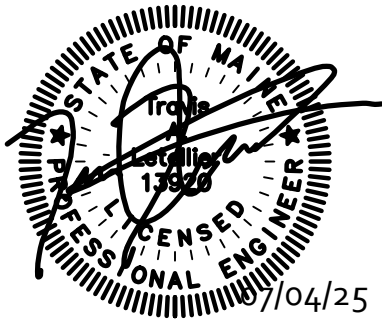
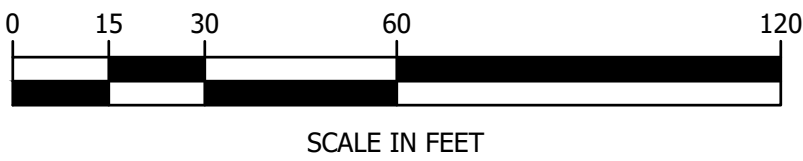
PROPOSED EROSION CONTROLS, TYPICAL (SEE DETAILS); CONTRACTOR MAY USE SEDIMENT FENCE, PERVIOUS MULCH BERM, FILTREXX SOXX, OR A COMBINATION OF ONE OR MORE OF THOSE THREE.

EROSION CONTROL MATTING FOR ALL 2:1, OR GREATER, SLOPES, TYP., SEE DETAIL

LEGEND

- SF MULCH BERM/EROSION CONTROL MIX OR SILT FENCE
- [Hatched Pattern] STABILIZED CONSTRUCTION ENTRANCE
- [Cross-hatched Pattern] EROSION CONTROL MATTING

FOR REVIEW
NOT FOR CONSTRUCTION



GENERAL EROSION CONTROL NOTES

A. KEEP SITE MODIFICATION TO A MINIMUM

1. CONSIDER FITTING THE BUILDING AND DRIVEWAY TO THE NATURAL TOPOGRAPHY. THIS REDUCES THE NEED FOR CUTS AND FILLS. AVOID EXTENSIVE GRADING THAT WOULD ALTER DRAINAGE PATTERNS OR CREATE VERY STEEP SLOPES.
2. EXPOSE AREAS OF BARE SOIL TO EROSION ELEMENTS FOR THE SHORTEST TIME POSSIBLE.
3. SAVE AND PROTECT DESIRABLE EXISTING VEGETATION WHERE POSSIBLE. ERECT BARRIERS TO PREVENT DAMAGE FROM CONSTRUCTION EQUIPMENT.
4. LIMIT THE GRADES OF SLOPES SO VEGETATION CAN BE EASILY ESTABLISHED AND MAINTAINED.
5. AVOID SUBSTANTIAL INCREASE IN RUNOFF LEAVING THE SITE.

B. MINIMIZE POLLUTION OF WATER DURING CONSTRUCTION ACTIVITIES

1. STOCKPILE TOPSOIL REMOVED FROM CONSTRUCTION AREA AND SPREAD OVER ANY DISTURBED AREAS PRIOR TO REVEGETATION. TOPSOIL STOCKPILES MUST BE PROTECTED FROM EROSION.
2. PROTECT BARE SOIL AREAS EXPOSED BY GRADING ACTIVITIES WITH TEMPORARY VEGETATION OR MULCHES.
3. USE SEDIMENT BASINS TO TRAP DEBRIS AND SEDIMENT WHICH WILL PREVENT THESE MATERIALS FROM MOVING OFF SITE.
4. USE DIVERSIONS TO DIRECT WATER AROUND THE CONSTRUCTION AREA AND AWAY FROM EROSION PRONE AREAS TO POINTS OF SAFE DISPOSAL.
5. USE TEMPORARY CULVERTS OR BRIDGES WHEN CROSSING STREAMS WITH EQUIPMENT.
6. PLACE CONSTRUCTION FACILITIES, MATERIALS, AND EQUIPMENT STORAGE AND MAINTENANCE AREAS AWAY FROM DRAINAGE WAYS.

C. PROTECT AREA AFTER CONSTRUCTION.

1. ESTABLISH GRASS OR OTHER SUITABLE VEGETATION ON ALL DISTURBED AREAS. SELECT SPECIES ADAPTED TO THE SITE CONDITIONS AND THE FUTURE USE OF THE AREA. FINAL GRADES SHALL BE SEED WITHIN 72 HOURS. STABILIZATION SHALL BE DEFINED AS 85% VEGETATIVE COVER.
2. MAINTAIN VEGETATED AREAS USING PROPER VEGETATIVE 'BEST MANAGEMENT PRACTICES' DURING THE CONSTRUCTION PERIOD.
3. MAINTAIN NEEDED STRUCTURAL 'BEST MANAGEMENT PRACTICES' AND REMOVE SEDIMENT FROM DETENTION PONDS AND SEDIMENT BASINS AS NEEDED.
4. DETERMINE RESPONSIBILITY FOR LONG TERM MAINTENANCE OF PERMANENT 'BEST MANAGEMENT PRACTICES'.
5. IF CONSTRUCTION IS ANTICIPATED DURING WINTER MONTHS, REFER TO 'COLD WEATHER SITE STABILIZATION REQUIREMENTS'.

D. INVASIVE SPECIES AND FUGITIVE DUST

1. THE PROJECT SHALL NOT CONTRIBUTE TO THE SPREAD OF INVASIVE SPECIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EVALUATE WORK AREAS FOR THE PRESENCE OF INVASIVE SPECIES, AND IF FOUND SHALL TAKE NECESSARY MEASURES TO PREVENT THEIR SPREAD IN ACCORDANCE WITH RSA 430:51-S7 AND AGR 3800. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PREVENT THE INTRODUCTION OF INVASIVE SPECIES BY INSPECTING AND CLEANING ALL EQUIPMENT ARRIVING ON SITE.
2. FUGITIVE DUST SHALL BE CONTROLLED IN ACCORDANCE WITH ENV-A 1000.

COLD WEATHER SITE STABILIZATION REQUIREMENTS

TO ADEQUATELY PROTECT WATER QUALITY DURING COLD WEATHER AND DURING SPRING RUNOFF, THE FOLLOWING ADDITIONAL STABILIZATION TECHNIQUES SHALL BE EMPLOYED DURING THE PERIOD FROM OCTOBER 15 THROUGH MAY 1:

1. THE AREA OF EXPOSED, UNSTABILIZED SOIL SHALL BE LIMITED TO 1 ACRE AND SHALL BE PROTECTED AGAINST EROSION BY THE METHODS DESCRIBED IN THIS SECTION PRIOR TO ANY THAW OR SPRING MELT EVENT. THE ALLOWABLE AREA OF EXPOSED SOIL MAY BE INCREASED IF A WINTER CONSTRUCTION PLAN, DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST.
2. ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF LESS THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEED AND COVERED WITH 3 TO 4 TONS OF HAY OR STRAW MULCH PER ACRE, SECURED WITH ANCHORED NETTING OR TACKIFIER, OR 2 INCHES OF EROSION CONTROL MIX.
3. ALL PROPOSED VEGETATED AREAS HAVING A SLOPE OF GREATER THAN 15% WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE SEED AND COVERED WITH PROPERLY INSTALLED AND ANCHORED EROSION CONTROL MATTING OR WITH A MINIMUM 4 INCH THICKNESS OF EROSION CONTROL MIX.
4. INSTALLATION OF ANCHORED HAY MULCH OR EROSION CONTROL MIX SHALL NOT OCCUR OVER SNOW OF GREATER THAN 1 INCH IN DEPTH.
5. INSTALLATION OF EROSION CONTROL MATTING SHALL NOT OCCUR OVER SNOW OF GREATER THAN ONE INCH IN DEPTH OR ON FROZEN GROUND.
6. ALL PROPOSED STABILIZATION IN ACCORDANCE WITH NOTES 2 OR 3 ABOVE, SHALL BE COMPLETED WITHIN 1 DAY OF ESTABLISHING THE GRADE THAT IS FINAL OR THAT OTHERWISE WILL EXIST FOR MORE THAN 5 DAYS.
7. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS, AS DETERMINED BY THE OWNER'S ENGINEERING CONSULTANT.
8. AFTER OCTOBER 15, INCOMPLETE ROAD OR PARKING AREAS WHERE ACTIVE CONSTRUCTION OF THE ROAD OR PARKING AREA HAS STOPPED FOR THE WINTER SEASON SHALL BE PROTECTED WITH A MINIMUM 3 INCH LAYER OF BASE COURSE GRAVELS.



PREPARED FOR:

GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

TITLE:

EROSION
CONTROL PLAN

PROJECT:

STROUDWATER
COMMONS
PARCEL ID: 217 A010001 & 217 A011001

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C108

EROSION AND SEDIMENTATION CONTROL PLAN

INTRODUCTION

THE FOLLOWING PLAN FOR CONTROLLING SEDIMENTATION AND EROSION FROM THIS PROJECT IS BASED UPON SOUND CONSERVATION PRACTICES, AND ADHERES TO THE STANDARDS DETAILED IN THE MAINE EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES BY THE GUNBROOK COUNTY SOIL AND WATER CONSERVATION DISTRICT AND THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION DATED OCTOBER 2016. THE CONTRACTOR SHALL MAKE HIMSELF FAMILIAR WITH THE AFOREMENTIONED PUBLICATION AND COMPLY WITH THE PRACTICES PRESENTED THEREIN.

THIS REPORT ADDRESSES THE EROSION CONTROL MEASURES TO BE APPLIED TO THE PROPOSED SITE WORK FOR THE PROJECT. REFERENCE IS MADE TO THE EROSION CONTROL EXHIBITS, SHOWING THE LOCATIONS OF PROPOSED MEASURES INCLUDED IN THIS REPORT.

GENERAL EROSION AND SEDIMENTATION CONTROL PRACTICES

1. EROSION/SEDIMENT CONTROL DEVICES

THE FOLLOWING EROSION SEDIMENTATION CONTROL DEVICES ARE PROPOSED FOR CONSTRUCTION ON THIS PROJECT. INSTALL THESE DEVICES AS INDICATED ON THE PLANS.

1.1 SILT FENCE: SILT FENCE WILL BE INSTALLED ALONG THE DOWNGRADIENT EDGES OF DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL THE SITE IS STABILIZED. IN AREAS WHERE STORMWATER DISCHARGES THE SILT FENCE WILL BE REINFORCED WITH HAY BALES TO HELP MAINTAIN THE INTEGRITY OF THE SILT FENCE AND TO PROVIDE ADDITIONAL TREATMENT.

1.2 HAY BALES: PLACE IN DRAINAGE SWALES AND PATHS TO TRAP SEDIMENTS AND REDUCE RUNOFF VELOCITIES.

1.3 RIPRAP: PROVIDE RIPRAP IN AREAS WHERE SLOPES ARE STEEPER THAN 2:1 AND AS SHOWN ON THE PLANS.

1.4 LOAM, SEED, & MULCH: ALL DISTURBED AREAS, WHICH ARE NOT OTHERWISE TREATED, SHALL RECEIVE PERMANENT SEEDING AND MULCH TO STABILIZE THE DISTURBED AREAS WITHIN 5 DAYS OF FINAL GRADING. SEEDING REQUIREMENTS ARE PROVIDED AT THE END OF THIS SPECIFICATION.

1.5 JUTE MESH: STRAW AND HAY MULCH; USED TO COVER DENUDED AREAS UNTIL PERMANENT SEED OR EROSION CONTROL MEASURES ARE IN PLACE. MULCH CAN BE USED ON SLOPES LESS THAN 3:1. USE JUTE MESH ON SLOPES IN EXCESS OF 3:1.

1.6 INLET PROTECTION: STRAW BALE DROP INLET STRUCTURE

1.6.1 BALES SHALL BE EITHER WIRE-BOUND OR STRING TIED WITH THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES.

1.6.2 BALES SHALL BE PLACED LENGTHWISE IN A SINGLE ROW SURROUNDING THE INLET, WITH THE ENDS OF ADJACENT BALES PRESSED TOGETHER.

1.6.3 THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED AROUND THE INLET THE WIDTH OF A BALE TO A MINIMUM DEPTH OF 4 INCHES. AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.

1.6.4 EACH BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO STAKES OR REBARS DRIVEN THROUGH THE BALE.

1.6.5 LOOSE STRAW SHALL BE WEDGED BETWEEN BALES TO PREVENT WATER FROM ENTERING BETWEEN BALES.

1.7 MAINTENANCE

1.7.1 THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. IF 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.

2. TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES PROVIDE THE FOLLOWING TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION OF THE DEVELOPMENT:

2.1 STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED PRIOR TO ANY HAUL TO OR FROM THE SITE.

2.2 SILTATION FENCE ALONG THE DOWNGRADIENT SIDE OF THE PARKING AREAS AND OF ALL FILL SECTIONS, THE SILTATION FENCE WILL REMAIN IN PLACE UNTIL THE SITE IS REVEGETATED.

2.3 HAY BALES AT KEY LOCATIONS TO SUPPLEMENT THE SILT FENCE.

2.4 PROTECT TEMPORARY STOCKPILES OF STUMPS, GRUBBINGS, OR COMMON EXCAVATION AS FOLLOWS:

- SOIL STOCKPILE SIDE SLOPES SHALL NOT EXCEED 2:1.
- AVOID PLACING TEMPORARY STOCKPILES IN AREAS WITH SLOPES OVER 10 PERCENT, OR NEAR DRAINAGE SWALES.
- STABILIZE STOCKPILES WITHIN 15 DAYS BY TEMPORARILY SEEDING WITH A HYDROSEED METHOD CONTAINING AN EMULSIFIED MULCH TACKIFIER OR BY COVERING THE STOCKPILE WITH MULCH.
- SURROUND STOCKPILE SOIL WITH SILTATION FENCE.

2.5 ALL DENUDED AREAS WHICH ARE BEING ROUGH GRADED AND ARE NOT LOCATED WITHIN THE BUILDING PAD, OR PARKING AND DRIVEWAY SUBBASE AREA, SHALL BE RESEED WITHIN 30 DAYS OF INITIAL DISTURBANCE OF SOIL OR WITHIN 15 DAYS AFTER COMPLETING THE ROUGH GRADING OPERATIONS. IN THE EVENT THE CONTRACTOR COMPLETES FINAL GRADING AND INSTALLATION OF LOAM AND SOIL WITHIN THE TIME PERIODS PRESENTED ABOVE, INSTALLATION OF MULCH AND NETTING, WHERE APPLICABLE IS NOT REQUIRED.

2.6 IF WORK IS CONDUCTED BETWEEN OCTOBER 15 AND APRIL 15, ALL DENUDED AREAS ARE TO BE COVERED WITH HAY MULCH, APPLIED AT TWICE THE NORMAL APPLICATION RATE, AND ANCHORED WITH FABRIC NETTING. THE PERIOD BETWEEN FINAL GRADING AND MULCHING SHALL BE REDUCED TO A 15 DAY MAXIMUM.

2.7 TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE HAS BEEN STABILIZED OR IN AREAS WHERE PERMANENT EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

3. PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT CONTROL MEASURES ARE REQUIRED BY THIS EROSION/SEDIMENTATION CONTROL PLAN:

3.1 STORMWATER RUNOFF GENERATED BY THE DEVELOPMENT OF THIS SITE WILL BE COLLECTED IN A CLOSED DRAINAGE SYSTEM.

3.2 ALL AREAS DISTURBED DURING CONSTRUCTION, BUT NOT SUBJECT TO OTHER RESTORATION (PAVING, RIPRAP, ETC.), SHALL BE LOAMED, LIMED, FERTILIZED AND SODDED. NATIVE TOPSOIL SHALL BE STOCKPILED AND REUSED FOR FINAL RESTORATION WHEN IT IS OF SUFFICIENT QUALITY.

3.3 SLOPES GREATER THAN 2:1 WILL BE TREATED WITH RIPRAP.

4. CONSTRUCTION PHASE

THE FOLLOWING GENERAL PRACTICES WILL BE USED TO PREVENT EROSION DURING CONSTRUCTION OF THIS PROJECT.

4.1 ONLY THOSE AREAS UNDER ACTIVE CONSTRUCTION WILL BE CLEARED AND LEFT IN AN UNTREATED OR UNVEGETATED CONDITION. IF FINAL GRADING, LOAMING AND SEEDING WILL NOT OCCUR WITHIN 15 DAYS, SEE ITEM NO. 4.4

4.2 PRIOR TO THE START OF CONSTRUCTION IN A SPECIFIC AREA, SILT FENCING AND/OR HAY BALES WILL BE INSTALLED AT THE TOE OF SLOPE AND IN AREAS AS LOCATED ON THE PLANS TO PROTECT AGAINST ANY CONSTRUCTION RELATED EROSION. IMMEDIATELY FOLLOWING CONSTRUCTION OF CULVERTS AND SWALES, RIP RAP APRONS SHALL BE INSTALLED, AS SHOWN ON THE PLANS.

4.3 TOPSOIL WILL BE STOCKPILED WHEN NECESSARY IN AREAS WHICH HAVE MINIMUM POTENTIAL FOR EROSION AND WILL BE KEPT AS FAR AS POSSIBLE FROM THE EXISTING DRAINAGE COURSE. ALL STOCKPILES EXPECTED TO REMAIN LONGER THAN 15 DAYS SHALL BE:

- TREATED WITH ANCHORED MULCH (WITHIN 5 DAYS OF THE LAST DEPOSIT OF STOCKPILED SOIL).
- SEEDDED WITH CONSERVATION MIX AND MULCHED IMMEDIATELY.

STOCKPILES EXPECTED TO REMAIN LONGER THAN 7 DAYS SHALL BE ENCRUSTED WITH HAY BALES OR SILT FENCE AT THE TOE OF THE PILE.

4.4 ALL DISTURBED AREAS EXPECTED TO REMAIN LONGER THAN 7 DAYS SHALL BE EITHER:

- TREATED WITH ANCHORED MULCH IMMEDIATELY, OR
- SEEDDED WITH CONSERVATION MIX OF ANNUAL RYE GRASS (0.9 LBS/1000 SQ. FT) AND MULCHED IMMEDIATELY.

4.5 ALL GRADING WILL BE HELD TO A MAXIMUM 2:1 SLOPE WHERE PRACTICAL. ALL SLOPES WILL BE STABILIZED WITH PERMANENT SEEDING, OR WITH STONE, WITHIN 5 DAYS AFTER FINAL GRADING IS COMPLETE. (SEE POST-CONSTRUCTION REVEGETATION FOR SEEDING SPECIFICATION.)

4.6 CONSTRUCTION TRAFFIC WILL BE DIRECTED OVER THE PROPOSED ROADWAY SYSTEM. ANY AREAS THAT WILL BE STABILIZED IMMEDIATELY, THE ENTRANCE WILL BE SWEEPED WEEKLY, SHOULD MUD BE TRACKED ONTO IT.

5. POST-CONSTRUCTION REVEGETATION

THE FOLLOWING GENERAL PRACTICES WILL BE USED TO PREVENT EROSION AS SOON AS AN AREA IS READY TO UNDERGO FINAL GRADING.

5.1 A MINIMUM OF 4" OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND GRADED TO A UNIFORM DEPTH AND NATURAL APPEARANCE, OR STONE WILL BE PLACED ON SLOPES TO STABILIZE SURFACES.

5.2 IF FINAL GRADING IS REACHED DURING THE NORMAL GROWING SEASON (4/15 TO 9/15), PERMANENT SEEDING WILL BE DONE AS SPECIFIED BELOW. PRIOR TO SEEDING, LIMESTONE SHALL BE APPLIED AT A RATE OF 138 LBS/1000 SQ. FT. AND 10:20:20 FERTILIZER AT A RATE OF 18.4 LBS/1000 SQ.FT WILL BE APPLIED. BROADCAST SEEDING AT THE FOLLOWING RATES:

KENTUCKY BLUEGRASS 0.46 LBS/1000 SF. CREEPING RED FESCUE 0.46 LBS/1000 SF. RED TOP 0.05 LBS/1000 SF. TALL FESCUE 0.46 LBS/1000 SF. PERENNIAL RYEGRASS 0.11 LBS/1000 SF.

5.3 AN AREA SHALL BE MULCHED IMMEDIATELY AFTER IT HAS BEEN SEED. MULCHING SHALL CONSIST OF HAY MULCH, HYDRO- MULCH OR ANY SUITABLE SUBSTITUTE DEEMED ACCEPTABLE BY THE DESIGNER.

- HAY MULCH SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. HAY MULCH SHALL BE SECURED BY EITHER:
 - BEING DRIVEN OVER BY TRACKED CONSTRUCTION EQUIPMENT ON GRADES OF 5% AND LESS.
 - BLANKETED BY TACKED PHOTODEGRADABLE/BIODEGRADABLE NETTING, OR WITH SPRAY, ON GRADES GREATER THAN 5%.
- HYDRO-MULCH SHALL CONSIST OF A MIXTURE OF EITHER WOOD FIBER OR PAPER FIBER AND WATER SPRAYED OVER A SEEDDED AREA. HYDRO-MULCH SHALL NOT BE USED BETWEEN 9/15 AND 4/15.

5.5 CONSTRUCTION SHALL BE PLANNED TO ELIMINATE THE NEED FOR SEEDING BETWEEN SEPTEMBER 15 AND APRIL 15. SHOULD SEEDING BE NECESSARY BETWEEN SEPTEMBER 15 AND APRIL 15, THE FOLLOWING PROCEDURE SHALL BE FOLLOWED:

- ONLY UNFROZEN LOAM SHALL BE USED.
- LOAMING, SEEDING AND MULCHING WILL NOT BE DONE OVER SNOW OR ICE COVER. IF SNOW EXISTS, IT MUST BE REMOVED PRIOR TO PLACEMENT OF SEED.
- WHERE PERMANENT SEEDING IS NECESSARY, ANNUAL WINTER RYE (12 LBS/1000 SQ.FT) SHALL BE ADDED TO THE PREVIOUSLY NOTED AREAS.
- WHERE TEMPORARY SEEDING IS REQUIRED, ANNUAL WINTER RYE (2.6 LBS/1000 SQ. FT.) SHALL BE SOWN INSTEAD OF THE PREVIOUSLY NOTED SEEDING RATE.
- FERTILIZING, SEEDING AND MULCHING SHALL BE DONE ON LOAM THE DAY THE LOAM IS TRACKING BY MACHINERY ALONE WILL NOT SUFFICE.
- HAY MULCH SHALL BE SECURED WITH PHOTODEGRADABLE/BIODEGRADABLE NETTING. TRACKING BY MACHINERY ALONE WILL NOT SUFFICE.

5.6 FOLLOWING FINAL SEEDING, THE SITE WILL BE INSPECTED EVERY 30 DAYS UNTIL 80% COVER HAS BEEN ESTABLISHED. RESEEDING WILL BE CARRIED OUT BY THE CONTRACTOR WITHIN 10 DAYS OF NOTIFICATION BY THE ENGINEER THAT THE EXISTING CATCH IS INADEQUATE.

6. MONITORING SCHEDULE

THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING, MONITORING, MAINTAINING, REPAIRING, REPLACING AND REMOVING ALL OF THE EROSION AND SEDIMENTATION CONTROLS OR APPROPRIATE A QUALIFIED SUBCONTRACTOR TO DO SO. MAINTENANCE MEASURES WILL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. AFTER EACH RAINFALL, A VISUAL INSPECTION WILL BE MADE OF ALL EROSION AND SEDIMENTATION CONTROLS AS FOLLOWS:

- HAY BALE BARRIERS AND SILT FENCE SHALL BE INSPECTED AND REPAIRED ONCE A WEEK OR IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL. SEDIMENT TRAPPED BEHIND THESE BARRIERS SHALL BE EXCAVATED WHEN IT REACHES A DEPTH OF 6" AND REDISTRIBUTED TO AREAS UNDERGOING FINAL GRADING. SHOULD THE HAY BALE BARRIERS PROVE TO BE INEFFECTIVE, THE CONTRACTOR SHALL INSTALL SILT FENCE BEHIND THE HAY BALES.
- VISUALLY INSPECT RIP RAP ONCE A WEEK OR AFTER EACH SIGNIFICANT RAINFALL AND REPAIR AS NEEDED. REMOVE SEDIMENT TRAPPED BEHIND THESE DEVICES ONCE IT ATTAINS A DEPTH EQUAL TO 1/2 THE HEIGHT OF THE DAM OR RISER. DISTRIBUTE REMOVED SEDIMENT OFF-SITE OR TO AN AREA UNDERGOING FINAL GRADING.
- REVEGETATION OF DISTURBED AREAS WITHIN 25' OF DRAINAGE-COURSE/STREAM WILL BE SEEDDED WITH THE "MEADOW AREA MIX" AND INSPECTED ON A WEEKLY BASIS OR AFTER EACH SIGNIFICANT RAINFALL AND RESEEDED AS NEEDED. EXPOSED AREAS WILL BE RESEEDDED AS NEEDED UNTIL THE AREA HAS OBTAINED 100% GROWTH RATE. PROVIDE PERMANENT RIPRAP FOR SLOPES IN EXCESS OF 3:1 AND WITHIN 25' OF DRAINAGE COURSE.

7. EROSION CONTROL REMOVAL

AN AREA IS CONSIDERED STABLE IF IT IS PAVED, GRAVEL, OR IF 80% GROWTH OF PLANTED SEEDS IS ESTABLISHED. ONCE AN AREA IS CONSIDERED STABLE, THE EROSION CONTROL MEASURES CAN BE REMOVED AS FOLLOWS:

7.1 HAY BALES AND SILT FENCE THE HAY BALES AND SILT FENCE SHALL BE DISPOSED OF LEGALLY AND PROPERLY OFF-SITE. ALL SEDIMENT TRAPPED BEHIND THESE CONTROLS SHALL BE:

- DISTRIBUTED TO AN AREA UNDERGOING FINAL GRADING.
- GRADED IN AN AESTHETIC MANNER TO CONFORM TO THE TOPOGRAPHY, FERTILIZED, SEEDDED AND MULCHED IN ACCORDANCE WITH THE RATES PREVIOUSLY STATED.

7.2 MISCELLANEOUS: ONCE ALL THE TRAPPED SEDIMENTS HAVE BEEN REMOVED FROM THE TEMPORARY SEDIMENTATION DEVICES, THE DISTURBED AREAS MUST BE REPAIRED IN AN AESTHETIC MANNER TO CONFORM TO THE SURROUNDING TOPOGRAPHY. ONCE GRADED, THESE DISTURBED AREAS MUST BE LOAMED (IF NECESSARY) FERTILIZED, SEEDDED AND MULCHED IN ACCORDANCE WITH THE RATES PREVIOUSLY STATED.

8. WINTER CONSTRUCTION

8.1 WINTER CONSTRUCTION: CONSTRUCTION PERFORMED ANY TIME BETWEEN NOVEMBER 1 AND APRIL 15 OF ANY YEAR SHALL BE CONSIDERED "WINTER CONSTRUCTION," AND SHALL CONFORM TO THE FOLLOWING CRITERIA.

8.2 MAXIMUM AREAS WITHOUT STABILIZATION: WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE SITE WITHOUT STABILIZATION AT ANY ONE TIME. EXPOSED AREAS SHALL BE LIMITED TO THE AREA THAT CAN BE MULCHED IN ONE DAY. PRIOR TO ANY SNOW EVENT, CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED WITH EROSION CONTROL PROTECTION.

9. STABILIZATION

9.1 AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 100 LB PER 1,000 SF. (WITH OR WITHOUT SEEDING), OR DORMANT SEED, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE. IN ALL CASES, MULCH SHALL BE APPLIED SUCH THAT THE SOIL SURFACE IS NOT VISIBLE THROUGH THE MULCH.

9.2 LOAM OR SEED WILL NOT BE REQUIRED BETWEEN THE DATES OF OCTOBER 15, AND APRIL 15. DURING PERIODS WHEN TEMPERATURES ARE ABOVE FREEZING, EXPOSED SLOPES SHALL BE FINE-GRADED AND PROTECTED WITH MULCH, OR TEMPORARILY SEEDDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. AFTER NOVEMBER 1, ANY LOAMED, SMOOTH, FINAL GRADED AREAS MAY BE DORMANT SEEDDED AT A RATE OF 200% TO 300% HIGHER THAN SPECIFIED FOR PERMANENT SEED, AND THEN MULCHED. IF CONSTRUCTION CONTINUES DURING FREEZING TEMPERATURES, ALL EXPOSED AREAS SHALL BE CONTINUOUSLY GRADED BEFORE FREEZING, AND THE SURFACE SHALL BE PROTECTED TEMPORARILY FROM EROSION BY THE APPLICATION OF MULCH. SLOPES SHALL NOT BE LEFT EXPOSED DURING THE WINTER OR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW DITCHES TO BE FINISHED WITH PERMANENT SURFACE TREATMENT, EROSION CHECK DAMS WILL BE CONTROLLED BY THE STANDARD DETAILS.

9.3 MULCH ANCHORING: MULCH ANCHORING SHALL BE INSTALLED ACCORDING TO THE FOLLOWING CRITERIA:

- BETWEEN NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY PER LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL, OR TRACK OR WOOD CELLULOSE FIBER.
- MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE CWAYS WITH SLOPES GREATER THAN ONE PERCENT, AND SLOPES EXPOSED TO DIRECT WINDS, AND FOR ALL OTHER SLOPES GREATER THAN 5%.
- MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 5%.

9.4 DAILY PROTECTION: DURING THE PERIOD OF OCTOBER 1 TO APRIL 15, ALL BARE AREAS SHALL BE COVERED WITH A DORMANT SEEDING, MULCHED AND ANCHORED AT THE END OF EACH WORKING DAY.

9.5 SNOW REMOVAL: SNOW SHALL BE REMOVED PRIOR TO THE APPLICATION OF SEED AND MULCH.

10. LIMITS OF CONSTRUCTION

10.1 LIMIT OF CONSTRUCTION: THE LIMIT OF CONSTRUCTION FOR THE SITE SHALL BE AS INDICATED ON THE PLANS. NO DISTURBANCE OF SOILS, VEGETATION, OR WETLANDS WILL BE PERMITTED BEYOND THE LIMIT OF DISTURBANCE, EXCEPT IN THE AREAS OF STORMWATER DITCHES, CULVERTS, AND DISCHARGE APRONS.

10.2 CONSTRUCTION STAGING AREAS: THE CONSTRUCTION AND STAGING AREAS FOR THE SITE SHALL BE LOCATED IN WITHIN THE LIMIT OF DISTURBANCE. SILT FENCING SHALL BE PLACED ALL AROUND THE PERIMETER OF THE STAGING/STORAGE AREAS.

10.3 SCHEDULE: THE ANTICIPATED CONSTRUCTION SCHEDULE IS DURING THE YEAR OF 2014, AND WILL BEGIN WITH THE INSTALLATION OF EROSION CONTROL SYSTEMS TO PROTECT DRAINAGE WAYS AND AREAS OUTSIDE THE CONSTRUCTION LIMITS. SILT FENCING AND DITCH PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE IN THE DISTURBED AREAS. CONSTRUCTION AS SOON AS CONTROL MEASURES ARE IN PLACE, AND PRIOR TO COMMENCING SOIL DISTURBANCE ACTIVITIES, THE CONSTRUCTION ROAD SHALL BE INSTALLED. IT IS IMPERATIVE THAT DISTURBANCES TO VEGETATION BE LIMITED ONLY TO THOSE AREAS, WHICH ARE NECESSARY TO ACCOMPLISH THE WORK.

10.4 THE FINE AND VERY FINE SANDY LOAMS THAT WILL BE EXPOSED DURING SITE PREPARATION MAY BE SUSCEPTIBLE TO EROSION, AND CAN UNDERGO STRENGTH LOSS WHEN SUBJECTED TO CONSTRUCTION TRAFFIC AND EXCAVATION ACTIVITIES, PARTICULARLY DURING PERIODS OF PRECIPITATION AND HIGH GROUND WATER LEVELS. THEREFORE, CARE WILL BE EXERCISED DURING CONSTRUCTION TO MINIMIZE DISTURBANCE OF THE BEARING SOILS. ALL TOPSOIL, ORGANIC AND LOOSE SURFACE SOIL WILL BE STRIPPED AND STORED FOR REUSE LATER. SHOULD THE SUBGRADE BECOME SOFT OR DIFFICULT TO WORK AND/OR WHEREVER SUBSURFACE DRAINAGE CAVITIES ARE ENCOUNTERED, THE SUBGRADE WILL BE OVER EXCAVATED AS REQUIRED, AND BACKFILLED WITH GRANULAR FILL OR CRUSHED STONE.

11. HOUSEKEEPING

11.1 SPILL PREVENTION: CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.

11.2 GROUNDWATER PROTECTION: DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER SHALL NOT BE STORED OR USED 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.

11.3 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.

11.4 DEBRIS AND OTHER MATERIALS: LITTER, CONSTRUCTION DEBRIS, AND CHEMICALS EXPOSED TO STORMWATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

11.5 TRENCH OR FOUNDATION DE-WATERING: TRENCH 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 MUST BE REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, AND 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.

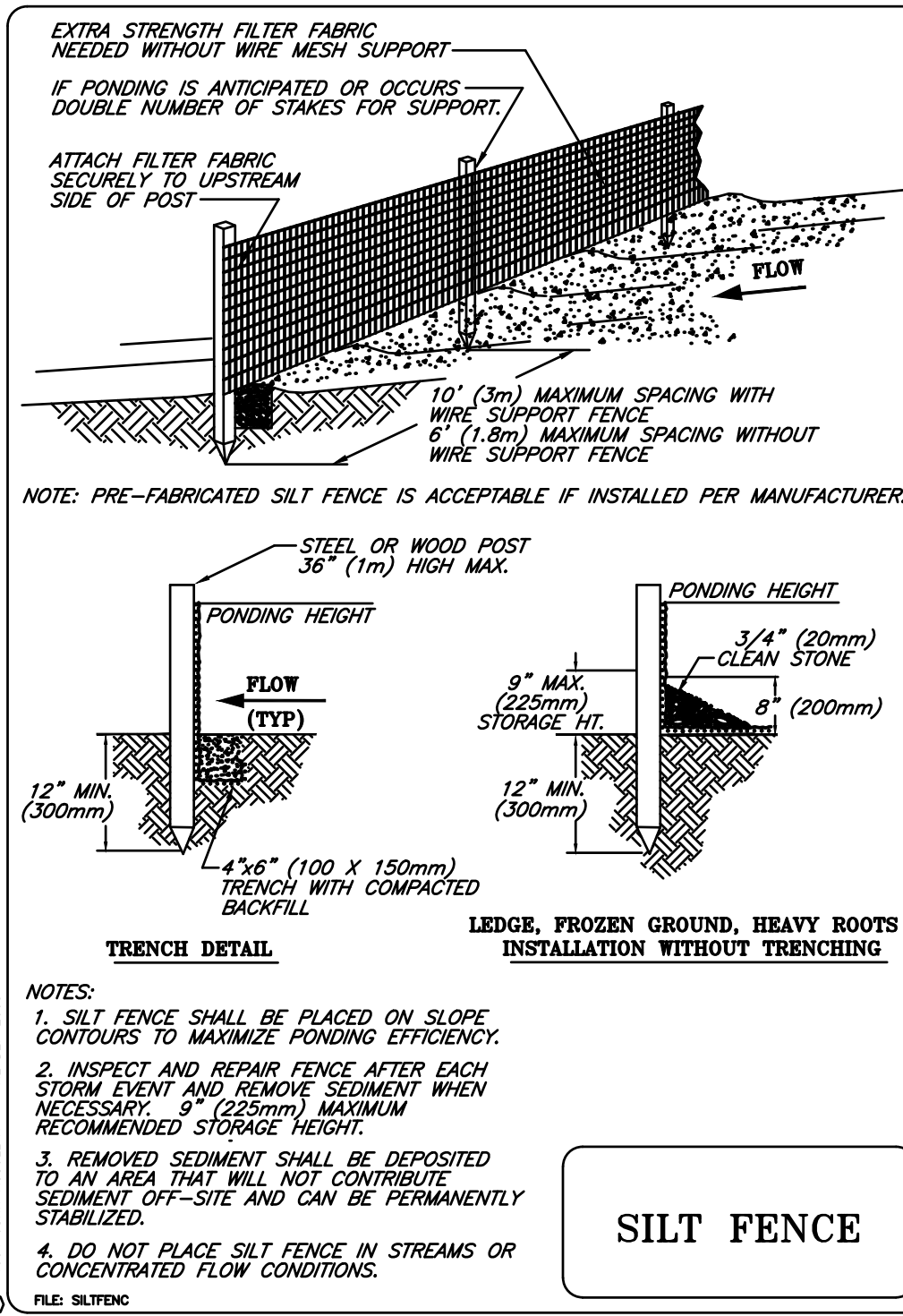
11.6 NON-STORMWATER DISCHARGES: IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES.

11.7 STREET SWEEPING: ANY SOIL MATERIAL TRACKED ONTO THE PUBLIC ROADWAY SHALL BE SWEEPED ON A DAILY BASIS.

11.8 ADDITIONAL REQUIREMENTS: ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.

BASIC STANDARDS - EROSION CONTROL MEASURES:

MINIMUM EROSION CONTROL MEASURES WILL NEED TO BE IMPLEMENTED AND THE APPLICANT WILL BE RESPONSIBLE TO MAINTAIN ALL COMPONENTS OF THE EROSION CONTROL PLAN UNTIL THE SITE IS FULLY STABILIZED. HOWEVER, BASED ON SITE AND WEATHER CONDITIONS DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL MEASURES MAY NEED TO BE IMPLEMENTED. ALL AREAS OF INSTABILITY AND EROSION MUST BE REPAIRED IMMEDIATELY DURING CONSTRUCTION AND NEED TO BE MAINTAINED UNTIL THE SITE IS FULLY STABILIZED OR VEGETATION IS ESTABLISHED. A CONSTRUCTION LOG MUST BE MAINTAINED FOR THE EROSION AND SEDIMENTATION CONTROL INSPECTIONS AND MAINTENANCE.

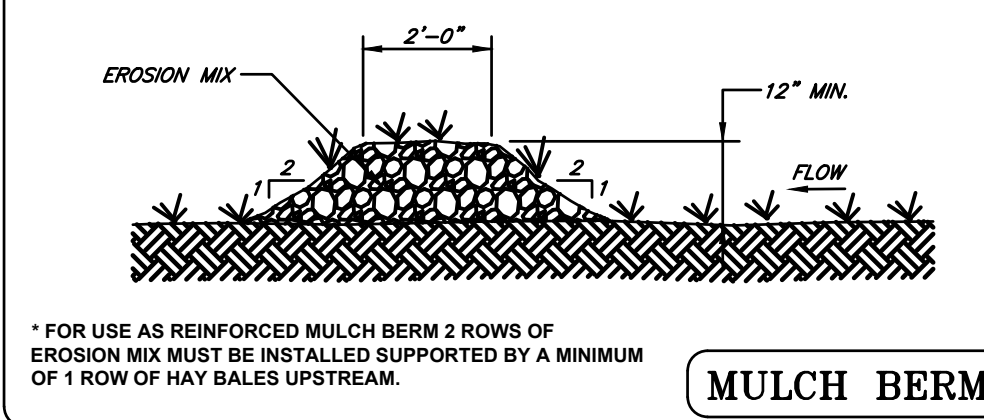


EROSION CONTROL MIX BERMS
EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE PROJECT SITE. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.

COMPOSITION
EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:

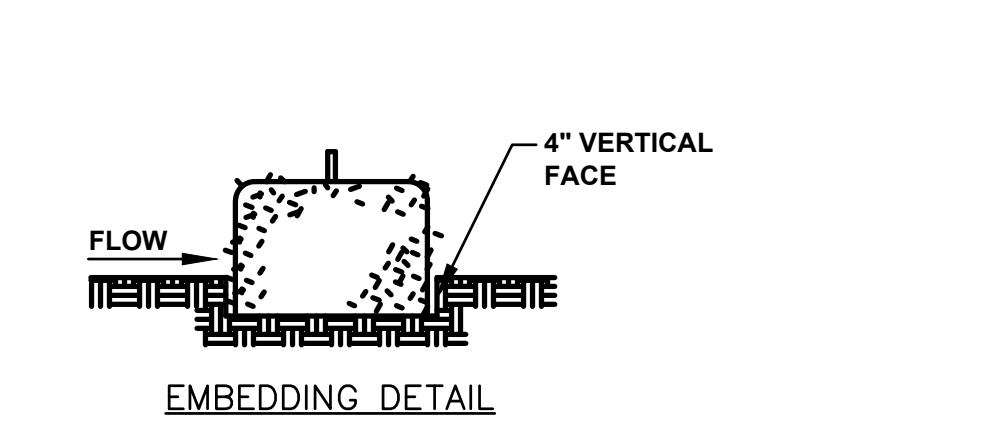
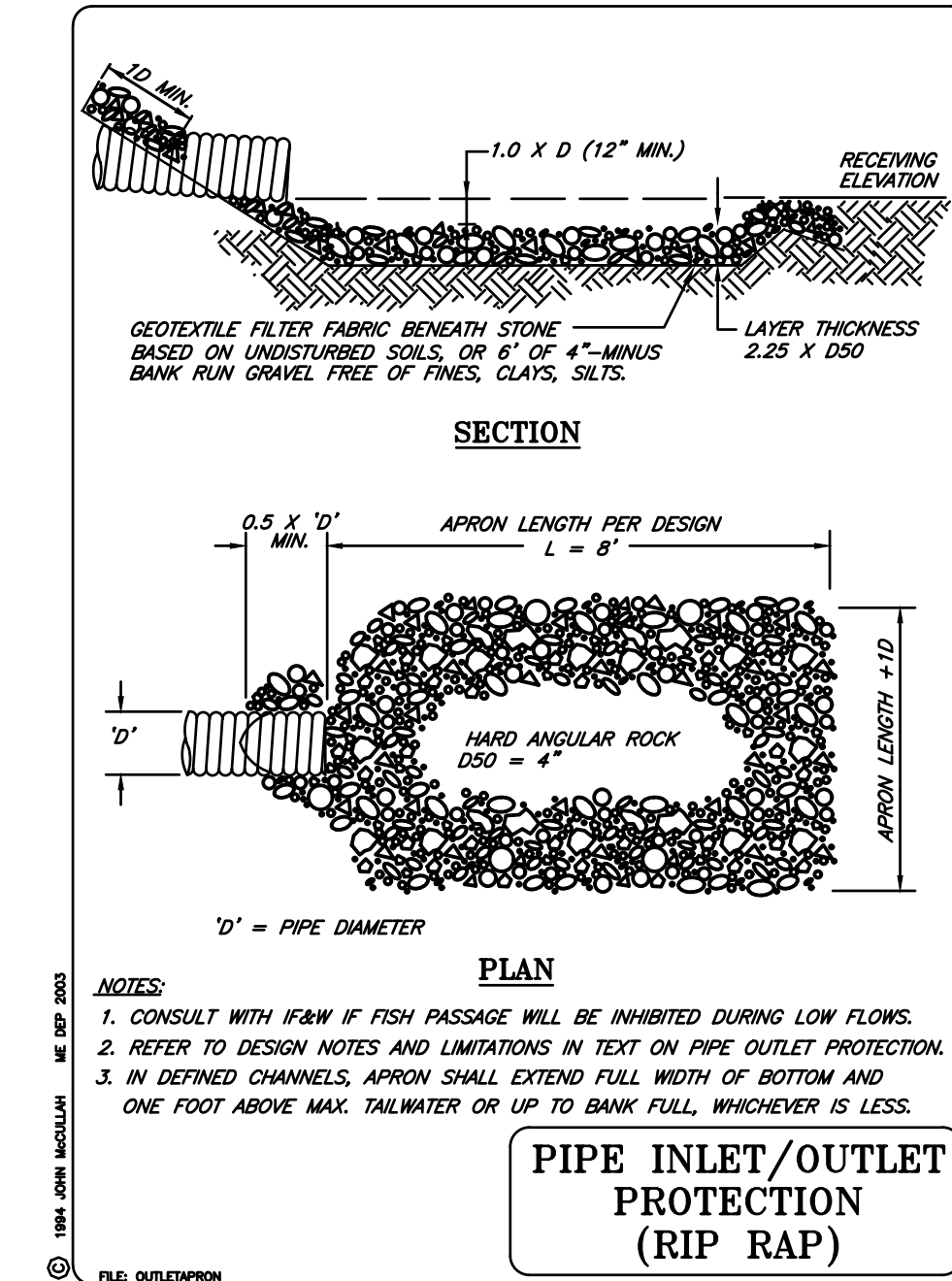
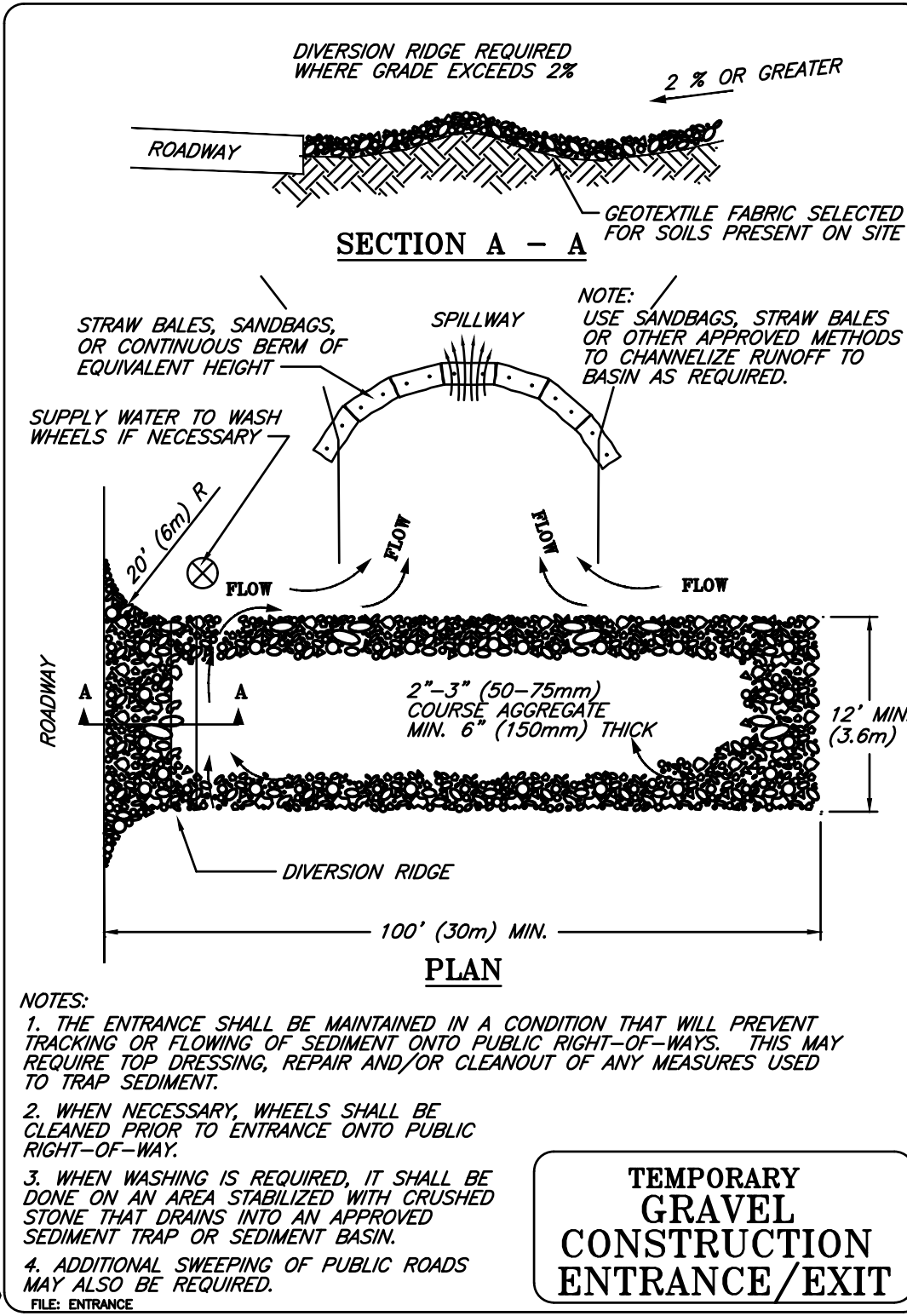
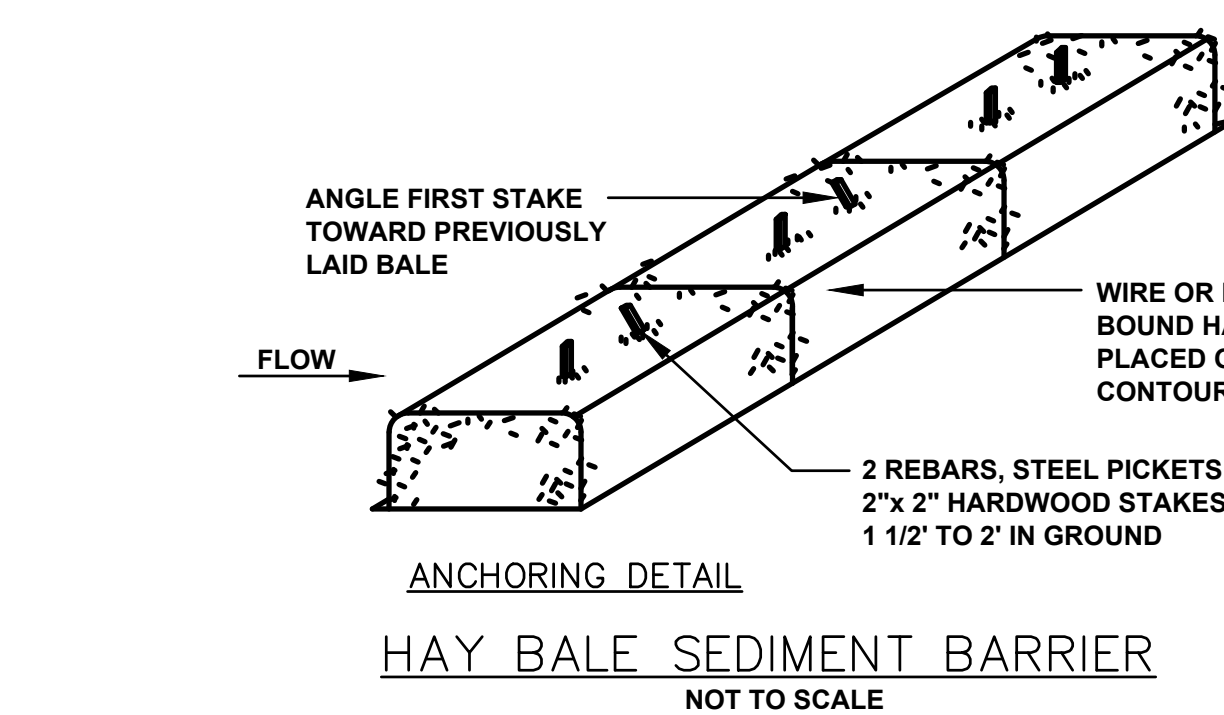
- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80 AND 100% DRY WEIGHT BASIS.
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70% MAXIMUM OF 80% PASSING A 1/2" SCREEN.
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
- SOLUBLE SALTS CONTENT SHALL BE < 4.0 MMH2O/GM.
- THE PH SHOULD FALL BETWEEN 5.0 AND 6.0.

INSTALLATION
THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL CONTOUR. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS.
ON SLOPES LESS THAN 5% OR AT THE BOTTOM OF STEEPER SLOPES (<2:1 UP TO 20 FEET LONG, THE BARRIER MUST BE A MINIMUM OF 12" HIGH, AS MEASURED ON THE UPHILL SIDE OF THE BARRIER, AND A MINIMUM OF TWO FEET WIDE. ON LONGER OR STEEPER SLOPES, THE BARRIER SHOULD BE WIDER TO ACCOMMODATE THE ADDITIONAL RUNOFF.
FROZEN GROUND, OUTCROPS OF BEDROCK AND VERY ROOTED FORESTED AREAS ARE LOCATIONS WHERE BERMS OF EROSION CONTROL MIX ARE MOST PRACTICAL AND EFFECTIVE.
OTHER BMPs SHOULD BE USED AT LOW POINTS OF CONCENTRATED RUNOFF, BELOW CULVERT OUTLET APRONS, AROUND CATCH BASINS AND CLOSED STORM SYSTEMS, AND AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM (I.E., A LARGE UP GRADIENT CONTRIBUTING WATERSHED).

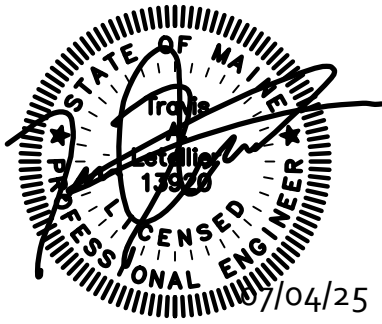


NOTES:

- BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
- EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
- BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR REBARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
- INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS DIRECTED BY PROJECT ENGINEER.
- BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.



FOR REVIEW
NOT FOR CONSTRUCTION



GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

EROSION CONTROL
NOTES & DETAILS

SHEET:

C401



PREPARED FOR:

GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

PROJECT:

STROUDWATER
COMMONS
PARCEL ID: 217 A010001 & 217 A011001

TITLE:

CONGRESS STREET
IMPROVEMENTS PLAN

REVISION:

NO.	DATE	DESCRIPTION
1	07/01/24	CITY SITE PLAN SUBDIVISION SUBMISSION
2	11/21/24	RESPONSE TO CITY REVIEW COMMENTS
3	03/08/25	REVISED PER CONS. RES. DEV. STANDARDS
4	05/16/25	REVISED PER STAFF COMMENTS
5	07/04/25	REVISED PER PLANNING STAFF COMMENTS

DRAWN:

TAL

SCALE:

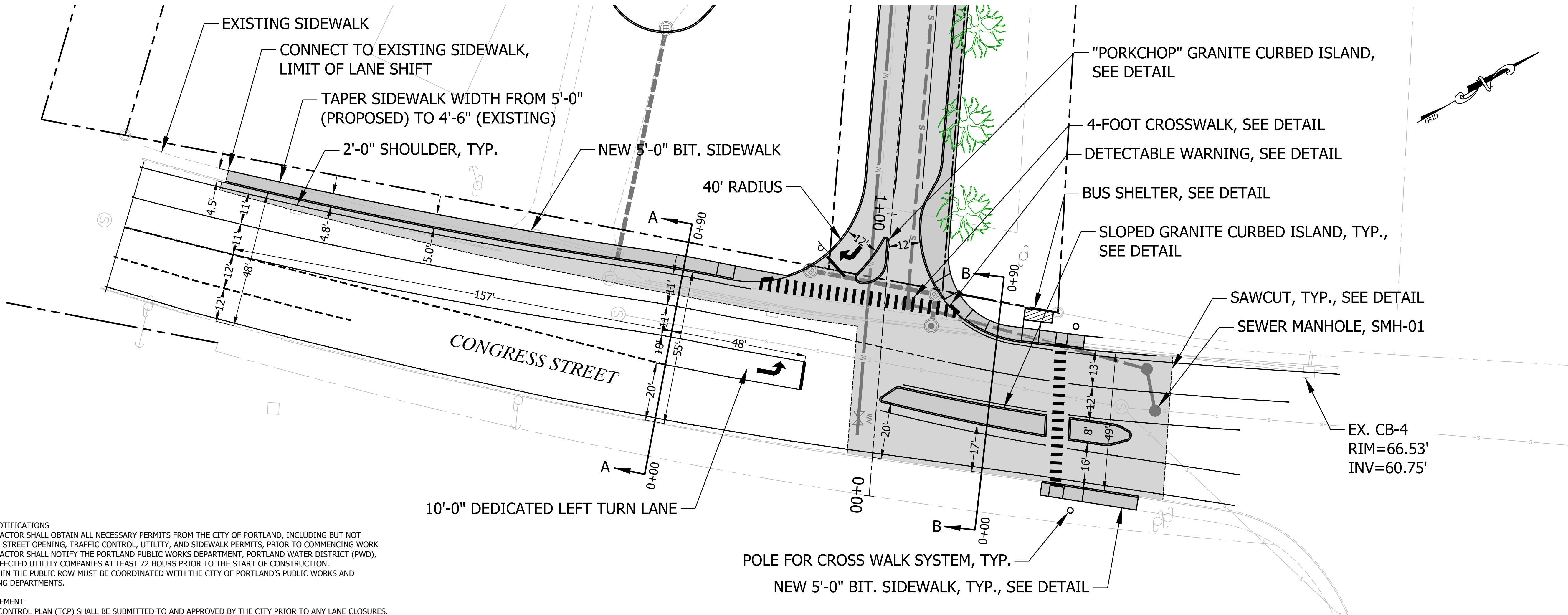
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DATE:

4/17/2024

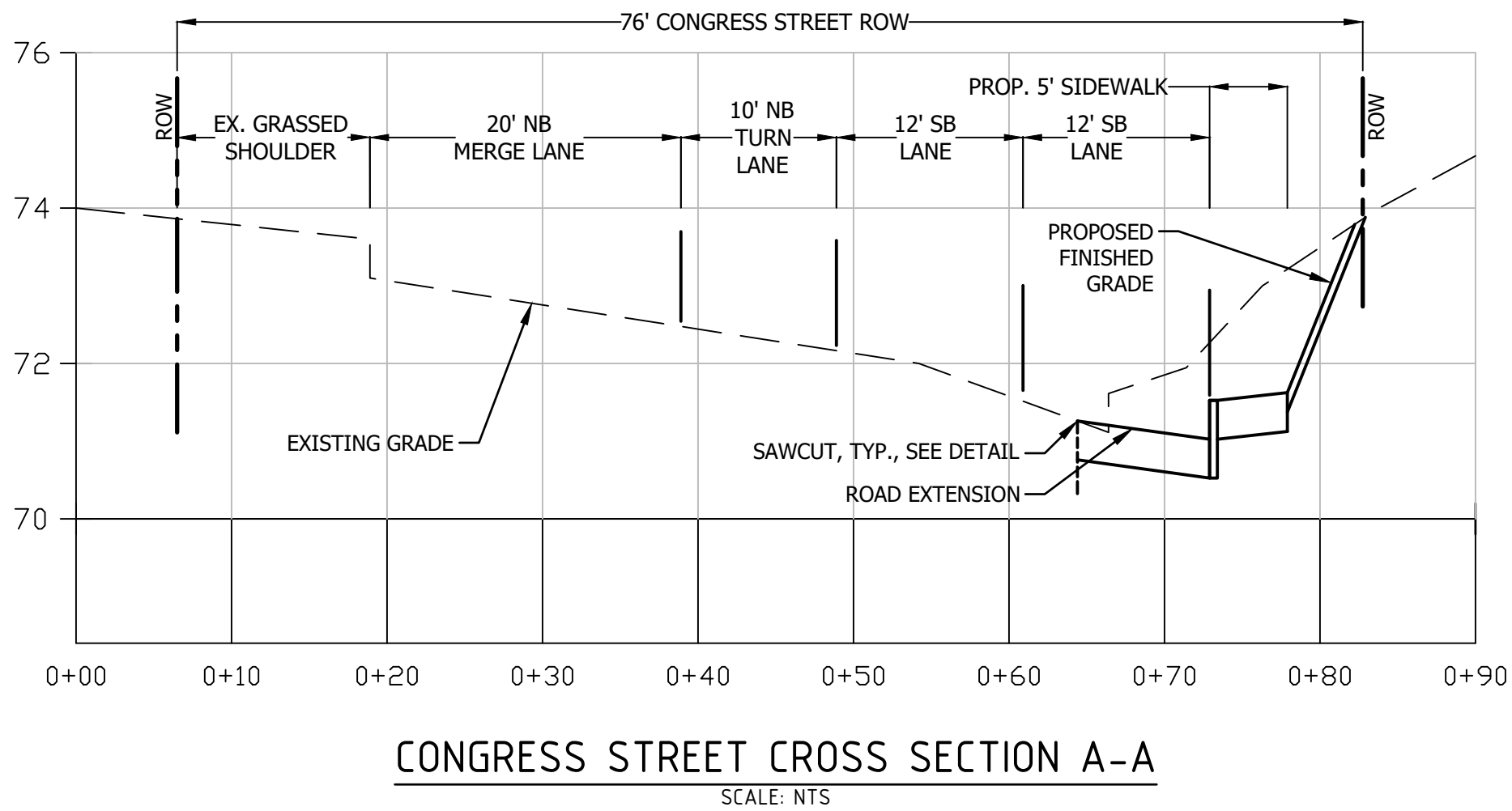
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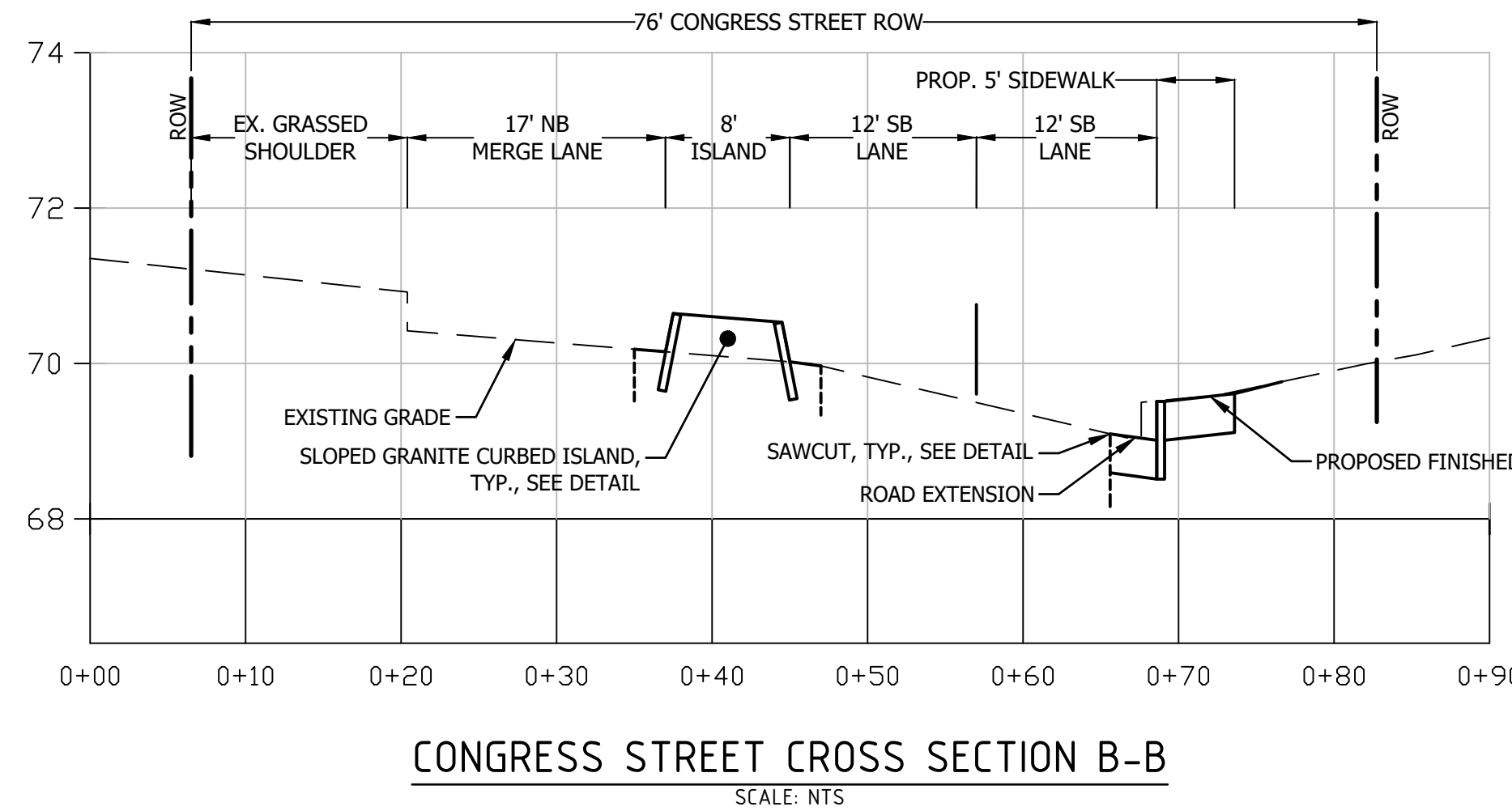


GENERAL NOTES

- PERMITS AND NOTIFICATIONS
 - THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE CITY OF PORTLAND, INCLUDING BUT NOT LIMITED TO STREET OPENING, TRAFFIC CONTROL, UTILITY, AND SIDEWALK PERMITS, PRIOR TO COMMENCING WORK.
 - THE CONTRACTOR SHALL NOTIFY THE PORTLAND PUBLIC WORKS DEPARTMENT, PORTLAND WATER DISTRICT (PWD), AND ALL AFFECTED UTILITY COMPANIES AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
 - WORK WITHIN THE PUBLIC ROW MUST BE COORDINATED WITH THE CITY OF PORTLAND'S PUBLIC WORKS AND ENGINEERING DEPARTMENTS.
- TRAFFIC MANAGEMENT
 - A TRAFFIC CONTROL PLAN (TCP) SHALL BE SUBMITTED TO AND APPROVED BY THE CITY PRIOR TO ANY LANE CLOSURES. THE PLAN MUST COMPLY WITH THE LATEST EDITION OF THE MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES).
 - CONTRACTOR SHALL PROVIDE ADVANCE WARNING SIGNAGE, CONES, AND BARRIERS AS REQUIRED TO ENSURE PEDESTRIAN AND VEHICULAR SAFETY THROUGHOUT CONSTRUCTION.
 - ONE TRAVEL LANE IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE CITY.
 - NO WORK SHALL BE PERFORMED DURING PEAK TRAFFIC HOURS (TYPICALLY 7:00-9:00 AM AND 3:30-6:00 PM) WITHOUT PRIOR APPROVAL.
 - PEDESTRIAN ACCESS ALONG CONGRESS STREET SHALL BE MAINTAINED AT ALL TIMES, WITH ADA-COMPLIANT TEMPORARY WALKWAYS WHERE NECESSARY.
- EROSION AND SEDIMENT CONTROL
 - EROSION CONTROL MEASURES, INCLUDING INLET PROTECTION AND CONSTRUCTION ENTRANCES, SHALL BE INSTALLED PRIOR TO THE START OF EARTHWORK AND MAINTAINED THROUGHOUT THE PROJECT.
 - ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 7 DAYS OF DISTURBANCE OR AS DIRECTED BY THE CITY ENGINEER.
 - DEWATERING, IF NECESSARY, SHALL BE DONE IN A MANNER THAT PREVENTS DISCHARGE OF SEDIMENT-LADEN WATER INTO STORM DRAINS OR SURFACE WATERS.
- UTILITY WORK
 - ALL NEW UTILITY CONNECTIONS (WATER AND SEWER) SHALL CONFORM TO THE STANDARDS OF THE PORTLAND WATER DISTRICT AND THE CITY OF PORTLAND SEWER DIVISION, RESPECTIVELY.
 - CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES PRIOR TO EXCAVATION USING DIG SAFE AND POT-HOLING TECHNIQUES AS NECESSARY.
 - UTILITY TRENCHES SHALL BE BACKFILLED AND COMPACTED IN LIFTS NOT EXCEEDING 12 INCHES WITH APPROPRIATE MATERIAL AND TESTED PER CITY SPECIFICATIONS.
- ROADWAY WIDENING AND PAVEMENT RESTORATION
 - THE ROAD WIDENING SHALL CONFORM TO THE DIMENSIONS AND CROSS-SECTIONS SHOWN IN THE APPROVED PLAN SET.
 - SUBGRADE PREPARATION, BASE COURSE, AND PAVEMENT MATERIALS SHALL COMPLY WITH MDOT AND CITY OF PORTLAND STANDARDS.
 - FULL-DEPTH PAVEMENT RESTORATION SHALL BE REQUIRED FOR ALL TRENCHING IN THE TRAVELWAY, UNLESS OTHERWISE DIRECTED.
 - SAWCUTTING OF EXISTING PAVEMENT SHALL BE CLEAN AND NEAT; NO JAGGED OR IRREGULAR EDGES WILL BE ACCEPTED.
- CURBING AND RAISED ISLAND
 - SLOPED GRANITE CURBING FOR THE RAISED ISLAND SHALL CONFORM TO MDOT TYPE 5 OR CITY-APPROVED SPECIFICATIONS.
 - THE ISLAND SHALL BE PINNED IN PLACE AND BACKFILLED WITH SUITABLE GRAVEL PRIOR TO SURFACE PAVING OR LANDSCAPE TREATMENTS.
 - REFLECTIVE BOLLARDS OR SIGNS SHALL BE INSTALLED ON THE RAISED ISLAND FOR NIGHTTIME VISIBILITY AS DIRECTED BY THE CITY.
- SIDEWALKS AND ADA COMPLIANCE
 - ALL NEW SIDEWALKS SHALL BE CONSTRUCTED WITH 3-INCH BIT. CONCRETE OVER 6 INCHES OF COMPACTED GRAVEL UNLESS OTHERWISE NOTED.
 - SIDEWALK EXTENSIONS SHALL TIE INTO EXISTING SIDEWALKS WITH SMOOTH TRANSITIONS AND FULL ADA COMPLIANCE, INCLUDING DETECTABLE WARNING PANELS AT CROSSWALKS AND RAMPS.
 - TEMPORARY PEDESTRIAN ROUTES SHALL BE PROVIDED DURING CONSTRUCTION TO MAINTAIN SAFE AND ACCESSIBLE TRAVEL PATHS.
- WORK HOURS AND MAINTENANCE
 - NORMAL WORK HOURS SHALL BE 7:00 AM TO 6:00 PM, MONDAY THROUGH FRIDAY, UNLESS OTHERWISE APPROVED.
 - THE CONTRACTOR IS RESPONSIBLE FOR DAILY CLEANUP AND SHALL MAINTAIN A CLEAN, SAFE SITE AT ALL TIMES.
 - DUST CONTROL SHALL BE PERFORMED AS NECESSARY TO MINIMIZE AIR QUALITY IMPACTS AND NUISANCE CONDITIONS.
- INSPECTION AND TESTING
 - ALL WORK WITHIN THE ROW SHALL BE SUBJECT TO INSPECTION BY THE CITY OF PORTLAND.
 - MATERIALS TESTING (E.G., COMPACTION, CONCRETE) SHALL BE CONDUCTED AT THE CONTRACTOR'S EXPENSE AND RESULTS SUBMITTED TO THE CITY ENGINEER.

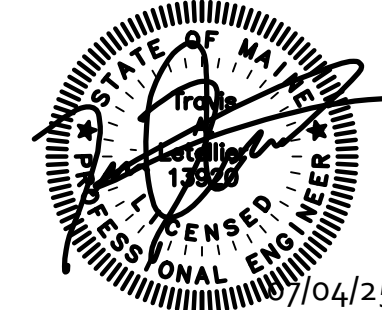
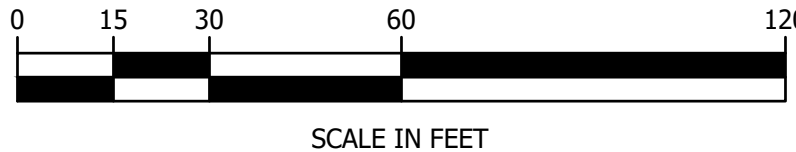


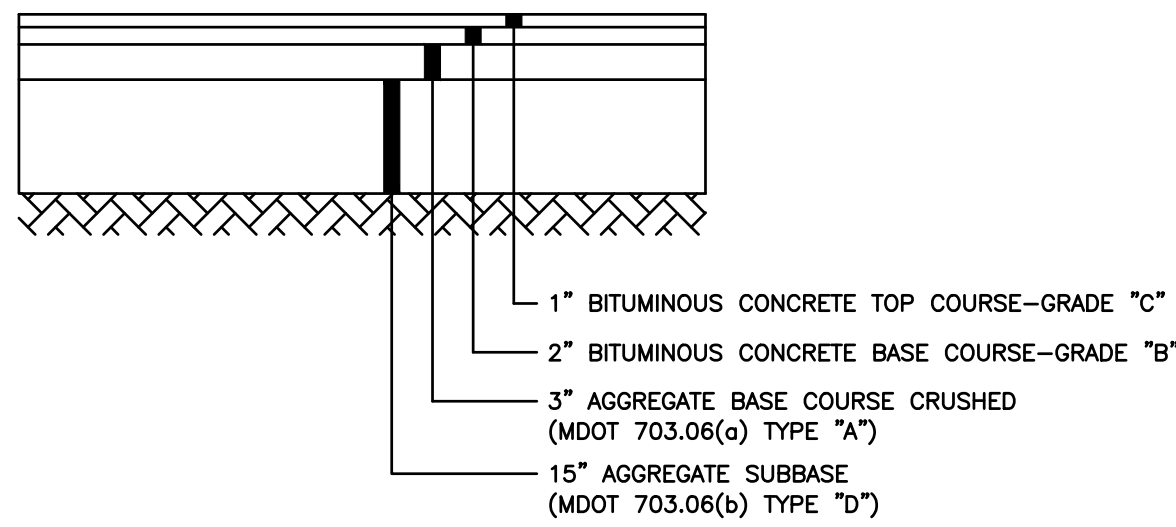
CONGRESS STREET CROSS SECTION A-A
SCALE: NTS



CONGRESS STREET CROSS SECTION B-B
SCALE: NTS

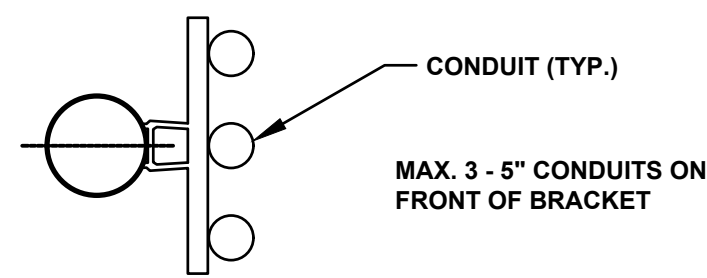
FOR REVIEW
NOT FOR CONSTRUCTION



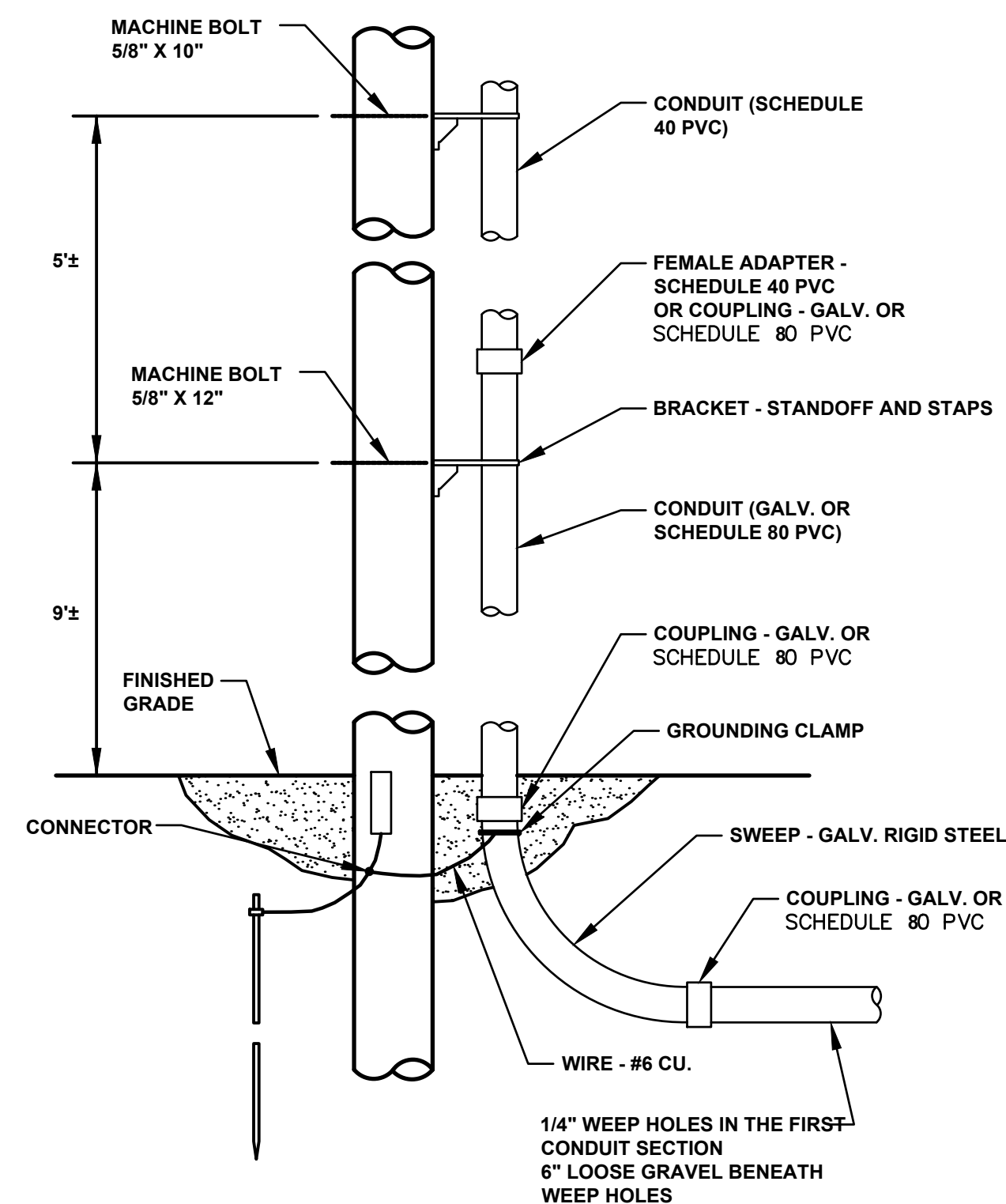


- NOTE:
1. COMPACT GRAVEL SUB-BASE, BASE COURSE TO 92% OF MAXIMUM DENSITY USING HEAVY ROLLER COMPACTION.
 2. CONTRACTOR SHALL SET GRADE STAKES MARKING SUB-BASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.

TYPICAL PAVEMENT SECTION
NOT TO SCALE



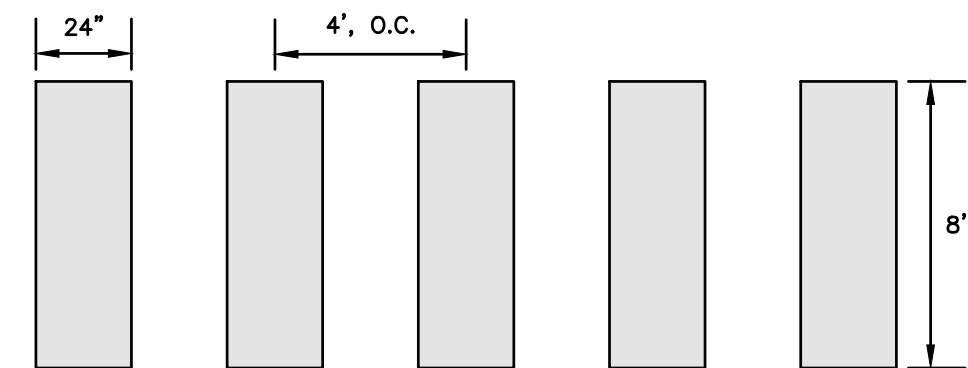
PLAN



- NOTES:
1. LOCATE RISER ON POLE AWAY FROM TRAFFIC.
 2. BOND GALVANIZED CONDUIT TO GROUND.
 3. LEAVE TOP OF CONDUIT OPEN.
 4. FIRST SECTION OF RISER SHALL BE GALVANIZED RIGID STEEL OR SCHEDULE 80 PVC.
 5. SWEEP SHALL BE GALVANIZED RIGID STEEL.

TYPICAL RISER DETAIL
NOT TO SCALE

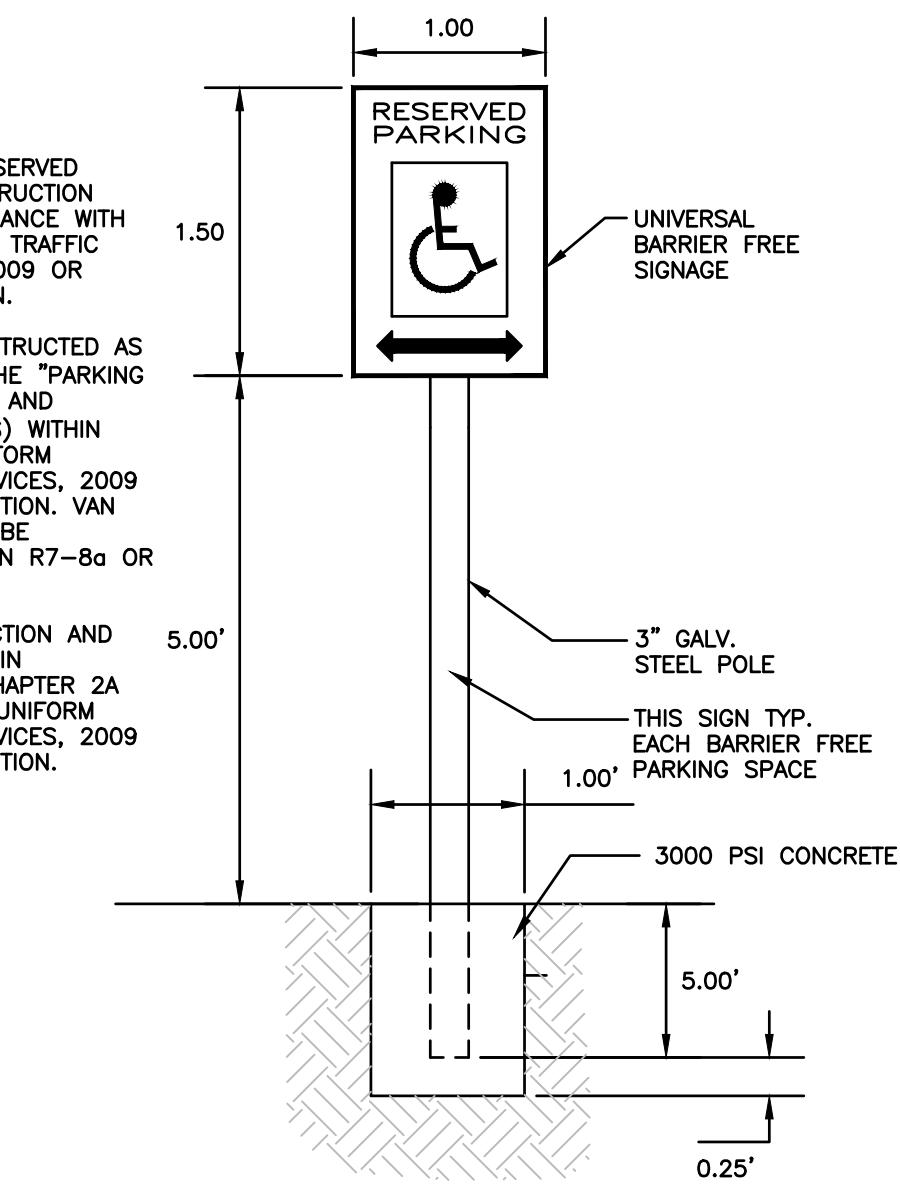
- NOTE:
1. CROSSWALKS TO BE BUILT IN CONFORMANCE WITH MUTCD STANDARDS, LATEST EDITION.
 2. CROSSWALKS ARE TO BE PAINTED WHITE MEETING MAINE DOT SPECIFICATIONS.
 3. BLOCKS TO BE PARALLEL TO THE DIRECTION OF CAR TRAFFIC.



BLOCK CROSSWALK
NOT TO SCALE

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

ITEM NO.	SIGN SIZE		TEXT	NO. SIGNS REQ'D
	HEIGHT	WIDTH		
R7-8	18"	12"		2
R7-8a	9"	18"		2

NOTES:

1. ALL SIGNS SHALL BE PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
2. ALL FREE STANDING SIGNS TO BE MOUNTED AT A MINIMUM HEIGHT OF 7' FROM THE EXISTING GRADE TO THE BOTTOM OF THE SIGN

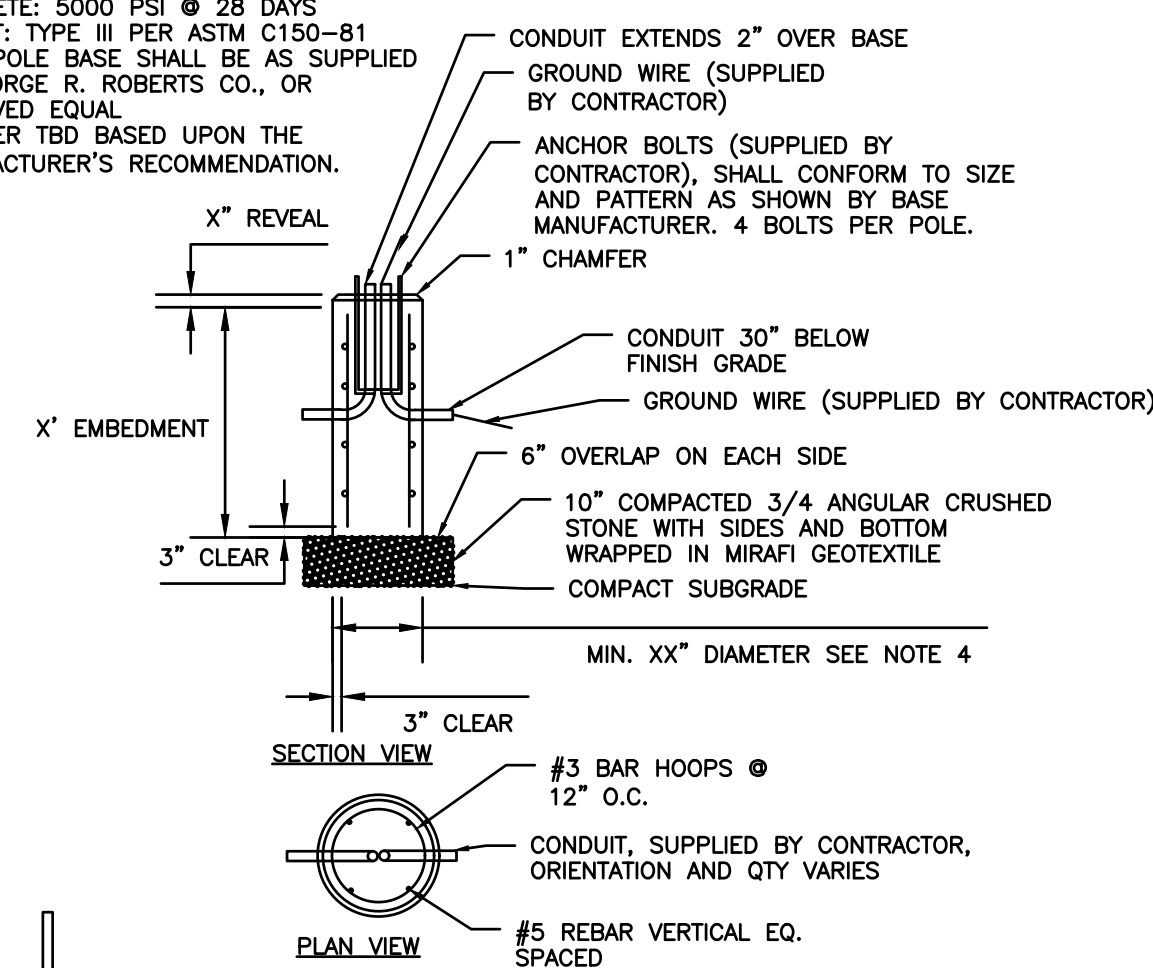
SIGN SCHEDULE
NOT TO SCALE

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:

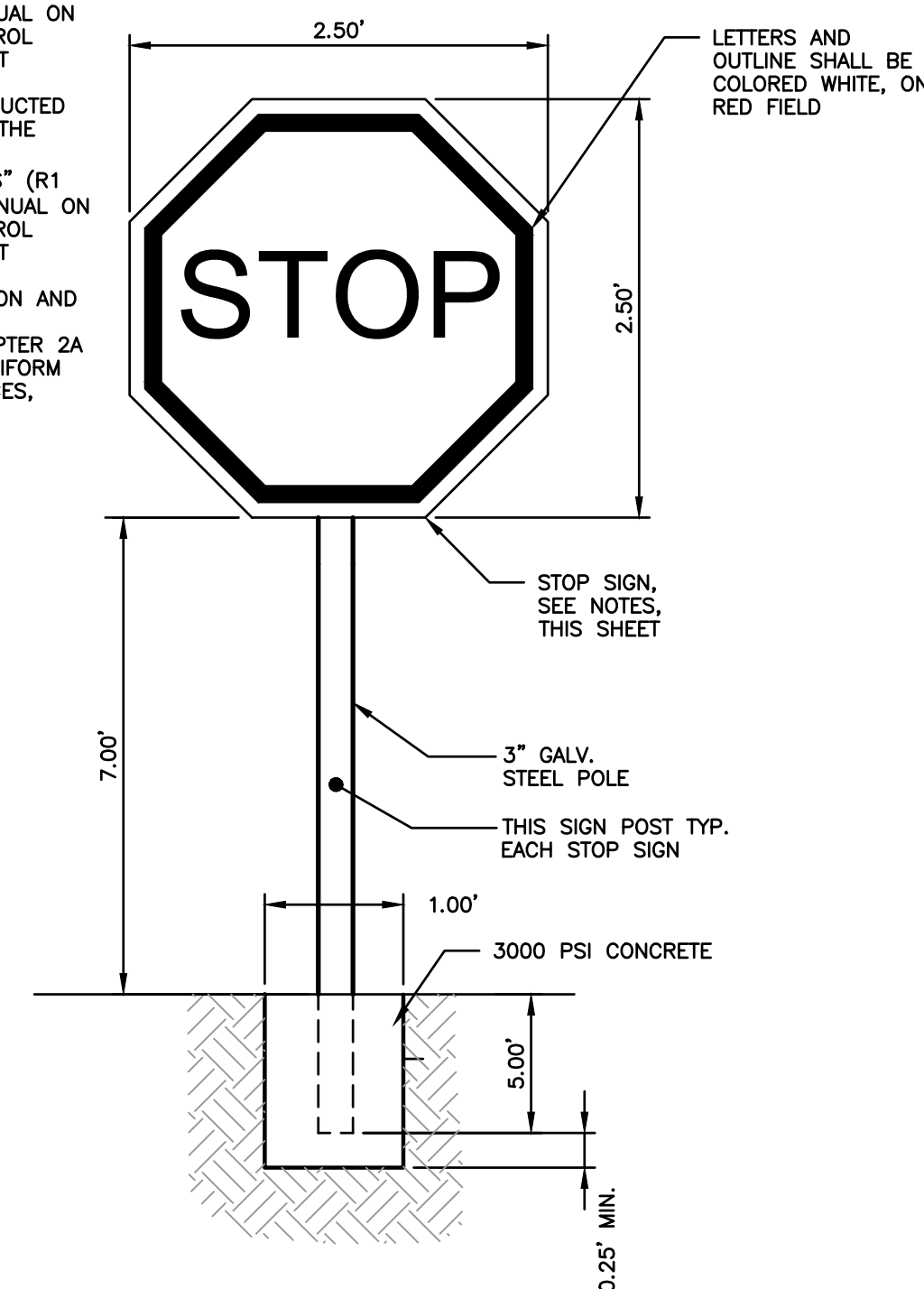
1. CONCRETE: 5000 PSI @ 28 DAYS
2. CEMENT: TYPE III PER ASTM C150-81
3. LIGHT POLE BASE SHALL BE AS SUPPLIED BY GEORGE R. ROBERTS CO. OR APPROVED EQUAL
4. DIAMETER TBD BASED UPON THE MANUFACTURER'S RECOMMENDATION.



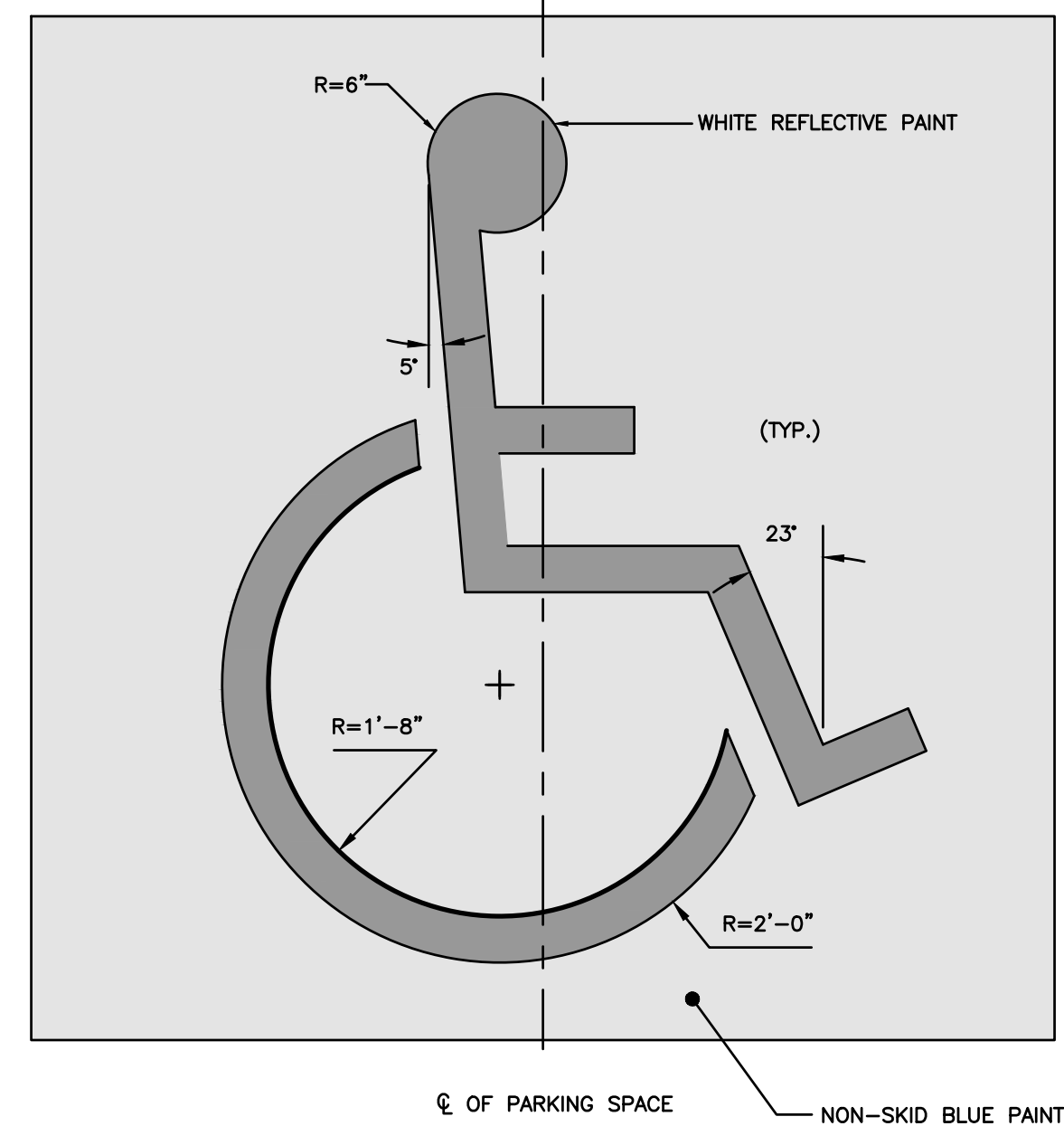
LIGHT POLE BASE
NOT TO SCALE

NOTES:

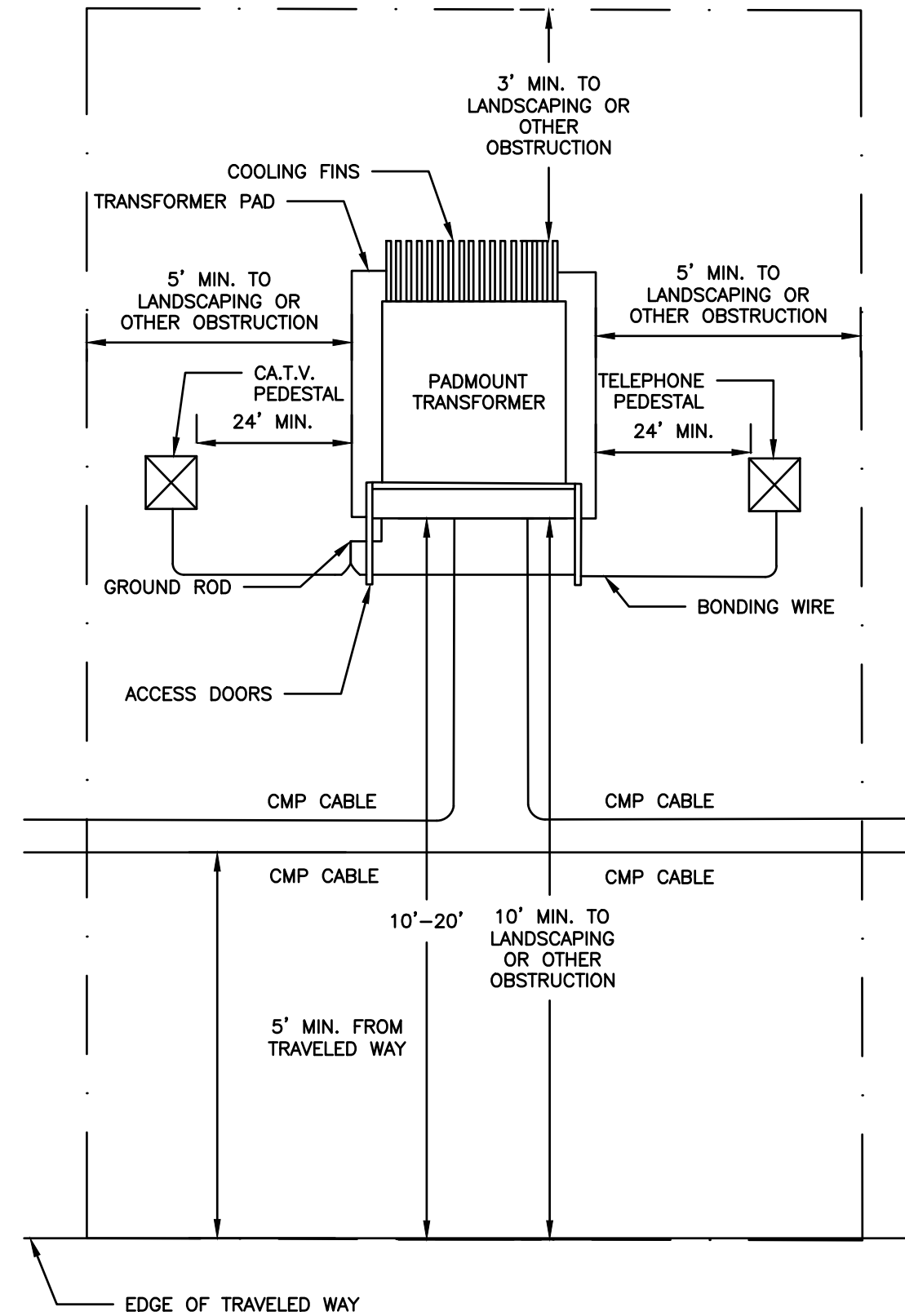
1. ALL ASPECTS OF STOP SIGN CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION.
2. SIGN SHALL BE CONSTRUCTED AS SIGN R1-1 UNDER THE "REGULATORY SIGNS, BARRICADES, AND GATES" (R1 SERIES) WITHIN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 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.



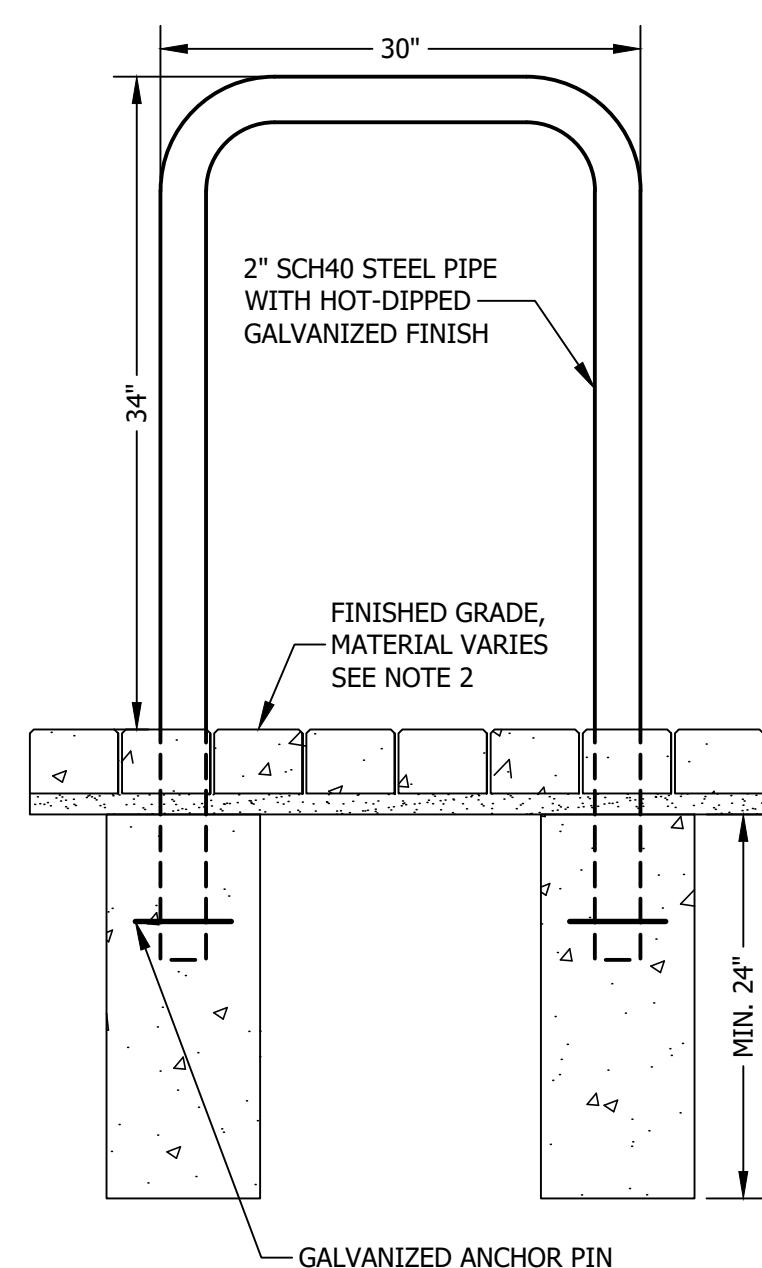
TRAFFIC SIGN DETAIL
NOT TO SCALE



INTERNATIONAL BARRIER FREE SYMBOL
NOT TO SCALE



PAD MOUNTED TRANSFORMER
NOT TO SCALE

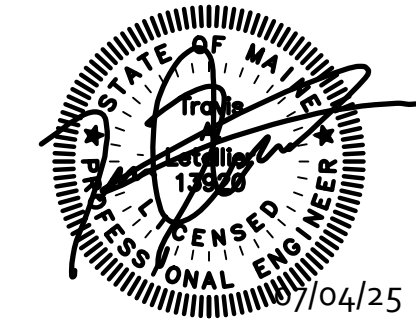


NOTES:

1. ALL BICYCLE STANDS MUST BE MADRAX UX238-IG-G OR UX238-SF-G, OR APPROVED EQUAL.
2. ALL BICYCLE STANDS MUST BE IN-GROUND MOUNTED UNLESS THEY WILL BE MOUNTED TO AN EXISTING CONCRETE SLAB THAT MEETS MADRAX REQUIREMENTS FOR SURFACE MOUNTING.

SHEFFIELD BICYCLE STAND DETAIL
NOT TO SCALE

FOR REVIEW
NOT FOR CONSTRUCTION



PREPARED FOR:

GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

PROJECT:

STROUDWATER
COMMONS
PARCEL ID: 217 A010001 & 217 A011001

TITLE:

CONSTRUCTION
DETAILS

REVISION:

NO.	DATE	APPR.	TAL	DESCRIPTION
1	07/01/24	TAL		CITY SITE PLAN SUBDIVISION SUBMISSION
2	11/21/24	TAL		RESPONSE TO CITY REVIEW COMMENTS
3	03/08/25	TAL		REVISED PER CONS. RES. DEV. STANDARDS
4	05/16/25	TAL		REVISED PER STAFF COMMENTS
5	07/04/25	TAL		REVISED PER PLANNING STAFF COMMENTS

DRAWN:

TAL

SCALE:

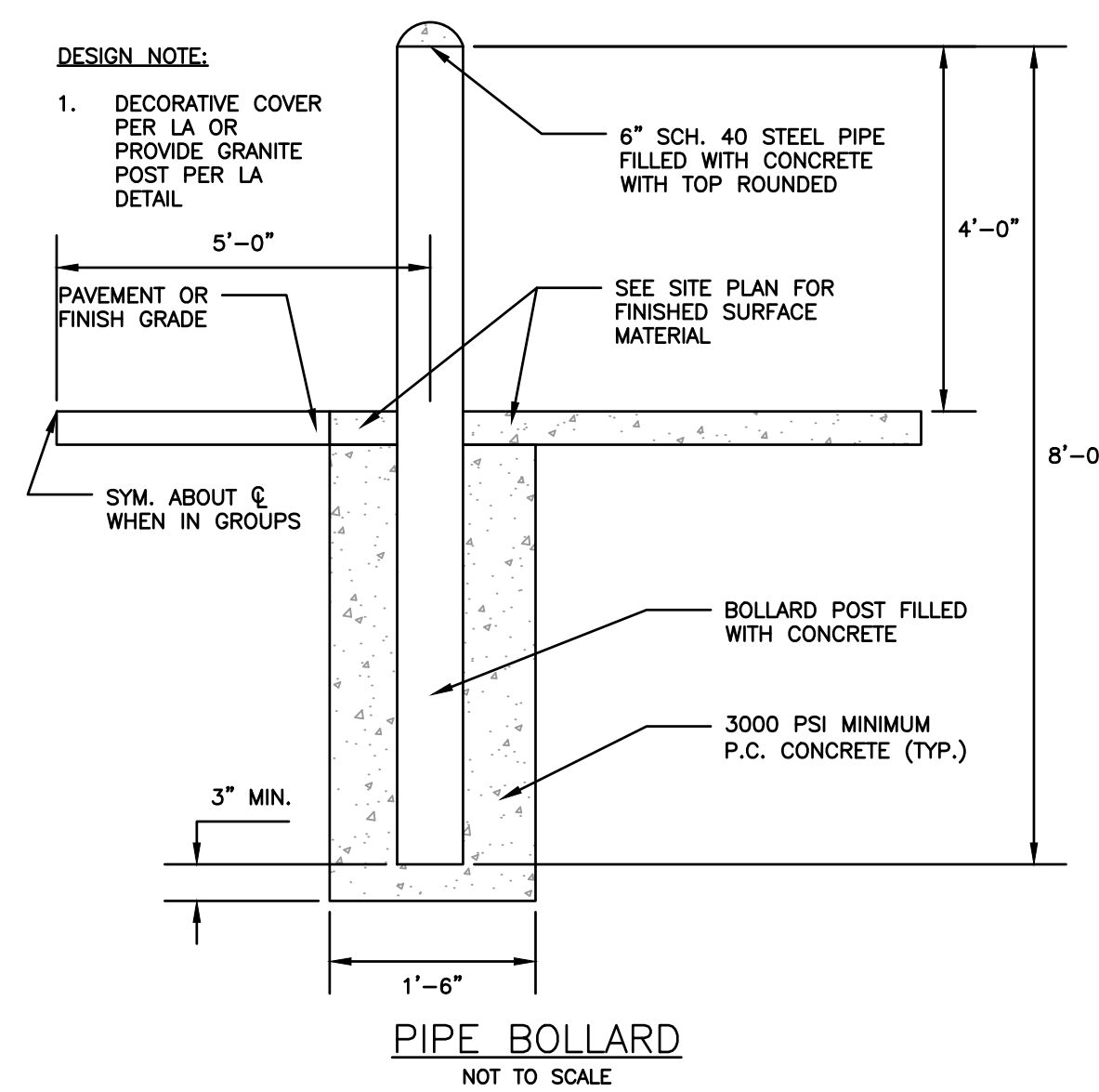
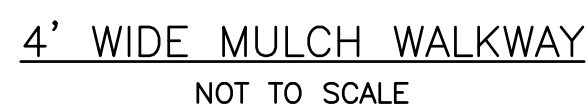
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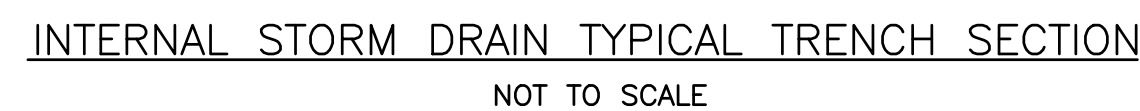
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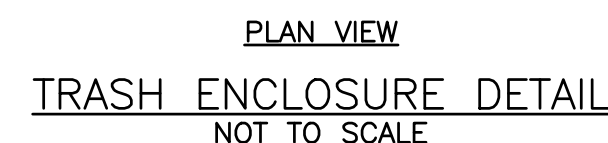
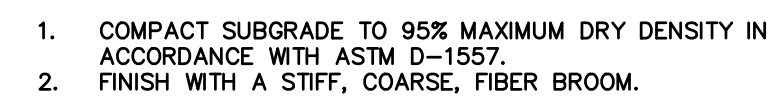
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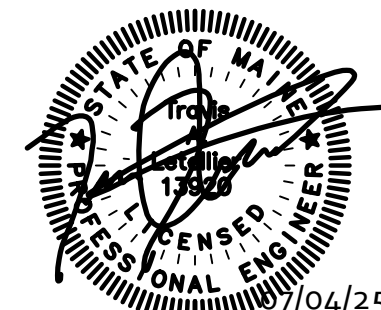
1. MANHOLE COVER FOR SEWER MANHOLE SHALL BE ENGRAVED "SEWER", AND SHALL BE EITHER ITEM # 2160A AS MANUFACTURED BY EAST JORDAN CO. OR ITEM # 14960002 AS MANUFACTURED BY NEENAH FOUNDRY. MANHOLE COVER FOR STORM SEWER SHALL BE ENGRAVED "DRAIN", AND SHALL BE EITHER ITEM # 2160A AS MANUFACTURED BY EAST JORDAN CO. OR ITEM # 14960003 AS MANUFACTURED BY NEENAH FOUNDRY.
2. MANHOLE FRAME SHALL BE EITHER ITEM # 14960001, AS MANUFACTURED BY NEENAH FOUNDRY, OR ITEM # 1960Z, AS MANUFACTURED BY EAST JORDAN CO.
3. WITHIN CITY OF PORTLAND ROW, STORM DRAIN MANHOLE SHALL CONFORM WITH "STANDARD PRECAST SEWER MANHOLE DETAIL", WITH THE EXCEPTION THAT THE COVER SHALL BE MARKED AS "DRAIN". REFER TO CITY OF PORTLAND TECHNICAL MANUAL, SECTION 2 – SANITARY SEWER AND STORM DRAIN, FIGURE II-1
4. SUBMITTAL REQUIRED FOR MANHOLES, MANHOLE FRAMES & MANHOLE COVERS



1. BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. STORM DRAIN COVER BETWEEN 2' AND 3' SHALL INCLUDE 4" OF RIGID INSULATION. COVER BETWEEN 3' AND 4' SHALL INCLUDE 2" RIGID INSULATION. OTHER LITINGS SHALL HAVE 4" RIGID INSULATION FOR EACH FOOT ABOVE MINIMUM DEPTH.
3. INSTALL WARNING TAPE DIRECTLY ABOVE UTILITIES AT THE TOP OF SUBGRADE.
4. MINIMUM COVER:
 - 4.1. 2'-0" - STORM DRAIN
 - 4.2. 5'-0" - SEWER
5. NO TREES SHALL BE PLANTED WITHIN 5' OF A SEWER PIPE OR SERVICE.
6. ALL TREES SHALL BE APPLIED ONLY TO DRAINAGE PIPE TRENCHES OUTSIDE OF THE CITY OF PORTLAND ROW.
7. THICKNESS AS NOTED BY SURFACE DETAILS



FOR REVIEW
NOT FOR CONSTRUCTION



GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

STROUDWATER
COMMONS
PARCEL ID: 217 A010001 & 217 A011001

NO.	DATE	APPR.	DESCRIPTION
1	07-03-24	TAL	CITY SITE PLAN/SUBDIVISION SUBMISSION
2	11-22-20	TAL	RESPONSE TO CITY REVIEW COMMENTS
3	03-08-25	TAL	REVISED PER CONS. RES. DEV STANDARDS
4	05-16-25	TAL	REVISED PER STAFF COMMENTS
5	07-04-25	TAL	REVISED PER PLANNING STAFF COMMENTS

DRAWN:
TAI

SCALE:
NOTED

DATE:
4/17/2024

SHEET:

C502

13 of 20



PREPARED FOR:

GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

PROJECT:

STROUDWATER
COMMONS
PARCEL ID: 217 A010001 & 217 A011001

TITLE:

CONSTRUCTION
DETAILS

REVISION:

NO.	DATE	DESCRIPTION
1	07/01/24	CITY SITE PLAN SUBMISSION
2	11/21/24	RESPONSE TO CITY REVIEW COMMENTS
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4	05/16/25	REVISED PER STAFF COMMENTS
5	07/04/25	REVISED PER PLANNING STAFF COMMENTS

DRAWN:

TAL

SCALE:

NOTED

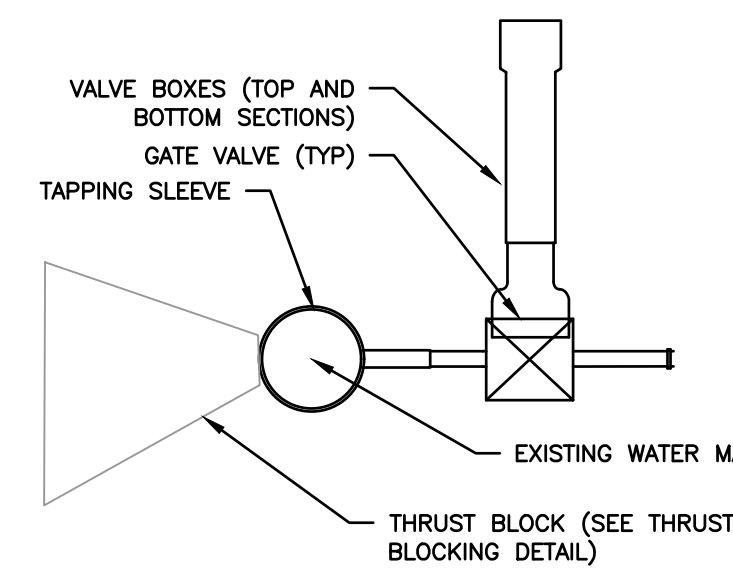
DATE:

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SHEET:

C503

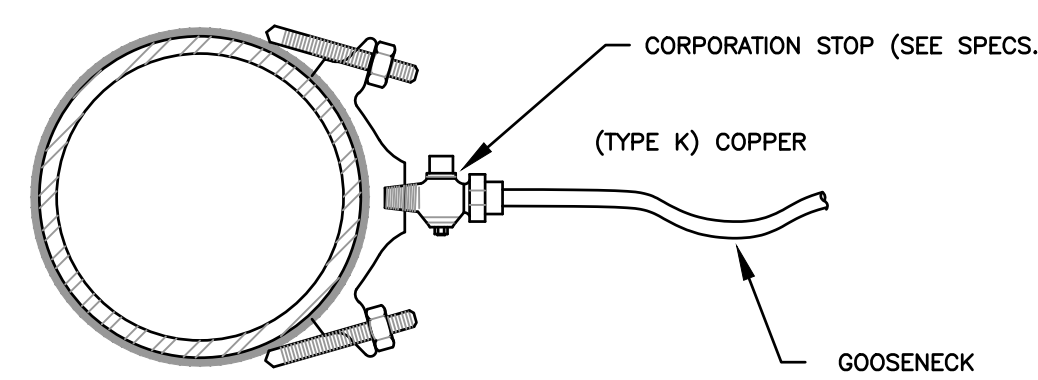
14 of 20



SIDE VIEW

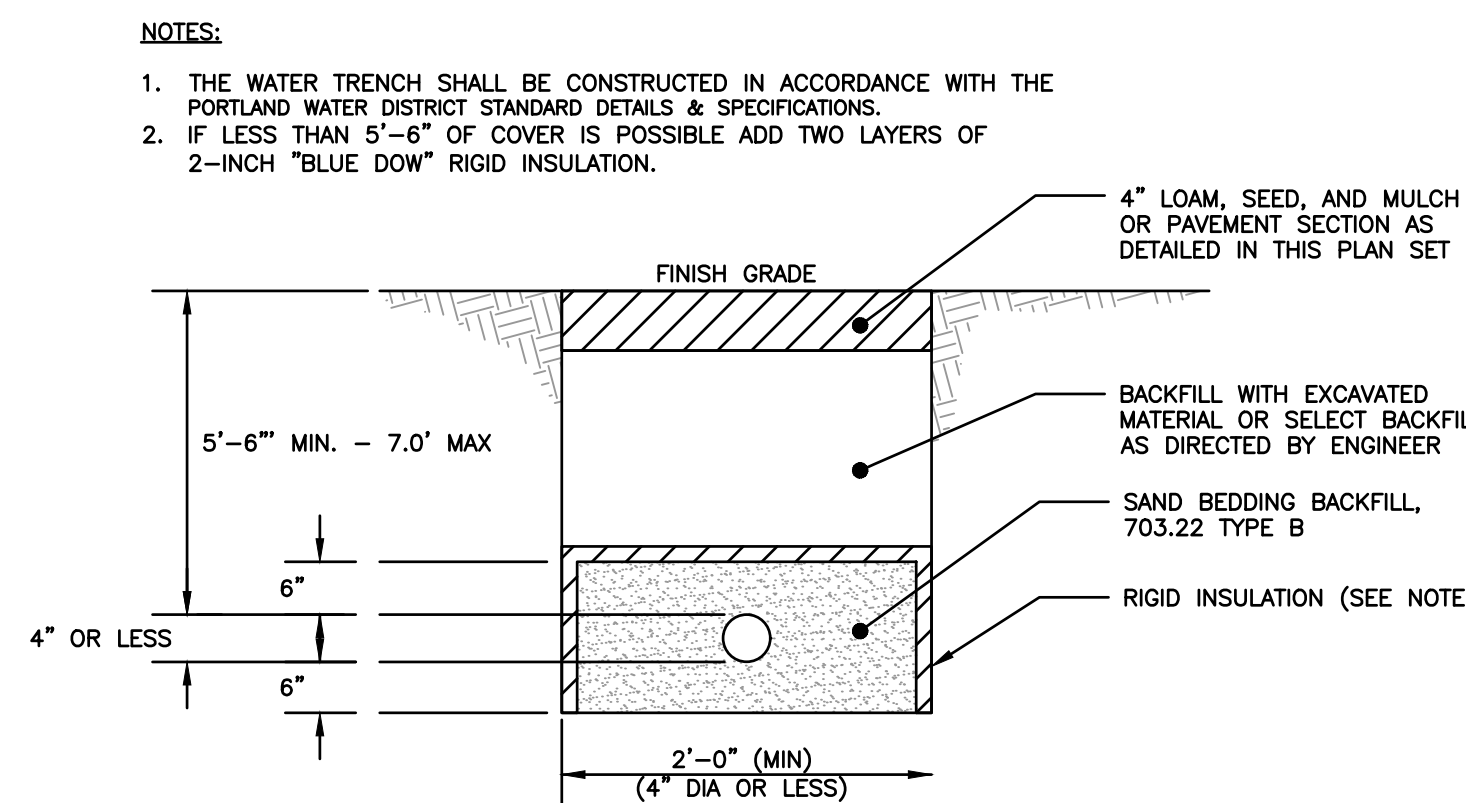
TAPPING SLEEVE AND VALVE

NOT TO SCALE



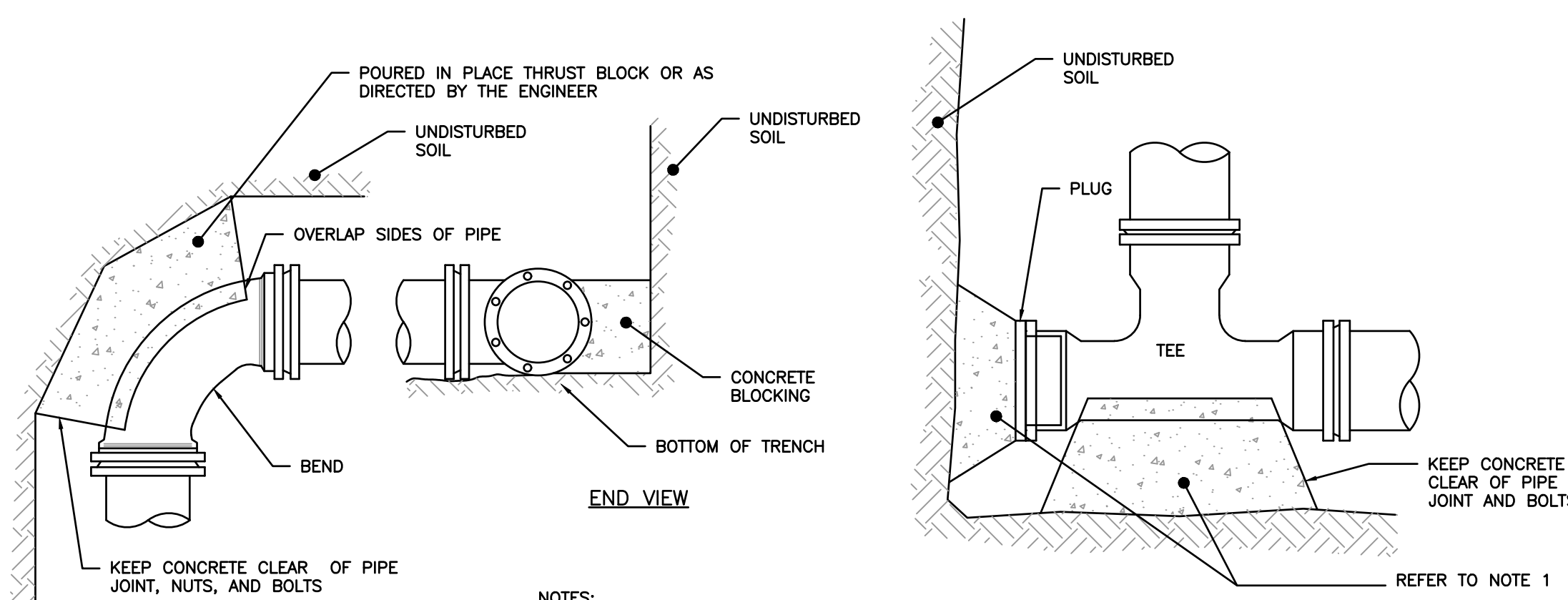
SERVICE SADDLE: 4" C.C. THREAD

NOT TO SCALE



WATER SERVICE TRENCH SECTION DETAIL

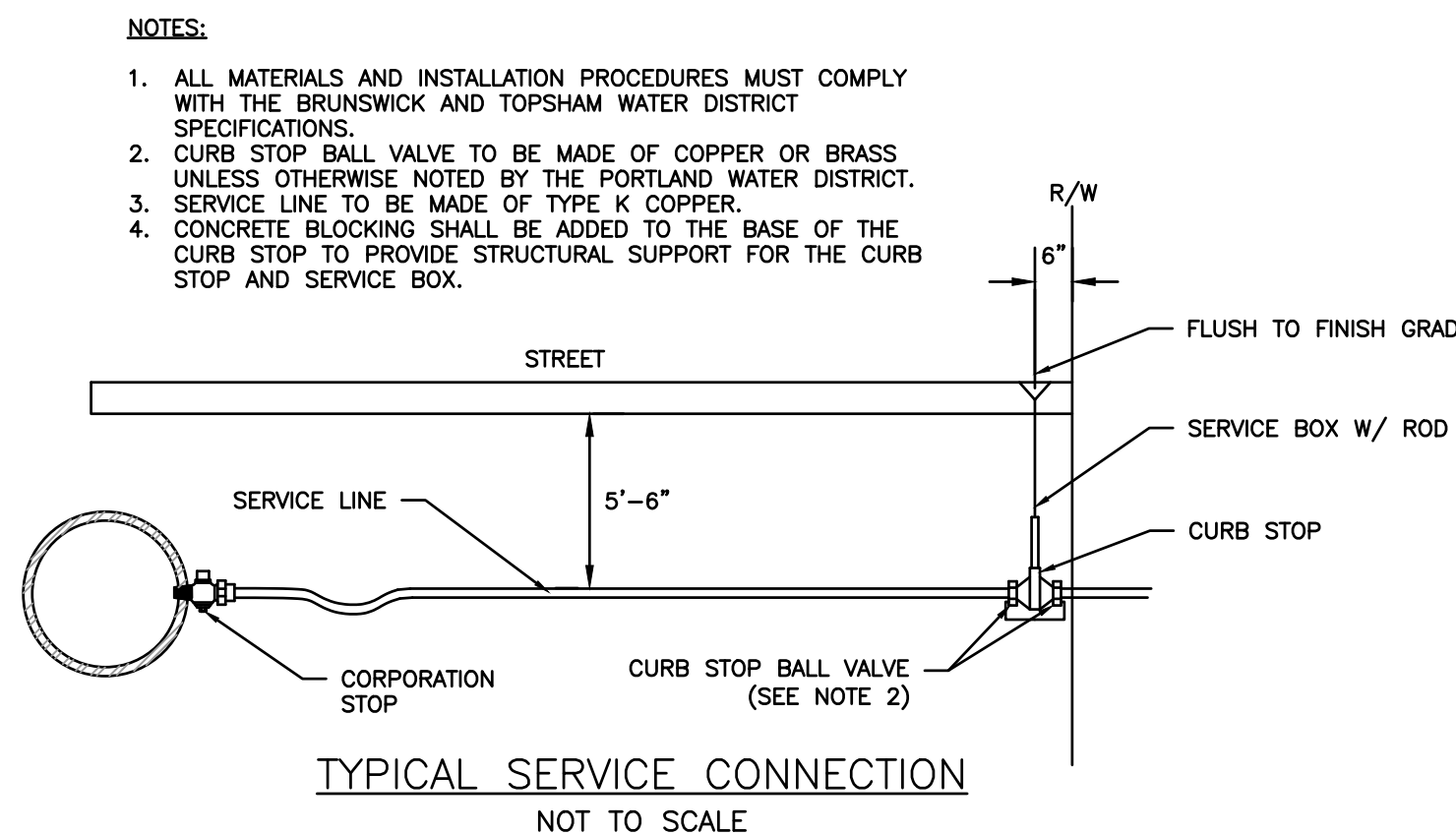
NOT TO SCALE



NOTES:
1. IF DEAD END WITH TEE, THRUST BLOCK WOULD BE REQUIRED AND SECTION AS DIRECTED BY THE ENGINEER
2. SEE THRUST/RETAINER GLAND SCHEDULE FOR TYPE OF BLOCKING TO BE USED ON BENDS

THRUST BLOCKING: REGULAR BEND

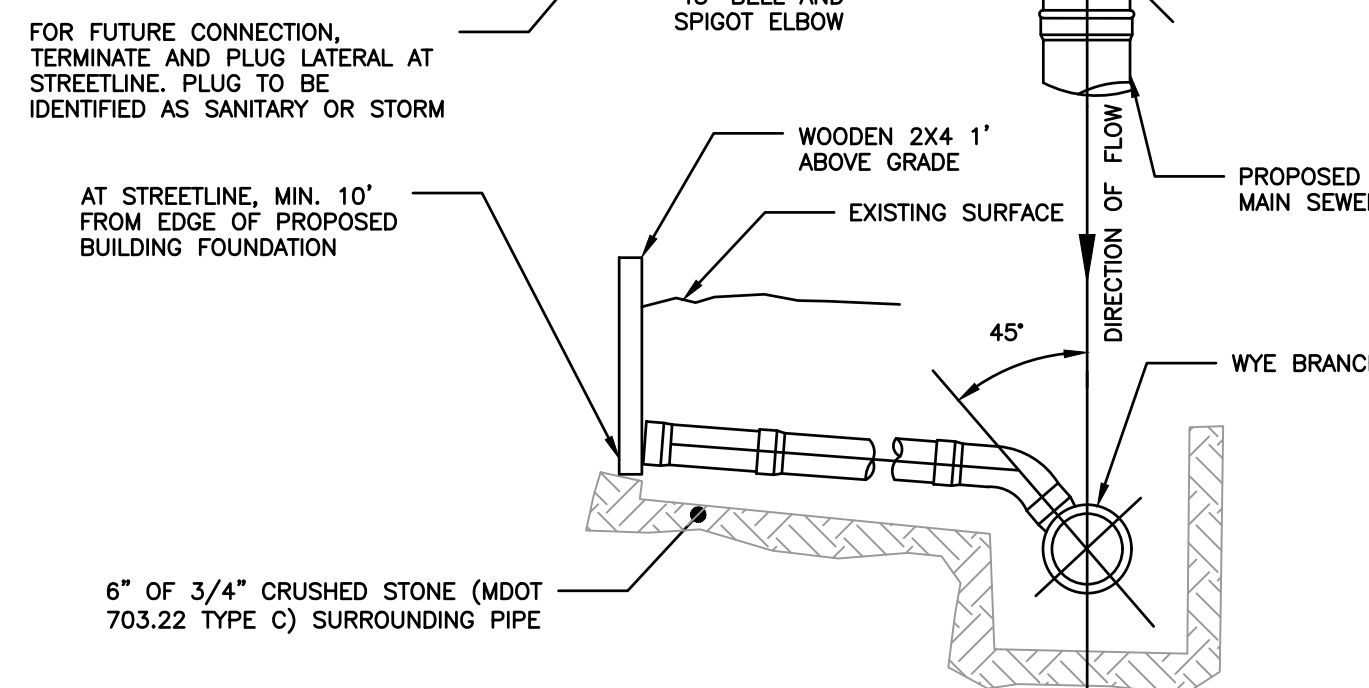
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TYPICAL SERVICE CONNECTION

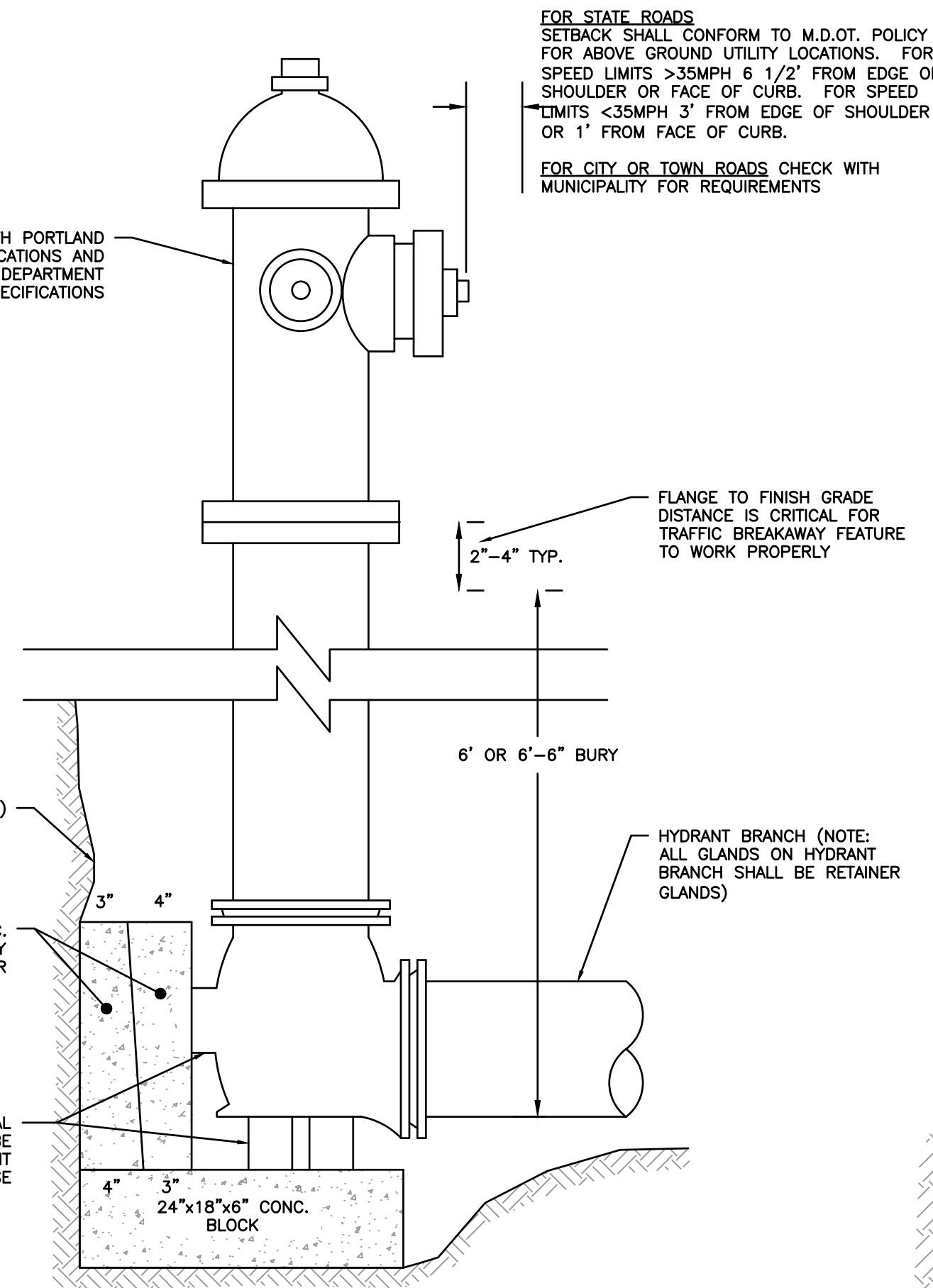
NOT TO SCALE

NOTES:
1. LOCATION WITH WARNING TAPE SHALL BE INSTALLED OVER CENTERLINE OF PIPE AT A MAXIMUM OF 24 INCHES BELOW FINISH GRADE.
2. SITE CONTRACTOR TO COORDINATE CONNECTION OF SEWER LATERAL TO HOUSEHOLD PLUMBING WITH ARCHITECTURAL CONTRACTOR
3. CONNECTION OF PROPOSED SEWER LATERAL TO HOUSEHOLD PLUMBING SHOULD INCORPORATE USE OF SIMILAR PIPE MATERIALS. IN THE CASE OF DISSIMILAR PIPES BEING USED, A FERNOCO FLEXIBLE COUPLING SHALL BE USED.
EXTEND WOODEN 2X4 TO 1' ABOVE GRADE TO DELINEATE END OF STUB. MARK 2X4 WITH THE DEPTH FROM GRADE TO PLUG. MAINTAIN RECORD OF LOCATION BY TAKING 3 TIES TO STAKE FROM PERMANENT POINTS.



SEWER TEE/WYE CONNECTION DETAIL

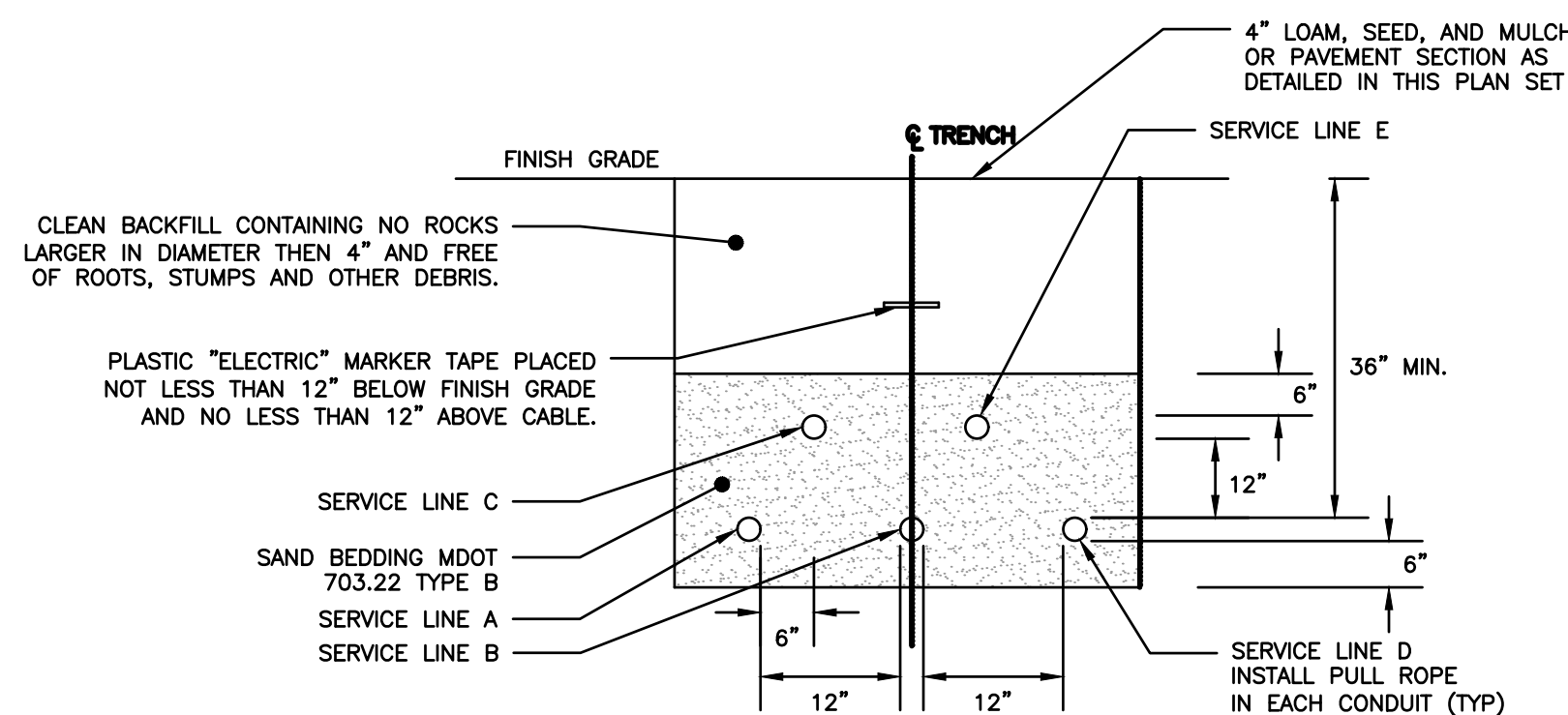
NOT TO SCALE



TYPICAL HYDRANT

INSTALLATION DETAIL

NOT TO SCALE



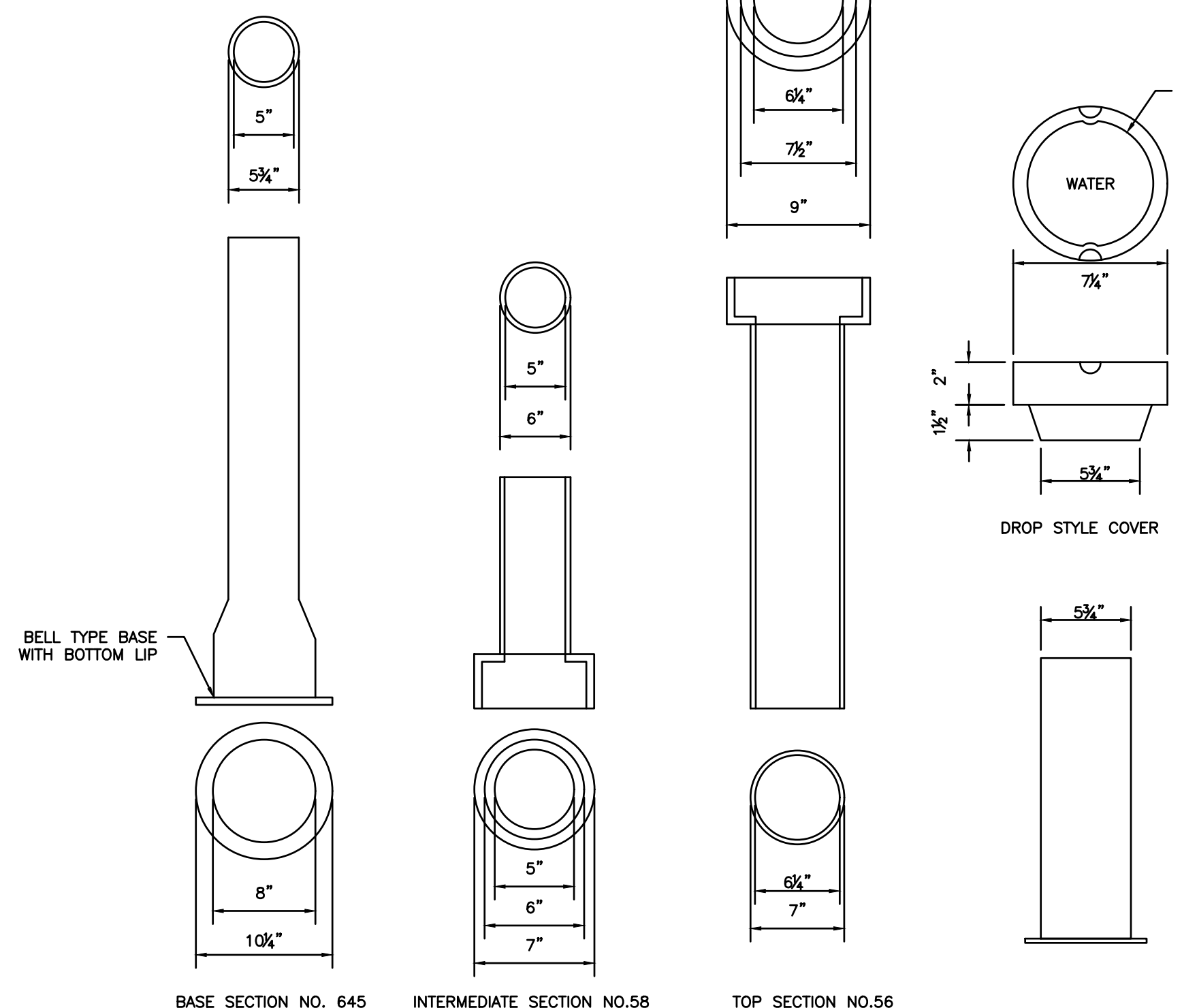
CONDUIT TYPE				
SERVICE	CONDUIT SIZE	GRASS AND PAVED AREAS	UTILITY	REMARKS
A	5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE 1
B	5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE 1
C	2-4"	SCHEDULE 40 PVC	COMMUNICATION	-
D	5"	SCHEDULE 40 PVC ELECTRICAL GRADE	SPARE	SEE NOTE 1
E	2-4"	SCHEDULE 40 PVC	CABLE	-

NOTES:
1. ONE CONDUIT CAPPED FOR SPARE, PROVIDE GALVANIZED STEEL LONG SWEEP AT RISER POLE AND EXTEND GALVANIZED CONDUIT TO 10' ABOVE GRADE AT POLE WITH STAND-OFF BRACKETS.
2. MINIMUM SEPARATION OF 24 INCHES BETWEEN PRIMARY CABLE/CONDUIT AND GAS LINES SHALL BE MAINTAINED.
3. CONDUITS WITHIN THE TOWN RIGHT-OF-WAY SHALL BE ENCASED IN CONCRETE.
4. FINAL SIZE OF CONDUITS TO BE SPECIFIED BY MEP, ELECTRICIAN, OR DESIGN/BUILD ELECTRICAL CONTRACTOR.

UTILITY TRENCH - PRIMARY AND SECONDARY POWER, TELEPHONE, AND CABLE

NOT TO SCALE

NOTES:
1. DIMENSIONS APPLICABLE FOR 5 1/4\"/>



BASE SECTION NO. 645

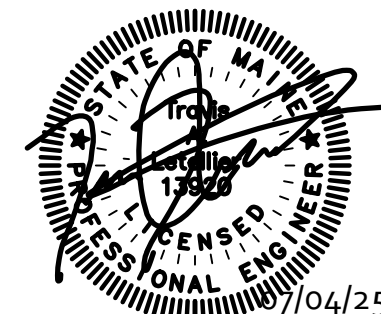
INTERMEDIATE SECTION NO. 58

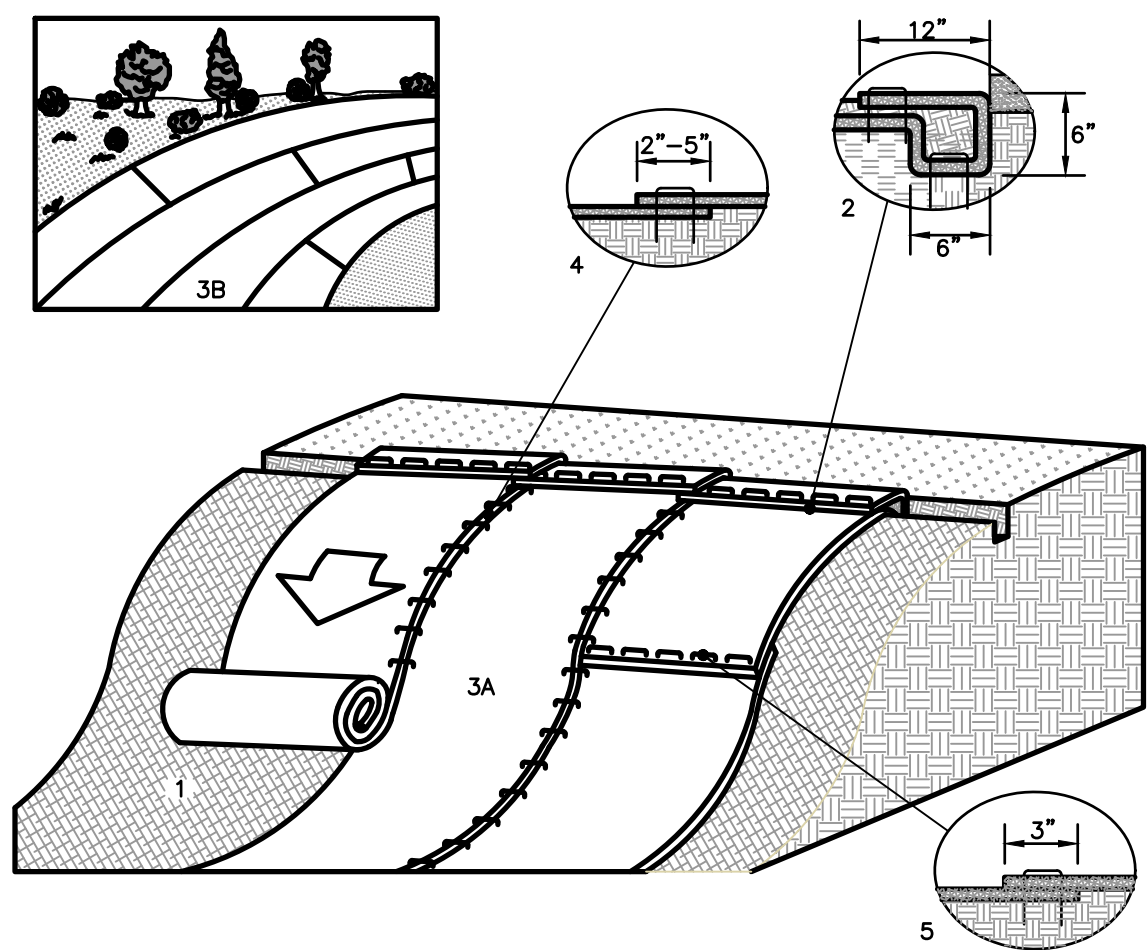
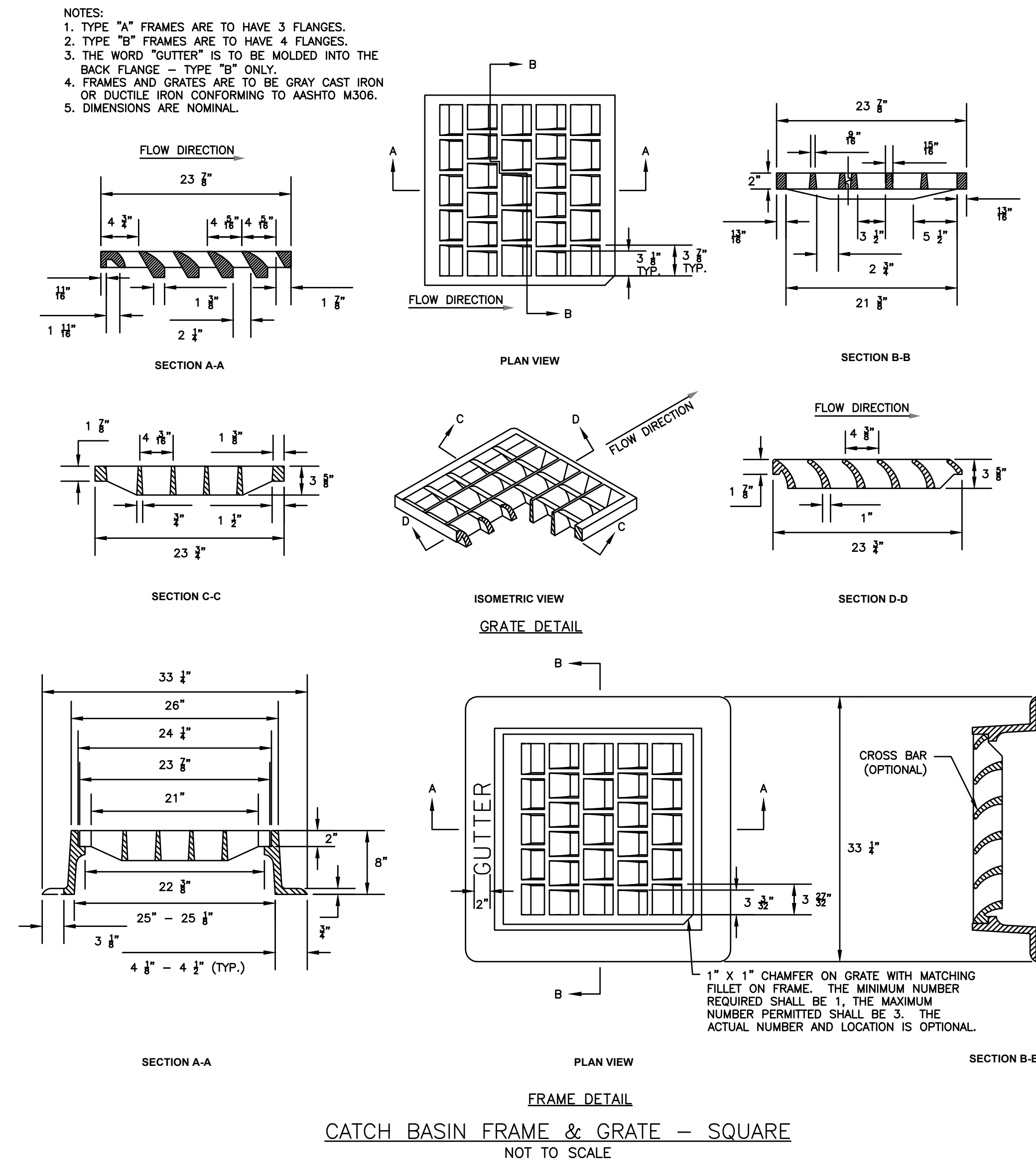
TOP SECTION NO. 56

VALVE BOX & COVER

NOT TO SCALE

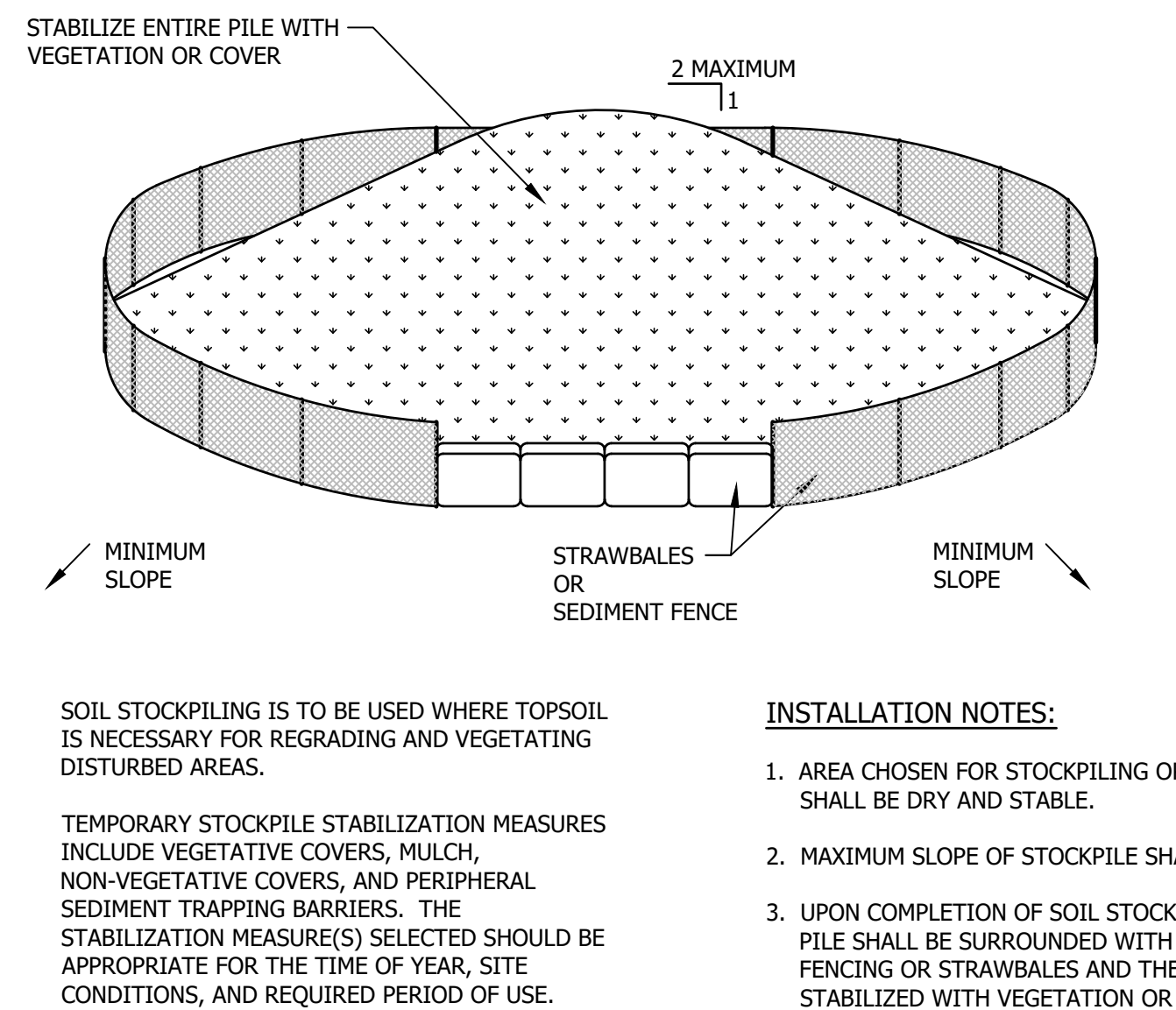
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1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (ECB), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE ECB IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF 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 OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE ECB.
3. ROLL THE ECB (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. ECB WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL ECB MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
4. THE EDGES OF PARALLEL ECB MUST BE STAPLED WITH APPROXIMATELY 2" - 5" OVERLAP DEPENDING ON THE ECB TYPE.
5. CONSECUTIVE ECB SPICED DOWN THE SLOPE MUST BE END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE ECB WIDTH.

NOTE:
IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE ECB.

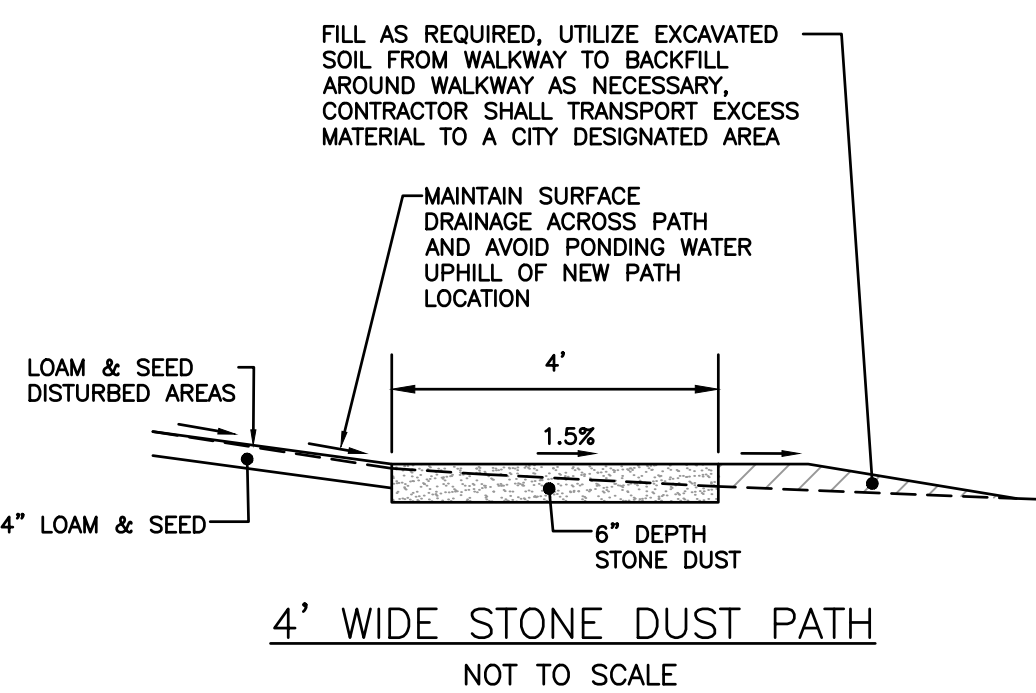
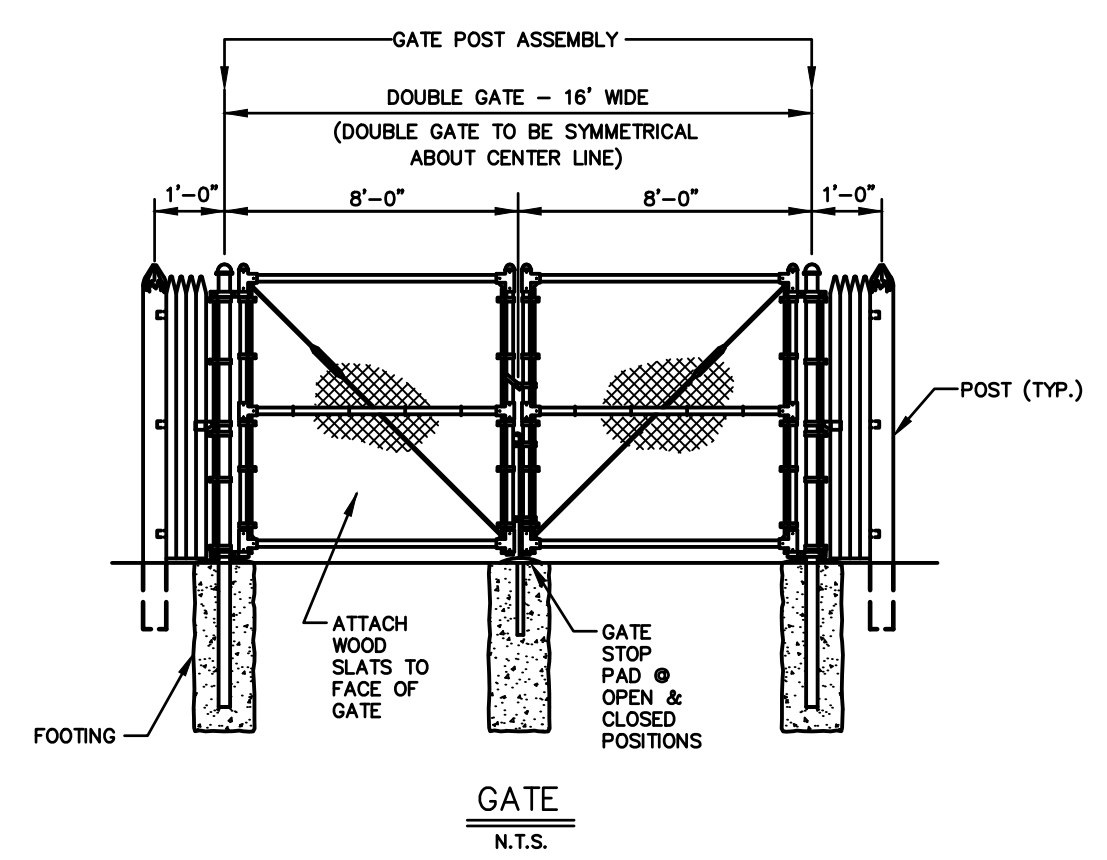
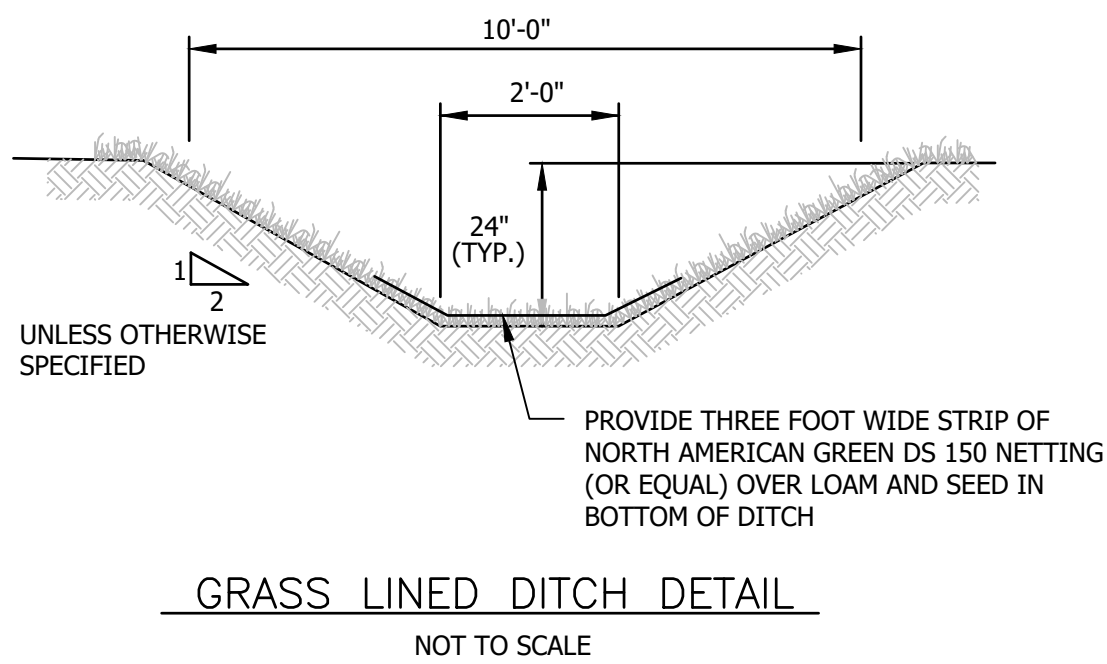


SOIL STOCKPILING IS TO BE USED WHERE TOPSOIL IS NECESSARY FOR REGRADING AND VEGETATING DISTURBED AREAS.

TEMPORARY STOCKPILE STABILIZATION MEASURES INCLUDE VEGETATIVE COVERS, MULCH, NON-VEGETATIVE COVERS, AND PERIPHERAL SEDIMENT TRAPPING BARRIERS. THE STABILIZATION MEASURE(S) SELECTED SHOULD BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, AND REQUIRED PERIOD OF USE.

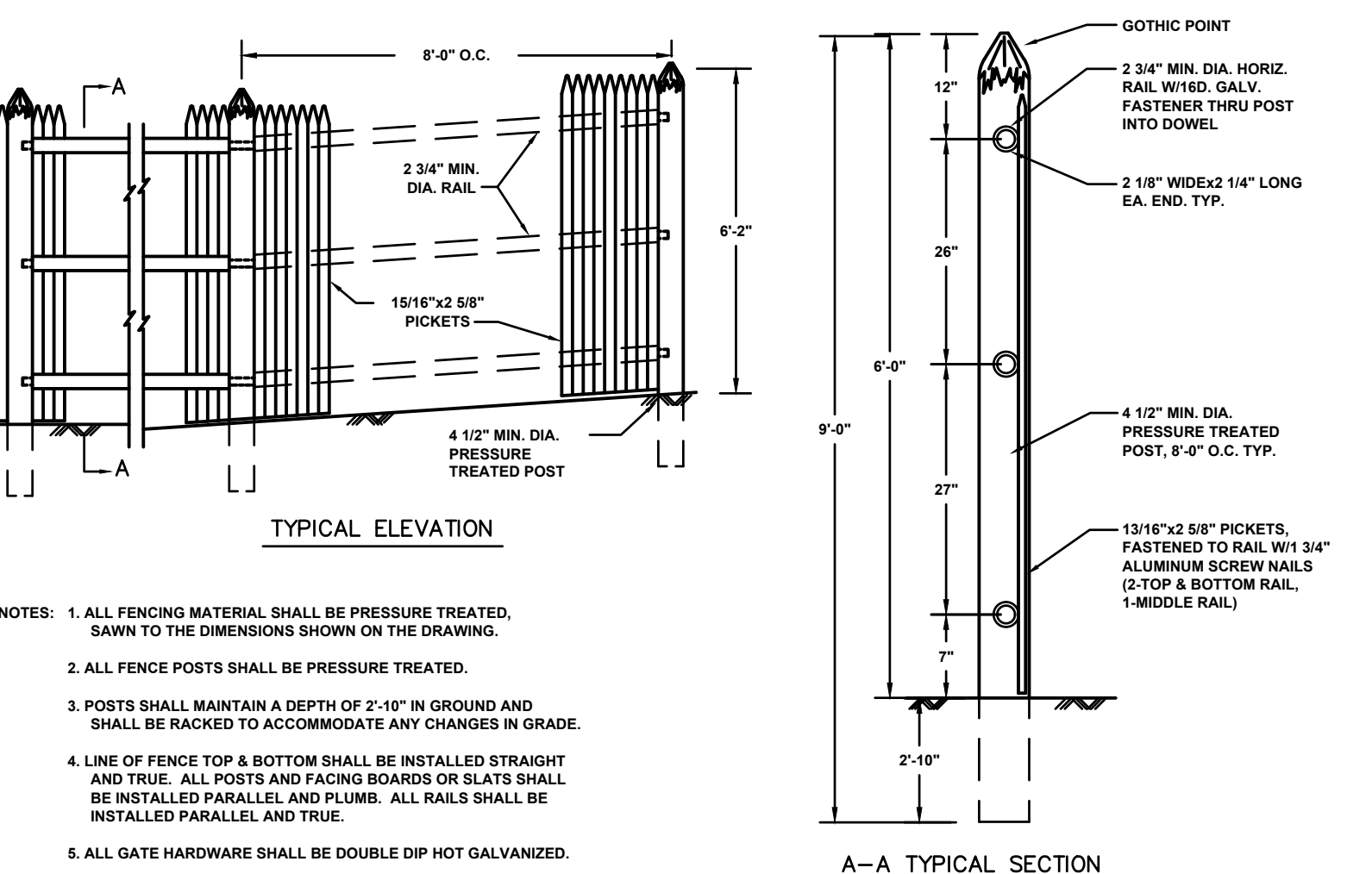
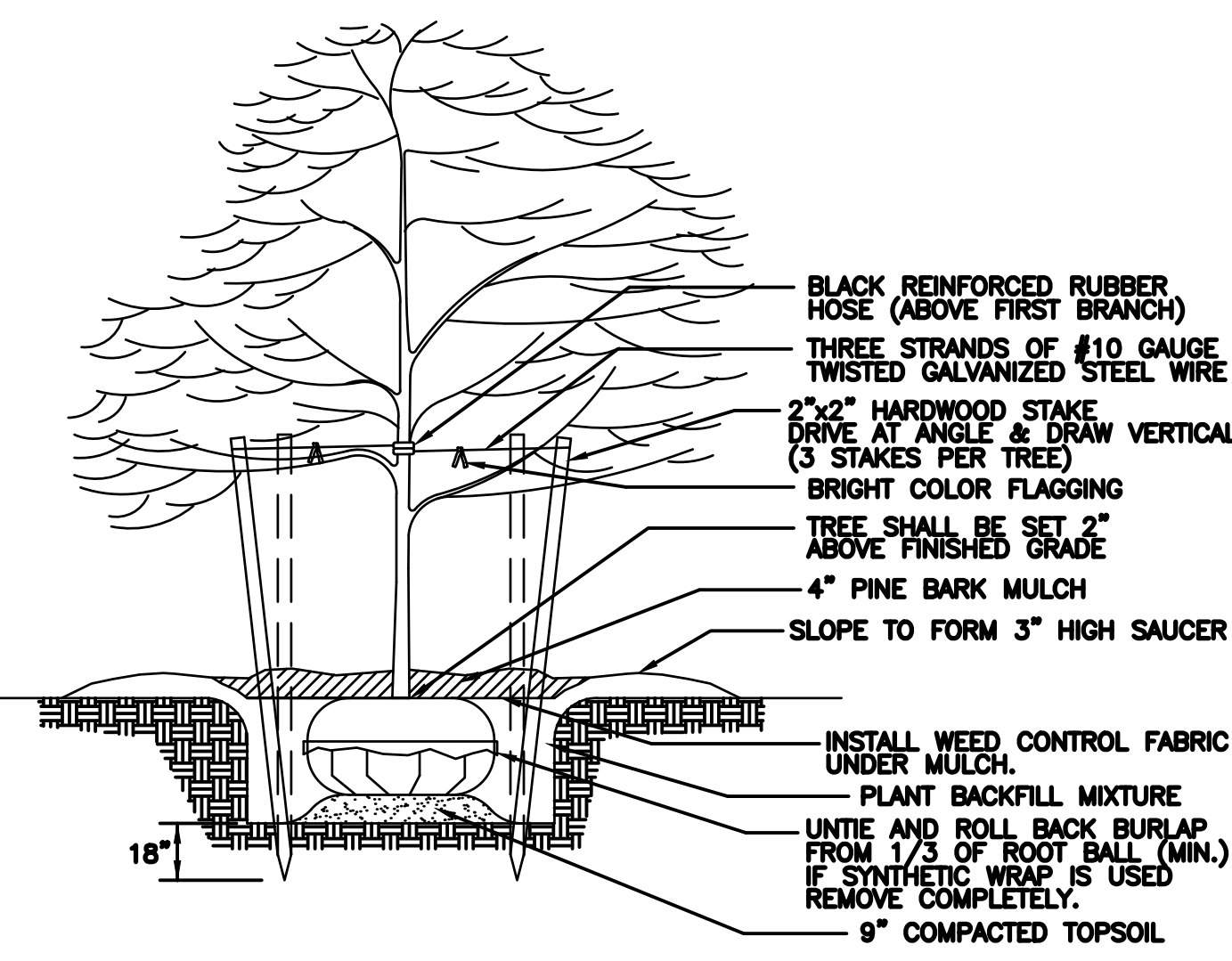
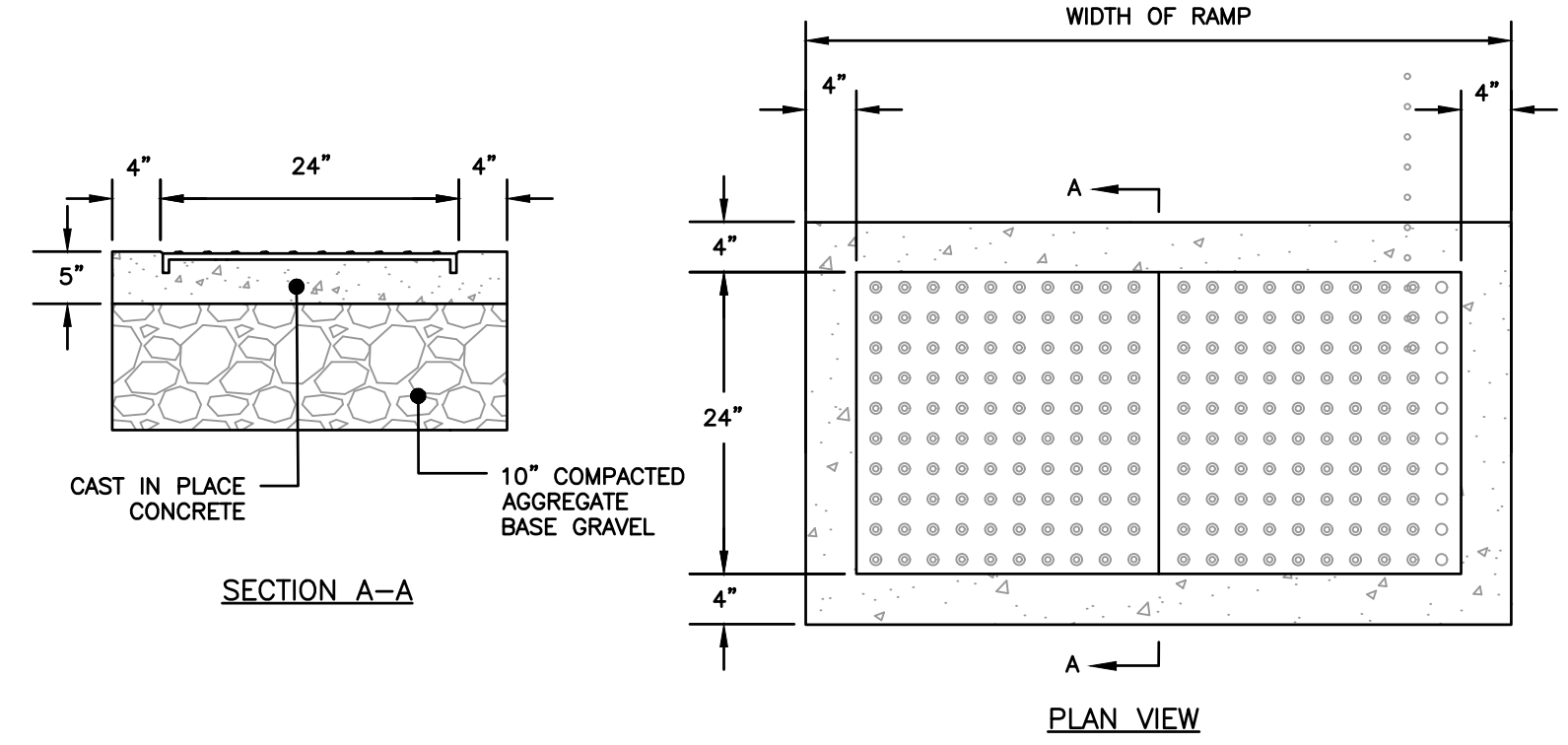
INSTALLATION NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES AND THEN STABILIZED WITH VEGETATION OR COVERED.



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.



- NOTES:
1. ALL FENCING MATERIAL SHALL BE PRESSURE TREATED, SAWN TO THE DIMENSIONS SHOWN ON THE DRAWING.
 2. ALL FENCE POSTS SHALL BE PRESSURE TREATED.
 3. POSTS SHALL MAINTAIN A DEPTH OF 2'-10" IN GROUND AND SHALL BE RACKED TO ACCOMMODATE ANY CHANGES IN GRADE.
 4. LINE OF FENCE TOP & BOTTOM SHALL BE INSTALLED STRAIGHT AND TRUE. ALL POSTS AND FACING BOARDS OR SLATS SHALL BE INSTALLED PARALLEL AND PLUMB. ALL RAILS SHALL BE INSTALLED PARALLEL AND TRUE.
 5. ALL GATE HARDWARE SHALL BE DOUBLE DIP HOT GALVANIZED.



PREPARED FOR: GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

PROJECT: **STROUDWATER COMMONS**
PARCEL ID: 217 A010001 & 217 A011001

TITLE:		REVISION:	
CONSTRUCTION DETAILS		NO.	DESCRIPTION
		1.	CITY SITE PLAN SUBDIVISION SUBMISSION
		2.	RESPONSE TO CITY REVIEW COMMENTS
		3.	REVISED PER CONS. RES. DEV. STANDARDS
		4.	REVISED PER STAFF COMMENTS
DRAWN:		DATE:	
TAL		4/17/2024	
SCALE:		DATE:	
NOTED		4/17/2024	

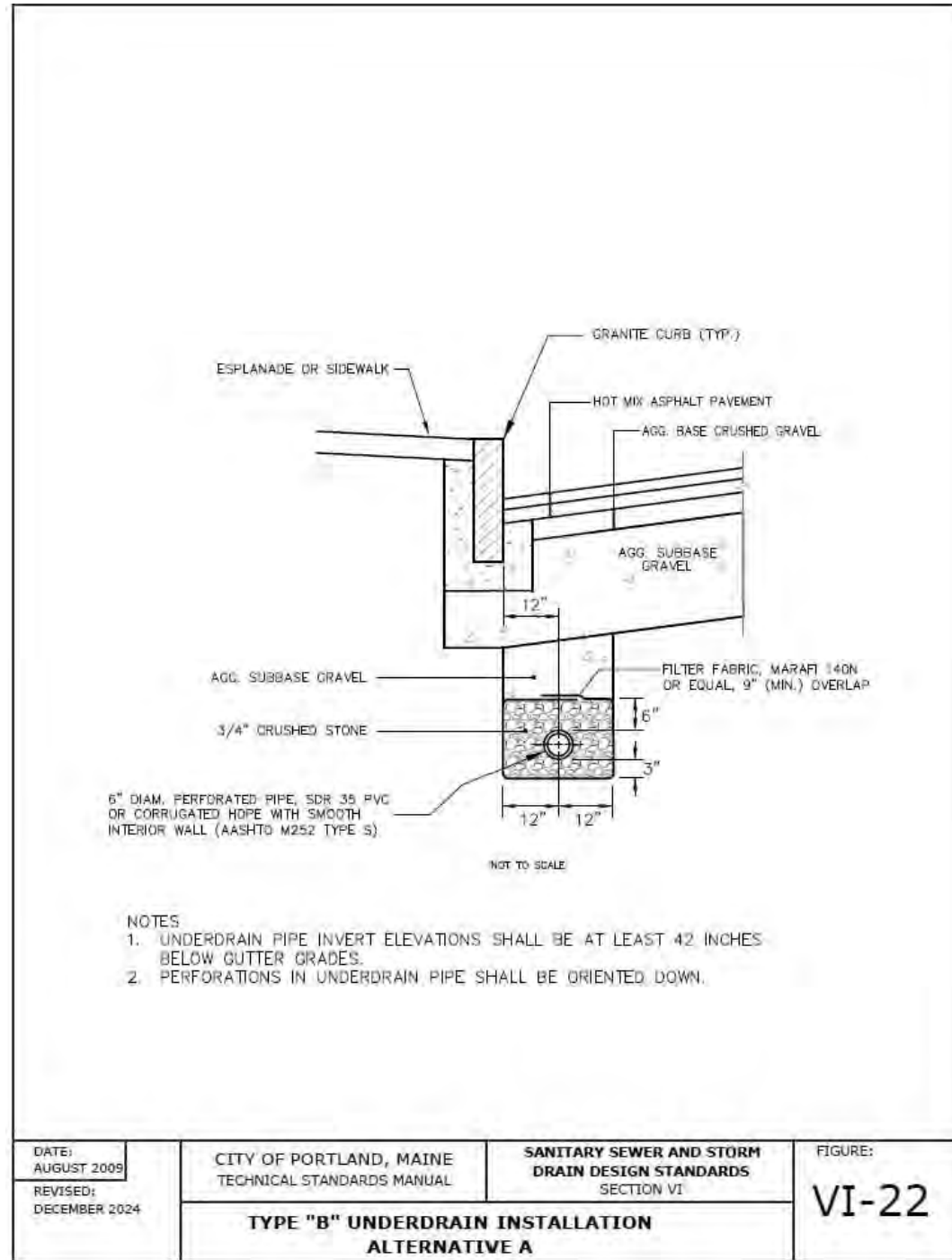
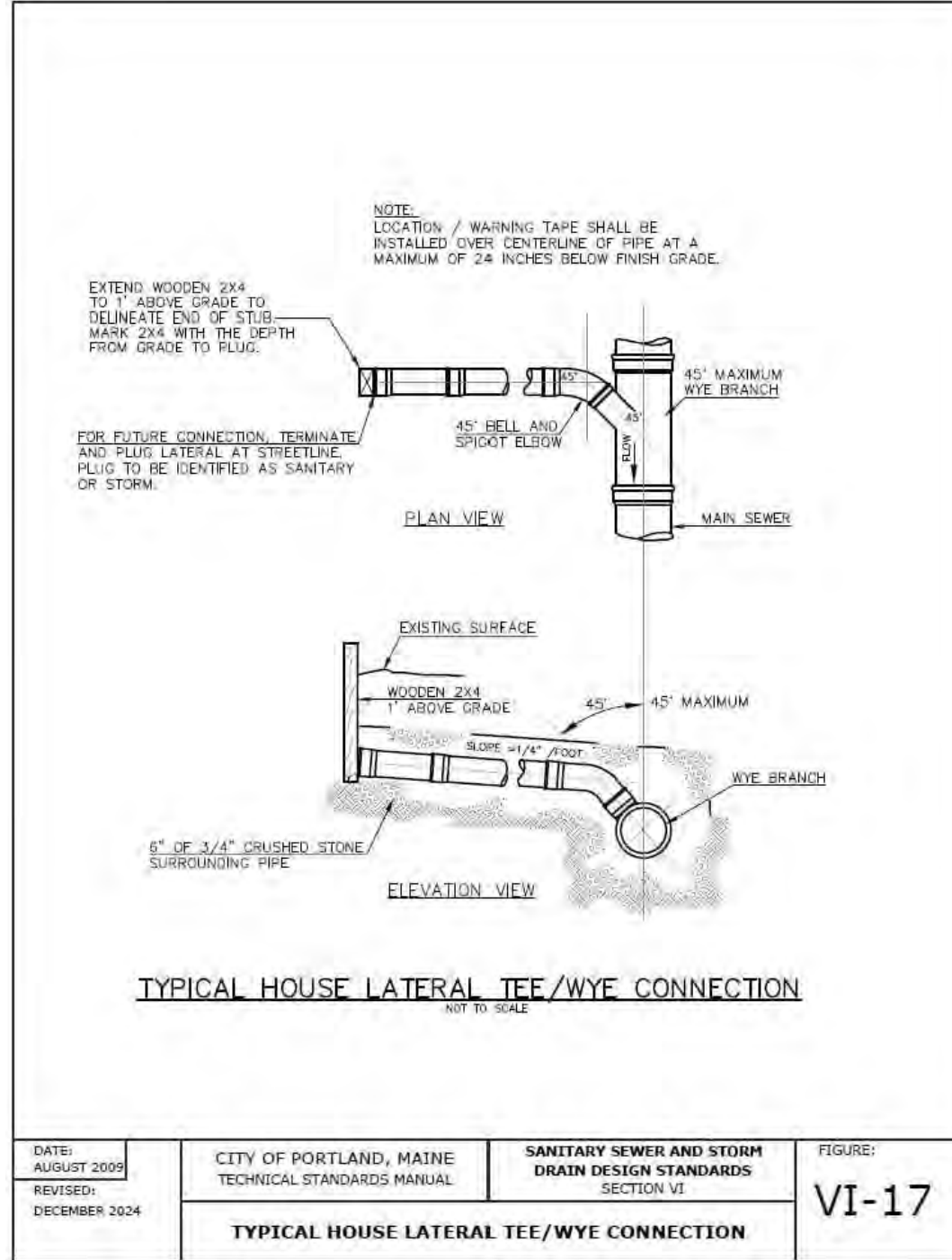
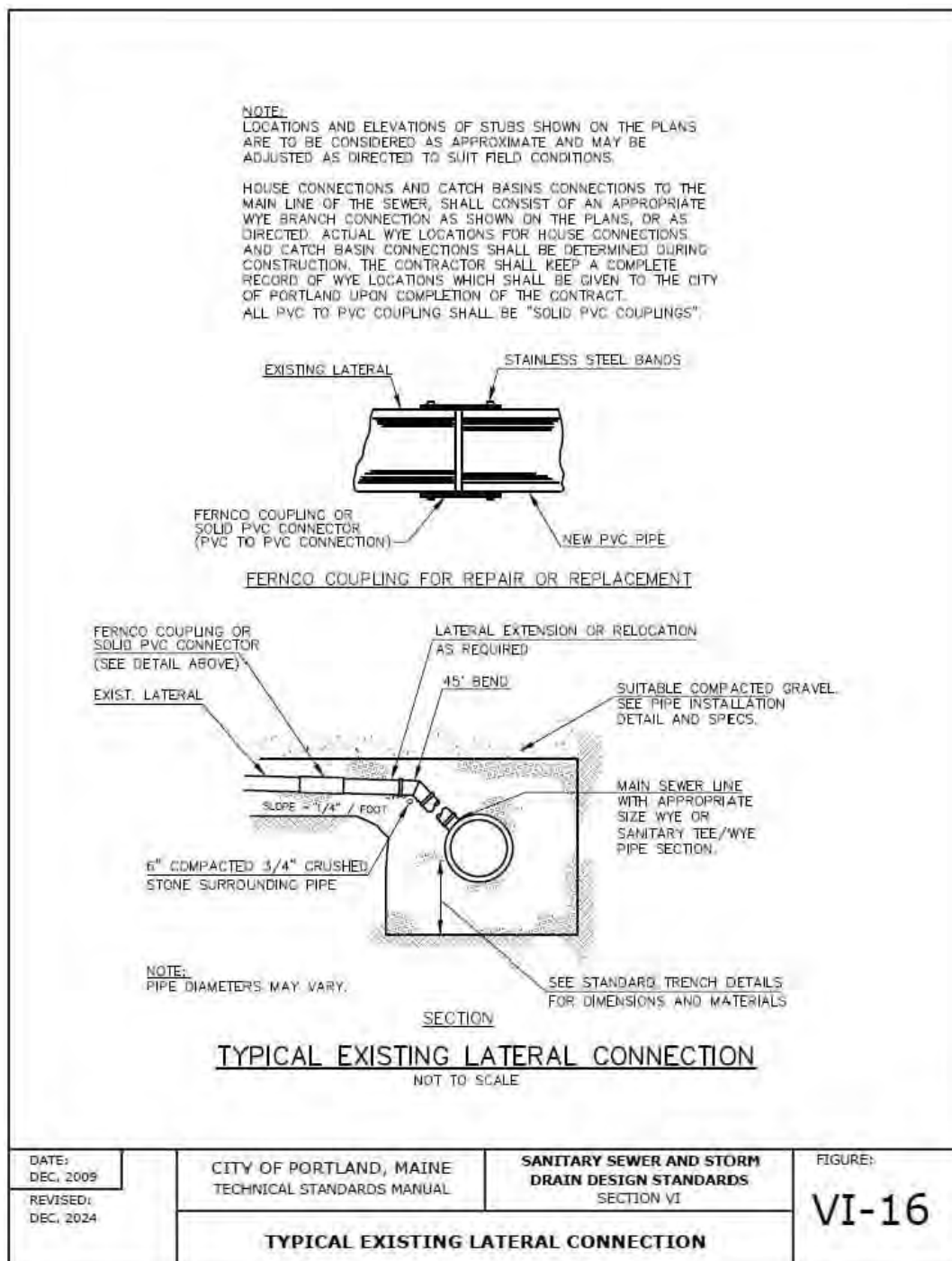
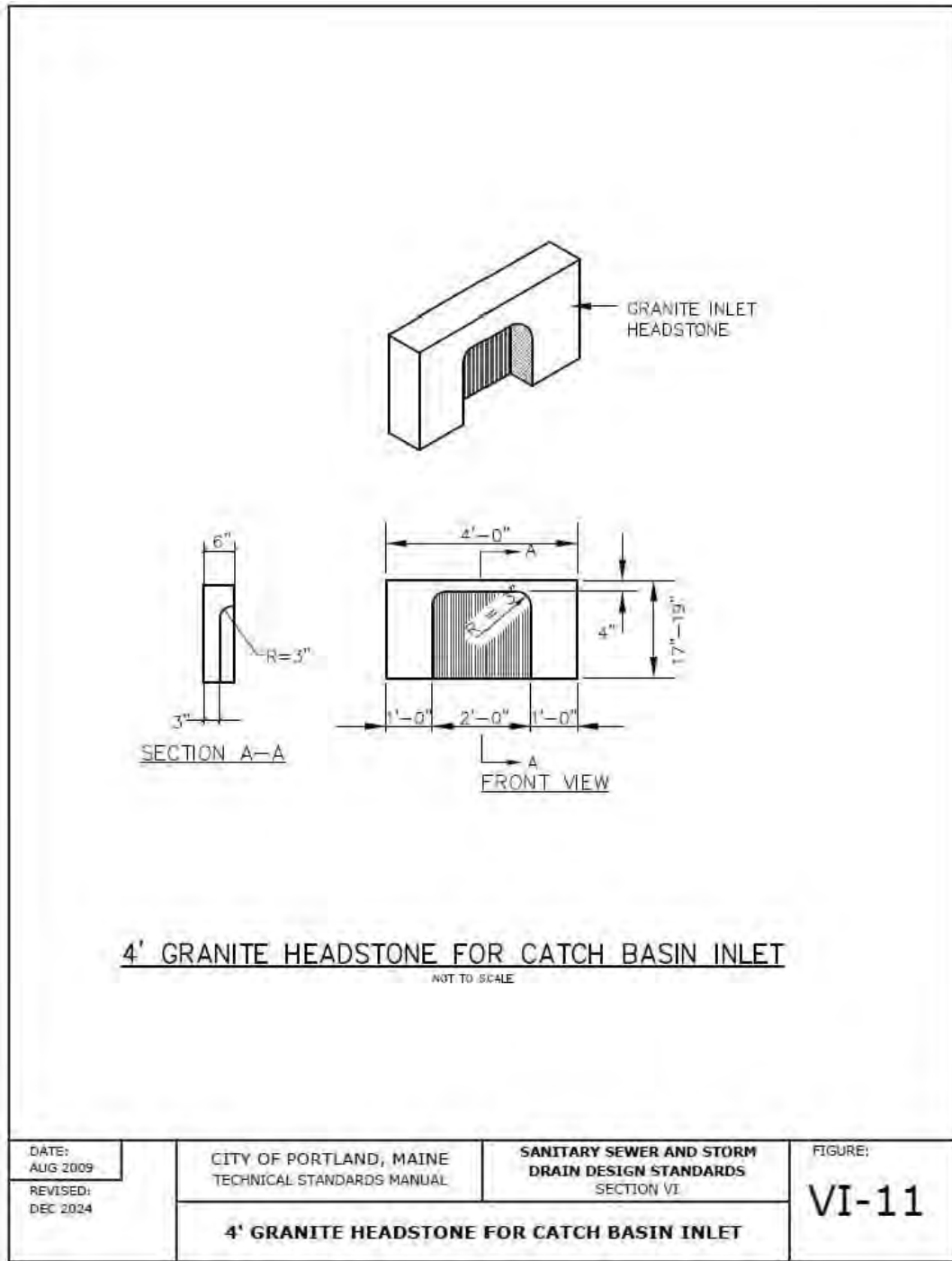
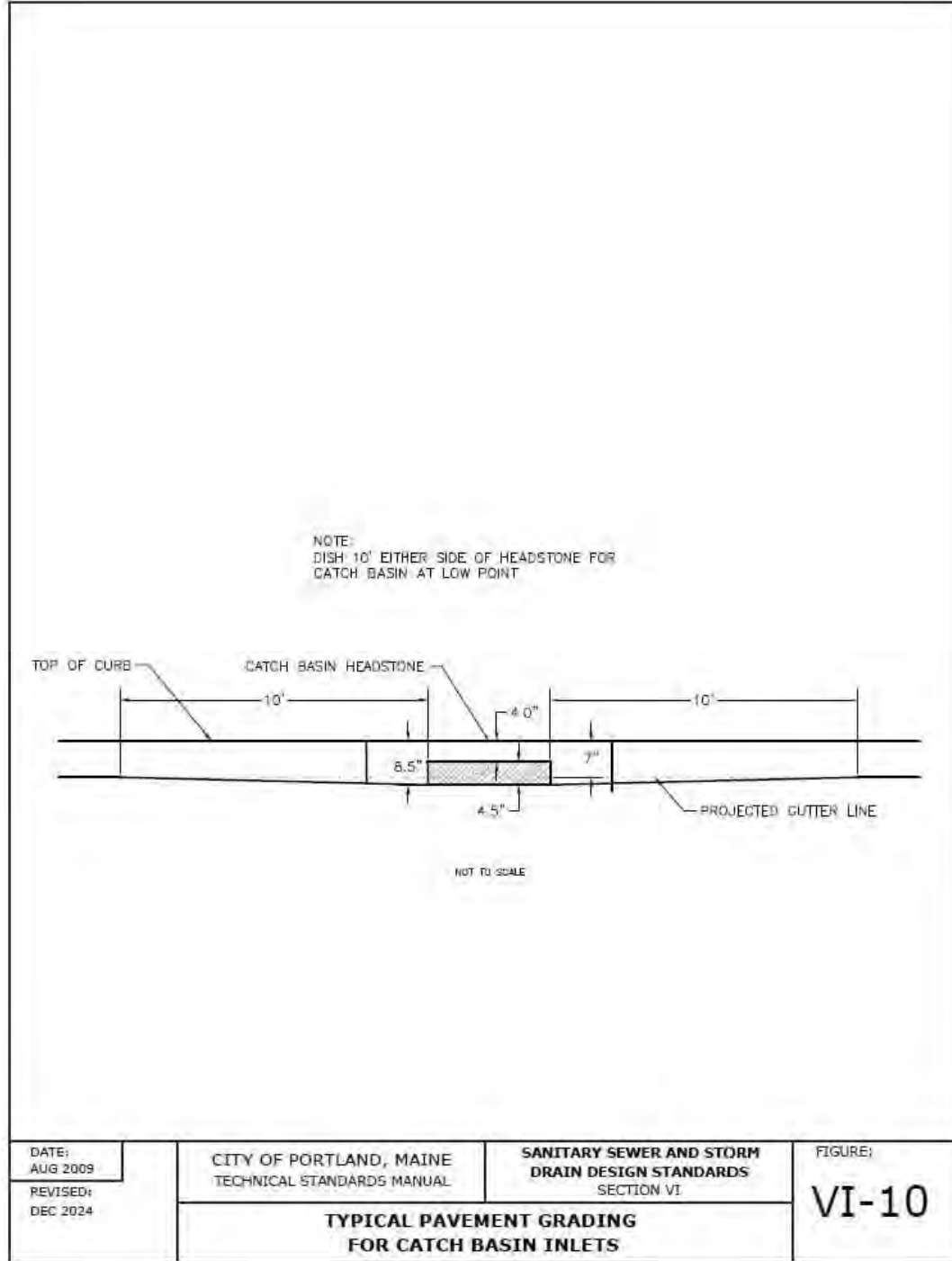
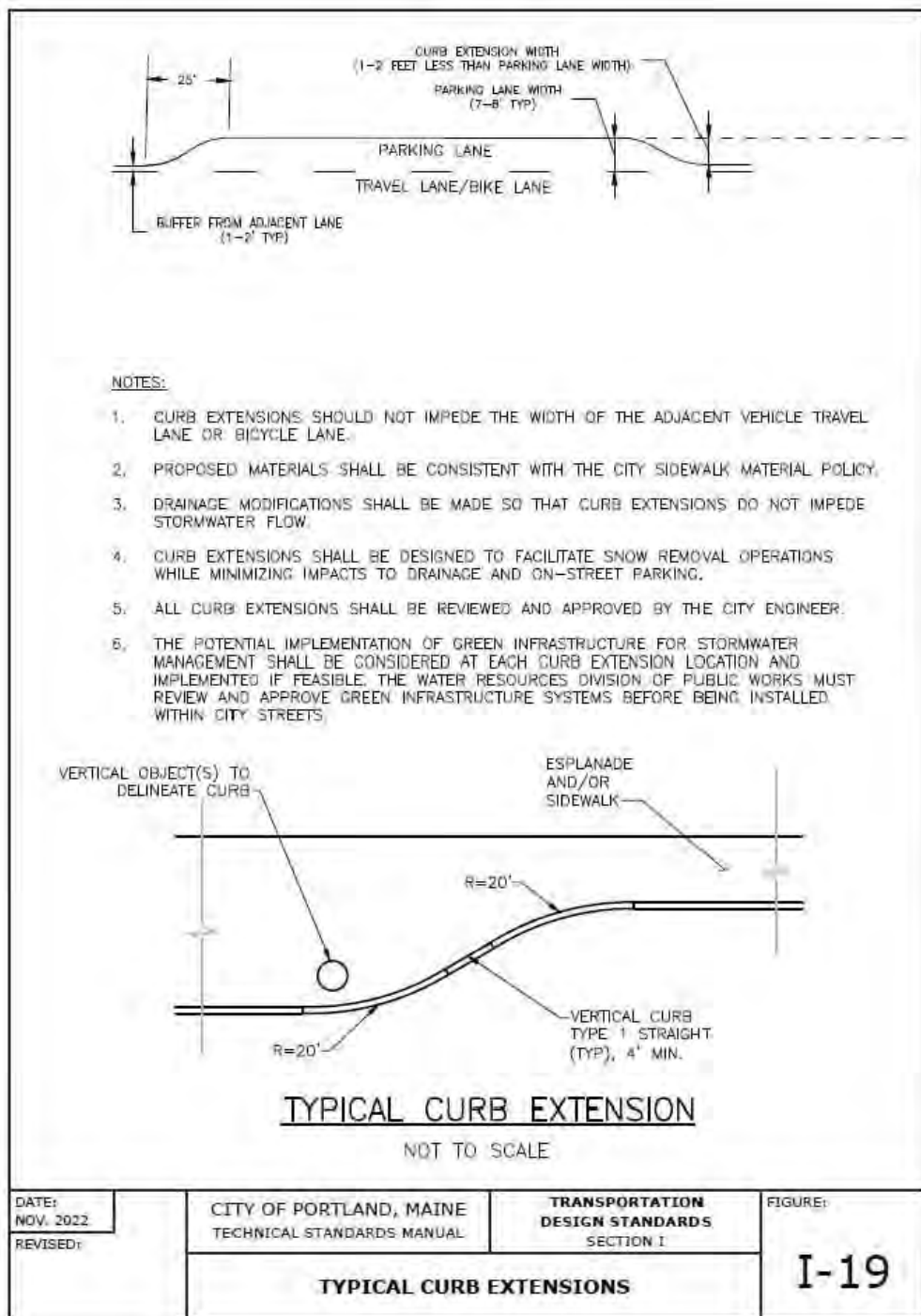
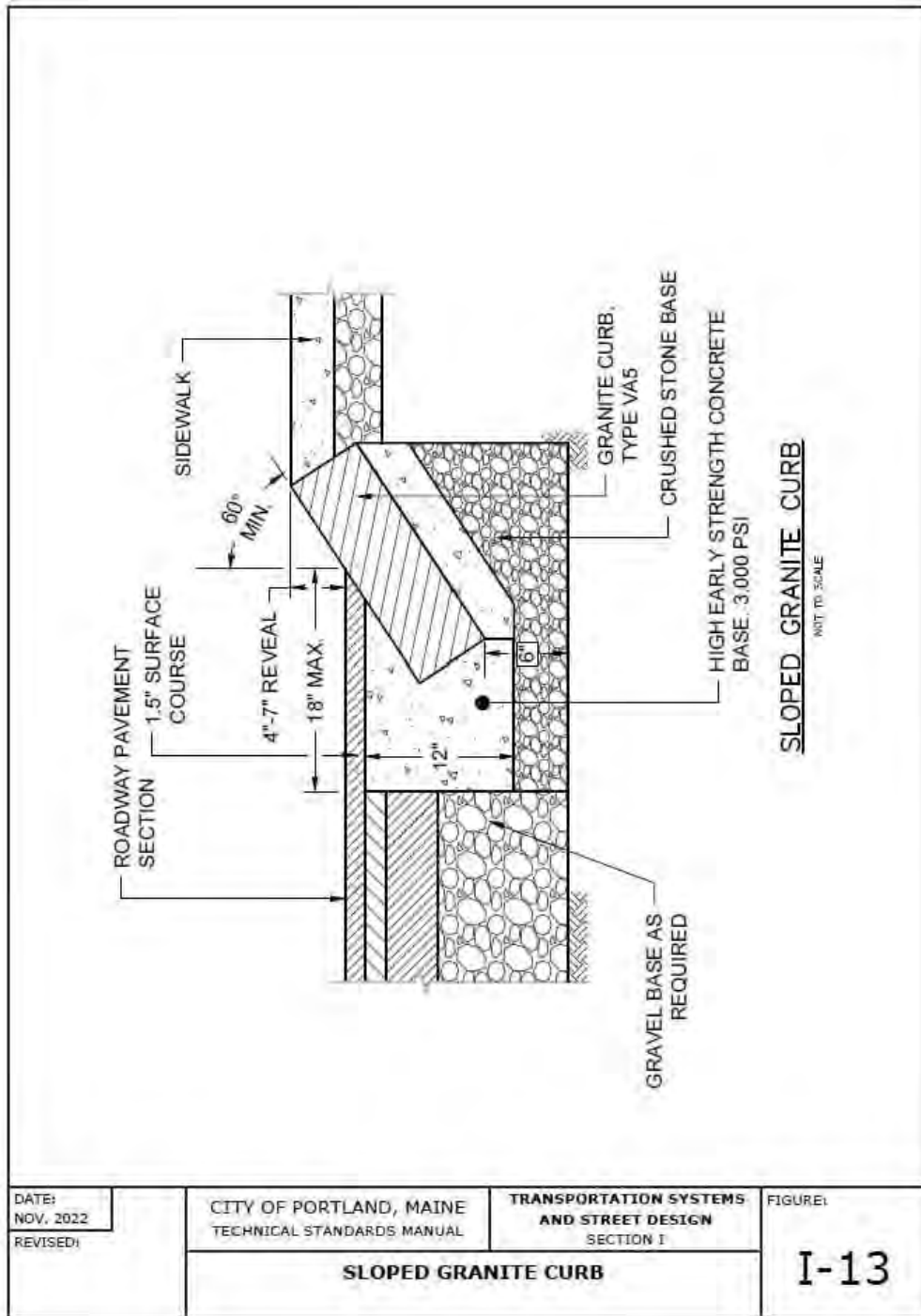
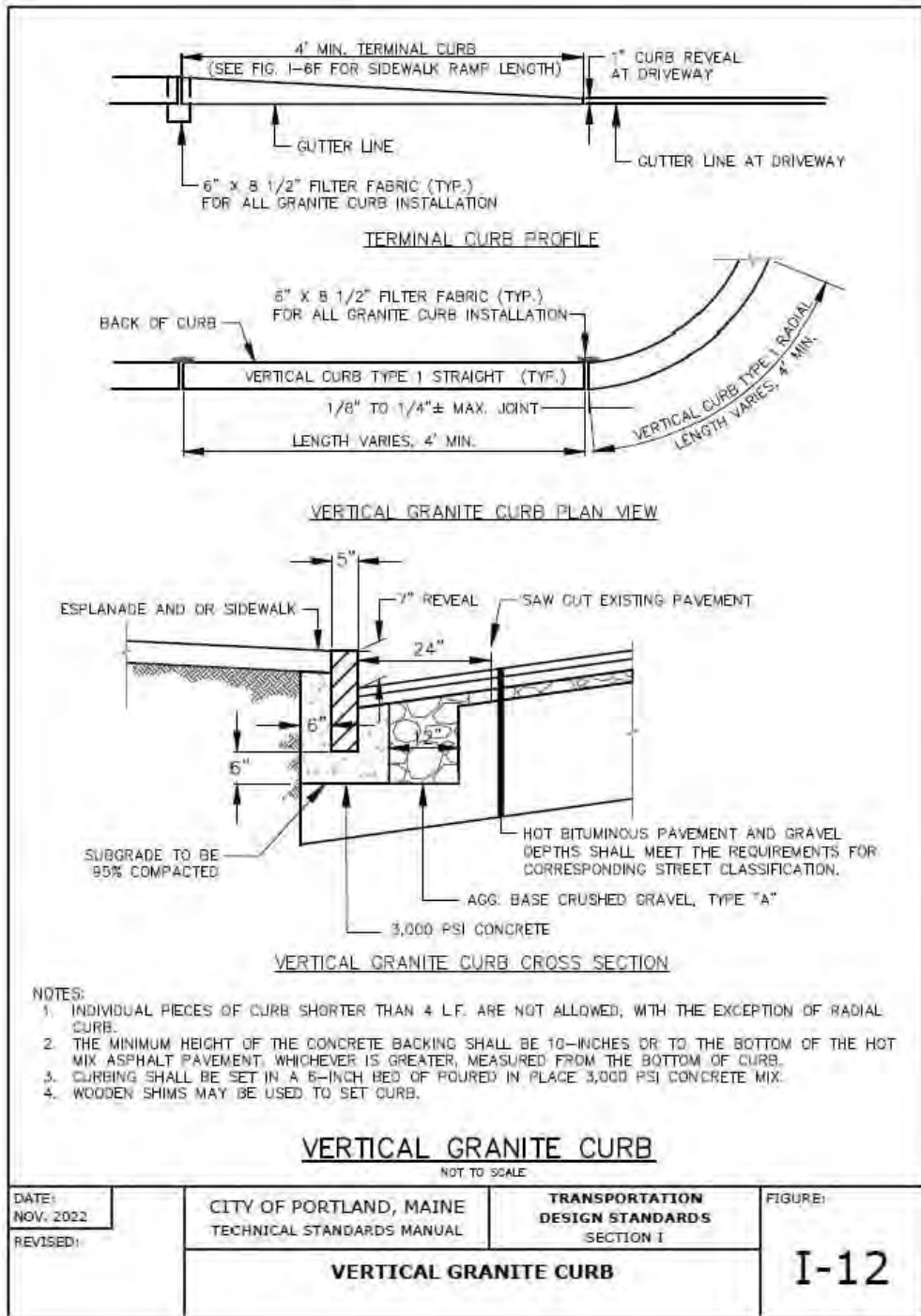
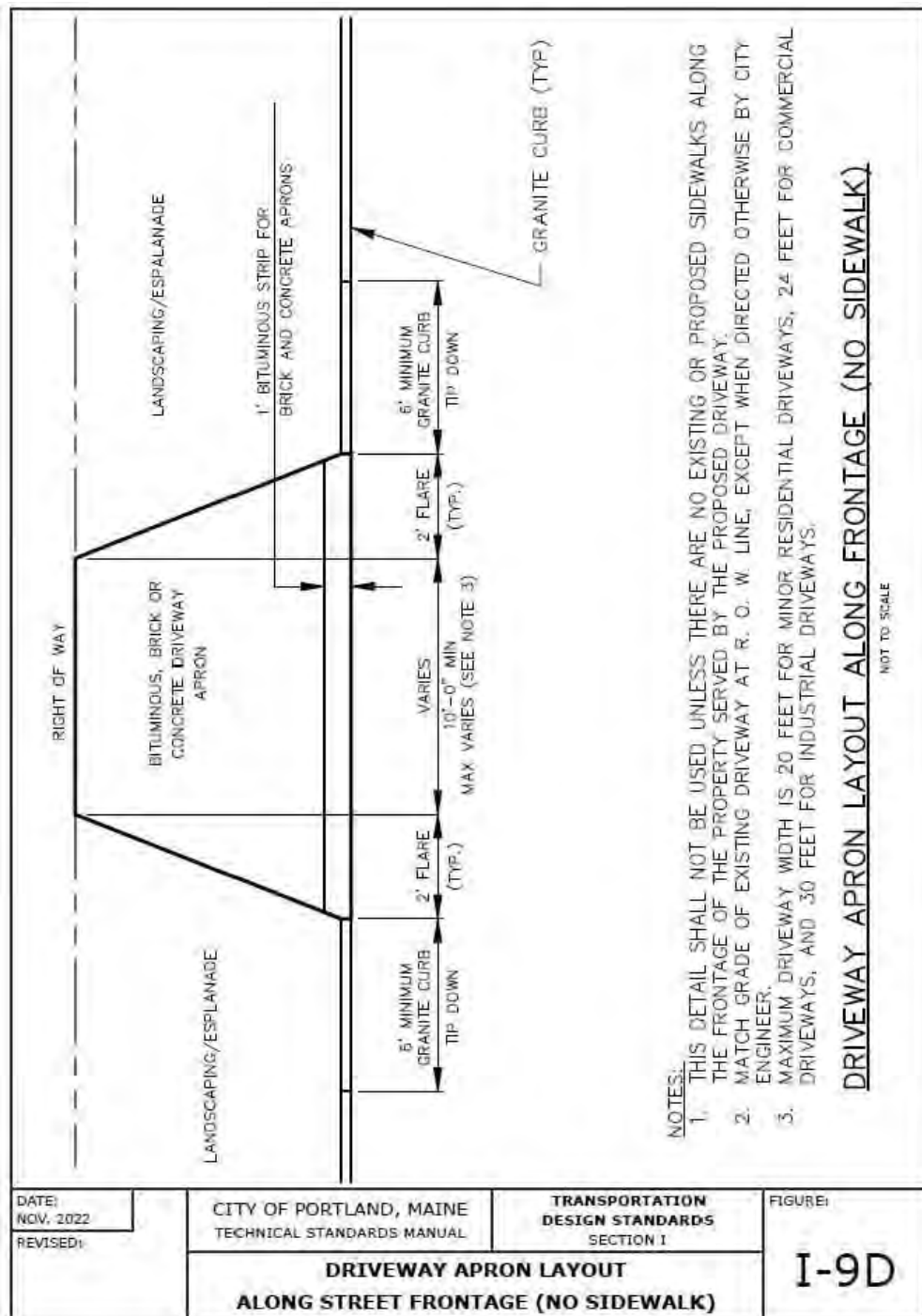
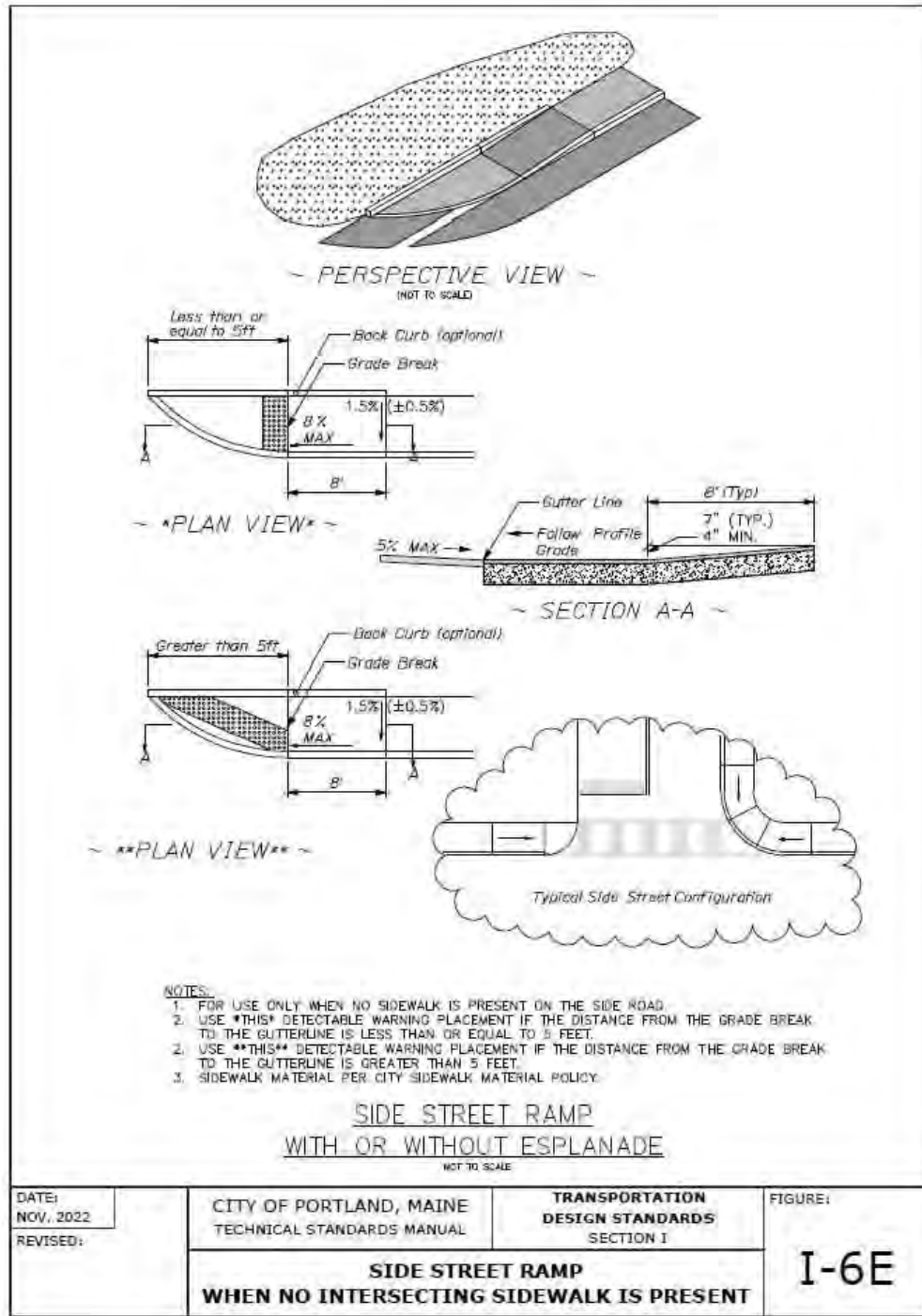
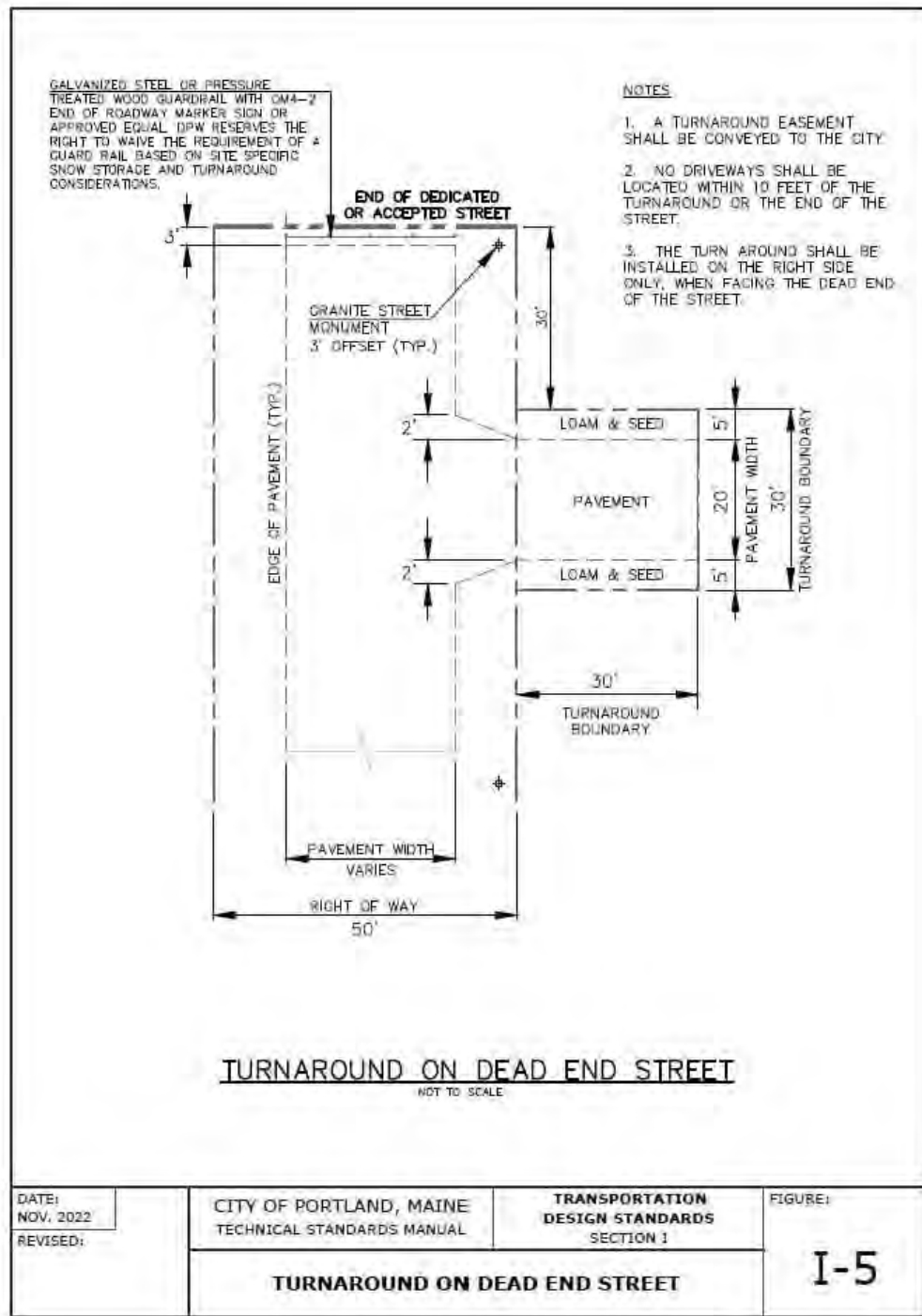
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C504

FOR REVIEW
NOT FOR CONSTRUCTION

10/04/25

15 of 20



FOR REVIEW
NOT FOR CONSTRUCTION



PREPARED FOR:

GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

PROJECT:

STROUDWATER
COMMONS
PARCEL ID: 217 A010001 & 217 A011001

TITLE:

CONSTRUCTION
DETAILS

REVISION:

NO.	DATE	APPR.	TAL	DESCRIPTION
1.	07/23/24	TAL		CITY SITE PLAN SUBMISSION
2.	11/21/24	TAL		RESPONSE TO CITY REVIEW COMMENTS
3.	03/08/25	TAL		REVISED PER CONS. RES. DEV. STANDARDS
4.	05/16/25	TAL		REVISED PER STAFF COMMENTS
5.	07/04/25	TAL		REVISED PER PLANNING STAFF COMMENTS

DRAWN:
TAL

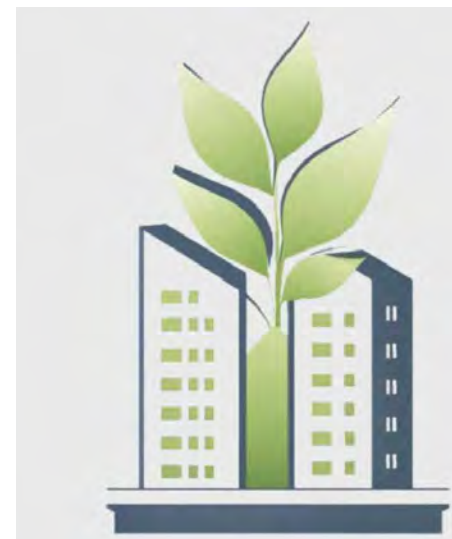
SCALE:
NOTED

DATE:
4/17/2024

SHEET:

C505

FOR REVIEW
NOT FOR CONSTRUCTION



PREPARED FOR:

GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

PROJECT:

STROUDWATER
COMMONS
PARCEL ID: 217 A010001 & 217 A011001

TITLE:

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DETAILS

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2	11/21/24	TAL		RESPONSE TO CITY REVIEW COMMENTS
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4	05/16/25	TAL		REVISED PER STAFF COMMENTS
5	07/04/25	TAL		REVISED PER PLANNING STAFF COMMENTS

DRAWN:
TAL

SCALE:
NOTED

DATE:
4/17/2024

SHEET:

C506

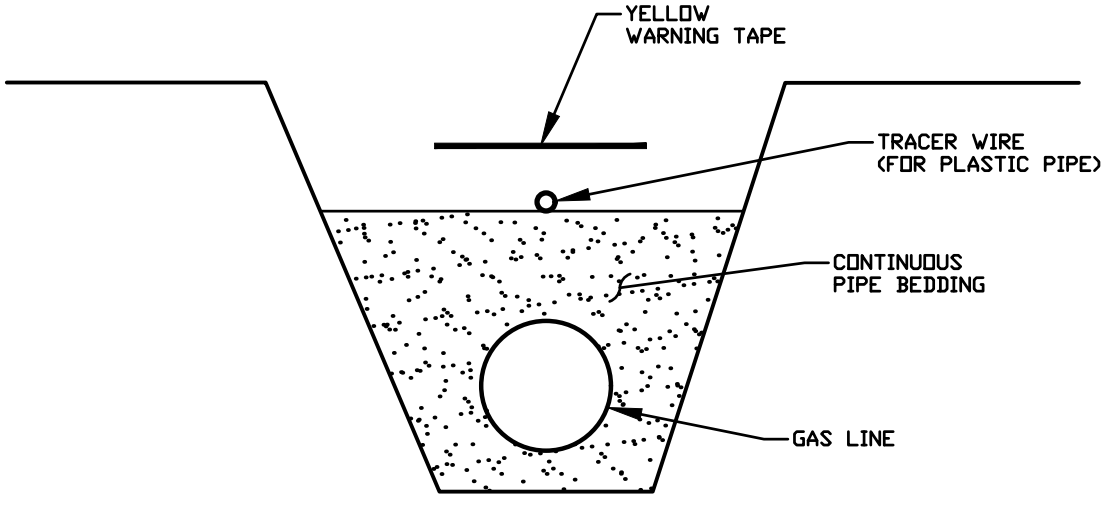


UNDERGROUND GAS PIPING INSTALLATION NOTE:

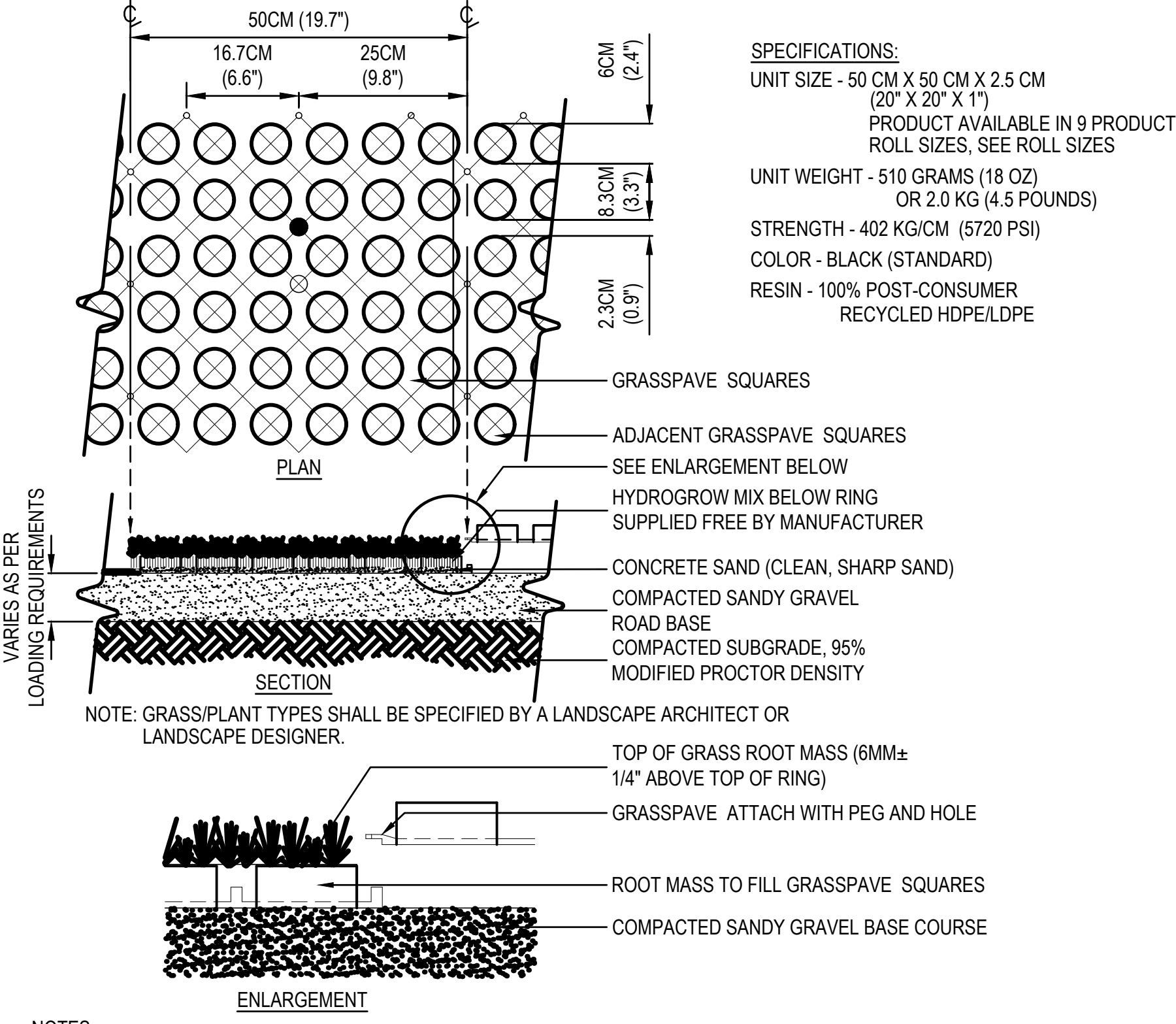
COVER DEPTH - SHOULD BE INSTALLED AT LEAST 18" OF COVER. CAN BE 12" IN AREAS WHERE EXTERNAL DAMAGE IS NOT LIKELY. IF LESS THAN 12", PROVIDE A PROTECTIVE CONDUIT OR BRIDGING. ALWAYS USE WARNING TAPE AND TRACER WIRE FOR PLASTIC PIPING.

BACK FILLING TRENCHES - PIPE SHOULD HAVE A FIRM, CONTINUOUS BEARING ON TRENCH BOTTOM. WHEN INSTALLING GAS PIPING, ESPECIALLY PLASTIC, IN A FLOODED TRENCH, CARE SHOULD BE TAKEN TO PREVENT THE PIPE FROM FLOATING UP IN THE TRENCH DURING BACK FILLING OPERATIONS.

COORDINATE ALL INSTALLATIONS WITH UTIL.



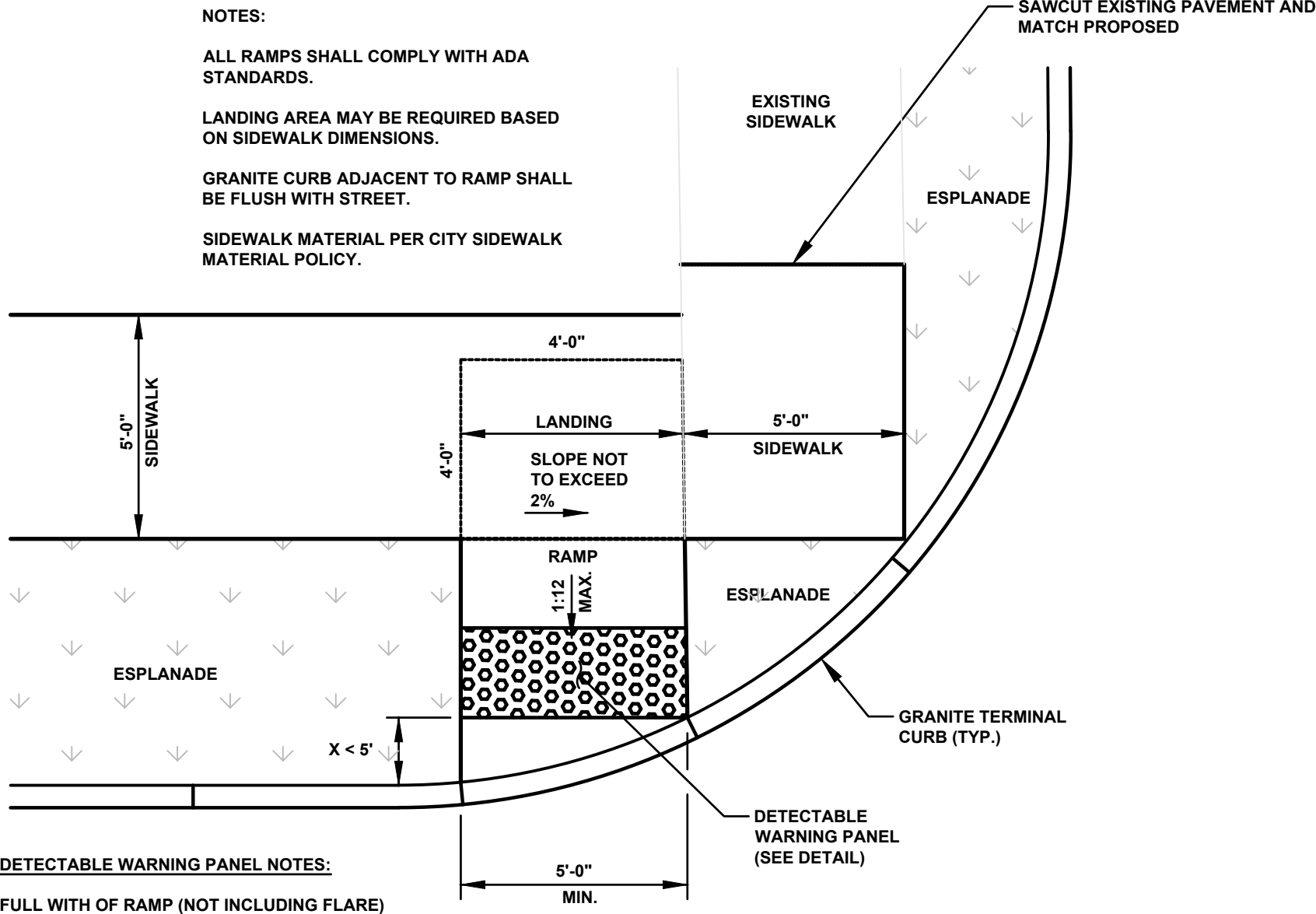
GAS LINE TRENCH DETAIL
NOT TO SCALE



- NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
 2. DO NOT SCALE DRAWING.
 3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
 4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
 5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 112-002.

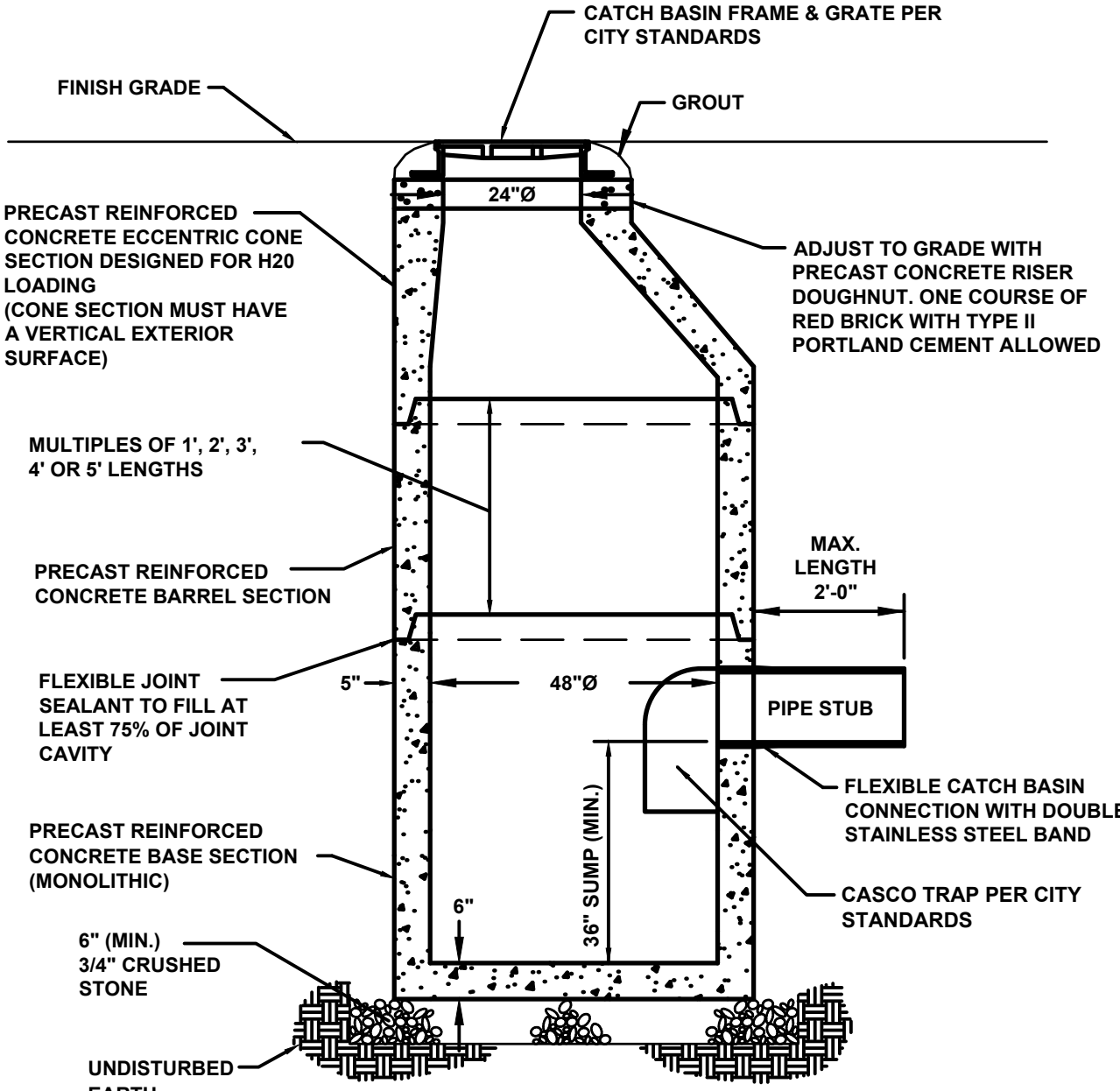
GRASS PAVE DETAIL
NOT TO SCALE

- NOTES:
- ALL RAMPS SHALL COMPLY WITH ADA STANDARDS.
 - LANDING AREA MAY BE REQUIRED BASED ON SIDEWALK DIMENSIONS.
 - GRANITE CURB ADJACENT TO RAMP SHALL BE FLUSH WITH STREET.
 - SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY.

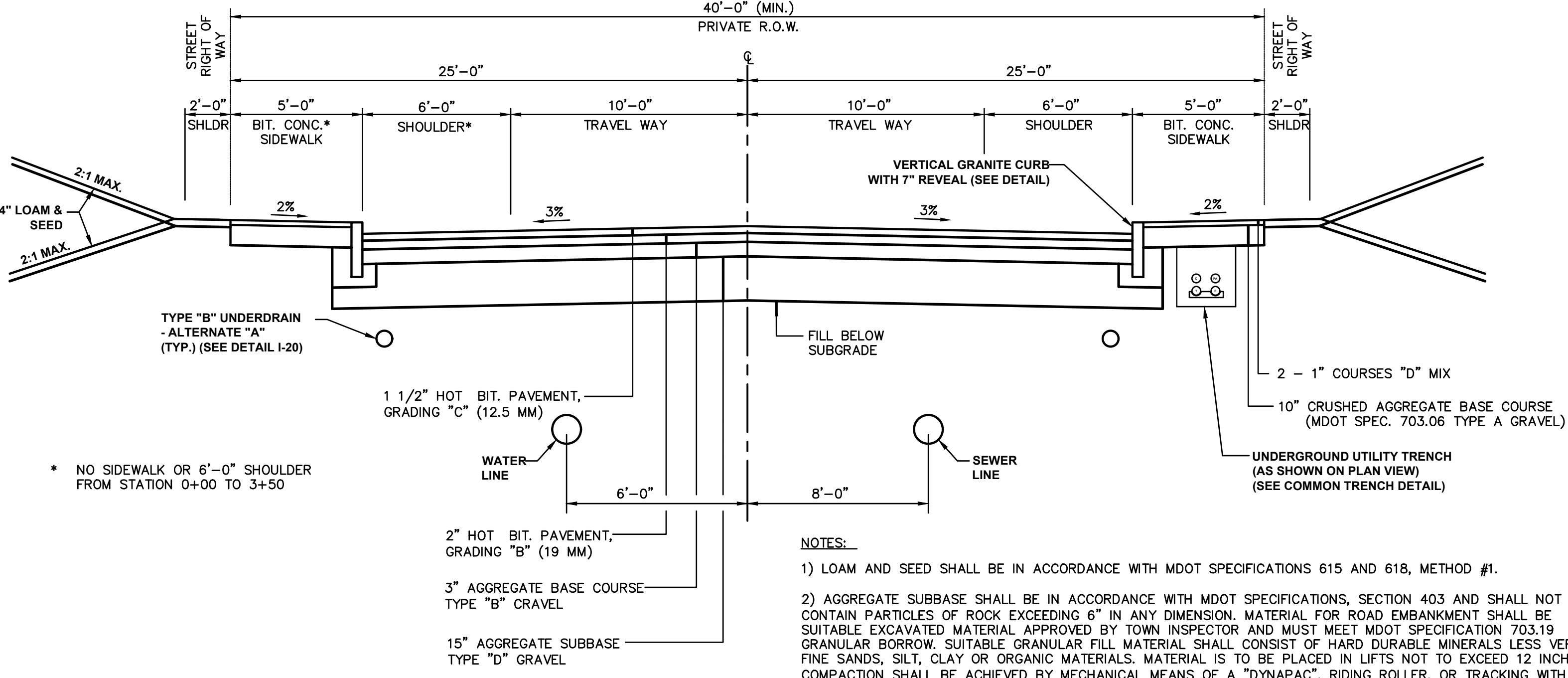


SIDEWALK LAYOUT DETAIL
N.T.S.

DETECTABLE WARNING PANEL NOTES:
FULL WIDTH OF RAMP (NOT INCLUDING FLARE)
PANEL ORIENTATED AS SHOWN IF X < 5'
(IF > 5', THEN PANEL IS PARALLEL TO CURB)



PER MDOT ITEM 604.
PRECAST CONCRETE CATCH BASIN DETAIL
N.T.S.



- NOTES:
- 1) LOAM AND SEED SHALL BE IN ACCORDANCE WITH MDOT SPECIFICATIONS 615 AND 618, METHOD #1.
 - 2) AGGREGATE SUBBASE SHALL BE IN ACCORDANCE WITH MDOT SPECIFICATIONS, SECTION 403 AND SHALL NOT CONTAIN PARTICLES OF ROCK EXCEEDING 6\"/>
 - 3) ENTIRE WIDTH OF ROAD AND SHOULDERS IS TO BE STRIPPED AND GRUBBED OF TOP SOIL, ORGANICS AND ALL DELETERIOUS MATERIAL. ALL STUMPS AND UNSUITABLE MATERIAL (IF ANY) SHALL BE REMOVED IF WITHIN 5 FEET OF FINISHED GRADE UNDER PAVED AREAS.
 - 4) SEE GRADING PLAN & PROFILE FOR GRADING INTENT.
 - 5) ALL PROPOSED INFRASTRUCTURE LOCATED WITHIN THE ROAD RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.

TYPICAL PRIVATE ROAD CROSS SECTION
NOT TO SCALE

FOR REVIEW
NOT FOR CONSTRUCTION



PREPARED FOR:

GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

PROJECT:

STROUDWATER
COMMONS
PARCEL ID: 217 A010001 & 217 A011001

TITLE:

CONSTRUCTION
DETAILS

REVISION:

NO.	DATE	APPR.	DESCRIPTION
1	07/01/24	TAL	CITY SITE PLAN SUBDIVISION SUBMISSION
2	11/21/24	TAL	RESPONSE TO CITY REVIEW COMMENTS
3	03/08/25	TAL	REVISED PER CONS. RES. DEV. STANDARDS
4	05/16/25	TAL	REVISED PER STAFF COMMENTS
5	07/04/25	TAL	REVISED PER PLANNING STAFF COMMENTS

DRAWN:

TAL

SCALE:

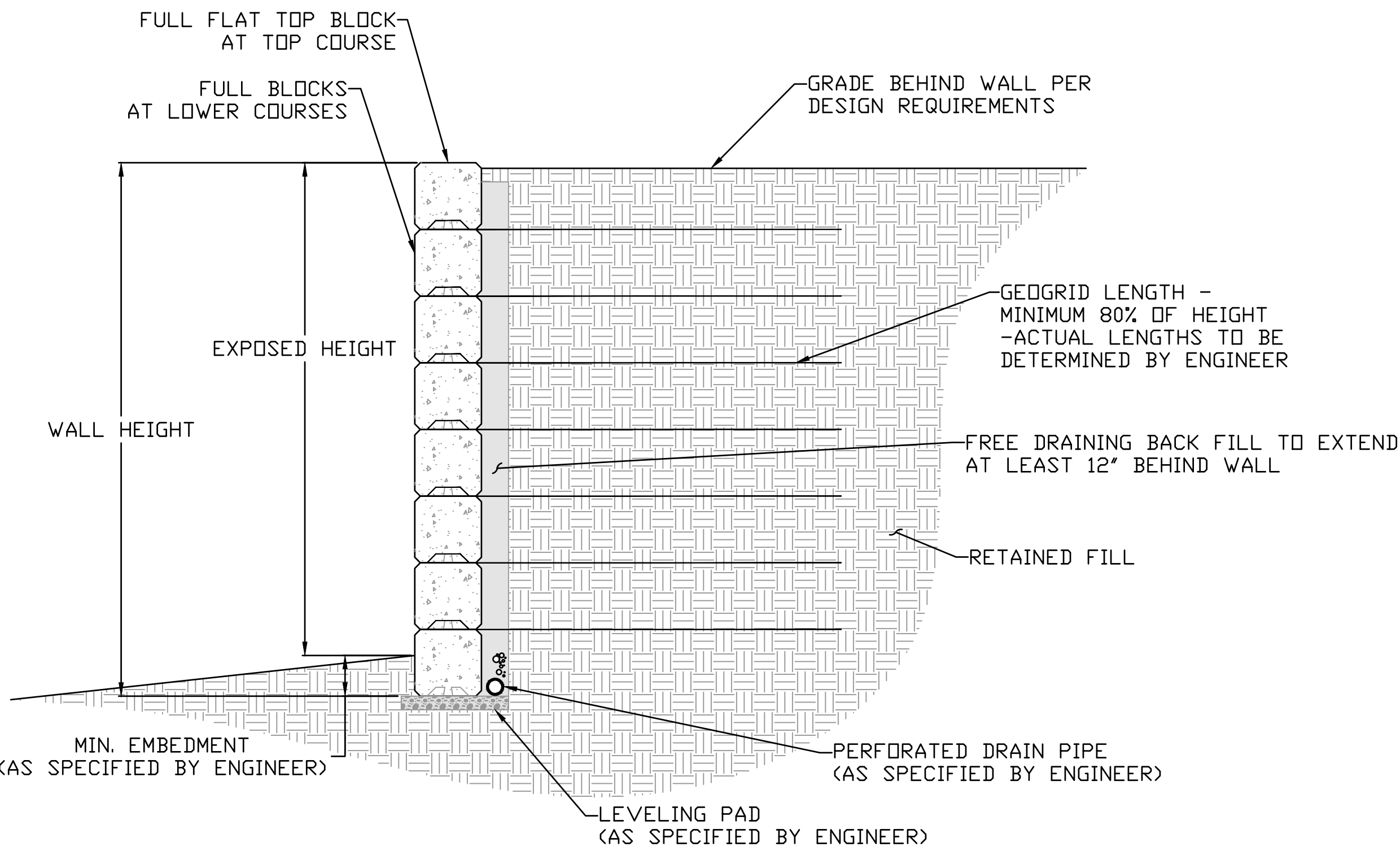
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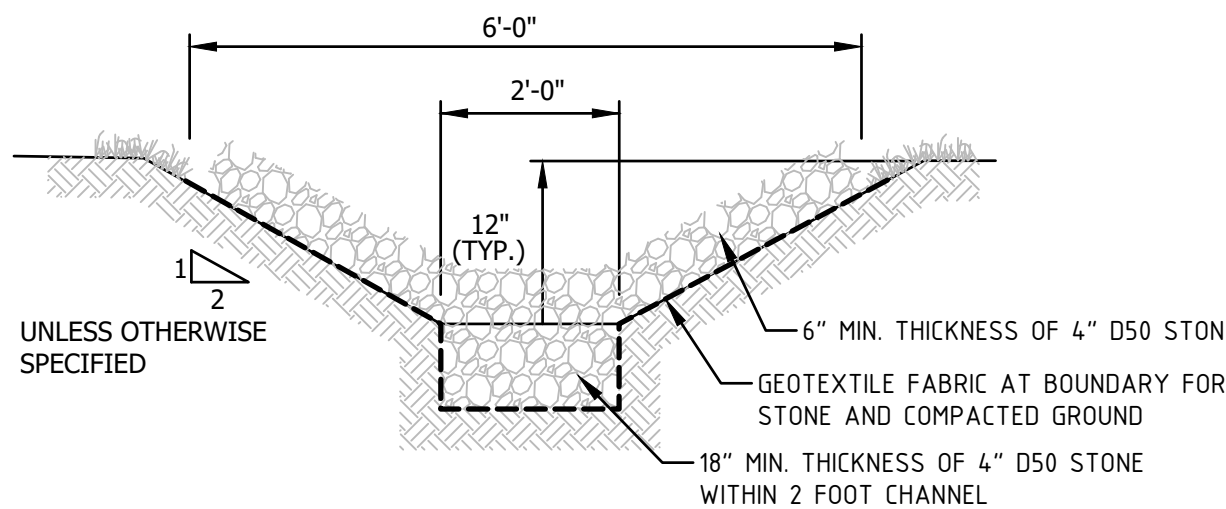
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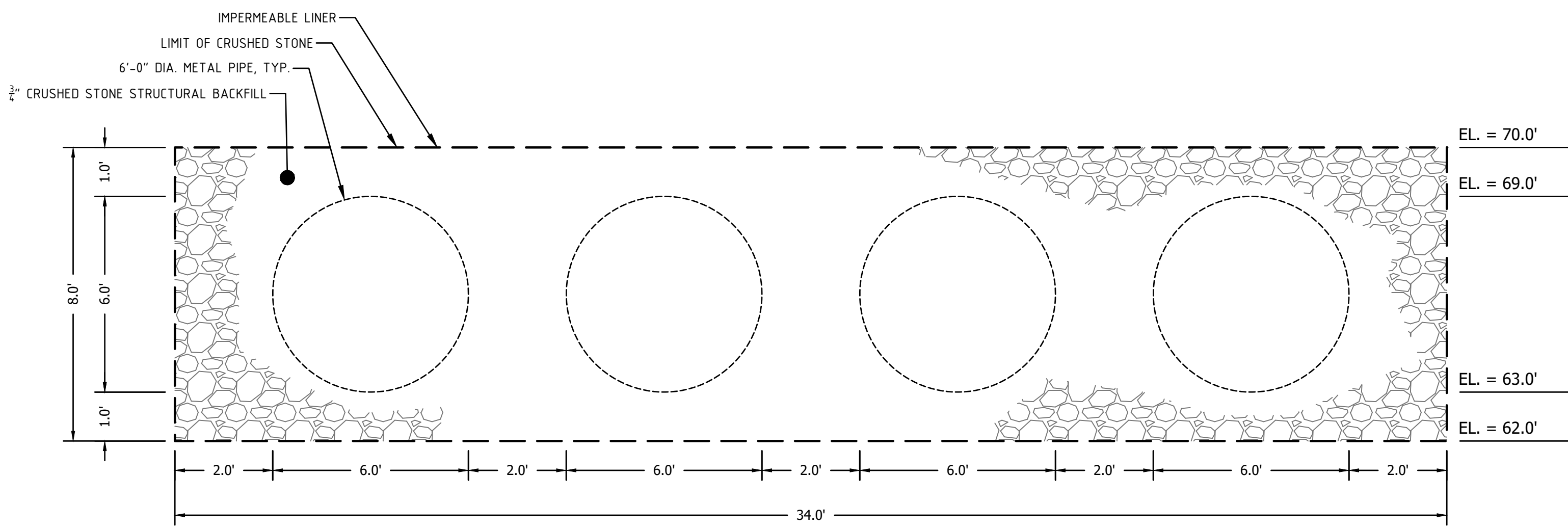
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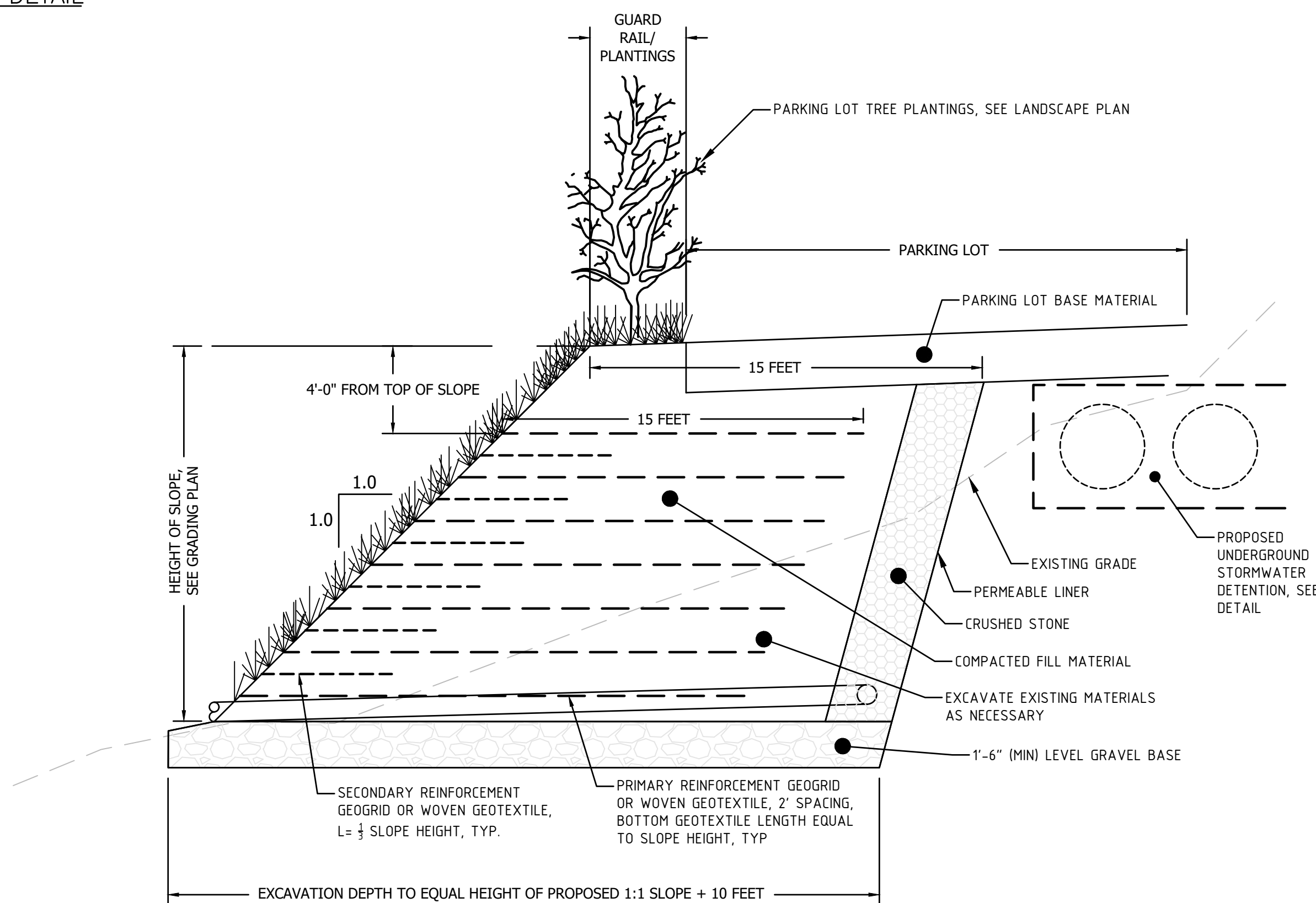
TYPICAL BLOCK WALL DETAIL
NOT TO SCALE



STONE LINED DITCH DETAIL
NOT TO SCALE



UNDERGROUND DETENTION CROSS SECTION A-A
SCALE: NTS



STEEP SLOPE CONSTRUCTION 1:1 OR GREATER
SCALE: NTS



TITLE:

DETAILED SIDEWALK RAMP GRADING PLAN

REVISION

NO.	DATE	APPR.	DESCRIPTION
1	07-08-24	TAL	CITY SITE PLAN/SUBDIVISION SUBMISSION
2	11-21-24	TAL	RESPONSE TO CITY REVIEW COMMENTS
3	03-08-25	TAL	REVISED PER CONS. RES. DEV. STANDARDS
4	05-16-25	TAL	REVISED PER STAFF COMMENTS
5	07-06-25	TAL	REVISED PER PLANNING STAFF COMMENTS

DRAWN:

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SCALE:

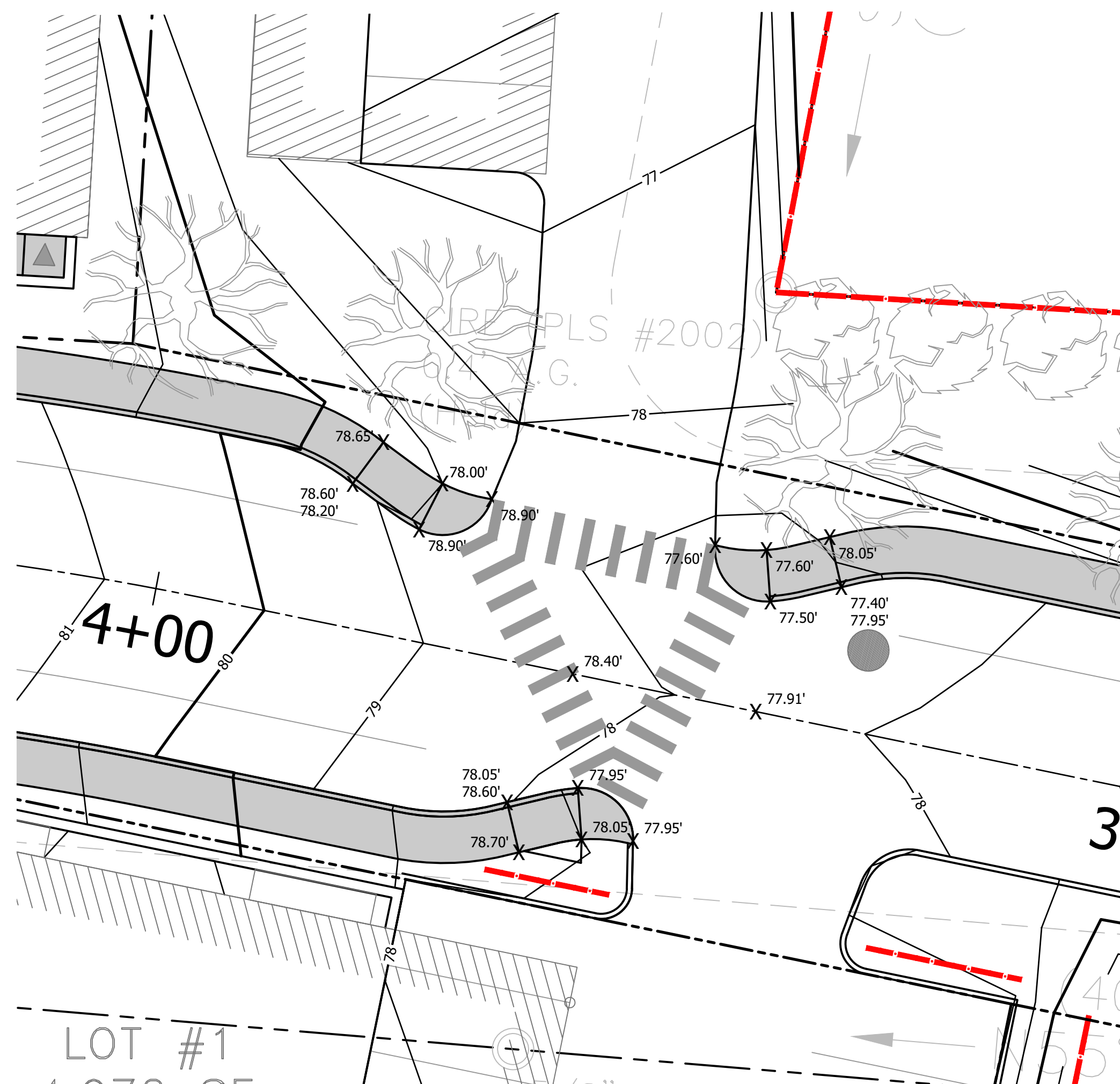
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DATE:

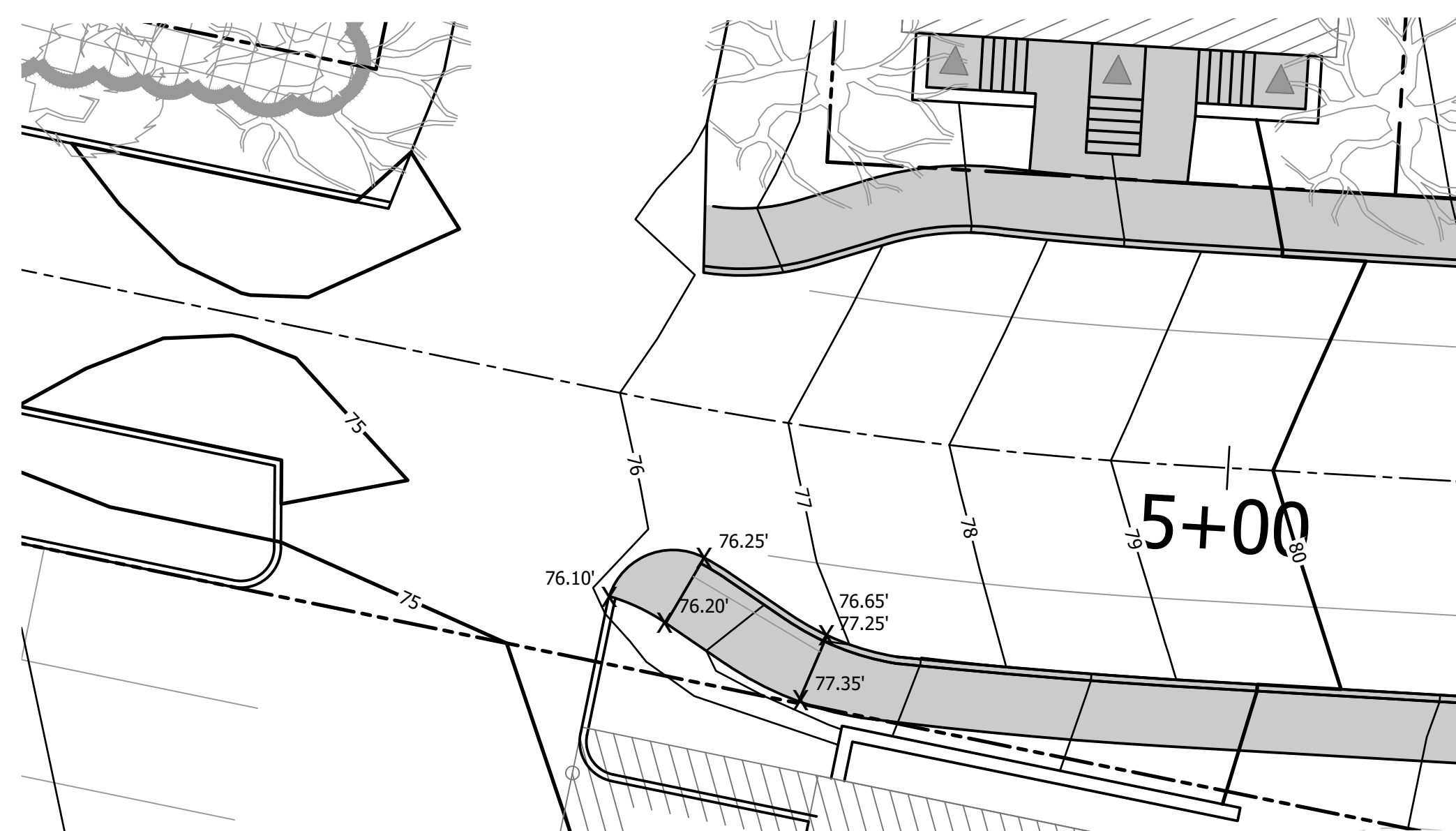
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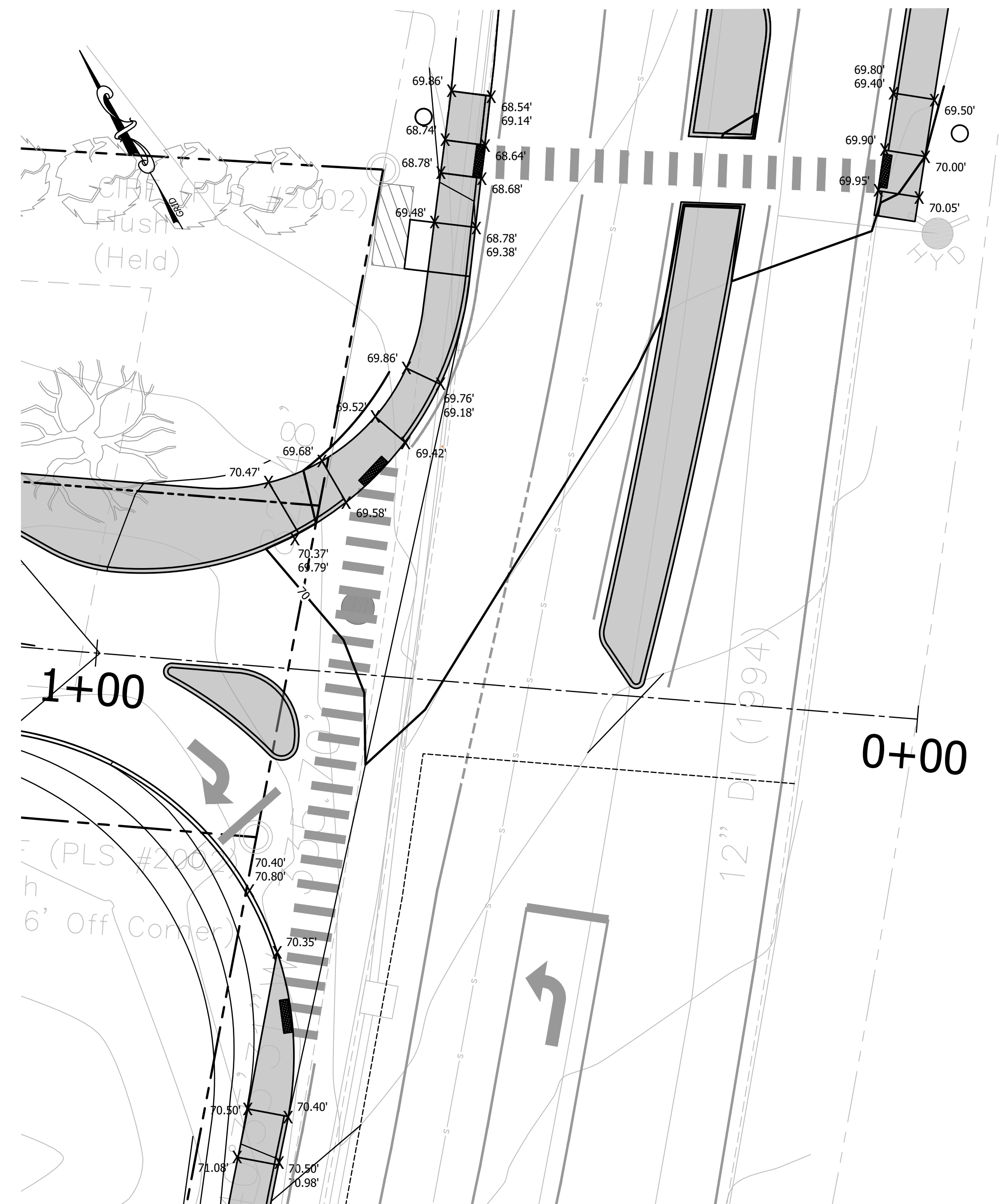
C508



SIDEWALK RAMP GRADING, NORTH PARKING LOT ENTRANCE
SCALE: 1"=10'



SIDEWALK RAMP GRADING, SOUTH PARKING LOT ENTRANCE



SIDEWALK RAMP GRADING, CONGRESS STREET
SCALE: 1"=10'

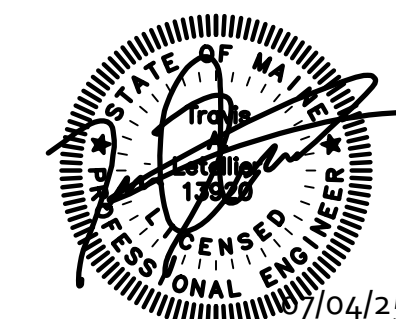
ADA RAMP NOTES:

1. ALL ADA RAMPS SHALL COMPLY WITH THE LATEST VERSION OF THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) AND MAINE ACCESSIBILITY STANDARDS.
2. RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1:12 (8.33%) AND A MAXIMUM RISE OF 30 INCHES BETWEEN LANDINGS.
3. RAMPS SHALL HAVE A MINIMUM CLEAR WIDTH OF 36 INCHES, EXCLUDING HANDRAILS.
4. LEVEL LANDINGS SHALL BE PROVIDED AT THE TOP AND BOTTOM OF RAMPS, WITH A MINIMUM LENGTH OF 60 INCHES.
5. HANDRAILS ARE REQUIRED ON BOTH SIDES OF RAMPS AND SHALL EXTEND AT LEAST 12 INCHES BEYOND THE TOP AND BOTTOM OF THE RAMP, PARALLEL TO THE GROUND.
6. RAMP SURFACES SHALL BE FIRM, STABLE, SLIP-RESISTANT, AND FREE OF OBSTRUCTIONS.
7. DETECTABLE WARNING SURFACES SHALL BE PROVIDED AT TRANSITIONS BETWEEN WALKWAYS AND VEHICULAR WAYS, MEETING ADA GUIDELINES FOR TRUNCATED DOMES.

ADA PARKING NOTES:

1. ACCESSIBLE PARKING SPACES SHALL COMPLY WITH THE LATEST VERSION OF THE ADAAG AND MAINE ACCESSIBILITY STANDARDS.
2. ACCESSIBLE SPACES SHALL BE LOCATED AS CLOSE AS POSSIBLE TO THE NEAREST ACCESSIBLE BUILDING ENTRANCE OR FACILITY.
3. ACCESSIBLE PARKING SPACES SHALL HAVE A MINIMUM WIDTH OF 8 FEET WITH AN ADJACENT ACCESS AISLE OF AT LEAST 5 FEET.
4. VAN-ACCESSIBLE SPACES SHALL INCLUDE AN ACCESS AISLE OF 8 FEET.
5. ACCESS AISLES SHALL BE MARKED WITH DIAGONAL STRIPING AND "NO PARKING" SIGNAGE TO ENSURE THEY REMAIN UNOBSTRUCTED.
6. ACCESSIBLE PARKING SPACES SHALL BE DESIGNATED WITH SIGNAGE MEETING ADA REQUIREMENTS, MOUNTED AT A HEIGHT OF 60 INCHES ABOVE GRADE.
7. THE SURFACE SLOPE OF ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 1:48 (2%).
8. ALL ACCESSIBLE PARKING SPACES SHALL HAVE FIRM, STABLE, AND SLIP-RESISTANT SURFACES. IF CURB RAMPS ARE REQUIRED, THEY SHALL NOT PROTRUDE INTO THE ACCESS AISLE OR PARKING SPACE.

FOR REVIEW
NOT FOR CONSTRUCTION





PREPARED FOR:

PROJECT:

**STROUDWATER
COMMONS**
PARCEL ID: 217 A010001 & 217 A011001

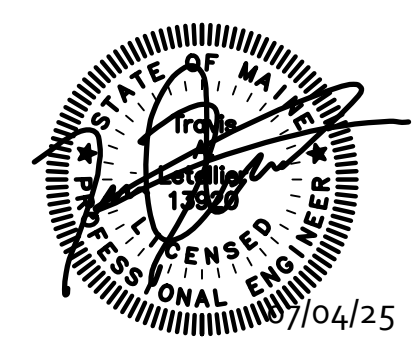
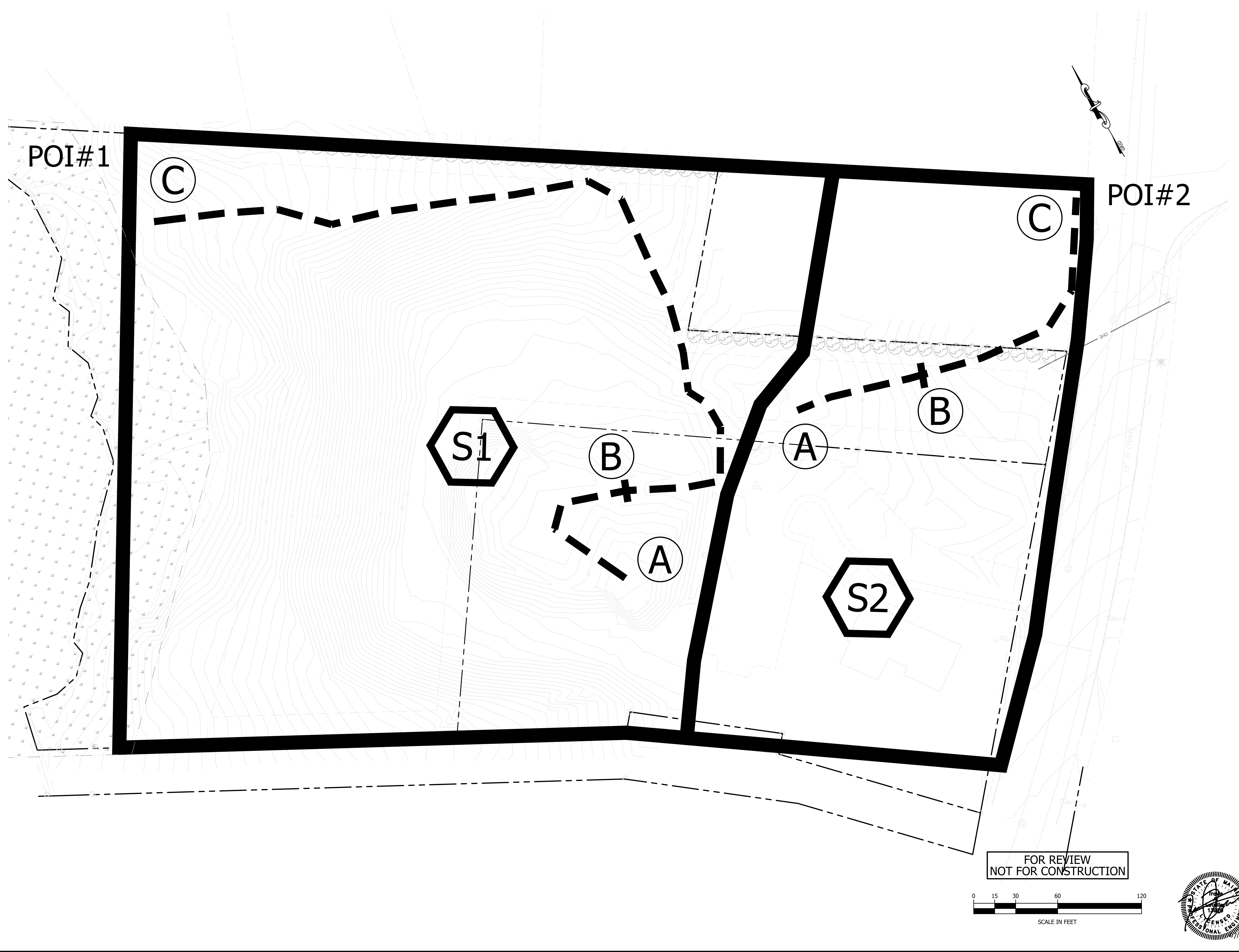
GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

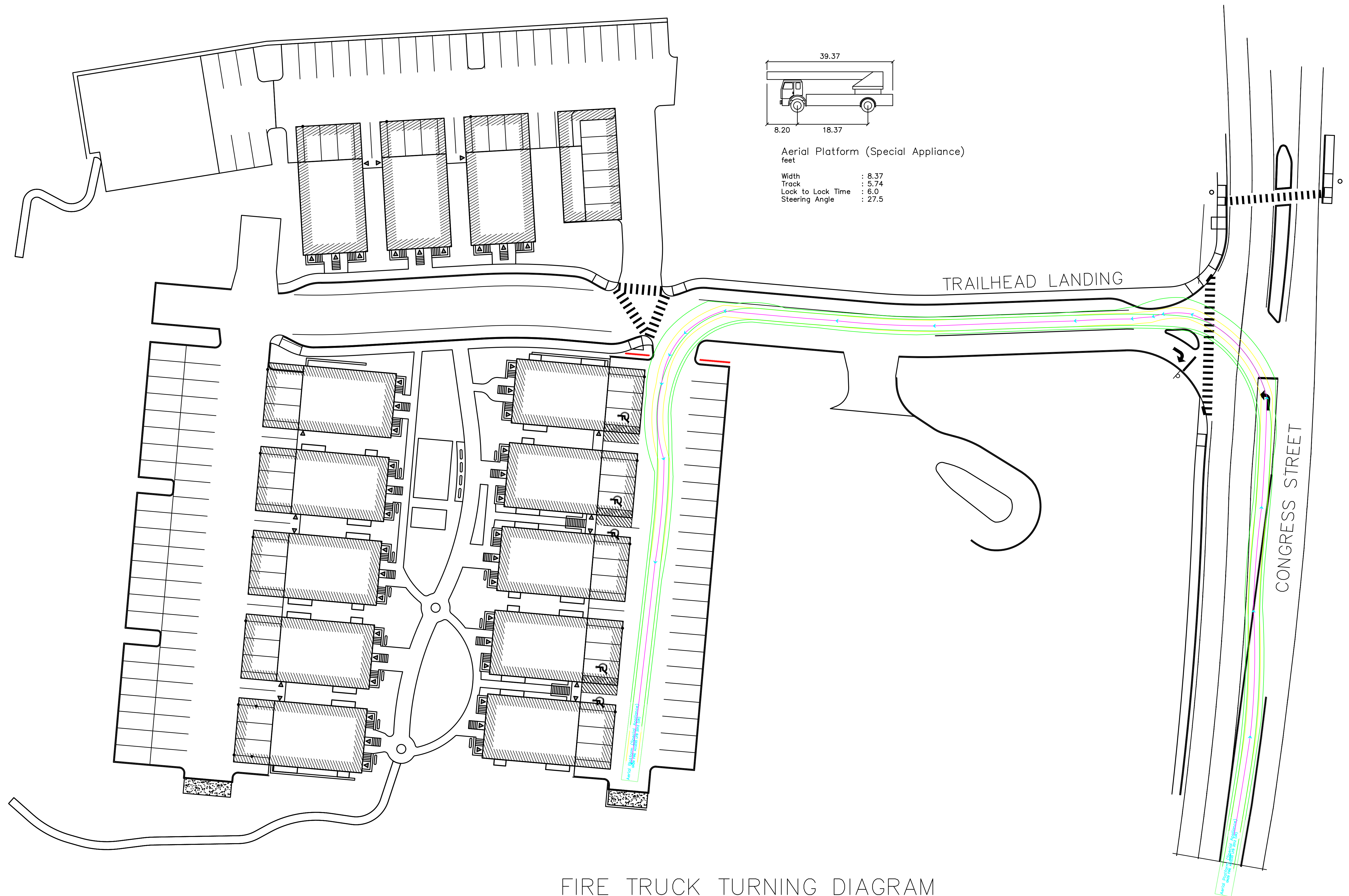
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DRAINAGE PLAN EXISTING CONDITIONS		NO.	DESCRIPTION
		1	CITY SITE PLAN SUBDIVISION SUBMISSION
		2	RESPONSE TO CITY REVIEW COMMENTS
		3	REVISED PER CONS. RES. DEV. STANDARDS
		4	REVISED PER STAFF COMMENTS
DRAWN: TAL		5	REVISED PER PLANNING STAFF COMMENTS
SCALE: NOTED		DATE: 4/17/2024	

SHEET:

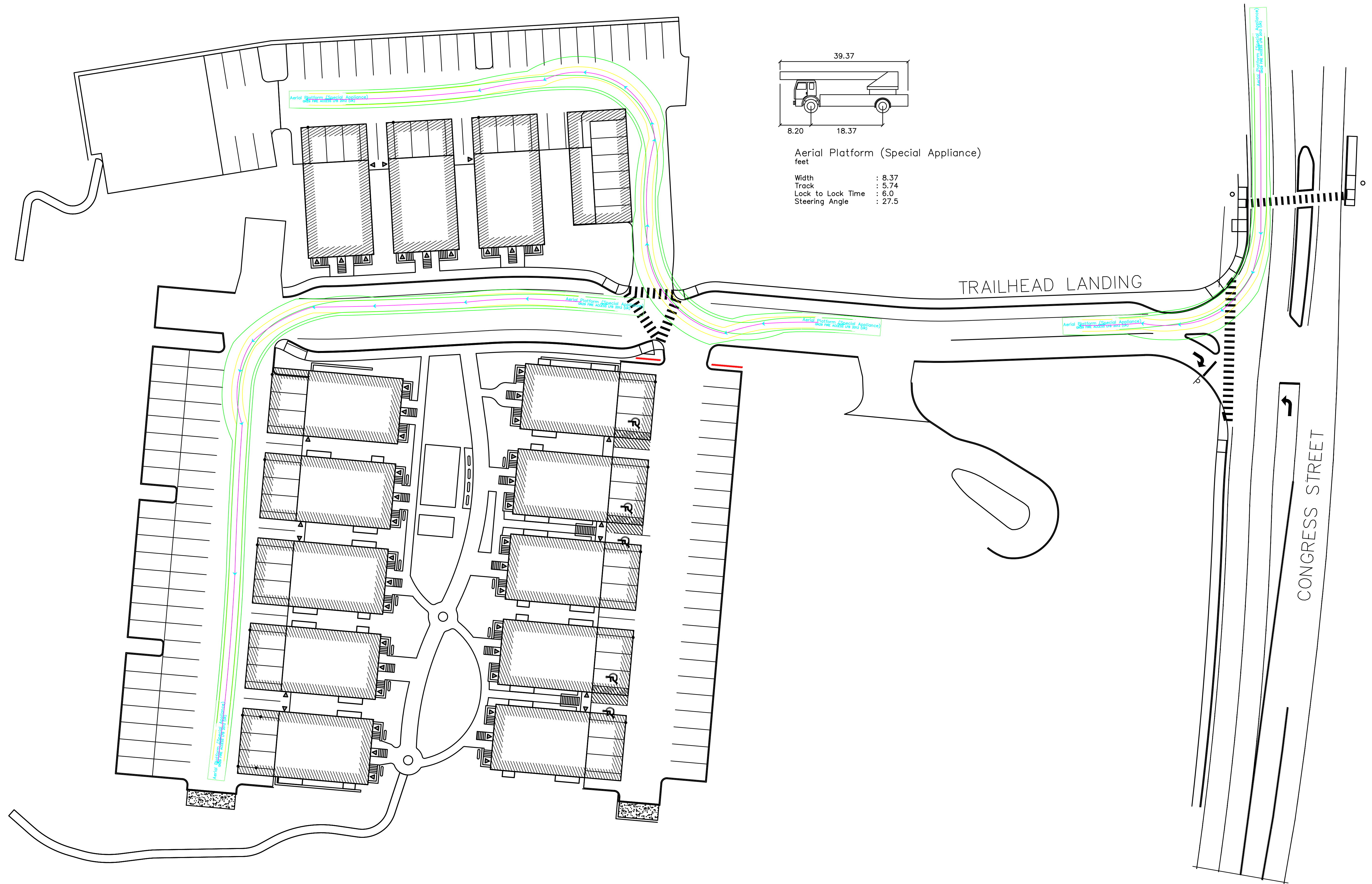
D101

1 of 2

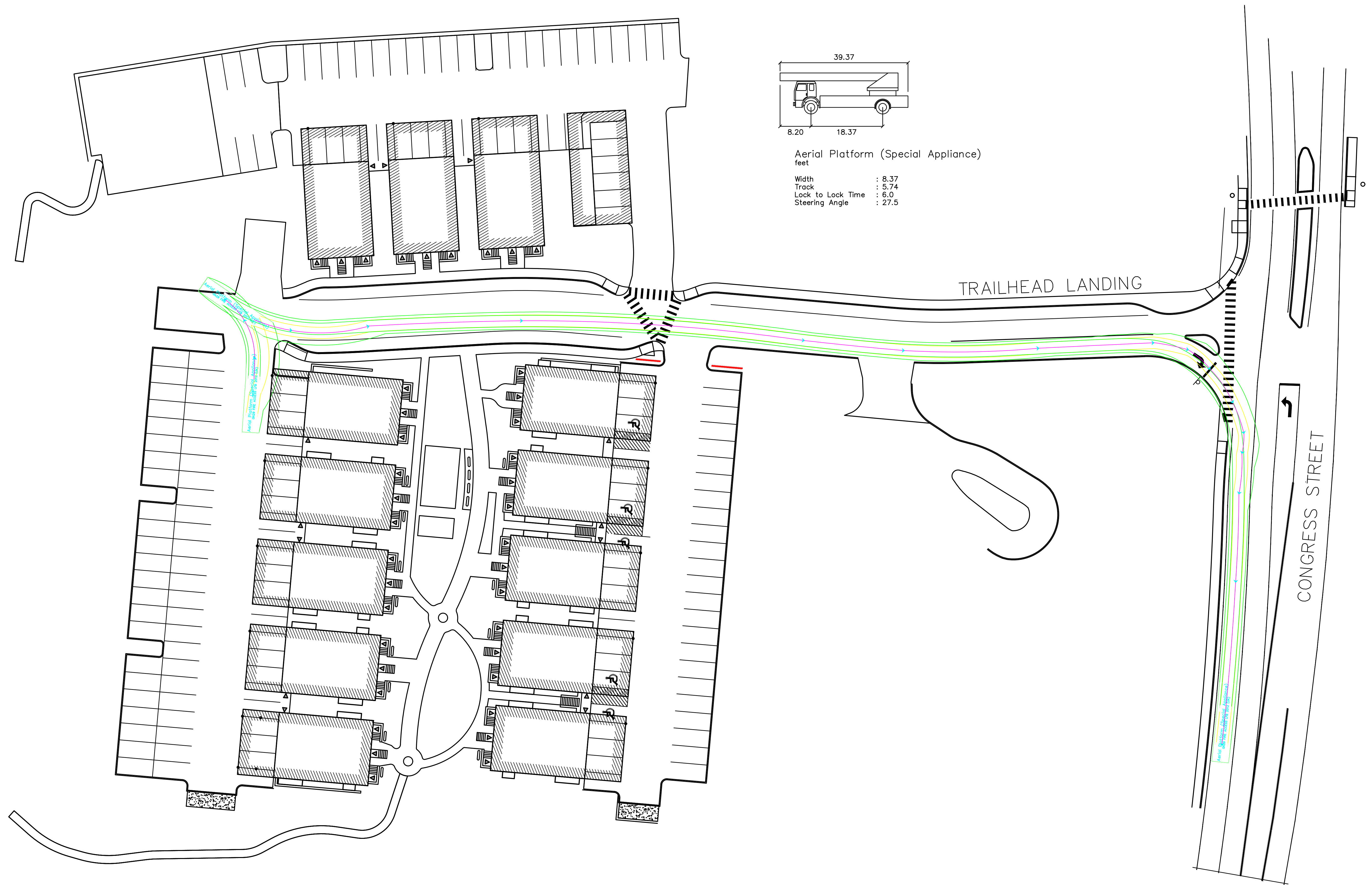




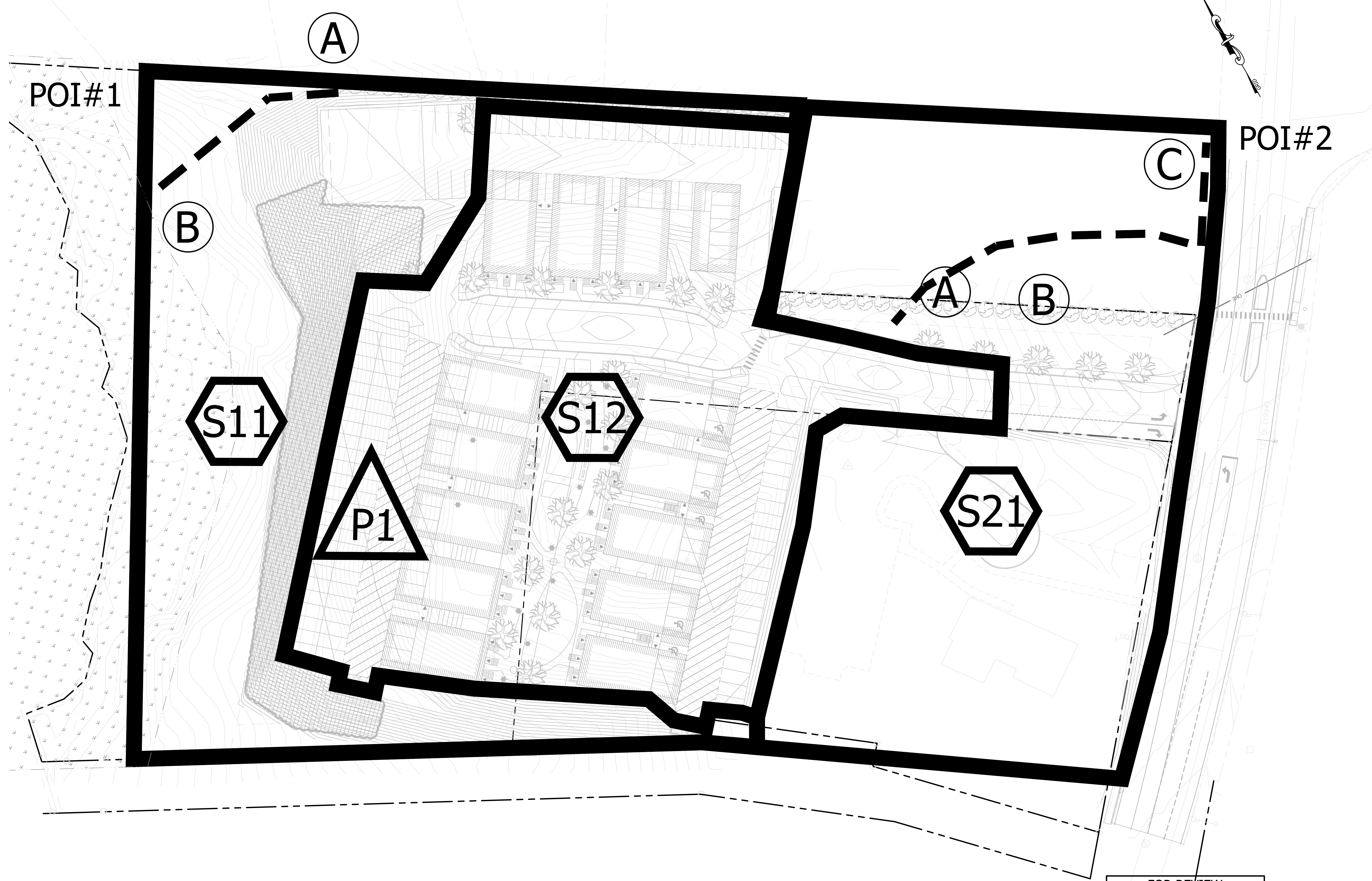
FIRE TRUCK TURNING DIAGRAM
FIGURE 1



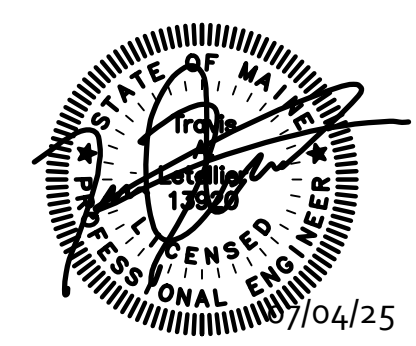
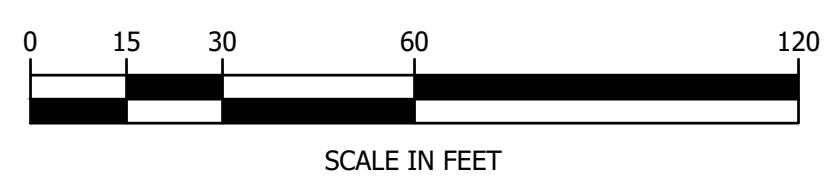
FIRE TRUCK TURNING DIAGRAM
FIGURE 2



FIRE TRUCK TURNING DIAGRAM
FIGURE 3



FOR REVIEW
NOT FOR CONSTRUCTION



PREPARED FOR:
GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

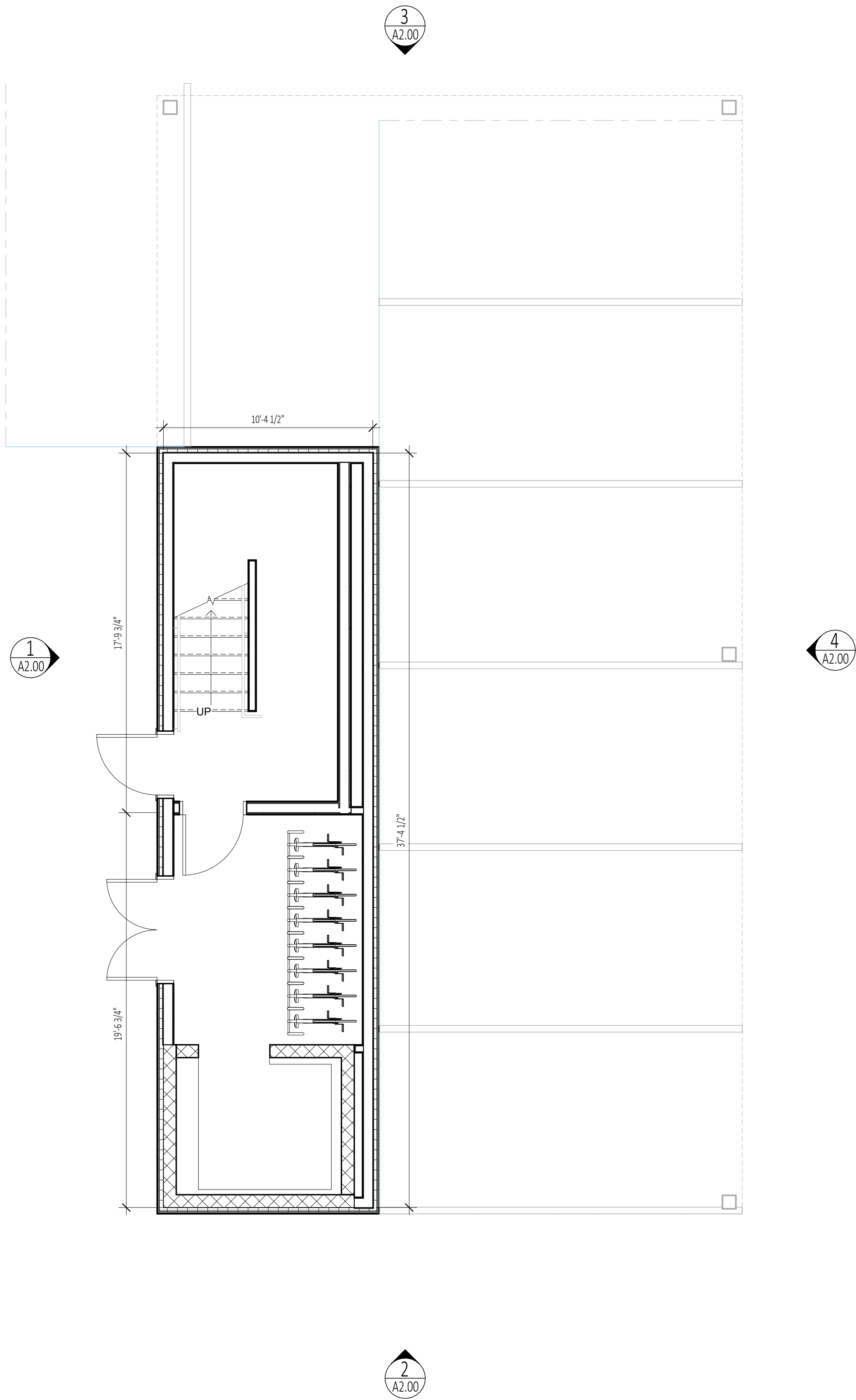
PROJECT:
**STROUDWATER
COMMONS**
PARCEL ID: 217 A010001 & 217 A011001

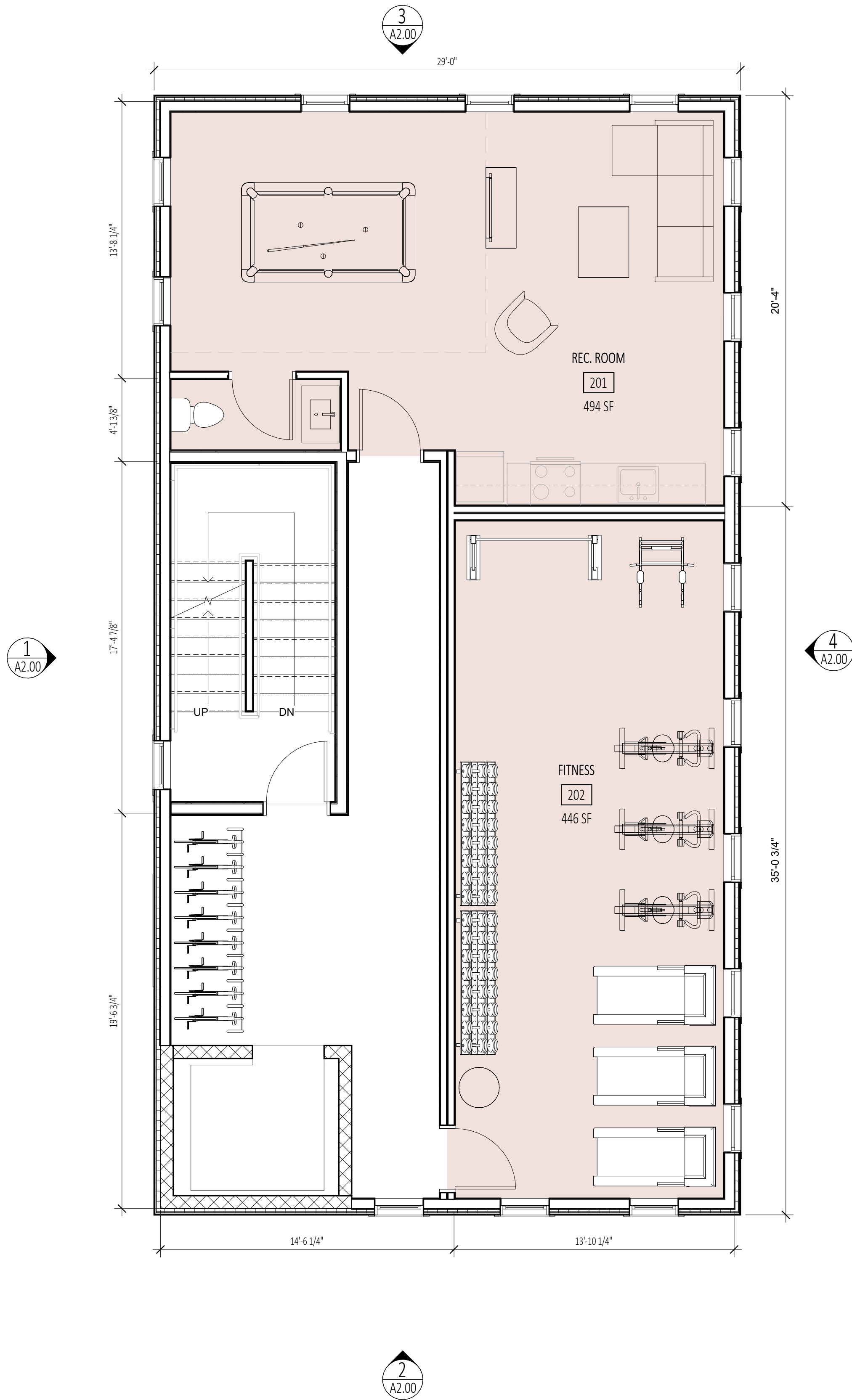
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DRAWN:		DATE	APPR.
TAL		07/01/24	TAL
SCALE:		11/21/24	TAL
NOTED		03/08/25	TAL
DATE:		05/16/25	TAL
4/17/2024		07/04/25	TAL

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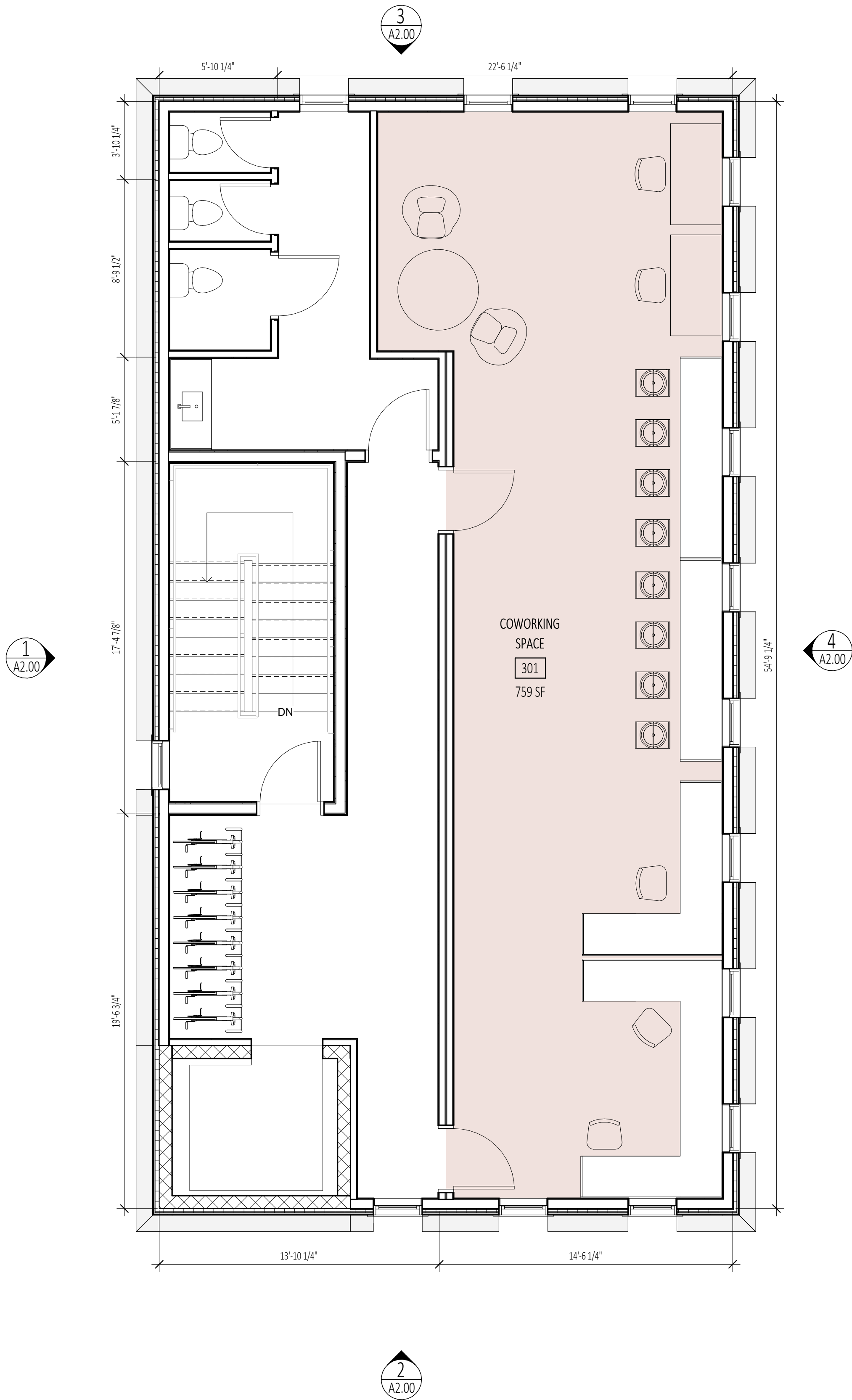
D102

2 of 2





1 2ND FLOOR
1/4" = 1'-0"



2 3RD FLOOR
1/4" = 1'-0"

Project:

1877 CONGRESS ST

PORTLAND, ME

Owner/Client:

GREENMARS

Stamp:

Consultant:

Issuance:

SCHEMATIC DESIGN

Revisions:

EXTERIOR ELEVATIONS

Scale: As indicated
04/02/2025

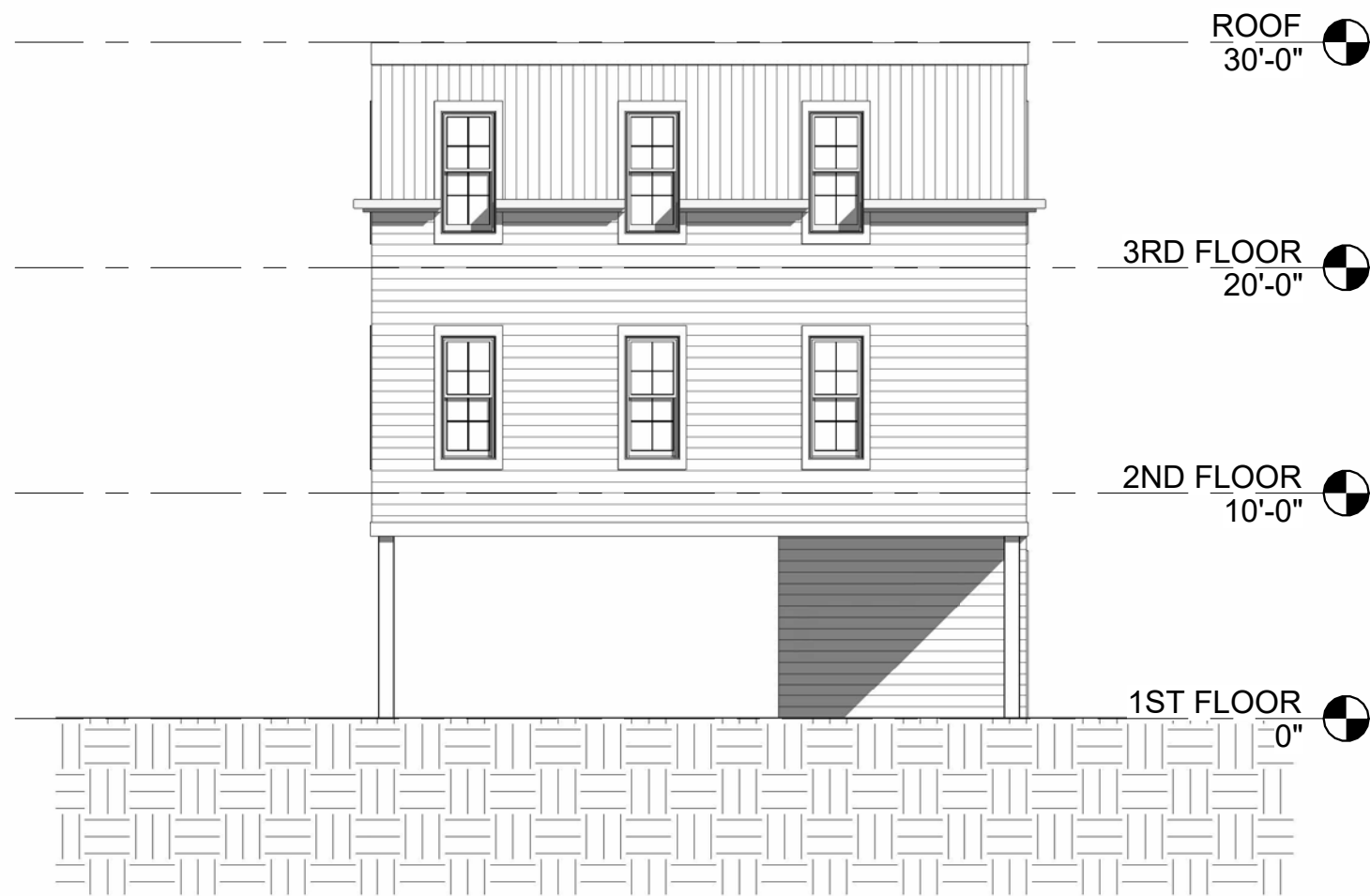
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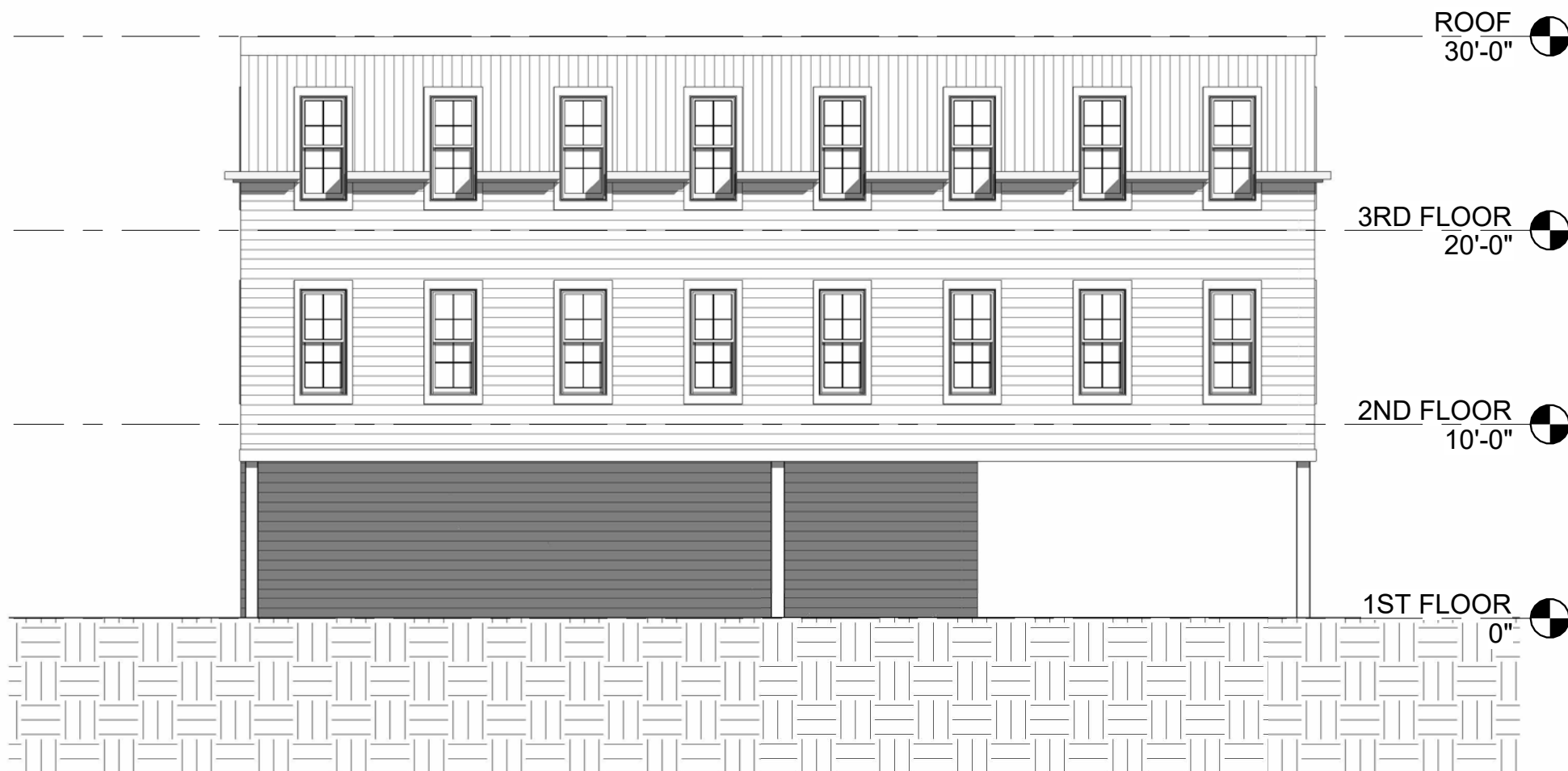
2 | FRONT ELEVATION
1/8" = 1'-0"



1 | LEFT SIDE ELEVATION
1/8" = 1'-0"



3 | REAR ELEVATION
1/8" = 1'-0"



4 | RIGHT SIDE ELEVATION
1/8" = 1'-0"

Project:
1877 CONGRESS ST

PORTLAND, ME

Owner/Client:
GREENMARS

Stamp:

Consultant:

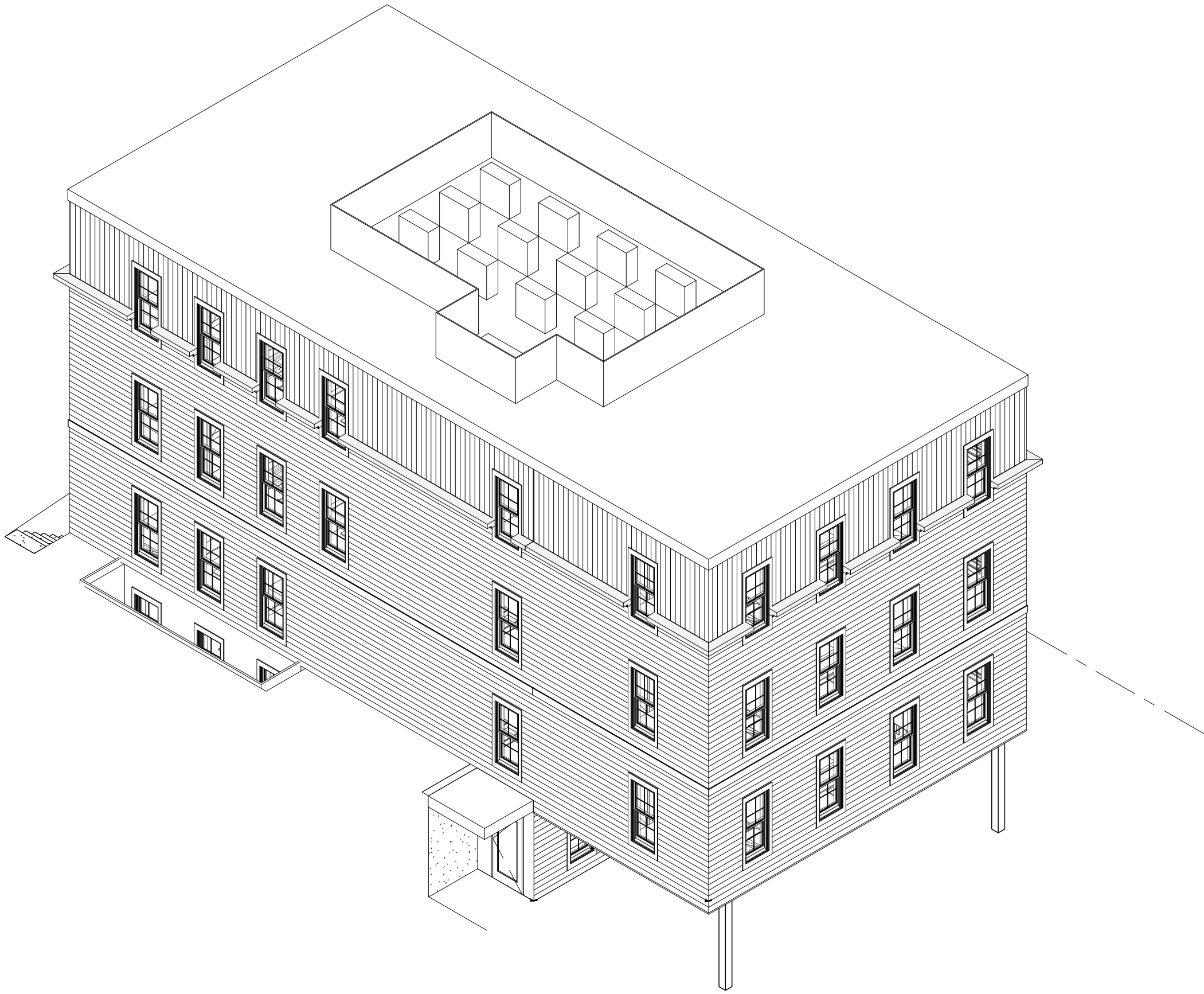
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SCHEMATIC DESIGN

Revisions:

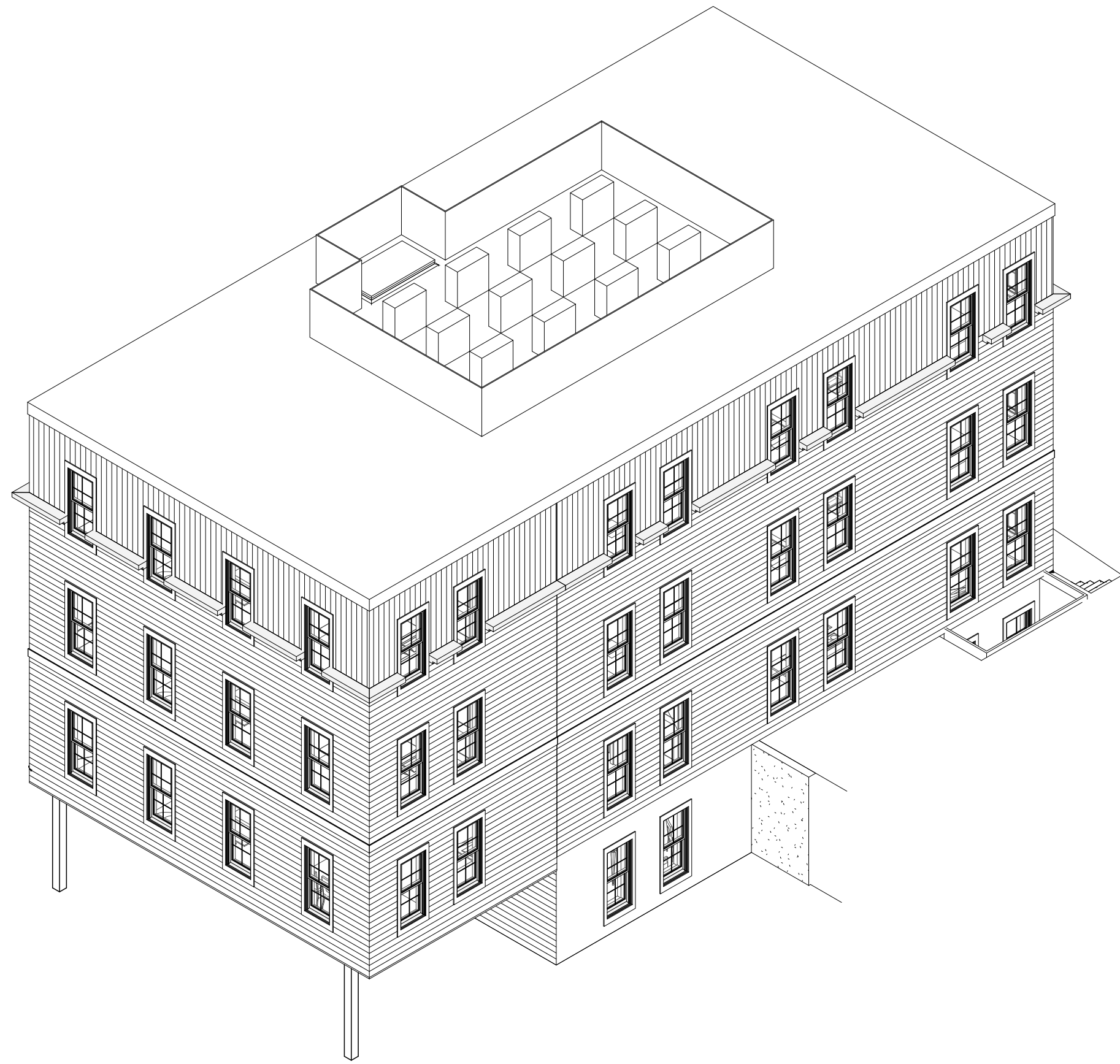
AXONOMETRIC VIEWS

Scale:
07/15/2025

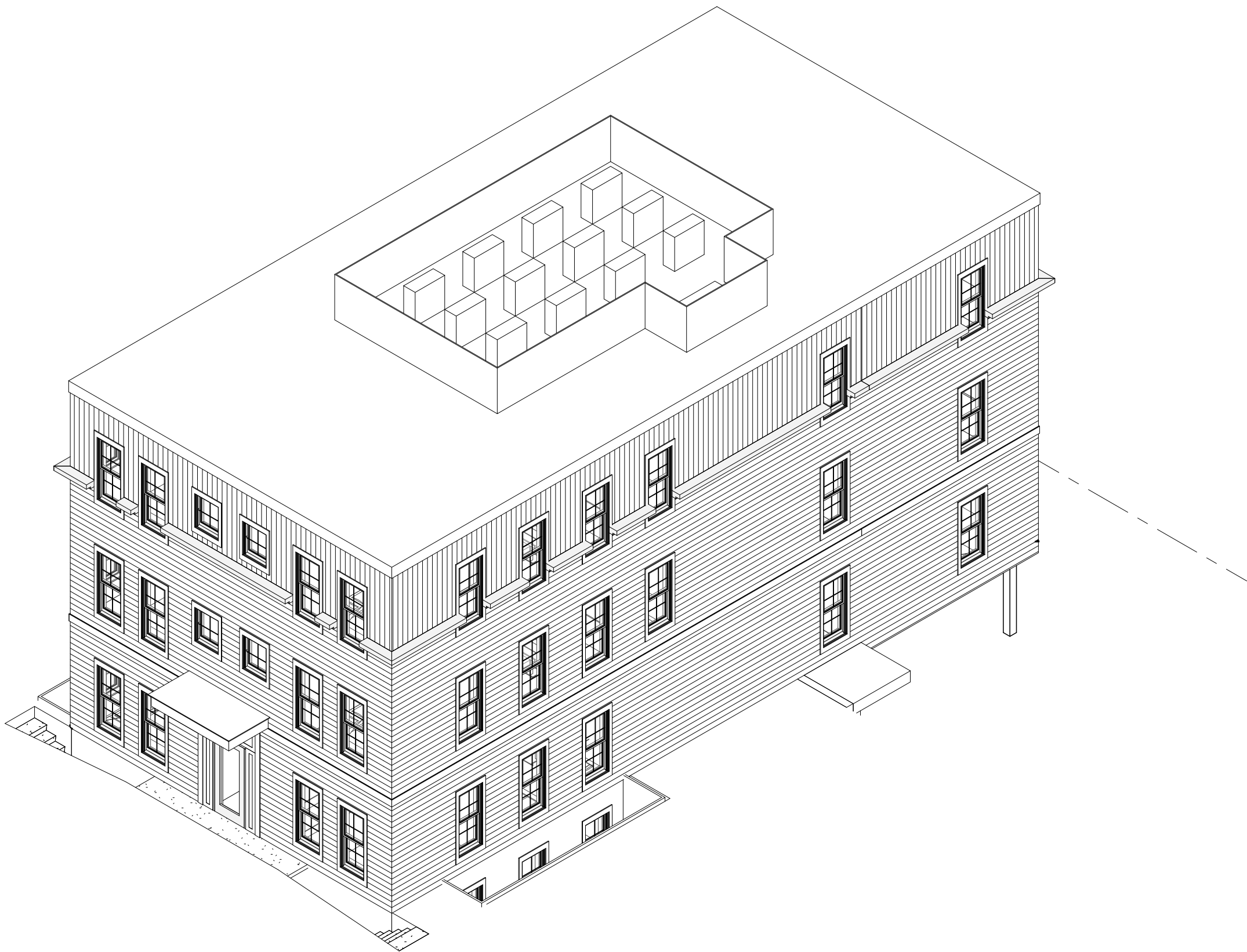
A0.00



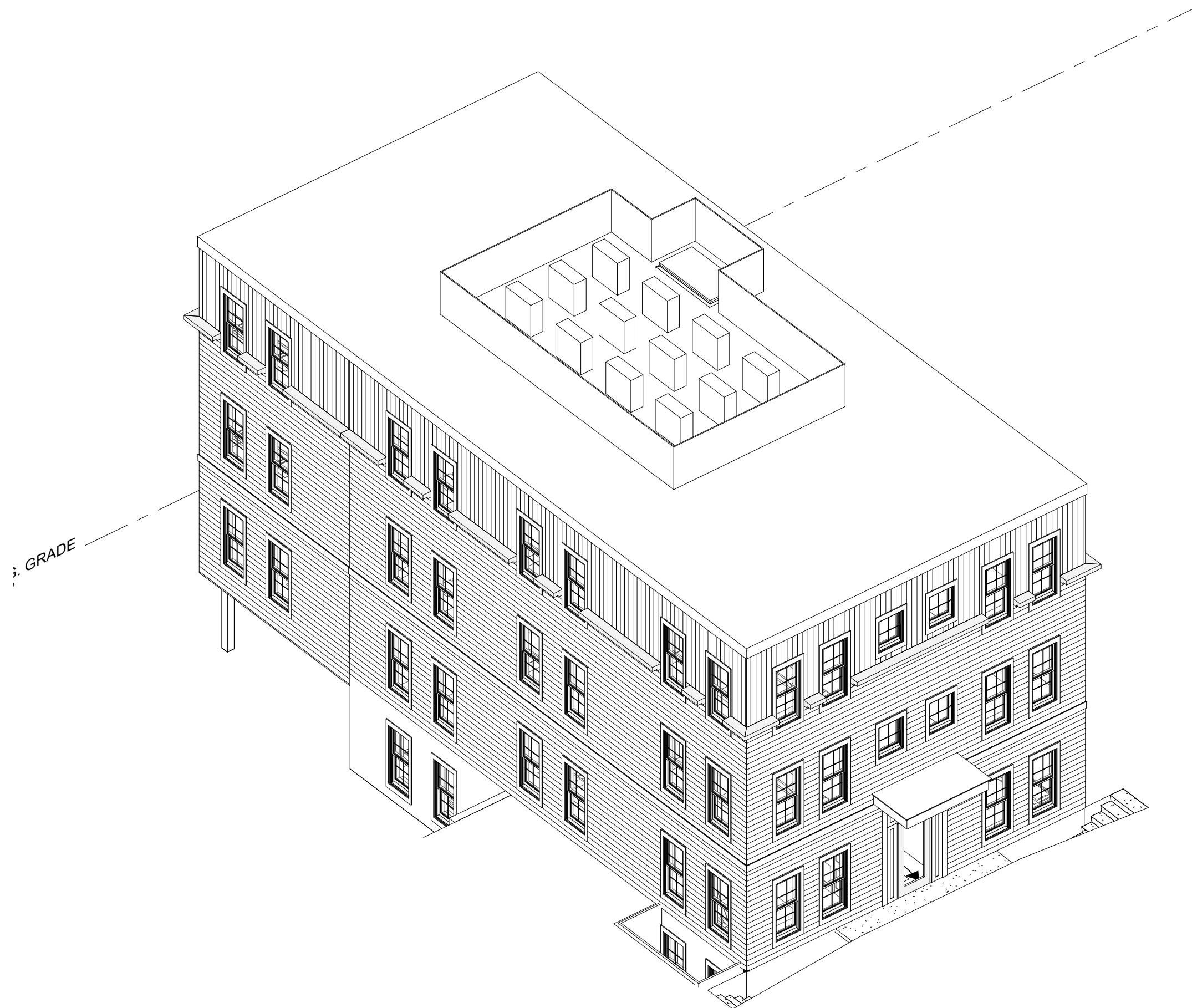
1 FRONT / LEFT AXON VIEW



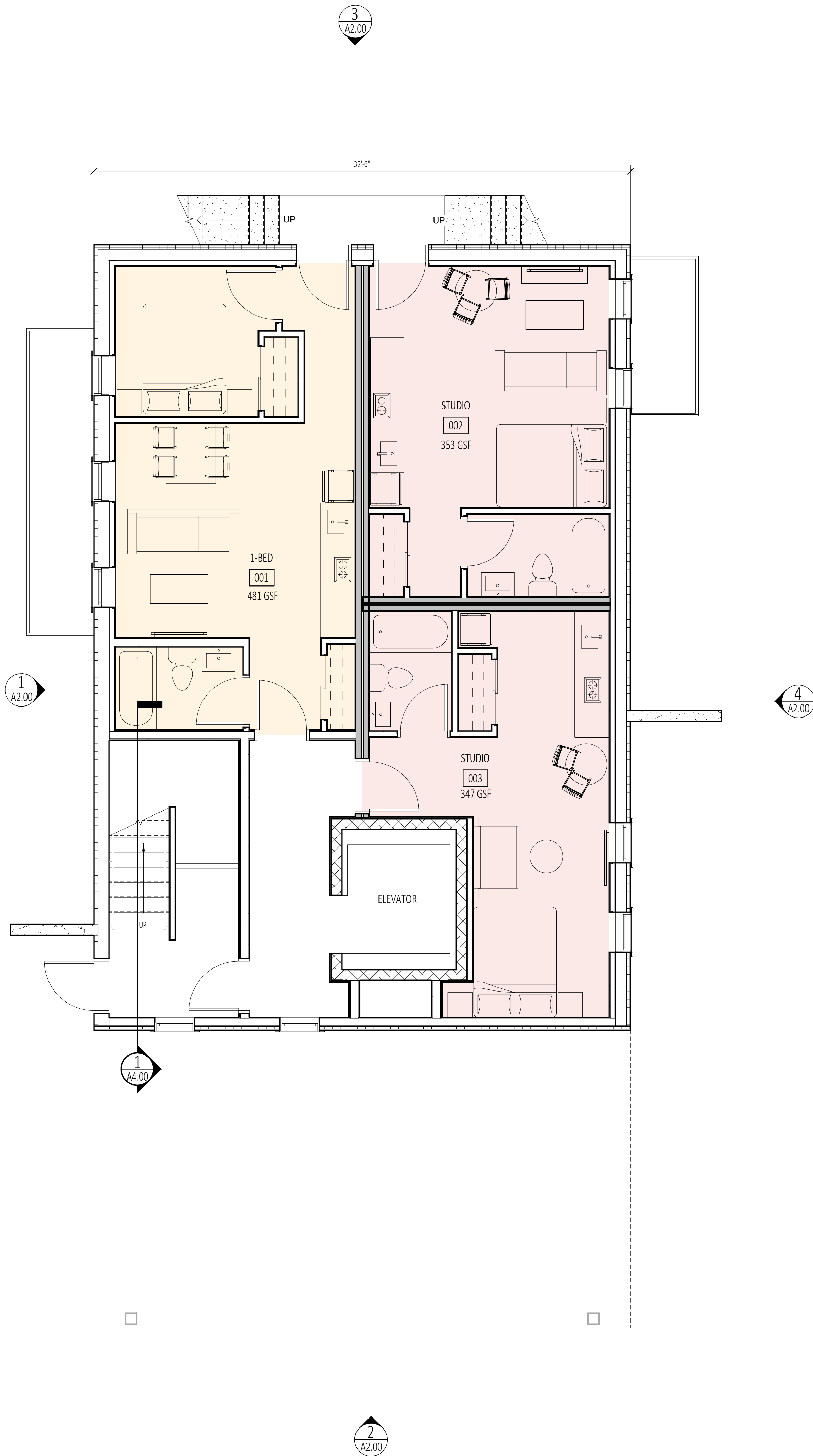
2 FRONT / RIGHT AXON VIEW

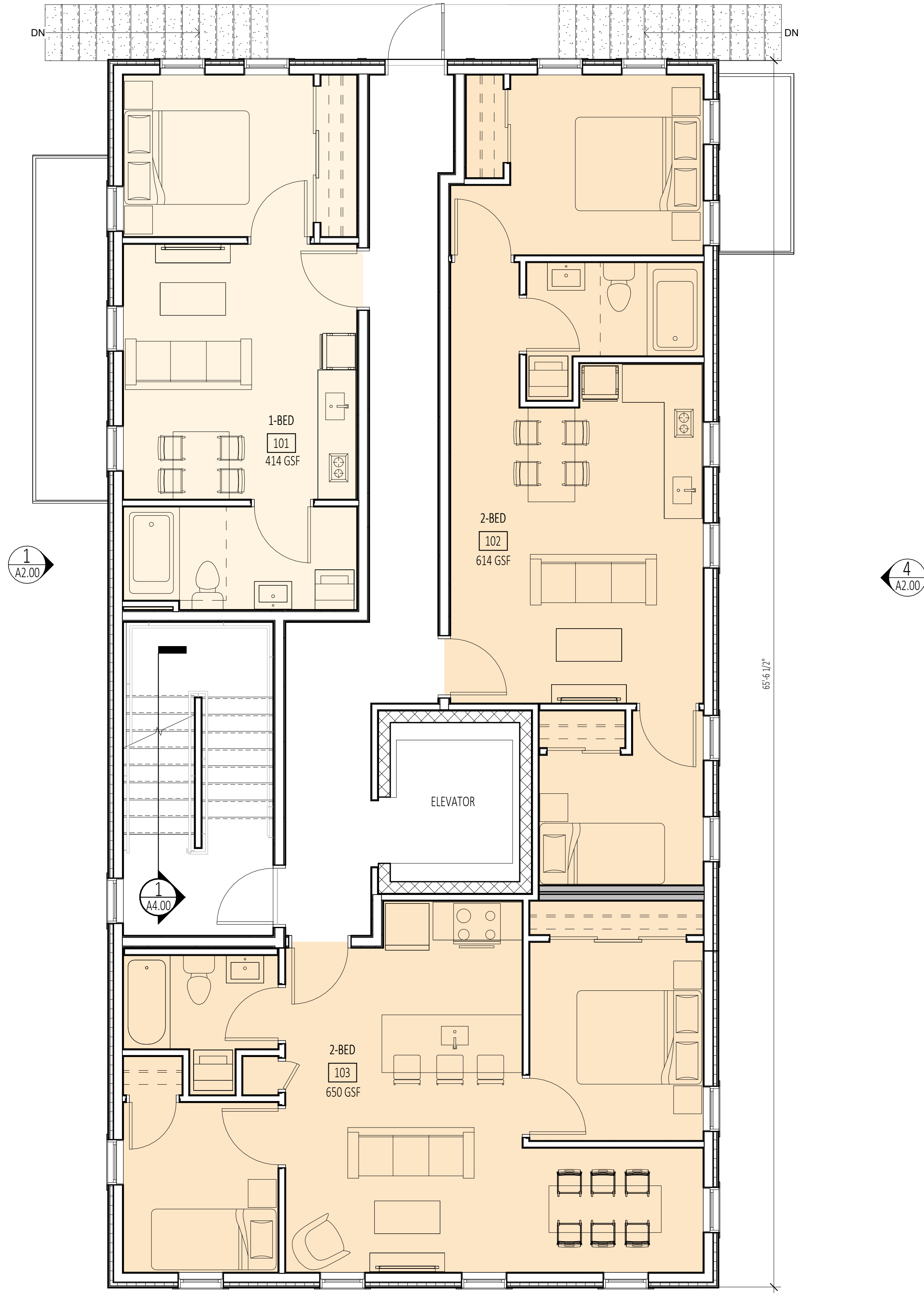


3 REAR / LEFT AXON VIEW



4 REAR / RIGHT AXON VIEW





Project:

1877 CONGRESS ST

PORTLAND, ME

Owner/Client:

GREENMARS

Stamp:

Consultant:

Issuance:

SCHEMATIC DESIGN

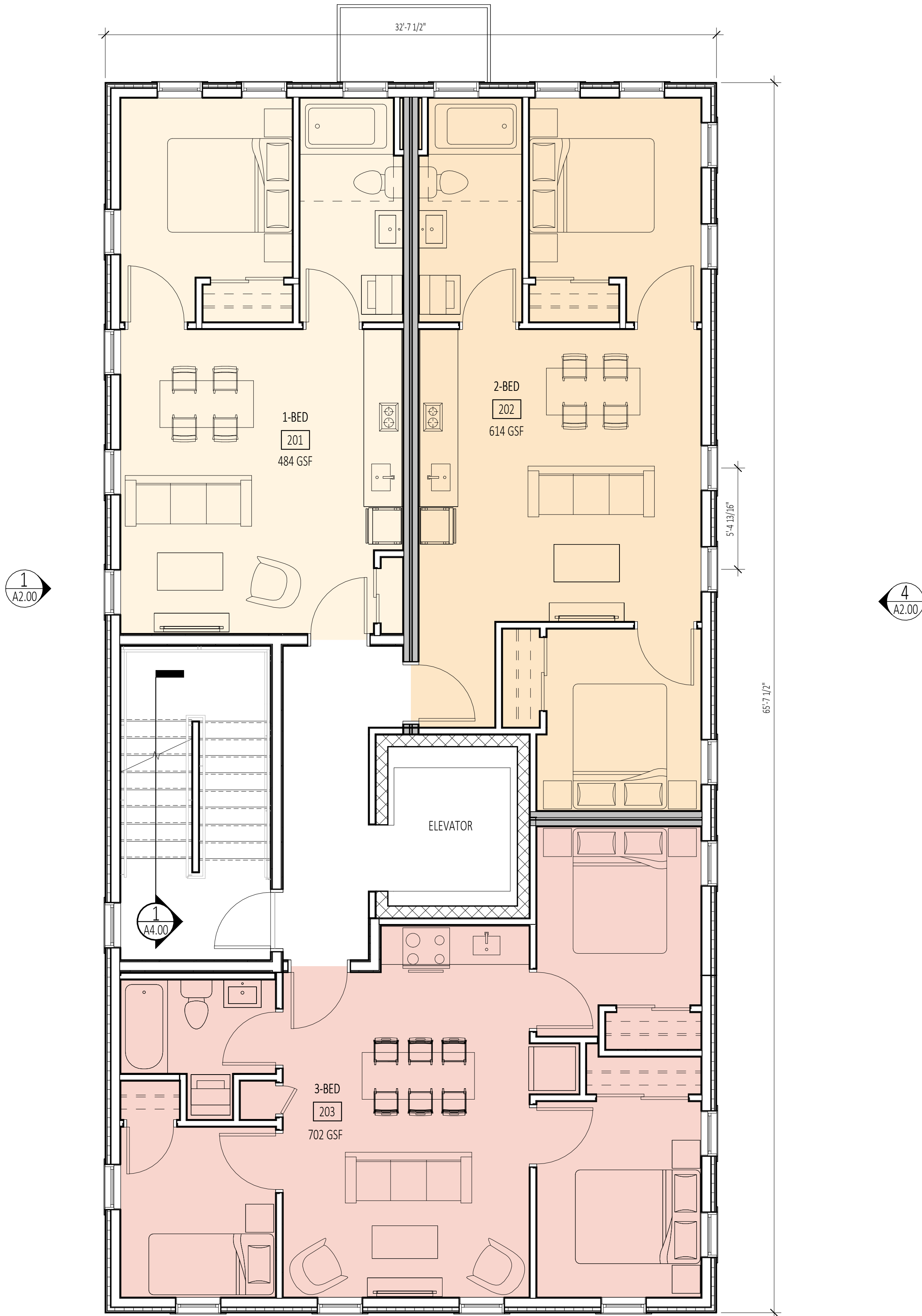
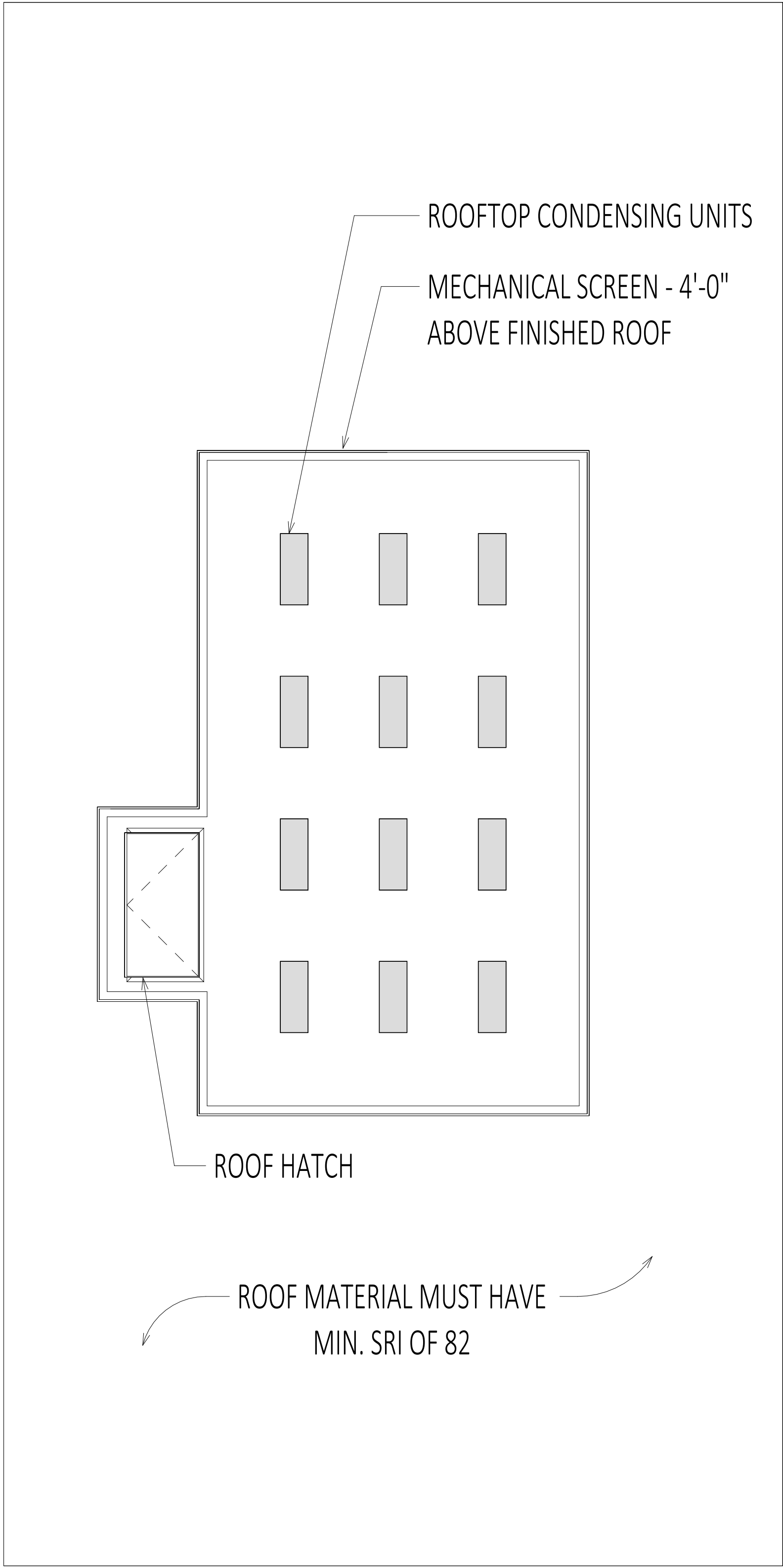
Revisions:

SECOND & THIRD FLOOR
PLAN

Scale: 1/4" = 1'-0"

07/15/2025

A1.02



Project:

1877 CONGRESS ST

PORTLAND, ME

Owner/Client:

GREENMARS

Stamp:

Consultant:

Issuance:

SCHEMATIC DESIGN

Revisions:

NOT FOR CONSTRUCTION

EXTERIOR ELEVATIONS

Scale: 1/8" = 1'-0"

07/15/2025

A2.00

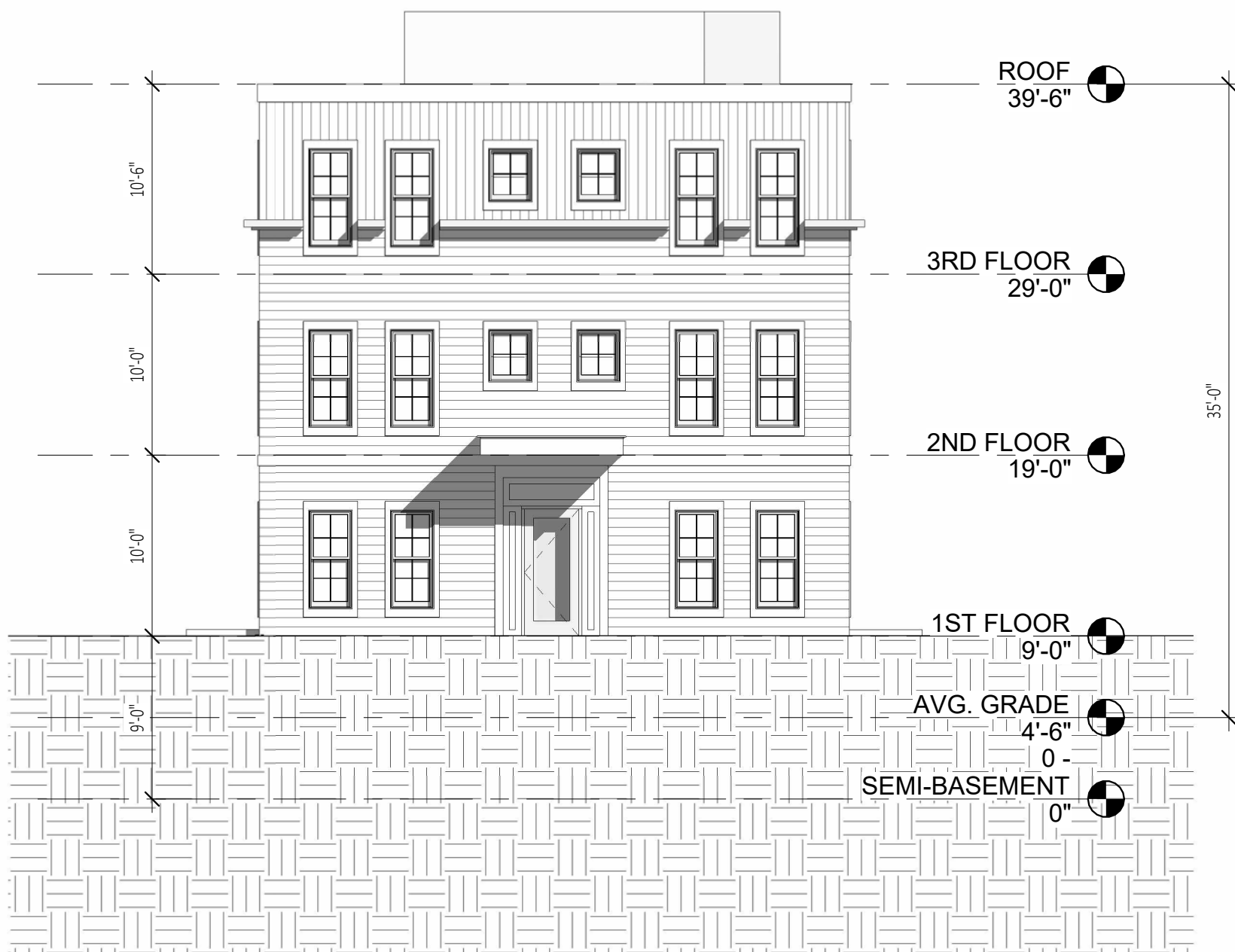
GENERAL NOTES

1. AVERAGE GRADE BY DEFINITION: GRADE TAKEN AT THE FOUR (4) BUILDING CORNERS DIVIDED BY FOUR (4) -
REAR RIGHT 9.0' + REAR LEFT 9.0' + FRONT RIGHT 0.0' + FRONT LEFT 0.0' = 18.0' / 4 = 4'-6" AVG. GRADE
2. BUILDING HEIGHT: THE VERTICAL MEASUREMENT FROM AVERAGE GRADE TO HIGHEST POINT OF THE ROOF BEAMS = 35'-0"



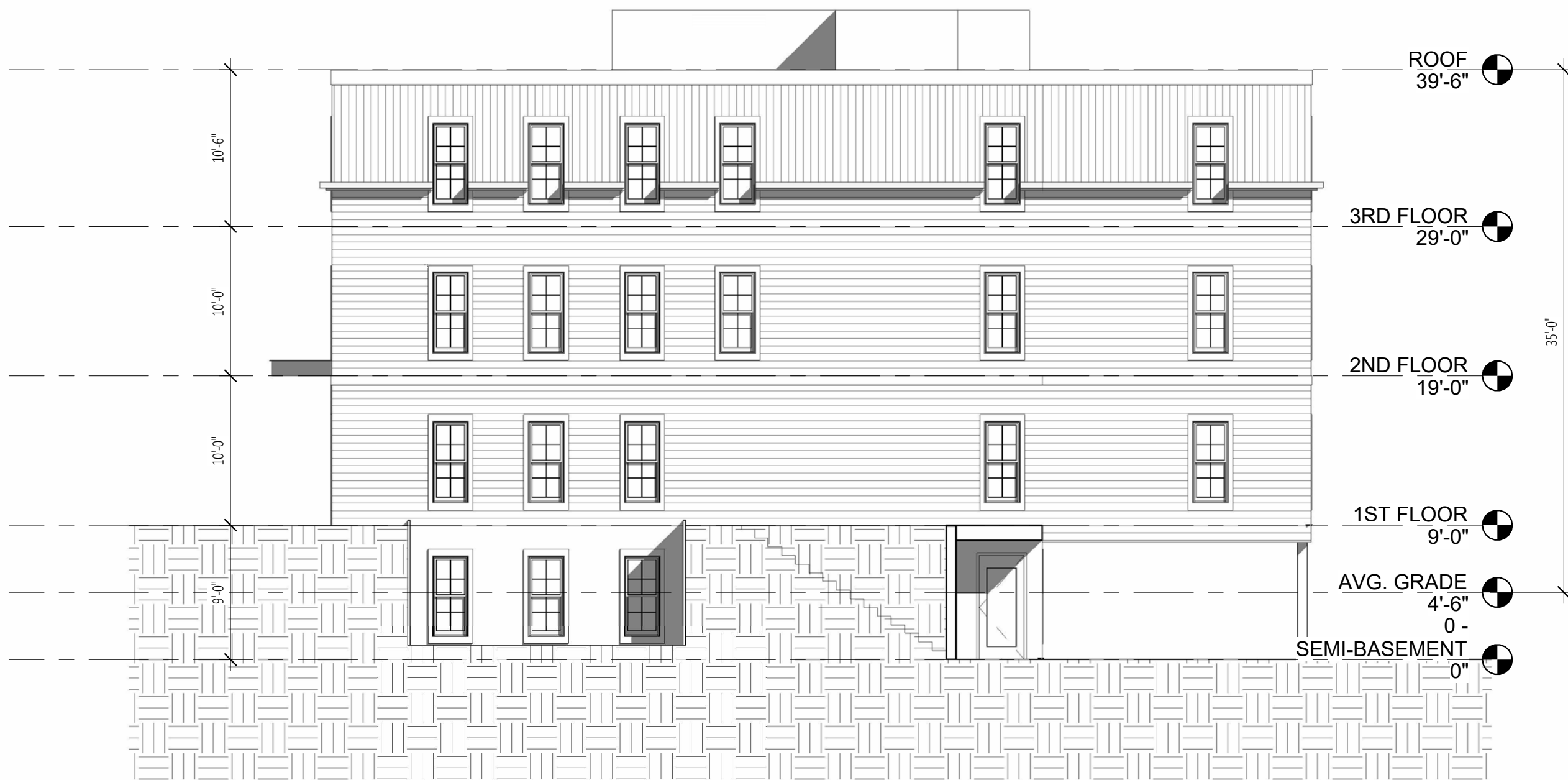
2 FRONT ELEVATION

1/8" = 1'-0"



3 REAR ELEVATION

1/8" = 1'-0"



1 LEFT SIDE ELEVATION

1/8" = 1'-0"



4 RIGHT SIDE ELEVATION

1/8" = 1'-0"



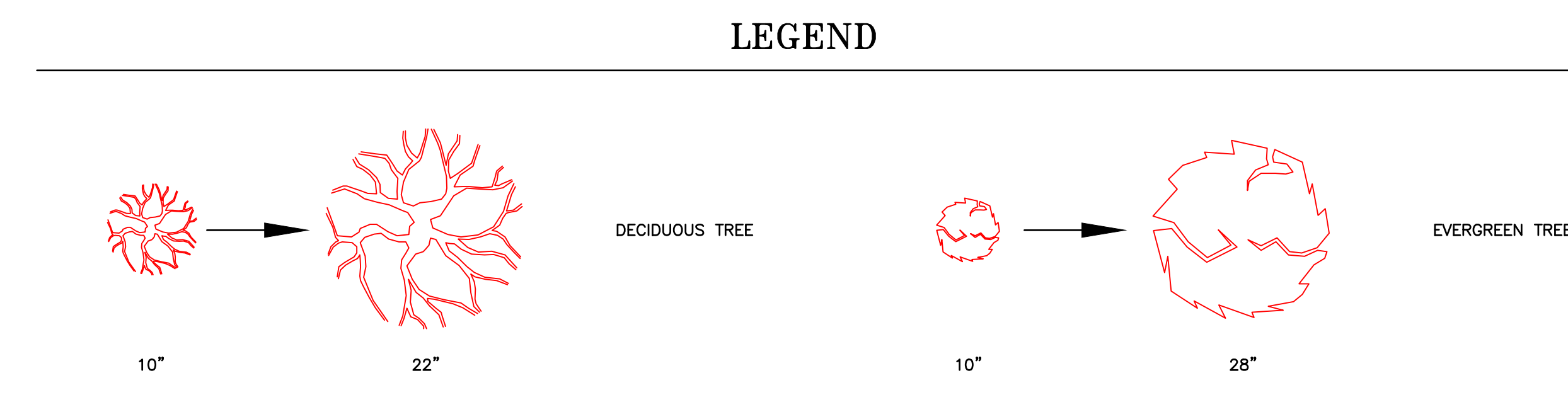
PREPARED FOR: GREENMARS REAL ESTATE
30 EXCHANGE STREET, SUITE#3
PORTLAND, MAINE 04101

PROJECT: **STROUDWATER COMMONS**
PARCEL ID: 217 A010001 & 217 A011001

TITLE:		REVISION:	
TREE PLAN		NO.	DESCRIPTION
		1.	CITY SITE PLAN SUBDIVISION SUBMISSION
		2.	RESPONSE TO CITY REVIEW COMMENTS
		3.	REVISED PER CONS. RES. DEV. STANDARDS
		4.	REVISED PER STAFF COMMENTS
DRAWN:		DATE:	
TAL		4/17/2024	
SCALE:		DATE:	
NOTED		4/17/2024	

SHEET: **T100**

20 of 20



TREE NOTES

DEVELOPMENT SHALL BE DESIGNED TO PROTECT AND INCORPORATE NATURAL FEATURES, ON-SITE & STREET TREES ≥ 10" DBH, AND ALL OTHER EXISTING STANDS OF VEGETATION AND TREES IN ACCORDANCE WITH SECTION 4 OF THE TECHNICAL MANUAL

1. TOTAL EVERGREEN TREES >10" DBH = 18

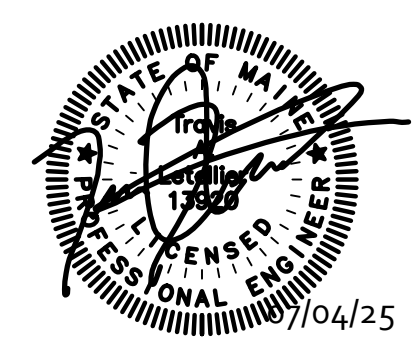
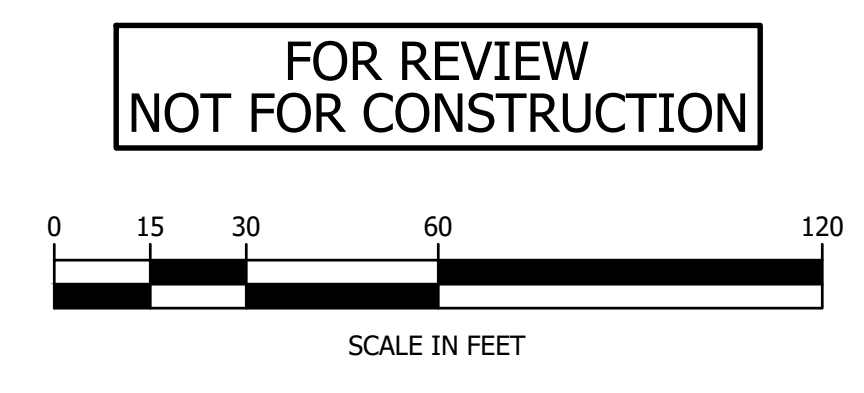
2. TOTAL DECIDUOUS TREES >10" DBH = 20

3. TOTAL TREES SAVED (CIRCLED ON PLAN)

3.1. EVERGREEN = 9 (50%)

3.2. DECIDUOUS = 7 (35%)

3.3. TOTAL = 16 (42%)



PLANNING BOARD

Brandon Mazer, Chair
David Silk, Vice Chair
Austin Smith
Nicholas Messina
Joseph Zamboni
Kelsey Robertson
Michael Joseph Fox

July 22, 2025

Nathan Green
GreenMars Real Estate
Services
30 Exchange Street
Portland, ME 04101

Project Name:	Stroudwater Commons	Project ID:	PL-003020-2024
Address:	1877 Congress Street	CBL:	299 D0
Applicant:	GreenMars Real Estate		
Planner:	Eric Freeman		

Dear Nathan Green

On July 22, 2025 the Planning Board approved a Major Site Plan and Subdivision application to facilitate the construction of a 13-lot residential subdivision with a total of 156 dwelling units and associated parking, landscaping and site improvements located at 1877 Congress Street within the RN-1 zone. The decision is based upon the application, documents and plans as submitted. The Planning Board reviewed the proposal for conformance with the standards of the Site Plan Ordinance, Chapter 13, Section 13.6. and Subdivision Ordinance, Section 14.4

Based on the information provided to the Board in the application, plans, and reports, through testimony and other information submitted by the applicant, as well as the findings, conclusions and recommendations contained in the Planning Board Report for the public hearing held on July 22, 2025 which is attached hereto and incorporated herein by reference, the Planning Board found the application met all relevant standards and voted (X-X) to approve the application with the following conditions as presented below.

A. 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 July 22, 2025 for application PL-003020-2024 at 1877 Congress Street 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 and [approves/does not approve] the application, subject to the following conditions:

PRIOR TO ISSUANCE OF A BUILDING PERMIT

1. That the Subdivision Plat shall be finalized to the satisfaction of the Planning Authority, Department of Public Works, and Corporation Counsel prior to signature by the Planning Board. Once signed, and following collection of the required performance guarantee, the applicant shall record the signed recording plat at the Cumberland County Registry of Deeds, and shall provide a mylar copy of the plat with recording information to the City of Portland Engineering Archive located at 212 Canco Road

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 July 22, 2025 for Application PL-003020-2024 at 1877 Congress Street relevant to the site plan regulations; and the testimony presented at the Planning Board hearing, the Planning Board [is/is not] 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 ISSUANCE OF A BUILDING PERMIT

1. The applicant shall provide ability to serve letters from Central Maine Power, the Portland Water District, and the Department of Public Works Water.
2. The applicant shall enter into an affordable housing agreement (AHA) with the City of Portland for 39 workforce housing units, constituting 25% of the total unit count.
3. The applicant shall coordinate with Greater Portland METRO staff to finalize the design and location of the proposed transit shelter and shall update their site plan accordingly.
4. The applicant shall finalize their stormwater maintenance agreement with a winter maintenance agreement addendum to the satisfaction of the Department of Public Works and Corporation Council.
5. The applicant shall establish a public easement encompassing all publicly accessible areas of the site within the property boundary including sidewalks, drive aisles, parking areas and future trail connections to be developed separately . This easement shall be reviewed and accepted by the Planning Authority and Corporation Council and be recorded in the Cumberland County Registry of Deeds.
6. The applicant shall coordinate with the Department of Public Works and Maine Department of Transportation to finalize the design of the Congress Street intersection including raised islands, curb radii and right-of-way alterations within Congress Street

7. The applicant shall coordinate with SGH Engineering staff to develop slope stabilization strategies for the 1:1 slope at the rear of the site and shall update their site plan to reflect recommendations made by SGH. Any modifications to the site plan shall be reviewed and approved by the Planning Authority.

PRIOR TO RECORDING THE CONDOMINIUM DECLARATION

8. The Applicant shall provide a draft condominium declaration and plat which shall detail management structure of the property and incorporate all applicable affordable housing covenants. The declaration and plat shall be finalized to the satisfaction of the Planning Authority and Corporation Counsel.
9. The Applicant shall provide draft deed restriction language required under Section 17.2.2.D.4 of the Land Use Code which shall be finalized to the satisfaction of the Planning Authority and Corporation Counsel.
10. The Applicant and the City shall enter into any other agreements determined necessary by Corporation Counsel to satisfy Section 17.2.2. of the Land Use Code.

PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY

11. The applicant shall record their affordable housing agreement as covenant to the 1877 Congress Street property deed with the Cumberland County Registry of Deeds.
12. The applicant shall place a 30-year deed restriction on the 39 units required to access the City's density bonus provision, as detailed in the applicant's affordable housing plan and narrative. The deed restriction shall ensure that these units comply with the City's 'low-income housing unit for sale' definition, as outlined in Article 3 of the Land Use Code.
13. The applicant shall record the finalized Condominium Declaration, along with all associated plans and documents, at the Cumberland County Registry of Deeds. Proof of recording shall be submitted to the Planning Authority.
14. 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 on-site, the applicant shall pay into the City's Jill C. Duson Housing Trust Fund at a ratio of \$182,830 per required workforce unit, as required under Ch. 14, Sec. 17.2.3.C.6.

Standard Procedures

Note: The following standard procedures and requirements apply to all approved site plans:

1. Site Plan Expiration The site plan approval shall expire three (3) years from the date of approval unless development has been undertaken in accordance with the approved site plan and site work or building construction is ongoing. Any lapse in construction for a period in excess of 12 months shall result in an expiration of the site plan.
2. Separate Building Permits Are Required This approval does not constitute approval of building

389 Congress Street, Portland, Maine 04101 | p: 207-874.8719

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 covering the site improvements and an inspection fee payment of 2.0% of the guarantee amount and three (3) final sets of plans must be submitted to and approved by the Planning and Urban Development Department and Public Works Department prior to the release of a building permit, street opening permit or certificate of occupancy for site plans.
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 and scheduling of a preconstruction meeting, a hard copy set of approved plans shall be submitted to the Development Review Coordinator. A pre-construction meeting shall be held at the project site with the contractor, Development Review Coordinator, Public Works 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 and the approved Construction Management Plan. The site/building contractor shall provide one (1) copy of a detailed construction schedule to the attending City representative. It shall be the contractor's responsibility to arrange a mutually agreeable time for the pre-construction meeting.
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, or of any approved exterior elevations, which were 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. Stormwater Management The owner/operator of an approved stormwater management system, and all assigns shall comply with the conditions of Chapter 32, Stormwater including Article III, Post Construction Stormwater Management, which specifies the annual inspections and reporting requirements.

A maintenance agreement for the stormwater drainage system, as attached, or in substantially the same form, shall be submitted for review by Corporation Counsel. Once approved, the document shall be signed and recorded at the Cumberland County Registry of Deeds prior to the issuance of a building permit. Final copies shall be submitted to both the Department of Planning and Public Works

9. Third Party Inspections For all sites with one acre or greater of disturbance, the applicant shall retain the services of a third-party inspector for the duration of construction until final site stabilization is in place. 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.

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(s), 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.

10. Defect Guarantee A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.
11. 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. Please provide one hard copy of the mylar.
12. 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.
13. 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>
14. Subdivision Recording Plat A revised recording plat, listing all conditions of subdivision approval, must be submitted to the Planning and Urban Development Department for review. Once approved, the plat shall be signed by the Planning Board prior to the issuance of a performance guarantee. The performance guarantee must be issued, prior to the release of the recording plat, for recording at the Cumberland County Registry of Deeds.

15. Subdivision Waivers Pursuant to 30-A MRSA section 4406(8)(1), any waiver must be specified on the subdivision plan or outlined in a notice. The plan or notice must be recorded in the Cumberland County Registry of Deeds within 90 days of the final subdivision approval.

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 drc@portlandmaine.gov or (207)874-8901. 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 Eric Freeman by phone at 207-874-8724 or email at efreeman@portlandmaine.gov

Sincerely,

Brandon Mazer, Planning Board Chair

Attachments:

1. Planning Board Report
2. Portland City Code: Chapter 32
3. Sample Stormwater Maintenance Agreement
4. Performance Guarantee Packet